As filed with the Securities and Exchange Commission on April 6, 2017.

Registration No. 333-_

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Hughes Satellite Systems Corporation^{*}

(Exact name of registrant as specified in its charter)

4899 (Primary standard industrial classification code number) **45-0897865** (I.R.S. Employer Identification Number)

100 Inverness Terrace East Englewood, Colorado 80112 (303) 706-4000

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive office)

Dean A. Manson Executive Vice President, General Counsel and Secretary Hughes Satellite Systems Corporation 100 Inverness Terrace East Englewood, Colorado 80112 (303) 706-4000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to: Scott D. Miller Sarah P. Payne Sullivan & Cromwell LLP 1870 Embarcadero Road Palo Alto, California 94303 (650) 461-5600

* The companies listed on the next page are also included in this Form S-4 Registration Statement as additional Registrants.

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO PUBLIC: As soon as practicable after the effective date of this registration statement.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act of 1933 registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act of 1933, check the following box and list the Securities Act of 1933 registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller Reporting Company (Do not check if a smaller reporting company)

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer) Exchange Act Rule 14d-1(d) (Cross-Border Third Party Tender Offer)

Colorado

(State or other jurisdiction of

incorporation or organization)

CALCULATION OF REGISTRATION FEE											
Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Note (1)	Proposed Maximum Aggregate Offering Price (1)	Amount of Registration Fee							
5.250% Senior Secured Notes due 2026	\$750,000,000	100%	\$750,000,000	\$86,925							
6.625% Senior Notes due 2026	\$750,000,000	100%	\$750,000,000	\$86,925							
Guarantees of 5.250% Senior Secured Notes due 2026 (3)	(2)	(2)	(2)	(2)							
Guarantees of 6.625% Senior Notes due 2026 (3)	(2)	(2)	(2)	(2)							

	ADD	ITIONAL REGISTRA	NTS
Exact Name of Additional Registrants as Specified in their Respective Charters*	Jurisdiction of Incorporation/ Organization	IRS Employer Identification No.	Address, including Zip Code and Telephone Number, including Area Code, of Registrant's Principal Executive Offices
EchoStar Satellite Services L.L.C.	Colorado	20-5109074	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
EchoStar Satellite Operating Corporation	Colorado	35-2353699	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
EchoStar 77 Corporation	Delaware	26-2191105	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
EchoStar Orbital L.L.C.	Colorado	27-2342485	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
EchoStar Government Services L.L.C.	Colorado	27-0682004	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
Hughes Communications, Inc.	Delaware	13-3871202	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
Hughes Network Systems, LLC	Delaware	11-3735091	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
HNS Finance Corp.	Delaware	56-2571546	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
HNS Real Estate, LLC	Delaware	20-2712714	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
Hughes Network Systems International Service Company	Delaware	52-1691571	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
HNS-India VSAT, Inc.	Delaware	52-1755631	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
HNS-Shanghai, Inc.	Delaware	52-1720113	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
HNS License Sub, LLC	Delaware	86-1124461	11717 Exploration Lane, Germantown, Maryland 20876 (301) 428-5500
EchoStar XI Holding L.L.C.	Colorado	27-0811198	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
EchoStar XIV Holding L.L.C.	Colorado	27-2806230	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
Cheyenne Data Center L.L.C.	Colorado	35-2588282	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000

* The primary standard industrial classification number for each of these Registrants is 4899.

Pursuant to Rule 457(f) under the Securities Act of 1933, the fee is calculated based upon the book value of the 5.250% Senior Secured Notes due 2026 and the 6.625% Senior Notes due 2026, respectively, as of December 31, 2016.
 Pursuant to Rule 457(n) under the Securities Act of 1933, no registration fee is required with respect to the guarantees.
 Guaranteed by the additional registrants listed below (together with Hughes Satellite Systems Corporation, the "Registrants").

The Registrants hereby amend this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrants shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION. DATED April 6, 2017.

PROSPECTUS

HUGHES SATELLITE SYSTEMS CORPORATION

Offer to Exchange up to \$750,000,000 aggregate principal amount of new 5.250% Senior Secured Notes due 2026 and up to \$750,000,000 aggregate principal amount of new 6.625% Senior Notes due 2026, which have been registered under the Securities Act of 1933,

for any and all of its outstanding 5.250% Senior Secured Notes due 2026 and 6.625% Senior Notes due 2026, respectively, Subject to the Terms and Conditions described in this Prospectus

The Exchange Offer will expire at 5:00 p.m., New York City time, on , 2017, unless extended

We are offering to exchange, upon the terms and subject to the conditions set forth in this prospectus and the accompanying letter of transmittal, our new 5.250% Senior Secured Notes due 2026 for all of our outstanding 5.250% Senior Secured Notes due 2026 and our new 6.625% Senior Notes due 2026 for all of our outstanding 5.250% Senior Secured Notes due 2026 as the "Old Secured Notes," our outstanding 6.625% Senior Notes due 2026 as the "Old Unsecured Notes" (together with the Old Secured Notes, the "Old Notes"), the new 5.250% Senior Secured Notes due 2026 issued in this offer as the "Secured Notes" and the new 6.625% Senior Notes due 2026 issued in this offer as the "Secured Notes and the Unsecured Notes are substantially identical to the Old Secured Notes and the Old Unsecured Notes, respectively, that we issued on July 27, 2016, except for certain transfer restrictions and registration rights provisions relating to the Old Notes. The CUSIP numbers for the Old Secured Notes are 444454 AC6 and U44473 AA1. The CUSIP numbers for the Old Unsecured Notes are 444454 AE2 and U44473 AB9.

MATERIAL TERMS OF THE EXCHANGE OFFER

- You will receive an equal principal amount of Secured Notes for all Old Secured Notes that you validly tender and do not validly withdraw, and an equal principal amount of Unsecured Notes for all Old Unsecured Notes that you validly tender and do not validly withdraw.
- The exchange should not be a taxable exchange for United States federal income tax purposes.
- There has been no public market for the Old Notes and we cannot assure you that any public market for the Notes will develop. We do not intend to list the Notes on any securities exchange or to arrange for them to be quoted on any automated quotation system.
- The terms of the Secured Notes and the Unsecured Notes are substantially identical to the Old Secured Notes and the Old Unsecured Notes, respectively, except for transfer restrictions and registration rights relating to the Old Notes.
- If you fail to tender your Old Notes for the Notes, you will continue to hold unregistered securities and it may be difficult for you to transfer them.

Investing in the Notes involves risks. Consider carefully the "Risk Factors" beginning on page 16 of this prospectus.

We are not making this exchange offer in any state where it is not permitted.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined that this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2017.

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You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. This prospectus is an offer to exchange only the Notes offered by this prospectus and only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is accurate only as of its date.

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WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission (the "SEC") a registration statement on Form S-4 under the Securities Act of 1933, as amended (the "Securities Act"), that registers the Notes that will be offered in exchange for the Old Notes. The registration statement, including the attached exhibits and schedules, contains additional relevant information about us and the Notes. The rules and regulations of the SEC allow us to omit from this document certain information included in the registration statement.

This prospectus incorporates by reference business and financial information about us that is not included in or delivered with this prospectus. This information is available without charge upon written or oral request directed to: Hughes Satellite Systems Corporation, 100 Inverness Terrace East, Englewood, CO 80112, Attention: General Counsel; telephone number: (303) 706-4000. To obtain timely delivery, you must request the information no later than , 2017.

In addition, this prospectus contains summaries and other information that we believe are accurate as of the date hereof with respect to the terms of specific documents, but we refer to the actual documents for complete information with respect to those documents, copies of which will be made available without charge to you upon request. Statements contained in this prospectus as to the contents of any contract or other documents referred to in this prospectus do not purport to be complete. Where reference is made to the particular provisions of a contract or other document, the provisions are qualified in all respects by reference to all of the provisions of the contract or other document. Our data and industry data are approximate and reflect rounding in certain cases.

We and our parent company, EchoStar Corporation, each file reports, proxy statements (in the case of EchoStar Corporation) and other information with the SEC. These reports, proxy statements and other information may be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports and other information that we file electronically with the SEC. The address of that website is http://www.sec.gov. Our filings with the SEC and those of EchoStar Corporation are also accessible free of charge at our website, the address of which is http://www.echostar.com.

The Class A common stock, par value \$0.001 per share (the "EchoStar Class A Shares"), of our parent company, EchoStar Corporation, is traded under the symbol "SATS" on the Nasdaq Global Select Market. EchoStar Corporation has not guaranteed and is not otherwise responsible for the Notes.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements," including but not limited to statements about our estimates, expectations, plans, objectives, strategies, and financial condition, expected impact of regulatory developments and legal proceedings, opportunities in our industries and businesses and other trends and projections for the next fiscal quarter and beyond. All statements, other than statements of historical facts, may be forward-looking statements. Forward-looking statements may also be identified by words such as "anticipate," "intend," "plan," "goal," "seek," "believe," "estimate," "expect," "predict," "continue," "future," "will," "would," "could," "can," "may" and similar terms. These forward-looking statements are based on information available to us as of the date of this prospectus (or, in the case of a document incorporated herein by reference, the date of such document) and represent management's views and assumptions as of such respective date. Forward-looking statements are not guarantees of future performance, events or results and involve potential known and unknown risks, uncertainties and other factors, many of which may be beyond our control and may pose a risk to our operating and financial condition. Accordingly, actual performance, events or results could differ materially from those expressed or implied in the forward-looking statements due to a number of factors including, but not limited to:

- our reliance on DISH Network Corporation and its subsidiaries ("DISH Network"), for a significant portion of our revenue;
- our ability to implement our strategic initiatives;
- significant risks related to the construction, launch and operation of our satellites, such as the risk of material malfunction on one or more of our satellites, risks resulting from delays or failures of launches of our satellites, changes in the space weather environment that could interfere with the operation of our satellites, and our general lack of commercial insurance coverage on our satellites;
- our failure to adequately anticipate the need for satellite capacity or the inability to obtain satellite capacity for our Hughes segment;
- the failure of third-party providers of components, manufacturing, installation services and customer support services to appropriately deliver the contracted goods or services;
- our ability to bring advanced technologies to market to keep pace with our customers and competitors; and
- risk related to our foreign operations and other uncertainties associated with doing business internationally, including changes in foreign exchange
 rates between foreign currencies and the United States dollar, economic instability and political disturbances.

Other factors that could cause or contribute to such differences include, but are not limited to, those discussed under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this prospectus and those discussed in other documents we file with the SEC.

All cautionary statements made herein should be read as being applicable to all forward-looking statements wherever they appear. Investors should consider the risks and uncertainties described herein and should not place undue reliance on any forward-looking statements. We do not undertake, and specifically disclaim, any obligation to publicly release the results of any revisions that may be made to any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Although we believe that the expectations reflected in any forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievements. We do not assume responsibility for the accuracy and completeness of any forward-looking statements. We assume no responsibility for updating forward-looking information contained or incorporated by reference herein or in any documents we file with the SEC except as required by law.

Should one or more of the risks or uncertainties described herein or in any documents we file with the SEC occur, or should underlying assumptions prove incorrect, our actual results and plans could differ materially from those expressed in any forward-looking statements.

SUMMARY

In this prospectus, the words "Company," "we," "our" and "us" refer to Hughes Satellite Systems Corporation ("HSS") and its subsidiaries, unless otherwise stated or the context otherwise requires. "EchoStar" refers to EchoStar Corporation, our ultimate parent company, and its subsidiaries, including us. This summary highlights selected information contained in greater detail elsewhere in this prospectus. This summary may not contain all of the information that you should consider before investing in the Notes. You should carefully read the entire prospectus, including the sections under the headings "Risk Factors" and "Disclosure Regarding Forward-Looking Statements."

HUGHES SATELLITE SYSTEMS CORPORATION

Hughes Satellite Systems Corporation is a holding company and a subsidiary of EchoStar Corporation. We are a global provider of satellite service operations, video delivery solutions, broadband satellite technologies and broadband services for home and small office customers. We deliver innovative network technologies, managed services, and various communications solutions for enterprise and government customers.

We were formed as a Colorado corporation in March 2011 to facilitate the acquisition ("Hughes Acquisition") of Hughes Communications, Inc. and its subsidiaries ("Hughes Communications") and related financing transactions. In connection with our formation, EchoStar contributed the assets and liabilities of its satellite services business, including the principal operating subsidiary of its satellite services business, EchoStar Satellite Services L.L.C., to us. A substantial majority of the voting power of the shares of EchoStar and DISH Network Corporation ("DISH") is owned beneficially by Charles W. Ergen, our Chairman, and by certain trusts established by Mr. Ergen for the benefit of his family.

We currently operate in the following two business segments:

- *Hughes* which provides broadband satellite technologies and broadband services to home and small office customers and network technologies, managed services and communication solutions to domestic and international consumers and enterprise and government customers. The Hughes segment also provides managed services, hardware, and satellite services to large enterprises and government customers, and designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment provides satellite ground segment systems and terminals to mobile system operators.
- *EchoStar Satellite Services ("ESS")* which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite service operations and video delivery solutions on a full-time and occasional-use basis primarily to DISH Network, Dish Mexico, S. de R.L. de C.V. ("Dish Mexico"), a joint venture that EchoStar entered into in 2008, U.S. government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. We also manage satellite operations for several satellites owned by third parties.

Hughes Segment

Our Hughes segment is a global provider of broadband satellite technologies and broadband services for home and small office customers. We deliver network technologies, managed services, equipment, and communications solutions for domestic and international consumers and enterprise and government customers. In addition, our Hughes segment provides and installs gateway and terminal equipment and provides satellite ground segment systems and terminals for other satellite systems, including mobile system operators.

We continue to focus our efforts on growing our Hughes segment consumer revenue by maximizing utilization of our existing satellites while planning for new satellites to be launched. Our consumer revenue growth depends on our success in adding new subscribers and driving higher average revenue per subscriber across our wholesale and retail channels.

Our Hughes segment currently uses its three owned satellites, the SPACEWAY 3 satellite, the EchoStar XVII satellite and the EchoStar XIX satellite, and additional satellite capacity acquired from multiple third-party providers, to provide satellite broadband internet access and communications services to our customers. In December 2016, EchoStar launched the EchoStar XIX satellite, a next-generation, high throughput geostationary satellite, which will provide significant capacity for continued subscriber growth. The EchoStar XIX satellite employs a multi-spot beam, bent pipe Ka-band architecture and will provide additional capacity for the Hughes broadband services to our customers in North America and added capacity in Mexico and certain Latin American countries and is expected to add capability for aeronautical, enterprise and international broadband services. Capital expenditures associated with the construction and launch of the EchoStar XIX satellite have been incurred by EchoStar. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

In addition to our broadband consumer service offerings, our Hughes segment also provides network technologies, managed services, hardware, equipment and satellite services to large enterprise and government customers globally. Examples of such customers include lottery agencies, gas station operators and companies with multi-branch networks that rely on satellite or terrestrial networks for critical communication across wide geographies. Most of our enterprise customers have contracts with us for the services they purchase.

Developments toward the launch of next-generation satellite systems including low-earth orbit ("LEO") and geostationary systems could provide additional opportunities to drive the demand for our network equipment and services. The growth of our enterprise and equipment businesses relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies.

We continue our efforts to grow our consumer satellite services business outside of the U.S. In April 2014, we entered into a satellite services agreement pursuant to which Eutelsat do Brasil provides us Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite for a 15-year term. That satellite was launched in March 2016 and we began delivering high-speed consumer satellite broadband services in Brazil in July 2016. In September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat Canada ("Telesat") will provide to us the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 and plan to provide service in additional markets across South America once that capacity is available for commercial use.

We are tracking closely the developments in next-generation satellite businesses, and we are seeking to utilize our services, technologies and expertise to find new commercial opportunities for our business. In June 2015, EchoStar made an equity investment in WorldVu Satellites Limited ("OneWeb"), a global LEO satellite service company. In addition, our Hughes segment entered into an agreement with OneWeb to provide certain equipment and services in connection with the ground systems for OneWeb's LEO satellites.

As of December 31, 2016, our Hughes segment had approximately 1,036,000 broadband subscribers. These broadband subscribers include customers that subscribe to our HughesNet broadband services through retail, wholesale and small/medium enterprise service channels. Gross subscriber additions increased by approximately 19,000 in the fourth quarter of 2016 when compared to the third quarter of 2016 primarily due to an increase in additions in our retail channel due to the launch of our broadband service in Brazil in the second quarter of 2016 offset partially by a decrease in additions in our wholesale channel due to our lack of free capacity due to satellite beams servicing certain areas reaching capacity. Our average monthly subscriber churn percentage for the fourth quarter of 2016 decreased as compared to the third quarter of 2016. As a result of higher gross subscriber additions and a decrease in churn, net subscribers for the quarter ended December 31, 2016 increased by approximately 30,000 when compared to the third quarter of 2016 with increases in retail and decreases in wholesale subscribers. Subscriber additions and churn include only subscribers through our retail and wholesale channels.

As of December 31, 2016, our Hughes segment had approximately \$1.52 billion of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue under customer contracts that are non-cancelable, excluding agreements with customers in our consumer market. Of the total contracted revenue backlog as of December 31, 2016, we expect to recognize approximately \$436.5 million of revenue in 2017.

For the year ended December 31, 2016, our Hughes segment recorded revenue and earnings before interest, taxes, depreciation and amortization ("EBITDA") of approximately \$1.39 billion and \$427.8 million, respectively.

ESS Segment

Our ESS segment is a global provider of satellite service operations and video delivery solutions. We operate our business using our owned and leased inorbit satellites. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network (our largest customer), Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers and private enterprise customers.

We depend on DISH Network for a significant portion of the revenue for our ESS segment, and we expect that DISH Network will continue to be the primary source of revenue for our ESS segment. Therefore, the results of operations of our ESS segment are linked to changes in DISH Network's satellite capacity requirements. DISH Network's capacity requirements have been driven by the addition of new channels and migration of programming to high-definition TV and video on demand services. The services that we provide to DISH Network are critical to its nationwide delivery of content to its customers across the U.S. While we expect to continue to provide satellite services to DISH Network, its satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch its own satellites. Any termination or reduction in the services we provide to DISH Network may cause us to have unused capacity on our satellites and require that we aggressively pursue alternative sources of revenue for this business.

In August 2014, we entered into: (i) a construction contract with Airbus Defence and Space SAS for the construction of the EchoStar 105/SES-11 satellite with C-band, Ku-band and Ka-band payloads; (ii) an agreement with SES Satellite Leasing Limited for the procurement of the related launch services; and (iii) an agreement with SES Americom Inc. ("SES") pursuant to which we will transfer the title to the C-band and Ka-band payloads to SES Satellite Leasing Limited at launch and transfer the title to the Ku-band payload to SES following in-orbit testing of the satellite. Simultaneously, SES will provide to us satellite service on the entire Ku-band payload on the EchoStar 105/SES-11 satellite for an initial ten-year term, with an option for us to renew the agreement on a year-to-year basis. Due to anomalies experienced by our launch provider, the expected launch date of the EchoStar 105/SES-11 satellite has been delayed. We currently expect to launch the EchoStar 105/SES-11 satellite in the second or third quarter of 2017. Our Ku-band payload on the EchoStar 105/SES-11 satellite will replace and augment our current capacity on the AMC-15 satellite. As a result of this launch delay, we have incurred and expect to incur additional costs related to the lease of the AMC-15 satellite.

Revenue growth in our ESS segment depends largely on our ability to continuously make additional satellite capacity available for sale. Once the EchoStar 105/SES-11 satellite is launched and placed into operation, we expect periodic revenue from the satellite to exceed the amount currently generated by the AMC-15 satellite. As a result of the launch delay, we expect a delay in revenue generated from the EchoStar 105/SES-11 satellite.

We continue to pursue expanding our business offerings by providing value added services such as telemetry, tracking, and control services to third parties, which leverages the ground monitoring networks and personnel currently within our ESS segment.

As of December 31, 2016, our ESS segment had contracted revenue backlog attributable to satellites currently in orbit of approximately \$1.16 billion. Of the total contracted revenue backlog as of December 31, 2016, we expect to recognize approximately \$365.1 million of revenue in 2017.

For the year ended December 31, 2016, our ESS segment recorded revenue and EBITDA of \$407.7 million and \$339.5 million, respectively.

New Business Opportunities

Our industry is evolving with the increase in worldwide demand for broadband internet access for information, entertainment and commerce. In addition to fiber and wireless systems, other technologies such as geostationary high throughput satellites, LEO networks, balloons, and High Altitude Platform Systems have begun to play significant roles in enabling global broadband access, networks and services. We intend to use our expertise, technologies, capital, investments, global presence, relationships and other capabilities to continue to provide broadband internet systems, equipment, networks and services for information, entertainment and commerce in North America and internationally for consumers, enterprises and governments.

We continue to selectively explore opportunities to pursue partnerships, joint ventures and strategic acquisitions, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets and new customers, broaden our portfolio of services, products and intellectual property, and strengthen our relationships with our customers. We may allocate significant resources for long-term initiatives that may not have a short or medium-term or any positive impact on our revenue, results of operations, or cash flow.

Share Exchange

On January 31, 2017, our parent company EchoStar Corporation and certain of our and its subsidiaries entered into a Share Exchange Agreement (the "Share Exchange Agreement") among DISH, DISH Network L.L.C., an indirect wholly owned subsidiary of DISH ("DNLLC"), DISH Operating L.L.C., a direct wholly owned subsidiary of DNLLC ("DOLLC" and, collectively with DISH and DNLLC, the "DISH Parties"), EchoStar Corporation, EchoStar Broadcasting Holding Parent L.L.C., our direct wholly owned subsidiary ("EB LLC"), EchoStar Broadcasting Holding Corporation, a direct wholly owned subsidiary of EB LLC ("EB Corp"), EchoStar Technologies Holding Corporation, a direct wholly owned subsidiary of EchoStar Corporation ("ET Corp"), and EchoStar Technologies L.L.C., a direct wholly owned subsidiary of EchoStar Corporation.

Pursuant to the Share Exchange Agreement, on February 28, 2017, among other things: (i) EchoStar Corporation received all of the shares of the EchoStar tracking stock (described in Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus) (the "EchoStar Tracking Stock") owned by DNLLC in exchange for 100% of the equity interests of ET Corp, which held that portion of the EchoStar Technologies business segment of EchoStar that (a) designed, developed and distributed secure end-to-end video technology solutions including digital set-top boxes and related products and technology, primarily for satellite TV service providers and telecommunications companies, (b) provided TV Anywhere technology through Slingbox® units directly to consumers via retail outlets and online, as well as to the pay-TV operator

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market, and (c) included EchoStar's over-the-top, Streaming Video on Demand platform business, which included assets acquired from Sling TV Holding L.L.C. (formerly DISH Digital Holding L.L.C.) and primarily provided support services to DISH's Sling TVTM operations, and (ii) EB LLC received all of the shares of HSS tracking stock (described in Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus) (the "HSS Tracking Stock", and together with the EchoStar Tracking Stock, the "Tracking Stock") owned by DOLLC in exchange for 100% of the equity interests of EB Corp, formerly a direct wholly owned subsidiary of EB LLC, which held EchoStar's business of providing online video delivery and satellite video delivery for broadcasters and pay-TV operators, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management and other services (the "Uplinking Businesses") ((i) and (ii) collectively, the "Share Exchange"). The Share Exchange has been structured in a manner to be a tax-free exchange for each of EchoStar Tracking Stock and the HSS Tracking Stock were retired and all agreements, arrangements and policy statements with respect to the Tracking Stock were terminated and are of no further effect.

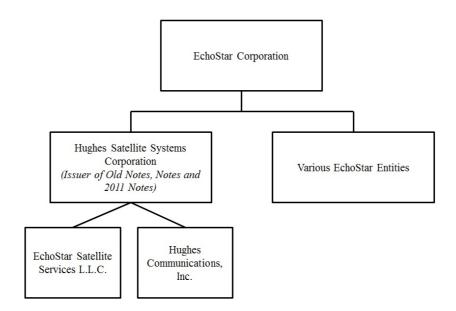
Prior to consummation of the Share Exchange, EchoStar completed steps necessary for the transferring assets and liabilities to be owned by ET Corp and EB Corp and their respective subsidiaries. As part of these steps, HSS issued additional shares of common stock to a subsidiary of EchoStar Corporation and such shares were then distributed as a dividend to EchoStar Corporation.

Certain data center assets within the Uplinking Businesses were not included in the Share Exchange and, following the consummation of the Share Exchange, are owned by us. Cheyenne Data Center L.L.C., our subsidiary holding such data center assets, has been added as an additional guarantor under the indentures governing the Old Notes, the 6 1/2% Senior Secured Notes due 2019 (the "2011 Secured Notes") and the 7 5/8% Senior Notes due 2021 (the "2011 Unsecured Notes," and together with the 2011 Secured Notes, the "2011 Notes") and as an additional pledgor of collateral under the indentures governing the Old Secured Notes, the Secured Notes and the 2011 Secured Notes and related security agreement.

In connection with the Share Exchange, EchoStar Corporation and DISH and certain of their subsidiaries (i) entered into certain customary agreements covering, among other things, matters relating to taxes, employees, intellectual property and the provision of transitional services, (ii) terminated certain previously existing agreements, and (iii) entered into agreements for new transactions pursuant to which EchoStar and DISH and certain of their respective subsidiaries, including HSS, will obtain certain products, services and rights from each other.

ECHOSTAR CORPORATION CORPORATE STRUCTURE

The diagram below depicts, in simplified form, the corporate structure of EchoStar*:



Neither EchoStar Corporation nor any of its subsidiaries (other than HSS and its domestic subsidiaries that are Restricted Subsidiaries) will have any obligations or liability with respect to the Notes at any time.

* The diagram reflects EchoStar's general corporate structure after giving effect to the consummation of the Share Exchange.

Our principal executive offices are located at 100 Inverness Terrace East, Englewood, Colorado 80112, and our telephone number is (303) 706-4000.

THE EXCHANGE OFFER

The exchange offer relates to the exchange of up to \$750,000,000 aggregate principal amount of outstanding 5.250% Senior Secured Notes due 2026 and up to \$750,000,000 aggregate principal amount of outstanding 6.625% Senior Notes due 2026, for an equal aggregate principal amount of the Secured Notes and the Unsecured Notes, respectively. The form and terms of the Secured Notes and the Unsecured Notes are identical in all material respects to the form and terms of the corresponding outstanding Old Secured Notes and Old Unsecured Notes, respectively, except that the Notes will be registered under the Securities Act, and therefore they will not bear legends restricting their transfer.

The Exchange Offer	We are offering to exchange \$1,000 principal amount of our Secured Notes that we have registered under the Securities Act for each \$1,000 principal amount of outstanding Old Secured Notes, and \$1,000 principal amount of our Unsecured Notes that we have registered under the Securities Act for each \$1,000 principal amount of outstanding Old Unsecured Notes. Old Notes tendered in the exchange offer must be in minimum denominations of \$2,000 principal amount and any integral multiples of \$1,000 in excess thereof. In order for us to exchange your Old Notes, you must validly tender them to us and we must accept them. We will exchange all outstanding Old Notes that are validly tendered and not validly withdrawn.
Resale of the Notes	Based on interpretations by the staff of the SEC set forth in no-action letters issued to other parties, we believe that you may offer for resale, resell and otherwise transfer your Notes without compliance with the registration and prospectus delivery provisions of the Securities Act if you are not our affiliate and you acquire the Notes issued in the exchange offer in the ordinary course. You must also represent to us that you are not participating, do not intend to participate and have no
	arrangement or understanding with any person to participate in the distribution of the Notes we issue to you in the exchange offer.
	Each broker-dealer that receives Notes in the exchange offer for its own account in exchange for Old Notes that it acquired as a result of market-making or other trading activities must acknowledge that it will deliver a prospectus meeting the requirements of the Securities Act in connection with any resale of the Notes issued in the exchange offer. You may not participate in the exchange offer if you are a broker-dealer who purchased such outstanding Old Notes directly from us for resale pursuant to Rule 144A or any other available exemption under the Securities Act.
Expiration date	The exchange offer will expire at 5:00 p.m., New York City time, on , 2017, unless we decide to extend the expiration date. We may extend the expiration date for any reason. If we fail to consummate the exchange offer, you will have certain rights against us under the registration rights agreement we entered into as part of the offering of the Old Notes.
Special procedures for beneficial owners	If you are the beneficial owner of Old Notes and you registered your Old Notes in the name of a broker or other institution, and you wish to participate in the exchange, you should promptly contact the person in whose name you registered your Old Notes and instruct that person to tender the Old Notes on your behalf. If you wish to tender on your own behalf, you must, prior to completing and executing the letter of transmittal and delivering your outstanding Old Notes in your name or obtain a properly completed bond power from the registered holder. The transfer of record ownership may take considerable time.
Guaranteed delivery procedures	If you wish to tender your Old Notes and time will not permit your required documents to reach the exchange agent by the expiration date, or you cannot complete the procedure for book-entry transfer on time or you cannot deliver your certificates for registered Old Notes on time, you may tender your Old Notes pursuant to the procedures described in this prospectus under the heading "The Exchange Offer–How to use the guaranteed delivery procedures if you will not have enough time to send all documents to us."
Withdrawal rights	You may withdraw the tender of your Old Notes at any time prior to the expiration date.
Material United States federal income tax consequences	An exchange of Old Notes for Notes should not be subject to United States federal income tax. See "Material United States Federal Income Tax Considerations."

Use of proceeds We will not receive any proceeds from the issuance of Notes pursuant to the exchange offer. Old Notes that are validly tendered and exchanged will be retired and canceled. We will pay all of our expenses incident to the exchange offer. Exchange Agent You can reach the Exchange Agent, U.S. Bank National Association at 60 Livingston Avenue, St.

You can reach the Exchange Agent, U.S. Bank National Association at 60 Livingston Avenue, St. Paul, MN 55107 (Attention: Specialized Finance). For more information with respect to the exchange offer, you may call the Exchange Agent at (800) 934-6802; the fax number for the Exchange Agent is (651) 466-7372 (Attention: Specialized Finance).

THE NOTES

The exchange offer applies to \$750,000,000 aggregate principal amount of 5.250% Senior Secured Notes due 2026 and \$750,000,000 aggregate principal amount of 6.625% Senior Notes due 2026. The form and terms of the Secured Notes and the Unsecured Notes are identical in all material respects to the form and terms of the corresponding outstanding Old Secured Notes and Old Unsecured Notes, respectively, except that the Notes will be registered under the Securities Act, and therefore they will not bear legends restricting their transfer. The Notes will be entitled to the benefits of the respective indentures governing the Notes. See "Description of the Secured Notes" and "Description of the Unsecured Notes." As used in this summary of the Notes, "subsidiaries" refers to our direct and indirect subsidiaries, and the terms "HSS," the "Company," the "Issuer," "we," "us," "our" or similar terms refer only to Hughes Satellite Systems Corporation and not to any of our subsidiaries.

Issuer	Hughes Satellite Systems Corporation.
Notes Offered	\$750,000,000 aggregate principal amount of 5.250% Senior Secured Notes due 2026; and
	\$750,000,000 aggregate principal amount of 6.625% Senior Notes due 2026.
Maturity	Secured Notes: August 1, 2026
	Unsecured Notes: August 1, 2026
Interest Payment Dates	February 1 and August 1 of each year, starting on August 1, 2017
Security	The Secured Notes and related subsidiary guarantees will be secured by first- priority Liens (as defined herein) on substantially all existing and future tangible and intangible assets of HSS and the guarantors, subject to certain excluded assets and permitted liens (as further defined herein, the "Collateral"). Certain other pari passu lien obligations incurred after issuance may share in the Collateral equally and ratably with the Old Secured Notes, the Secured Notes and the guarantees thereof. In addition, the 2011 Secured Notes (as defined herein) and the guarantees thereof share in the Collateral equally and ratably with the Secured Notes, the Old Secured Notes and the guarantees thereof. As of December 31, 2016, there were \$990.0 million aggregate principal amount of the 2011 Secured Notes outstanding. For more information, see "Description of the Secured Notes — Security." It is possible that the Company and its subsidiaries may transfer or license all or a portion of their existing and future patents to one or more third parties, including EchoStar Corporation or a subsidiaries (as defined herein). Any such transfer or license would be conducted in accordance with the terms of the indentures governing the Notes and the security agreement relating to the Secured Notes. If such transaction were to consist of a transfer, by sale or otherwise, any such patents would no longer form part of the Collateral with respect to the Secured Notes.

Optional Redemption

Ranking The Notes are HSS' senior indebtedness, and rank pari passu in right of payment with all of its existing and future senior debt. Indebtedness under the Secured Notes and related subsidiary guarantees will be secured by the Collateral and will rank effectively senior to any of HSS' and the subsidiary guarantors' future senior unsecured debt to the extent of the Collateral securing the Secured Notes and related subsidiary guarantees (which Collateral also secures the 2011 Secured Notes, the Old Secured Notes and related subsidiary guarantees). The Secured Notes will rank effectively junior to obligations of HSS and the subsidiary guarantors that are secured by assets that do not constitute Collateral, to the extent of such collateral. As of December 31, 2016, the Old Secured Notes ranked effectively junior to \$80.0 million of debt and other obligations secured by assets not constituting Collateral or assets that secure such other debt and other obligations on a higher priority basis. Indebtedness under the Unsecured Notes will be unsecured senior obligations of HSS and the guarantors and will rank effectively junior to HSS' and the guarantors' existing and future senior secured indebtedness and other obligations to the extent of the collateral securing such debt and other obligations. As of December 31, 2016, the Old Unsecured Notes ranked effectively junior to \$1.82 billion of debt and other obligations, including the Old Secured Notes and \$990.0 million aggregate principal amount of the 2011 Secured Notes. The Notes will be fully and unconditionally guaranteed, on a joint and several Guarantees basis, by the same subsidiaries that currently guarantee the 2011 Secured Notes, the 2011 Unsecured Notes and the Old Notes and by any other parties that become guarantors of the Notes after the issue date. As of or for the year ended December 31, 2016, our non-guarantor subsidiaries accounted for \$158.4 million, or 8.8% of our total revenues, \$505.1 million, or

7.9%, of our consolidated assets and \$181.0 million, or 3.9%, of our consolidated liabilities (in each case before intercompany eliminations and before giving effect to the Share Exchange).

Neither EchoStar Corporation nor any of its subsidiaries (other than HSS and its domestic subsidiaries that are guarantors) will have any obligations or liability with respect to the Notes.

We may redeem the Old Secured Notes and the Secured Notes, in whole or in part, at any time at a redemption price equal to 100% of the principal amount plus a make-whole premium and accrued and unpaid interest, if any. In addition, we may redeem up to 10% of the aggregate outstanding Old Secured Notes and Secured Notes per year at any time prior to August 1, 2020 at a redemption price equal to 103% of the principal amount thereof plus accrued and unpaid interest, if any. For more information, see "Description of the Secured Notes — Optional Redemption."

We may redeem the Old Unsecured Notes and Unsecured Notes, in whole or in part, at any time at a redemption price equal to 100% of the principal amount plus a make-whole premium and accrued and unpaid interest, if any. For more information, see "Description of the Unsecured Notes — Optional Redemption."

Optional Redemption After Equity Offering

Change of Control

Certain Covenants

Registration Rights

At any time (which may be more than once) before August 1, 2019, we may redeem up to 35% of the aggregate principal amount of the Old Secured Notes and Secured Notes outstanding with the net proceeds that we raise in one or more equity offerings, as long as at least \$487.5 million aggregate principal amount of Old Secured Notes and Secured Notes (such amount representing at least 65% of the aggregate principal amount of the Old Secured Notes that were initially issued) remains outstanding afterwards. For more information, see "Description of the Secured Notes — Redemption with the Proceeds of Certain Capital Contributions or Equity Offerings."

At any time (which may be more than once) before August 1, 2019, we may redeem up to 35% of the aggregate principal amount of the Old Unsecured Notes and Unsecured Notes outstanding with the net proceeds that we raise in one or more equity offerings, as long as at least \$487.5 million aggregate principal amount of Old Unsecured Notes and Unsecured Notes (such amount representing at least 65% of the aggregate principal amount of the Old Unsecured Notes that were initially issued) remains outstanding afterwards. For more information, see "Description of the Unsecured Notes — Redemption with the Proceeds of Certain Capital Contributions or Equity Offerings."

If a Change of Control occurs, as that term is defined in "Description of the Secured Notes — Certain Definitions" and "Description of the Unsecured Notes — Certain Definitions," holders of Notes will have the right, subject to certain conditions, to require us to repurchase their Notes at a purchase price equal to 101% of the aggregate principal amount of Notes repurchased plus accrued and unpaid interest, if any, to (but excluding) the date of repurchase. See "Description of the Secured Notes — Change of Control Offer" and "Description of the Unsecured Notes — Change of Control Offer".

The indentures governing the Notes, among other things, limit our ability and the ability of our restricted subsidiaries to:

- pay dividends or distributions, repurchase equity, prepay subordinated debt or make certain investments;
- incur additional debt or issue certain disqualified stock and preferred stock;
- incur liens on assets;
- merge or consolidate with another company or sell all or substantially all assets;
- enter into transactions with affiliates; and
- allow to exist certain restrictions on the ability of the guarantors to pay dividends or make other payments to us.

These covenants are subject to important exceptions and qualifications as described under "Description of the Secured Notes — Certain Covenants" and "Description of the Unsecured Notes — Certain Covenants."

We have agreed, pursuant to a registration rights agreement with the initial purchaser, to file an exchange offer registration statement with respect to the Notes, and to use our reasonable best efforts to cause such registration statement to be declared effective by July 27, 2017. In the event that we do not comply with this obligation or certain timing requirements for completion of the exchange offer, we may be required to pay additional interest to each holder of "transfer restricted securities" (as defined in the registration rights agreement) affected thereby. See "Registration Rights."

Risk Factors	Investing in the Notes involves substantial risks. You should carefully consider all the information contained in this prospectus prior to investing in the Notes. In particular, we urge you to carefully consider the information set forth in the section under the heading "Risk Factors" for a description of certain risks you should consider before investing in the Notes.
No Prior Market	There can be no assurance that a market for the Notes will develop or as to the liquidity of any market that may develop.
Indentures	The Secured Notes will be issued under an indenture, dated as of July 27, 2016, with U.S. Bank National Association, as trustee, and Wells Fargo Bank, N.A., as collateral agent. The rights of holders of the Secured Notes, including rights with respect to default, waivers and amendments will be governed by that indenture.
	The Unsecured Notes will be issued under an indenture, dated as of July 27, 2016, with U.S. Bank National Association, as trustee. The rights of holders of the Unsecured Notes, including rights with respect to default, waivers and amendments will be governed by that indenture.
Governing Law	The indentures are, and the Notes will be, governed by the laws of the State of New York.

SUMMARY HISTORICAL CONSOLIDATED FINANCIAL DATA

The following tables present the summary historical consolidated financial data of HSS and its subsidiaries at the dates and for the periods indicated. We derived these summary historical consolidated financial data from our audited consolidated financial statements. This summary historical consolidated financial data does not include any adjustments that may be necessary as a result of the Share Exchange.

You should read this data in conjunction with, and it is qualified by reference to, the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," our consolidated financial statements and the notes thereto included elsewhere in this prospectus.

	For the Years Ended December 31,									
		2016		2015		2014		2013		2012
				(dolla	ars in thousand	s)			
Revenue:										
Services and other revenue – DISH Network	\$	449,547	\$	518,853	\$	487,985	\$	291,924	\$	211,560
Services and other revenue – other		1,103,127		1,095,249		1,077,101		987,023		941,804
Equipment revenue - DISH Network		8,840		10,752		31,943		69,119		23,757
Equipment revenue - other		238,279		212,278		210,948		194,825		255,636
Total revenue		1,799,793		1,837,132		1,807,977		1,542,891		1,432,757
Costs and Expenses:										
Cost of sales – services and other (exclusive of depreciation and amortization)		517,957		525,471		535,918		502,134		480,040
Cost of sales – equipment (exclusive of depreciation and amortization)		204,753		195,537		209,022		237,103		232,690
Selling, general and administrative expenses		281,048		276,616		264,610		239,264		222,986
Research and development expenses		31,170		26,377		20,192		21,845		21,264
Depreciation and amortization		414,133		430,127		452,138		403,476		352,367
Impairments of long-lived assets				—		—		34,664		22,000
Total costs and expenses		1,449,061		1,454,128		1,481,880		1,438,486		1,331,347
Operating income		350,732		383,004		326,097		104,405		101,410
Other Income (Expense):										
Interest income		12,598		4,416		3,234		7,487		2,212
Interest expense, net of amounts capitalized		(187,198)		(169,150)		(191,258)		(197,062)		(153,955)
Other, net		19,348		(6,922)		4,604		14,822		27,212
Total other income (expense)		(155,252)		(171,656)		(183,420)		(174,753)		(124,531)
Income (loss) before income taxes		195,480		211,348		142,677		(70,348)		(23,121)
Income tax benefit (provision), net		(73,759)		(72,364)		(40,095)		35,525		10,895
Net income (loss)		121,721		138,984		102,582		(34,823)		(12,226)
Less: Net income (loss) attributable to noncontrolling interests		1,706		1,617		1,389		876		(35)
Net income (loss) attributable to HSS	\$	120,015		137,367						(12,191)

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	As of December 31,						
	 2016	2015					
	 (dollars in thousands)						
Balance Sheet Data:							
Cash and cash equivalents	\$ 2,070,964 \$	382,990					
Total assets	\$ 6,381,534 \$	4,571,279					
Total liabilities	\$ 4,626,511 \$	3,029,639					
Total shareholders' equity	\$ 1,755,023 \$	1,541,640					
Total liabilities	\$ 4,626,511 \$	3,029,639					

	For the Years Ended December 31,										
		2016		2015		2014		2013		2012	
				(dolla	rs in thousand	ls)				
Other Data:											
EBITDA(1)	\$	782,507	\$	804,592	\$	781,450	\$	521,827	\$	481,024	
Net cash flows from:											
Operating activities	\$	565,871	\$	575,490	\$	653,572	\$	322,048	\$	292,581	
Investing activities	\$	(365,889)	\$	(277,033)	\$	(547,713)	\$	(246,616)	\$	(302,291)	
Financing activities	\$	1,487,809	\$	(137,893)	\$	(49,127)	\$	(50,571)	\$	16,661	

(1) EBITDA is defined as "Net income" excluding "Interest expense, net of amounts capitalized," "Interest income," "Income tax provision, net," and "Depreciation and amortization." EBITDA is not a measure determined in accordance with GAAP (as defined herein). This non-GAAP measure is reconciled to "Net Income" below. EBITDA should not be considered in isolation or as a substitute for operating income, net income or any other measure determined in accordance with GAAP. EBITDA is used by our management as a measure of operating efficiency and overall financial performance for benchmarking against our peers and competitors. Management believes EBITDA provides meaningful supplemental information regarding the underlying operating performance of our business. Management also believes that EBITDA is useful to investors because it is frequently used by securities analysts, investors, and other interested parties to evaluate the performance of companies in our industry.

The following table reconciles EBITDA to net income (loss), the most directly comparable United States Generally Accepted Accounting Principles ("GAAP") measure:

	For the Years Ended December 31,									
		2016		2015		2014		2013		2012
				(dolla	rs in thousand	ls)			
Net income (loss)	\$	121,721	\$	138,984	\$	102,582	\$	(34,823)	\$	(12,226)
Interest income and expense, net		174,600		164,734		188,024		189,575		151,743
Income tax provision (benefit)		73,759		72,364		40,095		(35,525)		(10,895)
Depreciation and amortization		414,133		430,127		452,138		403,476		352,367
Net income attributable to noncontrolling interests		(1,706)		(1,617)		(1,389)		(876)		35
EBITDA	\$	782,507	\$	804,592	\$	781,450	\$	521,827	\$	481,024

RISK FACTORS

Investing in the Notes involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this prospectus before deciding whether to invest in the Notes. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties that we are unaware of, or that we currently believe to be immaterial, may also become important factors that affect us. We may face other risks described from time to time in periodic and current reports we file with the SEC.

If any of the following events occur, our business, financial condition, results of operations, prospects or ability to invest capital in our business could be materially and adversely affected. In that case, the value of the Notes could decline and you may lose some or all of your investment.

GENERAL RISKS AFFECTING OUR BUSINESS

We currently derive a significant portion of our revenue from DISH Network. The loss of, or a significant reduction in, orders from, or a decrease in selling prices of broadband equipment and services, provision of satellite services and digital broadcast services, and/or other products, or services to DISH Network would significantly reduce our revenue and materially adversely impact our results of operations.

DISH Network accounted for 25.5%, 28.8% and 28.8% of our total revenue for the years ended December 31, 2016, 2015 and 2014, respectively. Our ESS segment provides satellite services to DISH Network and DISH Network is also a wholesale distributor and sales agent of the Hughes satellite internet service, and in connection with such wholesale distribution and our sales agency arrangement, purchases certain broadband equipment from us to support the sale of the Hughes service. Any material reduction in or termination of our sales to DISH Network or reduction in the prices it pays for the products and services it purchases from us could have a material adverse effect on our business, results of operations, and financial position.

DISH Network has only certain obligations to continue to purchase certain of our services from our ESS segment. Therefore, our relationship with DISH Network could be terminated or substantially curtailed with little or no advance notice. In addition, because a significant portion of the revenue of our ESS segment is derived from DISH Network, the success of our ESS segment also depends to a significant degree on the continued success of DISH Network in attracting new subscribers and marketing programming packages and other services.

Furthermore, if we lose DISH Network as a customer, it may be difficult for us to replace, in whole or in part, our historical revenue from DISH Network because there are a relatively small number of potential customers for our products and services, and we have had limited success in attracting such potential new customers in the past. Historically, many potential customers of our ESS segment have perceived us as a competitor due to our affiliation with DISH Network. There can be no assurance that we will be successful in entering into any commercial relationships with potential new customers who are competitors of DISH Network (particularly if we continue to be perceived as affiliated with DISH Network as a result of common ownership and certain shared services). If we do not develop relationships with new customers, we may not be able to expand our customer base or maintain or increase our revenue.

Our strategic initiatives may not be successfully implemented, may not elicit the expected customer response in the market and may result in competitive reactions.

The successful implementation of our strategic initiatives requires an investment of time, talent and money and is dependent upon a number of factors some of which are not within our control. Those factors include the ability to execute such initiatives in the market, the response of existing and potential new customers, and the actions or reactions of competitors. We may allocate significant resources for long-term initiatives that may not have a short or medium term or any positive impact on our revenue, results of operations, or cash flow. If we fail to properly execute or deliver products or services that address customers' expectations, it may have an adverse effect on our ability to retain and attract customers and may increase our costs and reduce our revenue. Similarly, competitive actions or reactions to our initiatives or advancements in technology or competitive products or services could impair our ability to execute those strategic initiatives or advancements. In addition, new strategic initiatives may face barriers to entering existing markets with established competitors. There can be no assurance that we will successfully implement these strategic initiatives or that, if successfully pursued, they will have the desired effect on our business or results of operations.

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We could face decreased demand and increased pricing pressure to our products and services due to competition.

Our business operates in an intensely competitive, consumer-driven and rapidly changing environment and competes with a growing number of companies that provide products and services to consumers. Risks to our business from competition include, but are not limited to, the following:

- Our ESS segment competes against larger, well-established satellite service companies, such as Intelsat S.A., SES S.A., Telesat Canada, and Eutelsat Communications S.A. Because the satellite services industry is relatively mature, our growth strategy depends largely on our ability to displace current incumbent providers, which often have the benefit of long-term contracts with customers. These long-term contracts and other factors result in relatively high costs for customers to change service providers, making it more difficult for us to displace customers from their current relationships with our competitors. In addition, the supply of satellite capacity available in the market has increased in recent years, which makes it more difficult for us to sell our services in certain markets and to price our capacity at acceptable levels. Competition may cause downward pressure on prices and further reduce the utilization of our capacity, both of which could have an adverse effect on our financial performance. Our ESS segment also competes with both fiber optic cable and terrestrial delivery systems, which may have a cost advantage, particularly in point-to-point applications where such delivery systems have been installed, and with new delivery systems being developed, which may have lower latency and other advantages.
- In our consumer market, we face competition primarily from digital subscriber line ("DSL"), fiber and cable internet service providers. Also, other telecommunications, satellite and wireless broadband companies have launched or are planning the launch of consumer internet access services in competition with our service offerings in North America and Brazil. Some of these competitors offer consumer services and hardware at lower prices than ours. In addition, terrestrial alternatives do not require our external dish, which may limit customer acceptance of our products. We may be unsuccessful in competing effectively against DSL, fiber and cable internet service providers and other satellite broadband providers, which could harm our business, operating results and financial condition.
- In our enterprise network communications market, we face competition from providers of terrestrial-based networks, such as fiber, DSL, cable modem service, multiprotocol label switching and internet protocol-based virtual private networks, which may have advantages over satellite networks for certain customer applications. Although we also sell terrestrial services to this market, we may not be as cost competitive and it may become more difficult for us to compete. The network communications industry is characterized by competitive pressures to provide enhanced functionality for the same or lower price with each new generation of technology. Terrestrial-based networks are offered by telecommunications carriers and other large companies, many of which have substantially greater financial resources and greater name recognition than us. As the prices of our products decrease, we will need to sell more products and/or reduce the per-unit costs to improve or maintain our results of operations. The costs of a satellite network may exceed those of a terrestrial-based networks, especially in areas that have experienced significant DSL and cable internet build-out. It may become more difficult for us to compete with terrestrial and other providers as the number of these areas increases and the cost of their network and hardware services declines. Terrestrial networks also have a competitive edge because of lower latency for data transmission.

We may have available satellite capacity in our ESS segment, and our results of operations may be materially adversely affected if we are not able to provide satellite services on this capacity to third parties, including DISH Network.

We have available satellite capacity in our ESS segment. While we are currently evaluating various opportunities to make profitable use of our available satellite capacity (including, but not limited to, supplying satellite capacity for new international ventures), there can be no assurance that we can successfully develop these business opportunities. If we are unable to utilize our available satellite capacity for providing satellite services to third parties, including DISH Network, our margins could be negatively impacted, and we may be required to record impairments related to our satellites.

The failure to adequately anticipate the need for satellite capacity or the inability to obtain satellite capacity for our Hughes segment could harm our results of operations.

Our Hughes segment has made substantial contractual commitments for satellite capacity based on our existing customer contracts and backlog. If our existing customer contracts were to be terminated prior to their respective expiration dates, we may be committed to maintaining excess satellite capacity for which we will have insufficient revenue to cover our costs, which would have a negative impact on our margins and results of operations. Alternatively, we may not have sufficient satellite capacity to meet demand. We have satellite capacity commitments, generally for two to five year terms, with third parties to cover different geographical areas or support different applications and features; therefore, we may not be able to quickly or easily adjust our capacity to changes in demand. We generally only purchase satellite capacity based on existing contracts and



bookings. Therefore, capacity for certain types of coverage in the future may not be readily available to us, and we may not be able to satisfy certain needs of our customers, which could result in a loss of possible new business and could negatively impact the margins for those services. Our ability to provide additional capacity for subscriber growth in our North American consumer market could also be adversely affected by regulations in the U.S. recently adopted by the FCC that enable the use of a portion of the frequency bands, including without limitation, the Ka-band, where we operate our broadband gateway earth stations, for 5G mobile terrestrial services, which could limit our flexibility to change the way in which we use the Ka-band in the future. In addition, the fixed satellite service ("FSS") industry has seen consolidation in the past decade, and today, the main FSS providers in North America and a number of smaller regional providers own and operate the current satellites that are available for our capacity needs. The failure of any of these FSS providers to replace existing satellite assets at the end of their useful lives or a downturn in their industry as a whole could reduce or interrupt the satellite capacity available to us. If we are not able to renew our capacity leases at economically viable rates, or if capacity is not available due to problems experienced by these FSS providers, our business and results of operations could be adversely affected.

We are dependent upon third-party providers for components, manufacturing, installation services, and customer support services, and our results of operations may be materially adversely affected if any of these third-party providers fail to appropriately deliver the contracted goods or services.

We are dependent upon third-party services and products provided to us, including the following:

- *Components.* A limited number of suppliers manufacture, and in some cases a single supplier manufactures, some of the key components required to build our products. These key components may not be continually available and we may not be able to forecast our component requirements sufficiently in advance, which may have a detrimental effect on supply. If we are required to change suppliers for any reason, we would experience a delay in manufacturing our products if another supplier is not able to meet our requirements on a timely basis. In addition, if we are unable to obtain the necessary volumes of components on favorable terms or prices on a timely basis, we may be unable to produce our products at competitive prices and we may be unable to satisfy demand from our customers. Our reliance on a single or limited group of suppliers, particularly foreign suppliers, and our reliance on subcontractors, involves several risks. These risks include a potential inability to obtain an adequate supply of required components, reduced control over pricing, quality, and timely delivery of these components, with any of our suppliers or subcontractors for our products. An inability to obtain adequate deliveries or any other circumstances requiring us to seek alternative sources of supply could affect our ability to ship our products on a timely basis, which could damage our relationships with current and prospective customers and harm our business, resulting in a loss of market share, and reduced revenue and income.
- *Commodity Price Risk.* Fluctuations in pricing of raw materials can affect our product costs. To the extent that component pricing does not decline or increases, whether due to inflation, increased demand, decreased supply or other factors, we may not be able to pass on the impact of increasing raw materials prices, component prices or labor and other costs, to our customers, and we may not be able to operate profitably. Such changes could have an adverse impact on our product costs.
- Manufacturing. While we develop and manufacture prototypes for certain of our products, we use contract manufacturers to produce a significant
 portion of our hardware. If these contract manufacturers fail to provide products that meet our specifications in a timely manner, then our customer
 relationships and revenue may be harmed.
- Installation and customer support services. Some of our products and services, such as our North American and international operations, utilize a network of third-party installers to deploy our hardware. In addition, a portion of our customer support and management is provided by offshore call centers. A decline in levels of service or attention to the needs of our customers could adversely affect our reputation, renewal rates and ability to win new business.

Our foreign operations expose us to regulatory risks and restrictions not present in our domestic operations.

Our sales outside the U.S. accounted for approximately 18.3%, 17.4% and 18.7% of our revenue for the years ended December 31, 2016, 2015 and 2014, respectively. Collectively, we expect our foreign operations to continue to represent a significant portion of our business. Over the last 10 years, we have sold products in over 100 countries. Our foreign operations involve varying degrees of risk and uncertainties inherent in doing business abroad. Such risks include:

Complications in complying with restrictions on foreign ownership and investment and limitations on repatriation. We may not be permitted to
own our operations in some countries and may have to enter into partnership or joint venture relationships. Many foreign legal regimes restrict our
repatriation of earnings to the U.S. from our subsidiaries



and joint venture entities. Applicable law in such foreign countries may also limit our ability to distribute or access our assets in certain circumstances. In such event, we will not have access to the cash flow and assets of our subsidiaries and joint ventures.

- Difficulties in following a variety of laws and regulations related to foreign operations. Our international operations are subject to the laws and regulations of many different jurisdictions that may differ significantly from U.S. laws and regulations. For example, local political or intellectual property law may hold us responsible for the data that is transmitted over our network by our customers. In addition, we are subject to the Foreign Corrupt Practices Act and similar anti-bribery laws in other jurisdictions that generally prohibit companies and their intermediaries from making improper payments or giving or promising to give anything of value to foreign officials and other individuals for the purpose of obtaining or retaining business or gaining a competitive advantage. Our policies mandate compliance with these laws. However, we operate in many parts of the world that have experienced corruption to some degree. Compliance with these laws may lead to increased operations costs or loss of business opportunities. Violations of these laws could result in fines or other penalties or sanctions, which could have a material adverse impact on our business, financial condition, and results of operations.
- *Restrictions on space station landing/terrestrial rights*. Satellite market access and landing rights and terrestrial wireless rights are dependent on the national regulations established by foreign governments, including, but not limited to obtaining national authorizations or approvals and meeting other regulatory, coordination and registration requirements for satellites. Because regulatory schemes vary by country, we may be subject to laws or regulations in foreign countries of which we are not presently aware. Non-compliance with these requirements may result in the loss of the authorizations and licenses to conduct business in these countries, as well as fines or other financial and non-financial penalties for non-compliance with regulations. If that were to be the case, we could be subject to sanctions and/or other actions by a foreign government that could materially and adversely affect our ability to operate in that country. There is no assurance that any current regulatory approvals held by us are, or will remain, sufficient in the view of foreign regulatory authorities, or that applicable restrictions in those jurisdictions will not be unduly burdensome. Violations of laws or regulations may result in various sanctions including fines, loss of authorizations and the denial of applications for new authorizations or for the renewal of existing authorizations, and the failure to obtain or comply with the authorizations and regulations governing our international operations could have a material adverse effect on our ability to generate revenue and our overall competitive position.
- *Financial and legal constraints and obligations*. Operating pursuant to foreign licenses subjects us to certain financial constraints and obligations, including, but not limited to: (a) tax liabilities that may or may not be dependent on revenue; (b) the burden of creating and maintaining additional entities, branches, facilities and/or staffing in foreign jurisdictions; and (c) legal regulations requiring that we make certain satellite capacity available for "free," which may impact our revenue. In addition, if we need to pursue legal remedies against our customers or our business partners located outside of the U.S., it may be difficult for us to enforce our rights against them.
- Compliance with applicable export control laws and regulations in the U.S. and other countries. We must comply with all applicable export control and trade sanctions laws and regulations of the U.S. and other countries. U.S. laws and regulations applicable to us include the Arms Export Control Act, ITAR, EAR and the trade sanctions laws and regulations administered by OFAC. The export of certain hardware, technical data and services relating to satellites is regulated by BIS under EAR. Other items are controlled for export by the DDTC under ITAR. We cannot provide equipment or services to certain countries subject to U.S. trade sanctions unless we first obtain the necessary authorizations from OFAC. Violations of these laws or regulations could result in significant sanctions including fines, more onerous compliance requirements, debarments from export privileges, or loss of authorizations needed to conduct aspects of our international business. A violation of ITAR or the other regulations enumerated above could materially adversely affect our business, financial condition and results of operations.
- Changes in exchange rates between foreign currencies and the U.S. dollar. We conduct our business and incur cost in the local currency of a number of the countries in which we operate. Accordingly, our applicable results of operations are reported in the relevant local currency and then translated to U.S. dollars at the applicable currency exchange rate for inclusion in our financial statements. In addition, we sell our products and services and acquire supplies and components from countries that historically have been, and may continue to be, susceptible to recessions or currency devaluation. These fluctuations in currency exchange rates, recessions and currency devaluations have affected, and may in the future affect, revenue, profits and cash earned on international sales.

- Greater exposure to the possibility of economic instability, the disruption of operations from labor and political disturbances, expropriation or war. As we conduct operations throughout the world, we could be subject to regional or national economic downturns or instability, acts of terrorism, labor or political disturbances or conflicts of various sizes, including wars. Any of these disruptions could detrimentally affect our sales in the affected region or country or lead to damage to, or expropriation of, our property or danger to our personnel.
- Competition with large or state-owned enterprises and/or regulations that effectively limit our operations and favor local competitors. Many of the countries in which we conduct business have traditionally had state owned or state granted monopolies on telecommunications services that favor an incumbent service provider. We face competition from these favored and entrenched companies in countries that have not deregulated. The slower pace of deregulation in these countries, particularly in Asia and Latin America, has adversely affected the growth of our business in these regions.
- **Customer credit risks**. Customer credit risks are exacerbated in foreign operations because there is often little information available about the credit histories of customers in certain of the foreign countries in which we operate.

We may experience loss from some of our customer contracts.

We provide access to our telecommunications networks to customers that use a variety of platforms such as satellite, wireless 3G and 4G, cable, fiber optic and DSL. These customer contracts may require us to provide services at a fixed price for the term of the contract. To facilitate the provision of this access, we may enter into contracts with terrestrial platform providers. Our agreements with these subcontractors may allow for prices to be changed during the term of the contracts. We assume greater financial risk on these customer contracts than on other types of contracts because if we do not estimate costs accurately and there is an increase in our subcontractors' prices, our net profit may be significantly reduced or there may be a loss on the contracts.

We may experience significant financial losses on our existing investments.

We have entered into certain strategic transactions and investments. These investments involve a high degree of risk and could diminish our financial condition or our ability to invest capital in our business. The overall sustained economic uncertainty, as well as financial, operational and other difficulties encountered by certain companies in which we have invested increases the risk that the actual amounts realized in the future on our debt and equity investments will differ significantly from the fair values currently assigned to them. In addition, the companies in which we invest or with whom we partner may not be able to compete effectively or there may be insufficient demand for the services and products offered by these companies. These investments could also expose us to significant financial losses and may restrict our ability to make other investments or limit alternative uses of our capital resources. If our investments suffer losses, our financial condition could be materially adversely affected.

We may pursue acquisitions, capital expenditures and other strategic transactions to complement or expand our business, which may not be successful and we may lose a portion or all of our investment in these acquisitions and transactions.

Our future success may depend on the existence of, and our ability to capitalize on, opportunities to acquire or develop other businesses or technologies or partner with other companies that could complement, enhance or expand our current business, services or products or that may otherwise offer us growth opportunities. We may pursue acquisitions, joint ventures or other business combination or development activities to complement or expand our business. Any such acquisitions, transactions or investments that we are able to identify and complete which may become substantial over time, involve a high degree of risk, including, but not limited to, the following:

- the diversion of our management's attention from our existing business to integrate the operations and personnel of the acquired or combined business, technology or joint venture;
- the ability and capacity of our management team to carry out all of our business plans, including with respect to our existing businesses and any businesses we acquire or embark on in the future;
- possible adverse effects on our and our targets' and partners' business, financial condition or operating results during the integration process;
- exposure to significant financial losses if the transactions, investments and/or the underlying ventures are not successful; and/or we are unable to achieve the intended objectives of the transaction or investment;



- the inability to obtain in the anticipated time frame, or at all, any regulatory approvals required to complete proposed acquisitions, transactions or investments;
- the risks associated with complying with regulations applicable to the acquired or developed business or technologies which may cause us to incur substantial expenses;
- the inability to realize anticipated benefits or synergies from an acquisition; and
- the disruption of relationships with employees, vendors or customers.

New acquisitions, investments, joint ventures and other transactions may require the commitment of significant capital that may otherwise be directed to investments in our existing businesses. Commitment of this capital may cause us to defer or suspend any share repurchases or capital expenditures that we otherwise may have made.

We may not be able to generate cash to meet our debt service needs or fund our operations.

As of December 31, 2016, our total indebtedness was approximately \$3.66 billion. Our ability to make payments on or to refinance our indebtedness and to fund our operations will depend on our ability to generate cash in the future, which is subject in part to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. We may need to raise additional debt in order to fund ongoing operations or to capitalize on business opportunities. We may not be able to generate sufficient cash flow from operations and future borrowings may not be available in amounts sufficient to enable us to service our indebtedness or to fund our operations or other liquidity needs. If we are unable to generate sufficient cash, we may be forced to take actions such as revising or delaying our strategic plans, reducing or delaying capital expenditures, selling assets, restructuring or refinancing our debt or seeking additional equity capital. We may not be able to implement any of these actions on satisfactory terms, or at all. The indentures governing our indebtedness limit our ability to dispose of assets and use the proceeds from such dispositions. Therefore, we may not be able to consummate those dispositions on satisfactory terms, or at all, or to use those proceeds in a manner we may otherwise prefer.

In addition, conditions in the financial markets could make it difficult for us to access capital markets at acceptable terms or at all. Instability or other conditions in the equity markets could make it difficult for us to raise equity financing without incurring substantial dilution to our existing shareholders. In addition, sustained or increased economic weaknesses or pressures or new economic conditions may limit our ability to generate sufficient internal cash to fund investments, capital expenditures, acquisitions, and other strategic transactions. We cannot predict with any certainty whether or not we will be impacted by economic conditions. As a result, these conditions make it difficult for us to accurately forecast and plan future business activities because we may not have access to funding sources necessary for us to pursue organic and strategic business development opportunities.

Covenants in our indentures restrict our business in many ways.

The indentures governing the 2011 Notes, the Old Notes and the Notes contain various covenants, subject to certain exceptions, that limit our ability and/or our restricted subsidiaries' ability to, among other things:

- incur additional debt;
- pay dividends or make distributions on our capital stock or repurchase our capital stock;
- make certain investments;
- create liens or enter into sale and leaseback transactions;
- enter into transactions with affiliates;
- merge or consolidate with another company;
- transfer and sell assets; and
- allow to exist certain restrictions on the ability of certain of our subsidiaries to pay dividends, make distributions, make other payments, or transfer assets to us or our subsidiaries.

Failure to comply with these and certain other financial covenants, if not cured or waived, may result in an event of default under the indentures, which could have a material adverse effect on our business, financial condition, results of operations or

prospects. If an event of default occurs and is continuing under the respective indenture, the trustee under that indenture or the requisite holders of the notes under that indenture may declare all such notes to be immediately due and payable and, in the case of the indentures governing any of our secured notes, could proceed against the collateral that secures the applicable secured notes. We and certain of our subsidiaries have pledged a significant portion of our assets as collateral to secure the 2011 Secured Notes and the Old Secured Notes (and following this offering, the Secured Notes). If we do not have enough cash to service our debt or fund other liquidity needs, we may be required to take actions such as requesting a waiver from the holders of the notes, reducing or delaying capital expenditures, selling assets, restructuring or refinancing all or part of the existing debt, or seeking additional equity capital. We cannot assure you that any of these remedies can be implemented on commercially reasonable terms or at all, which could result in the trustee declaring the notes to be immediately due and payable and/or foreclosing on the collateral.

We rely on key personnel and the loss of their services may negatively affect our businesses.

We believe that our future success will depend to a significant extent upon the performance of Mr. Charles W. Ergen, our Chairman, and certain other key executives. The loss of Mr. Ergen or of certain other key executives or of the ability of Mr. Ergen or certain other key executives to devote sufficient time and effort to our business could have a material adverse effect on our business, financial condition and results of operations. Although most of our key executives have agreements limiting their ability to work for or consult with competitors, under certain circumstances, we generally do not have employment agreements with them. To the extent Mr. Ergen or other officers are performing services to both DISH Network and us, their attention may be diverted away from our business and therefore adversely affect our business.

We may be subject to risks relating to the referendum of the United Kingdom's membership of the European Union.

In June 2016, the United Kingdom (the "U.K.") held a referendum in which voters approved an exit from the European Union and its member states ("EU"), commonly referred to as the "Brexit." As a result of the referendum, it is expected that the U.K. government has begun negotiating the terms of the U.K.'s future relationship with the EU. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the U.K. and EU countries. Additionally, with the U.K. no longer being a part of the EU, we anticipate that there may be certain regulatory changes that may impact the regulatory regime under which we operate in both the U.K. and the EU. These and other changes, implications and consequences of the Brexit may adversely affect our business and results of operations.

A natural disaster could diminish our ability to provide service to our customers.

Natural disasters could damage or destroy our ground stations, resulting in a disruption of service to our customers. We currently have backup systems and technology in place to safeguard our antennas and protect our ground stations during natural disasters such as tornadoes, but the possibility still exists that our ground facilities could be impacted during a major natural disaster. If a future natural disaster impairs or destroys any of our ground facilities, we may be unable to provide service to our customers in the affected area for a period of time which may adversely affect our business and results of operations.

We may have additional tax liabilities.

We are subject to income taxes in the United States and foreign jurisdictions. Significant judgments are required in determining our provisions for income taxes. In the course of preparing our tax provisions and returns, we must make calculations where the ultimate tax determination may be uncertain. Our tax returns are subject to examination by the Internal Revenue Service ("IRS"), state, and foreign tax authorities. There can be no assurance as to the outcome of these examinations. If the ultimate determination of taxes owed is for an amount in excess of amounts previously accrued, our operating results, cash flows, and financial condition could be adversely affected.

RISKS RELATED TO OUR SATELLITES

Our owned and leased satellites in orbit are subject to significant operational and environmental risks that could limit our ability to utilize these satellites.

Satellites are subject to significant operational risks while in orbit. These risks include malfunctions, commonly referred to as anomalies, which have occurred and may occur in the future in our satellites and the satellites of other operators as a result of various factors, such as satellite design and manufacturing defects, problems with the power systems or control systems of the satellites and general failures resulting from operating satellites in the harsh environment of space.

Although we work closely with the satellite manufacturers to determine and eliminate the cause of anomalies in new satellites and provide for redundancies of many critical components in the satellites, we may not be able to prevent anomalies from

occurring and may experience anomalies in the future, whether of the types described above or arising from the failure of other systems or components.

Any single anomaly or series of anomalies could materially and adversely affect our ability to utilize the satellite, our operations and revenue as well as our relationships with current customers and our ability to attract new customers. In particular, future anomalies may result in, among other things, the loss of individual transponders/beams on a satellite, a group of transponders/beams on that satellite or the entire satellite, depending on the nature of the anomaly. Anomalies may also reduce the expected capacity or useful life of a satellite, thereby reducing the revenue that could be generated by that satellite, or create additional expenses due to the need to provide replacement or back-up satellites or satellite capacity earlier than planned.

The loss of a satellite or other satellite malfunctions or anomalies could have a material adverse effect on our financial performance, which we may not be able to mitigate by using available capacity on other satellites. There can be no assurance that we can recover critical transmission capacity in the event one or more of our in-orbit satellites were to fail. In addition, the loss of a satellite or other satellite malfunctions or anomalies could affect our ability to comply with FCC and other regulatory obligations and our ability to fund the construction or acquisition of replacement satellites for our in-orbit fleet in a timely fashion, or at all. There can be no assurance that anomalies will not impact the remaining useful life and/or the commercial operation of any of the satellites in our fleet. In addition, there can be no assurance that we can recover critical transmission capacity in the event one or more of our in-orbit satellites were to fail.

Meteoroid events pose a potential threat to all in-orbit satellites. The probability that meteoroids will damage those satellites increases significantly when the Earth passes through the particulate stream left behind by comets. Occasionally, increased solar activity also poses a potential threat to all in-orbit satellites.

Some decommissioned spacecraft are in uncontrolled orbits, which pass through the geostationary belt at various points and present hazards to operational spacecraft, including our satellites. We may be required to perform maneuvers to avoid collisions and these maneuvers may prove unsuccessful or could reduce the useful life of the satellite through the expenditure of fuel to perform these maneuvers. The loss, damage or destruction of any of our satellites as a result of an electrostatic storm, collision with space debris, malfunction or other event could have a material adverse effect on our business, financial condition and results of operations.

We historically have not carried in-orbit insurance on our satellites because we assessed that the cost of insurance was uneconomical relative to the risk of failures. If one or more of our in-orbit uninsured satellites fail, we could be required to record significant impairment charges for the satellite.

Our satellites have minimum design lives ranging from 12 to 15 years, but could fail or suffer reduced capacity before then.

Generally, the minimum design life of each of our satellites ranges from 12 to 15 years. We can provide no assurance, however, as to the actual operational lives of our satellites, which may be shorter or longer than their design lives. Our ability to earn revenue depends on the continued operation of our satellites, each of which has a limited useful life. A number of factors affect the useful lives of the satellites, including, among other things, the quality of their design and construction, the durability of their component parts, the ability to continue to maintain proper orbit and control over the satellite's functions, the efficiency of the launch vehicle used, and the remaining on-board fuel following orbit insertion. In addition, continued improvements in satellite technology may make obsolete our existing satellites, or any satellites we may acquire in the future, prior to the end of their design lives.

In the event of a failure or loss of any of our satellites, we may relocate another satellite and use it as a replacement for the failed or lost satellite, which could have a material adverse effect on our business, financial condition and results of operations. Additionally, such relocation would require governmental approval. We cannot be certain that we could obtain such governmental approval. In addition, we cannot guarantee that another satellite will be available for use as a replacement for a failed or lost satellite, or that such relocation can be accomplished without a substantial utilization of fuel. Any such utilization of fuel would reduce the operational life of the replacement satellite.

Our satellites under construction are subject to risks related to construction and launch that could limit our ability to utilize these satellites.

Satellite construction and launch are subject to significant risks, including delays, anomalies, launch failure and incorrect orbital placement. Certain launch vehicles that may be used by us have either unproven track records or have experienced launch failures in the past. The risks of launch delay, launch anomalies and launch failure are usually greater when the launch vehicle

does not have a track record of previous successful flights. Launch anomalies and failures can result in significant delays in the deployment of satellites because of the need both to construct replacement satellites, which can take more than three years, and to obtain other launch opportunities. Such significant delays could materially and adversely affect our business, expenses and results of operations, our ability to meet regulatory or contractual required milestones, the availability and our use of other or replacement satellite resources and our ability to provide services to customers as capacity becomes full on existing satellites. In addition, significant delays in a satellite program could give customers who have purchased or reserved capacity on that satellite a right to terminate their service contracts relating to the satellite. We may not be able to accommodate affected customers on other satellites until a replacement satellite is available. A customer's termination of its service contracts with us as a result of a launch delay or failure would reduce our contracted backlog and our ability to generate revenue. One of our launch services providers is a Russian Federation state-owned company. Recent ongoing political events have created uncertainty as to the stability of U.S. and Russian Federation relations. This could add to risks relative to scheduling uncertainties and timing. Historically, we have not always carried launch insurance for the launch of our satellites. If a launch delay, anomaly or failure were to occur, it could result in the revocation of the applicable licenses and otherwise have a material adverse effect on our business, expenses, assets, revenue, results of operations and ability to fund future satellite procurement and launch opportunities. In addition, the occurrence of launch anomalies and failures, whether on our satellites or those of others, may significantly reduce our ability to place launch insurance for our satellites or make launch insurance uneconomical.

Our use of certain satellites is often dependent on satellite coordination agreements, which may be difficult to obtain.

Satellite transmissions and the use of frequencies often are dependent on coordination with other satellite systems operated by U.S. or foreign satellite operators, including governments, and it can be difficult to determine the outcome of these coordination agreements with these other entities and governments. The impact of a coordination agreement may result in the loss of rights to the use of certain frequencies or access to certain markets. The significance of such a loss would vary and it can therefore be difficult to determine which portion of our revenue will be impacted.

Furthermore, the satellite coordination process is conducted under the guidance of the ITU radio regulations and the national regulations of the satellites involved in the coordination process. These rules and regulations could be amended and could therefore materially adversely affect our business, financial condition and results of operations.

We may face interference from other services sharing satellite spectrum.

The FCC and other regulators have adopted rules or may adopt rules in the future that allow non-geostationary orbit satellite services to operate on a coprimary basis in the same frequency band as DBS and FSS. The FCC has also authorized the use of multichannel video and data distribution service ("MVDDS") in the DBS band. Several MVDDS systems are now being commercially deployed. Despite regulatory provisions designed to protect DBS and FSS operations from harmful interference, there can be no assurance that operations by other satellites or terrestrial communication services in the DBS and FSS bands will not interfere with our DBS and FSS operations and adversely affect our business.

Our dependence on outside contractors could result in delays related to the design, manufacture and launch of our new satellites, which could in turn adversely affect our operating results.

There are a limited number of manufacturers that are able to design and build satellites according to the technical specifications and standards of quality we require, including Airbus Defence and Space, Boeing Satellite Systems, Lockheed Martin, SS/L and Thales Alenia Space. There are also a limited number of launch service providers that are able to launch such satellites, including International Launch Services, Arianespace, Lockheed Martin Commercial Launch Services and Space Exploration. The loss of any of our manufacturers or launch service providers could increase the cost and result in the delay of the design, construction or launch of our satellites. Even if alternate suppliers for such services are available, we may have difficulty identifying them in a timely manner or we may incur significant additional expense in changing suppliers, and this could result in difficulties or delays in the design, construction or launch of our satellites could have a material adverse effect on our business, financial condition and results of operations.

RISKS RELATED TO OUR PRODUCTS AND TECHNOLOGY

If we are unable to properly respond to technological changes, our business could be significantly harmed.

Our business and the markets in which we operate are characterized by rapid technological changes, evolving industry standards and frequent product and service introductions and enhancements. If we or our suppliers are unable to properly respond to or keep pace with technological developments, fail to develop new technologies, or if our competitors obtain or



develop proprietary technologies that are perceived by the market as being superior to ours, our existing products and services may become obsolete and demand for our products and services may decline. Even if we keep up with technological innovation, we may not meet the demands of the markets we serve. Furthermore, after we have incurred substantial research and development costs, one or more of the technologies under our development, or under development by one or more of our strategic partners, could become obsolete prior to its introduction. If we are unable to respond to or keep pace with technological advances on a cost-effective and timely basis, or if our products, applications or services are not accepted by the market, then our business, financial condition and results of operations would be adversely affected.

Our response to technological developments depends, to a significant degree, on the work of technically skilled employees. Competition for the services of such employees is intense. Although we strive to attract, retain and motivate these employees, we may not succeed in these respects.

We have made and will continue to make significant investments in research, development, and marketing for new products, services and related technologies, as well as entry into new business areas. Investments in new technologies and business areas are inherently speculative and commercial success thereof depends on numerous factors including innovativeness, quality of service and support, and effectiveness of sales and marketing. We may not achieve revenue or profitability from such investments for a number of years, if at all. Moreover, even if such products, services, technologies and business areas become profitable, their operating margins may be minimal.

Our business depends on certain intellectual property rights and on not infringing the intellectual property rights of others. The loss of our intellectual property rights or our infringement of the intellectual property rights of others could have a significant adverse impact on our business.

We rely on our patents, copyrights, trademarks and trade secrets, as well as licenses and other agreements with our vendors and other parties, to use our technologies, conduct our operations and sell our products and services. Legal challenges to our intellectual property rights and claims by third parties of intellectual property infringement could require that we enter into royalty or licensing agreements on unfavorable terms, incur substantial monetary liability or be enjoined preliminarily or permanently from further use of the intellectual property in question or from the continuation of our businesses as currently conducted, which could require us to change our business practices or limit our ability to compete effectively or could otherwise have an adverse effect on our business, financial condition, results of operations or prospects. Even if we believe any such challenges or claims are without merit, they can be time-consuming and costly to defend and may divert management's attention and resources away from our business.

Moreover, due to the rapid pace of technological change, we rely in part on technologies developed or licensed by third parties, and if we are unable to obtain or continue to obtain licenses or other required intellectual property rights from these third parties on reasonable terms, our business, financial position and results of operations could be adversely affected. Technology licensed from third parties may have undetected errors that impair the functionality or prevent the successful integration of our products or services. As a result of any such changes or loss, we may need to incur additional development costs to ensure continued performance of our products or suffer delays until replacement technology, if available, can be obtained and integrated.

In addition, we work with third parties such as vendors, contractors and suppliers for the development and manufacture of components that are integrated into our products and our products may contain technologies provided to us by these third parties. We may have little or no ability to determine in advance whether any such technology infringes the intellectual property rights of others. Our vendors, contractors and suppliers may not be required to indemnify us in the event that a claim of infringement is asserted against us, or they may be required to indemnify us only up to a maximum amount, above which we would be responsible for any further costs or damages. Legal challenges to these intellectual property rights may impair our ability to use the products and technologies that we need in order to operate our business and may materially and adversely affect our business, financial condition and results of operations.

We are, and may become, party to various lawsuits which, if adversely decided, could have a significant adverse impact on our business, particularly lawsuits regarding intellectual property.

We are, and may become, subject to various legal proceedings and claims, which arise in the ordinary course of our business. Many entities, including some of our competitors, have or may in the future obtain patents and other intellectual property rights that cover or affect products or services related to those that we offer. In general, if a court determines that one or more of our products or services infringes valid intellectual property rights held by others, we may be required to cease developing or marketing those products or services, to obtain licenses from the holders of the intellectual property at a material cost, or to redesign those products or services in such a way as to avoid infringement. If those intellectual property rights are held by a competitor, we may be unable to license the necessary intellectual property rights at any price, which could adversely affect our competitive position.

We may not be aware of all patents and other intellectual property rights that our products and services may potentially infringe. In addition, patent applications in the U.S. and foreign countries are confidential until the Patent and Trademark Office either publishes the application or issues a patent (whichever arises first) and, accordingly, our products may infringe claims contained in pending patent applications of which we are not aware. Further, the process of determining definitively whether a patent claim is valid and whether a particular product infringes a valid patent claim often involves expensive and protracted litigation, even if we are ultimately successful on the merits.

We cannot estimate the extent to which we may be required in the future to obtain licenses with respect to intellectual property rights held by others and the availability and cost of any such licenses. Those costs, and their impact on our results of operations, could be material. Damages in patent infringement cases can be substantial, and in certain circumstances, can be trebled. To the extent that we are required to pay unanticipated royalties to third parties, these increased costs of doing business could negatively affect our liquidity and operating results. We are currently defending multiple patent infringement actions and may assert our own actions against parties we suspect of infringing our patents and trademarks. We cannot be certain the courts will conclude these companies do not own the rights they claim, that these rights are not valid, or that our products and services do not infringe on these rights. We also cannot be certain that we will be able to obtain licenses from these persons on commercially reasonable terms or, if we were unable to obtain such licenses, that we would be able to redesign our products and services to avoid infringement. The legal costs associated with defending patent suits and pursuing patent claims against others may be borne by us if we are not awarded reimbursement through the legal process. See further discussion under "Business—Legal Proceedings".

Future litigation or governmental proceedings could result in material adverse consequences, including judgments or settlements.

We may become involved in lawsuits, regulatory inquiries, consumer claims and governmental and other legal proceedings arising from of our business, including new products and services that we may offer. Some of these proceedings may raise difficult and complicated factual and legal issues and can be subject to uncertainties and complexities. The timing of the final resolutions to lawsuits, regulatory inquiries, and governmental and other legal proceedings is typically uncertain. Additionally, the possible outcomes of, or resolutions to, these proceedings could include adverse judgments, settlements or liabilities, any of which could require substantial payments or have other adverse impacts on our revenue, results of operations or cash flow.

We rely on network and information systems and other technologies and a disruption, cyber-attack, failure or destruction of such networks, systems or technologies may disrupt or harm our business and damage our reputation, which could have a material adverse effect on our financial condition and operating results.

The capacity, reliability and security of our information technology hardware and software infrastructure are important to the operation of our business, which would suffer in the event of system disruptions or failures, such as computer hackings, cyber-attacks, computer viruses or other destructive or disruptive software, process breakdowns, denial of service attacks or other malicious activities. Security breaches, attacks, unauthorized access and other malicious activities have significantly increased in recent years, and some of them have involved sophisticated and highly targeted attacks on computer networks. Our networks, systems and technologies and those of our third-party service providers and our customers may also be vulnerable to such security breaches, attacks, malicious activities and unauthorized access, resulting in misappropriation, misuse, leakage, corruption, unscheduled downtime, falsification and accidental or intentional release or loss of information maintained on our and our third party service providers' information technology systems and networks, including but not limited to customer, personnel and vendor data. If such risks were to materialize, we could be exposed to significant costs and interruptions, delays or malfunctions in our operations, any of which could damage our reputation and credibility and have a material adverse effect on our business, financial condition and results of operations. We may also be required to expend significant resources to protect against these threats or to alleviate problems, including reputational harm and litigation, caused by any breaches. Although we have significantly invested in and continue to implement generally recognized security measures, these measures may prove to be inadequate and we could be subject to regulatory penalties, fines, sanctions, enforcement actions, remediation obligations, and/or private litigation by parties whose information was improperly accessed, disclosed or misused which could have a material adverse effect on our business, financial condition and results of operations. Furthermore, the amount and scope of insurance that we maintain against losses resulting from these events may not be sufficient to compensate us adequately for any disruptions to our business or otherwise cover our losses, including reputational harm and negative publicity as well as any litigation liability. In addition, our ability to expand and update our information technology infrastructure in response to our growth and changing needs is important to the continued implementation of our new service offering initiatives. A security breach or attack could impact our ability to expand or upgrade our technology infrastructure which could have adverse consequences, including the delayed implementation of new offerings, product or service interruptions, and the diversion of development resources.

If our products contain defects, we could be subject to significant costs to correct such defects and our product and network service contracts could be delayed or cancelled, which could adversely affect our revenue.

The products and the networks we deploy are highly complex, and some may contain defects when first introduced or when new versions or enhancements are released, despite testing and our quality control procedures. For example, our products may contain software "bugs" that can unexpectedly interfere with their operation. Defects may also occur in components and products that we purchase from third parties. In addition, many of our products and network services are designed to interface with our customers' existing networks, each of which has different specifications and utilize multiple protocol standards. Our products and services must interoperate with the other products and services within our customers' networks, as well as with future products and services that might be added to these networks, to meet our customers' requirements. There can be no assurance that we will be able to detect and fix all defects in the products and networks we sell. The occurrence of any defects, errors or failures in our products or network services could result in: (i) additional costs to correct such defects; (ii) cancellation of orders and lost revenue; (iii) a reduction in revenue backlog; (iv) product returns or recalls; (v) diversion of our resources; (vi) the issuance of credits to customers and other losses to us, our customers or end-users; (vii) liability for harm to persons and property caused by defects in or failures of our products or services; and (viii) harm to our reputation if we fail to detect or effectively address such issues through design, testing or warranty repairs. Any of these occurrences could also result in the loss of or delay in market acceptance of our products and services and loss of sales, which would harm our reputation and our business and materially adversely affect our revenue and profitability.

RISKS RELATED TO THE REGULATION OF OUR BUSINESS

Our business is subject to risks of adverse government regulation.

Our business is subject to varying degrees of regulation in the U.S. by the FCC, and other federal, state and local entities, and in foreign countries by similar entities and internationally by the ITU. These regulations are subject to the administrative and political process and do change, for political and other reasons, from time to time. For example, the FCC recently adopted an order in its "Spectrum Frontiers" proceeding under which a portion of the Ka-band, in which we operate our broadband gateway earth stations, has been enabled for 5G mobile terrestrial services, which could limit our flexibility to change the way in which we use Ka-band in the future. Other countries in which we currently, or may in the future, operate are also considering regulations that could limit access to the Ka-band or other frequency bands. The FCC has also opened a proceeding on non-geostationary satellites, which may adversely impact our ability to use certain spectrum for user terminals. Moreover, a substantial number of foreign countries in which we have, or may in the future make, an investment, regulate, in varying degrees, the ownership of satellites and other telecommunication facilities/networks and foreign investment in telecommunications companies. Violations of laws or regulations may result in various sanctions including fines, loss of authorizations and the denial of applications for new authorizations or for the renewal of existing authorizations. Further material changes in law and regulatory requirements may also occur, and there can be no assurance that our business and the business of our subsidiaries and affiliates will not be adversely affected by future legislation, new regulation or deregulation. The failure to obtain or comply with the authorizations and regulations governing our operations could have a material adverse effect on our ability to generate revenue and our overall competitive position and could result in our suffering serious harm to our reputation.

Our business depends on regulatory authorizations issued by the FCC and state and foreign regulators that can expire, be revoked or modified, and applications for licenses and other authorizations that may not be granted.

Generally all satellite, earth stations and other licenses granted by the FCC and most other countries are subject to expiration unless renewed by the regulatory agency. Our satellite licenses are currently set to expire at various times. In addition, we occasionally receive special temporary authorizations that are granted for limited periods of time (e.g., 180 days or less) and subject to possible renewal. Generally, our licenses and special temporary authorizations have been renewed on a routine basis, but there can be no assurance that this will continue. There can be no assurance that the FCC or other regulators will continue granting applications for new licenses or for the renewal of existing ones. If the FCC or other regulators were to cancel, revoke, suspend, or fail to renew any of our licenses or authorizations, or fail to grant our applications for FCC or other licenses, it could have a material adverse effect on our business, financial condition and results of operations. Specifically, loss of a frequency authorization would reduce the amount of spectrum available to us, potentially reducing the amount of services we provide to our customers. The significance of such a loss of authorizations would vary based upon, among other things, the orbital location, the frequency band and the availability of replacement spectrum. In addition, the legislative and executive branches of the U.S. government and foreign governments often consider legislation and regulatory requirements that could affect us, as could the actions that the FCC and foreign regulatory bodies take. We cannot predict the outcomes of these legislative or regulatory proceedings or their effect on our business.

In addition, third parties have or may oppose some of our license applications and pending and future requests for extensions, modifications, waivers and approvals of our licenses. Even if we have fully complied with all of the required reporting, filing and other requirements in connection with our authorizations, it is possible a regulator could decline to grant certain of our applications or requests for authority, or could revoke, terminate, condition or decline to modify, extend or renew certain of our authorizations or licenses.

We may face difficulties in accurately assessing and collecting contributions towards the Universal Service Fund.

Because our customer contracts often include both telecommunications services, which create obligations to contribute to the USF, and other goods and services, which do not, it can be difficult to determine what portion of our revenue forms the basis for our required contribution to the USF and the amount that we can recover from our customers. If the FCC, which oversees the USF, or a court or other governmental entity were to determine that we computed our USF contribution obligation incorrectly or passed the wrong amount onto our customers, we could become subject to additional assessments, liabilities, or other financial penalties. In addition, the FCC is considering substantial changes to its USF contribution and distribution rules. These changes could impact our future contribution obligations and those of third parties that provide communication services to our business. Any such change to the USF contribution rules could adversely affect our costs of providing service to our customers. In addition, changes to the USF distribution rules could intensify the competition we face by offering subsidies to competing firms and/or technologies.

RISKS RELATED TO THE SHARE EXCHANGE

We might not be able to engage in certain strategic transactions because we have agreed to certain restrictions to comply with U.S. federal income tax requirements for a tax-free split-off.

To preserve the intended tax-free treatment of the Share Exchange, EchoStar has undertaken to comply with certain restrictions under current U.S. federal income tax laws for split-offs, including (i) refraining from engaging in certain transactions that would result in a fifty percent or greater change by vote or by value in EchoStar's stock ownership, (ii) continuing to own and manage EchoStar's historic businesses, and (iii) limiting sales or redemptions of EchoStar's and our common stock. If these restrictions, among others, are not followed, the Share Exchange could be taxable to us, EchoStar and possibly EchoStar's stockholders.

OTHER RISKS

Our parent, EchoStar, is controlled by one principal stockholder who is our Chairman.

Charles W. Ergen, our Chairman, beneficially owns approximately 43.2% of EchoStar's total equity securities (assuming conversion of only the Class B common stock, par value \$.001 per share, of EchoStar ("EchoStar Class B Shares") held by Mr. Ergen into EchoStar Class A Shares and giving effect to the exercise of options held by Mr. Ergen that are either currently exercisable or may become exercisable within 60 days of March 6, 2017) and possesses approximately 63.6% of the total voting power of all classes of shares (assuming no conversion of the EchoStar Class B Shares and giving effect to the exercise of options held by Mr. Ergen that are either currently exercisable or may become exercisable within 60 days of March 6, 2017). Mr. Ergen's beneficial ownership of EchoStar excludes 1,640 shares of EchoStar Class A Shares and 14,493,094 shares of EchoStar Class A Shares issuable upon conversion of shares of EchoStar Class B Shares, in each case, currently held by certain trusts established by Mr. Ergen for the benefit of his family. These trusts beneficially own approximately 23.5% of EchoStar's total equity securities (assuming conversion of only the EchoStar Class B Shares) and possess approximately 27.7% of EchoStar's total equity securities directors and to control all other matters requiring the approval of EchoStar Class B Shares). Thus, Mr. Ergen has the ability to elect a majority of EchoStar is a "controlled company" as defined in the Nasdaq listing rules and, therefore, is not subject to Nasdaq requirements that would otherwise require EchoStar to have (i) a majority of independent directors; (ii) compensation of our executive officers determined by a majority of the independent directors or a nominating committee composed solely of independent directors; and (iv) director nominees selected, or recommended for the Board's selection, either by a majority of the independent directors or a nominating committee composed solely of independent directors.

We have potential conflicts of interest with DISH Network due to EchoStar and DISH Network's common ownership.

Questions relating to conflicts of interest may arise between DISH Network and us in a number of areas relating to our past and ongoing relationships. Areas in which conflicts of interest between DISH Network and us could arise include, but are not limited to, the following:

- Cross officerships, directorships and stock ownership. We have certain overlap in our directors and Chairman position with DISH Network, which may lead to conflicting interests. EchoStar's board of directors includes persons who are officers or members of the board of directors of DISH Network, including Charles W. Ergen, who serves as the Chairman of and is employed by both companies. Our Chairman, the members of EchoStar's board of directors and executive officers who overlap with DISH Network also have fiduciary duties to DISH Network's shareholders. Therefore, these individuals may have actual or apparent conflicts of interest with respect to matters involving or affecting each company. For example, there is potential for a conflict of interest when we or DISH Network look at acquisitions and other corporate opportunities that may be suitable for both companies. In addition, many of EchoStar's directors and officers own DISH Network stock and options to purchase DISH Network stock, certain of which they acquired or were granted prior to the spin-off of EchoStar from DISH on January 1, 2008 (the "Spin-off"), including Mr. Ergen. These ownership interests could create actual, apparent or potential conflicts of interest when these individuals are faced with decisions that could have different implications for our company and DISH Network.
- Intercompany agreements with DISH Network. We and EchoStar have entered into various agreements with DISH Network. Pursuant to certain agreements, DISH Network and we or EchoStar provide certain professional services to the other for which we and EchoStar or DISH Network, as applicable, pay an amount equal to cost plus a fixed margin. Certain other intercompany agreements cover matters such as tax sharing and EchoStar's responsibility for certain liabilities previously undertaken by DISH Network for certain of EchoStar's businesses. We and EchoStar have also entered into certain commercial agreements with DISH Network. The terms of certain of these agreements were established while EchoStar was a wholly-owned subsidiary of DISH Network and were not the result of arm's length negotiations. The allocation of assets, liabilities, rights, indemnifications and other obligations between DISH Network and EchoStar under the separation and ancillary agreements been negotiated with unaffiliated third parties, their terms may have been more favorable, or less favorable, to EchoStar. In addition, DISH Network or its affiliates will continue to enter into transactions with EchoStar or its subsidiaries, us or our subsidiaries, or other affiliates. Although the terms of any such transactions will be established based upon negotiations between DISH Network and us and, when appropriate, subject to the approval of EchoStar's audit committee and committee of the non-interlocking directors or in certain instances non-interlocking management, there can be no assurance that the terms of any such transactions will be as favorable to us or our subsidiaries or affiliates as may otherwise be obtained in negotiations between unaffiliated third parties.
- *Competition for business opportunities*. DISH Network retains its interests in various companies that have subsidiaries or controlled affiliates that own or operate domestic or foreign services that may compete with services offered by our businesses. In addition, pursuant to: (i) a distribution agreement, DISH Network has the right, but not the obligation, to market, sell and distribute our Hughes segment's satellite broadband internet service under the dishNET brand which could compete with sales by our Hughes segment and (ii) a master services agreement, DISH Network has the right, but not the obligation, to market, sell and distribute our Hughes segment agreement, DISH Network has the right, but not the obligation, to market, sell, install and distribute our Hughes segment's satellite broadband internet service and related equipment. DISH Network also has a distribution agreement with ViaSat, a competitor of our Hughes segment, to sell services similar to those offered by our Hughes segment. We may also compete with DISH Network when we participate in auctions for spectrum or orbital slots for our satellites.

We may not be able to resolve any potential conflicts of interest with DISH Network and, even if we do so, the resolution may be less favorable to us than if we were dealing with an unaffiliated party. We do not have any agreements not to compete with DISH Network. However, many of our potential customers who compete with DISH Network have historically perceived us as a competitor due to our affiliation with DISH Network. There can be no assurance that we will be successful in entering into any commercial relationships with potential customers who are competitors of DISH Network (particularly if we continue to be perceived as affiliated with DISH Network as a result of common ownership, certain shared management services and other arrangements with DISH Network).

We are a wholly owned subsidiary of EchoStar and do not operate as an independent company.

We rely on EchoStar for a substantial portion of our administrative and management functions and services including human resources-related functions, accounting, tax administration, legal, external reporting, treasury administration, internal audit and

insurance functions, information technology and telecommunications services and other support services. We do not have systems and resources in place to perform all of these functions or services. Instead, we generally receive these services pursuant to an arrangement between us and EchoStar. EchoStar in turn receives certain of these services from DISH Network pursuant to a professional services agreement entered into between them. We anticipate continuing to rely upon DISH Network to provide some of these services. If our intercompany arrangement with EchoStar were to terminate, or if EchoStar no longer receives certain services from DISH Network, we would need to obtain agreements with third-party service providers or obtain additional internal resources, neither of which may be available on acceptable terms or at all.

Changes in GAAP could adversely affect our reported financial results and may require significant changes to our internal accounting systems and processes.

We prepare our consolidated financial statements in conformity with GAAP. These principles are subject to interpretation by the Financial Accounting Standards Board ("FASB"), the SEC and various bodies formed to interpret and create appropriate accounting principles and guidance.

The FASB is currently working together with the International Accounting Standards Board to converge certain accounting principles and facilitate more comparable financial reporting between companies that are required to follow GAAP and those that are required to follow International Financial Reporting Standards. In connection with this initiative, the FASB issued new accounting standards for revenue recognition and accounting for leases. For information regarding new accounting standards, please refer to Note 2 in the notes to consolidated financial statements included in this prospectus under the heading "New Accounting Pronouncements." These and other such standards may result in different accounting principles, which may significantly impact our reported results or could result in volatility of our financial results. In addition, we may need to significantly change our customer and vendor contracts, accounting systems and processes. The cost and effect of these changes may adversely impact our results of operations.

RISKS RELATED TO THE NOTES AND THE EXCHANGE OFFER

We have substantial debt outstanding and may incur additional debt.

As of December 31, 2016, our total debt and capital lease obligations (including current portion), including the debt of our subsidiaries, outstanding was approximately \$3.66 billion. Our debt levels could have significant consequences, including:

- making it more difficult to satisfy our obligations;
- a dilutive effect on our outstanding equity capital or future earnings;
- increasing our vulnerability to general adverse economic conditions, including changes in interest rates;
- requiring us to devote a substantial portion of our cash to make interest and principal payments on our debt, thereby reducing the amount of cash available for other purposes;
- limiting our financial and operating flexibility in responding to changing economic and competitive conditions;
- limiting our ability to raise additional debt because it may be more difficult for us to obtain debt financing on attractive terms; and
- placing us at a disadvantage compared to our competitors that are less leveraged.

In addition, we may incur substantial additional debt in the future. The terms of the indentures governing the 2011 Notes, the Old Notes and the Notes offered hereby permit us to incur substantial additional debt and allow us to issue additional secured debt under certain circumstances which will also be guaranteed by the guarantors and will share in the Collateral that will secure the Secured Notes and the guarantees thereof, and, in some cases, such debt can be secured by a lien on the Collateral that is pari passu with the lien on certain Collateral securing the Secured Notes. The indentures also allow our foreign subsidiaries to incur additional debt, which would be structurally senior to the Notes. In addition, the indentures do not prevent us from incurring other liabilities that do not constitute indebtedness. See "Description of the Secured Notes" and "Description of the Unsecured Notes." This may have the effect of reducing the amount of proceeds paid to you. If new debt is added to our current debt levels, the risks we now face could intensify.

We may be required to raise and refinance indebtedness during unfavorable market conditions.

Our business plans may require that we raise additional debt to capitalize on our business opportunities. Developments in the financial markets have in the past made, and may from time to time in the future make, it more difficult for issuers of high yield indebtedness such as us to access capital markets at reasonable rates. Although we have not been materially impacted by events in the current credit market, we cannot predict with any certainty whether or not we will be impacted in the future by developments in the financial markets that may adversely affect our ability to secure additional financing to support our growth initiatives.

We depend upon our subsidiaries' earnings to make payments on our indebtedness.

We have substantial debt service requirements that make us vulnerable to changes in general economic conditions. Our indentures governing the 2011 Notes and governing the Old Notes and the Notes offered hereby restrict our and certain of our subsidiaries' ability to incur additional debt. It may therefore be difficult for us to obtain additional debt if required or desired in order to implement our business strategy.

Since we conduct substantial operations through subsidiaries, our ability to service our debt obligations may depend upon the earnings of our subsidiaries and the payment of funds by our subsidiaries to us in the form of loans, dividends or other payments. We have few assets of significance other than the capital stock of our subsidiaries. Our subsidiaries are separate legal entities. Furthermore, our subsidiaries are not obligated to make funds available to us, and creditors of our subsidiaries will have a superior claim to certain of our subsidiaries' assets. In addition, our subsidiaries' ability to make any payments to us will depend on their earnings, the terms of their indebtedness, business and tax considerations and legal restrictions. We cannot assure you that our subsidiaries will be able to pay dividends or that EchoStar or our subsidiaries will be able to otherwise contribute or distribute funds to us in an amount sufficient to pay the principal of or interest on the indebtedness owed by us.

The Secured Notes will rank effectively junior to obligations of HSS and the subsidiary guarantors that are secured by assets that do not constitute Collateral, to the extent of such collateral. As of December 31, 2016, the Old Secured Notes ranked effectively junior to \$80.0 million of debt and other obligations secured by assets not constituting Collateral or assets that secure such other debt and other obligations on a higher priority basis. Indebtedness under the Unsecured Notes will be unsecured senior obligations of HSS and the guarantors and rank effectively junior to HSS' and the guarantors' existing and future senior secured indebtedness and other obligations to the extent of the collateral securing such debt and other obligations. As of December 31, 2016, the Old Unsecured Notes ranked effectively junior to \$1.82 billion of debt and other obligations, including the Old Secured Notes and \$990.0 million aggregate principal amount of the 2011 Secured Notes.

The Unsecured Notes will be effectively subordinated to any existing and future secured debt.

The Unsecured Notes are unsecured and will rank equal in right of payment with our existing and future unsecured and unsubordinated senior debt, including the 2011 Unsecured Notes and any Old Unsecured Notes. Our indentures governing the 2011 Notes and governing the Old Notes and the Notes offered hereby permit us to incur significant secured indebtedness and other obligations. The Unsecured Notes will be effectively subordinated to any future secured obligations to the extent of the value of the assets that secure such obligations. As of December 31, 2016, the Old Unsecured Notes ranked effectively junior to \$1.82 billion of debt and other obligations, including the Old Secured Notes and \$990.0 million aggregate principal amount of the 2011 Secured Notes. In the event of our bankruptcy, liquidation or reorganization or upon acceleration of the Unsecured Notes, payment on the Unsecured Notes could be less, ratably, than on any secured indebtedness. We may not have sufficient assets remaining after payment to our secured creditors to pay amounts due on any or all of the Unsecured Notes then outstanding.

The guarantees of the Notes by our subsidiaries may be subject to challenge.

Our obligations under the Notes will be guaranteed jointly and severally by our domestic subsidiaries that currently guarantee the 2011 Notes and the Old Notes. It is possible that if the creditors of the subsidiary guarantors challenge the subsidiary guarantees as a fraudulent conveyance under relevant federal and state statutes, under certain circumstances (including a finding that a subsidiary guarantor was insolvent at the time its guarantee of the Notes was issued), a court could hold that the obligations of a subsidiary guarantor under a subsidiary guarantee may be voided or are subordinate to other obligations of a subsidiary guarantor for which a subsidiary guarantor is liable under a subsidiary guarantee may be limited. The measure of insolvency for purposes of the foregoing may vary depending on the law of the jurisdiction that is being applied. Generally, however, a company would be considered insolvent if the sum of its debts is greater than all of its property at a fair valuation or if the present fair saleable value of its assets is less than the amount that will be required to pay its probable liability on its existing debts as they become absolute and mature. The indentures governing the Notes provide that the obligations of the subsidiary guarantors under the subsidiary guarantees will be limited to amounts that



will not result in the subsidiary guarantees being a fraudulent conveyance under applicable law. See "Description of the Secured Notes—Guarantees" and "Description of the Unsecured Notes—Guarantees."

Certain subsidiaries are not included as guarantor subsidiaries.

The guarantors of the Notes include only certain of our direct and indirect subsidiaries. Because some of our business is conducted by non-guarantor subsidiaries, our cash flow and our ability to service debt, including our and the guarantor subsidiaries' ability to pay the interest on and principal of the Notes when due, are dependent to some extent upon interest payments, cash dividends and distributions or other transfers from the non-guarantor subsidiaries. In addition, any payment of interest, dividends, distributions, loans or advances by the non-guarantor subsidiaries to us and to the guarantor subsidiaries, as applicable, could be subject to restrictions on dividends or repatriation of earnings under applicable local law, monetary transfer restrictions and foreign currency exchange regulations in the jurisdictions in which those non-guarantor subsidiaries operate. Moreover, payments to us and the guarantor subsidiaries by the non-guarantor subsidiaries will be contingent upon non-guarantor subsidiaries' earnings. For the year ended December 31, 2016, our non-guarantor subsidiaries accounted for \$158.4 million, or 8.8% of our total revenues, \$505.1 million, or 7.9%, of our consolidated assets and \$181.0 million, or 3.9%, of our consolidated liabilities (in each case before intercompany eliminations and before giving effect to the Share Exchange).

Our non-guarantor subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay any amounts due pursuant to the Notes or the guarantees or to make any funds available therefore, whether by dividends, loans, distributions or other payments. Any right that we or the subsidiary guarantors have to receive any assets of any of the non-guarantor subsidiaries upon the liquidation or reorganization of those subsidiaries, and the consequent rights of holders of notes to realize proceeds from the sale of any of those subsidiaries' assets, will be effectively subordinated to the claims of that subsidiary's creditors, including trade creditors and holders of debt of that subsidiary.

Although the indentures governing the Notes include covenants that restrict us from taking certain actions, the terms of these covenants include important exceptions which you should review carefully before investing in the Notes.

Notwithstanding the covenants in the indentures governing the Notes, we expect that we will continue to be able to incur substantial additional indebtedness and to make significant investments, distributions and other restricted payments without significant restrictions under the indentures governing the Notes, including actions which may adversely affect our ability to perform our obligations under the indentures governing the Notes. We are able to incur additional indebtedness based on a multiple of our Consolidated Cash Flow (as defined in "Description of the Secured Notes" and "Description of the Unsecured Notes" below) for the most recent four fiscal quarters, and we are able to make restricted payments (including dividends and investments) in an amount that is based in part upon our cumulative Consolidated Cash Flow since June 1, 2011. We analyze our available funds and the use of funds from time to time, including the payment of dividends to our parent. We have not paid dividends to our parent in the past five years. We may from time to time make cash distributions or dividends to our parent. Our use of funds, including any payment of dividends or distributions to our parent, may change in the future depending on, among other things, our expectations as to future cash needs as well as our operations, earnings and general financial condition, as well as other internal and external factors that we may deem relevant. See "Description of the Secured Notes—Certain Covenants" and "Description of the Unsecured Notes—Certain Covenants."

We may be unable to repay or repurchase the Notes upon a change of control.

There is no sinking fund with respect to the Notes, and the entire outstanding principal amount of the Notes will become due and payable on the maturity date. If we experience a Change of Control, as defined in the indentures governing the Notes, you may require us to repurchase all or a portion of your Notes prior to maturity. See "Description of the Secured Notes—Change of Control Offer" and "Description of the Unsecured Notes—Change of Control Offer." We may not have sufficient funds or be able to arrange for additional financing to repay the Notes at maturity or to repurchase Notes tendered to us following a change of control.

The terms of our 2011 Notes and Old Notes may require us to offer to repurchase those securities upon a change of control, limiting the amount of funds available to us, if any, to repurchase the Notes. If we have insufficient funds to redeem all Notes that holders tender for purchase upon the occurrence of a change of control, and we are unable to raise additional capital, an event of default could occur under the indentures governing the Notes. An event of default could cause any other debt that we have to become automatically due, further exacerbating our financial condition and diminishing the value and liquidity of the Notes. We cannot assure you that additional capital would be available to us on acceptable terms, or at all.

There may be no public market for the Notes.

The Notes will be a new issue of securities with no established trading market. We cannot assure you that any market for the Notes will develop or, if it does develop, that it will be maintained. If a trading market is established, various factors could have a material adverse effect on the trading of the Notes, including fluctuations in the prevailing interest rates. We do not intend to apply for a listing of the Notes on any securities exchange.

ADDITIONAL RISKS RELATED TO THE SECURED NOTES

The Collateral securing the Secured Notes is subject to priority liens held by holders of indebtedness secured by priority liens and holders of other indebtedness secured by permitted prior liens. If there is a default, such Collateral may not be sufficient to repay both the holders of such priority liens and the holders of the Secured Notes.

The indentures governing the 2011 Notes, the Old Notes and the Notes permit us to issue and permit to exist additional indebtedness, including without limitation, indebtedness secured by Permitted Liens, that may be secured on a first-priority or equal and ratable basis by liens on the Collateral securing the Secured Notes. The holders of indebtedness secured by priority liens on the Collateral will be entitled to receive proceeds from any realization of their Collateral to repay their obligations in full before the holders of the Secured Notes will be entitled to any recovery from the Collateral. Thus, there can be no assurance that holders of the Secured Notes will realize any proceeds from the Collateral.

The Secured Notes will rank effectively junior to obligations of HSS and the subsidiary guarantors that are secured by assets that do not constitute Collateral. As of December 31, 2016, the Old Secured Notes ranked effectively junior to \$80.0 million of debt and other obligations secured by assets not constituting Collateral or assets that secure such other debt and other obligations on a higher priority basis.

State law may limit the ability of the Collateral Agent and the noteholders to foreclose on the real property and improvements included in the Collateral.

The Secured Notes will be secured by, among other things, liens on owned and, to the extent applicable, certain leased or otherwise held real property and related improvements. State law may limit the ability of the Collateral Agent (as defined in "Description of the Secured Notes" below) or the noteholders to foreclose on the improved real property Collateral located in those states. The perfection, enforceability and foreclosure of mortgage liens against real property interests that secure debt obligations such as the Secured Notes are generally governed by the laws of those states where the Collateral is located. In addition, these laws may impose procedural requirements for foreclosure different from and necessitating a longer time period for completion than the requirements for foreclosure of security interests in personal property. Debtors may have the right to reinstate defaulted debt (even if it is has been accelerated) before the foreclosure date by paying the past due amounts and a right of redemption after foreclosure. Governing laws may also impose security first and one form of action rules which can affect the ability to foreclose or the timing of foreclosure on real and personal property collateral regardless of the location of the Collateral and may limit the right to recover a deficiency following a foreclosure.

The Collateral Agent and the noteholders also may be limited in their ability to enforce a breach of the "no liens" covenant. Some decisions of state courts have placed limits on a lender's ability to accelerate debt secured by real property upon breach of covenants prohibiting the creation of certain junior liens or leasehold estates, and the Collateral Agent and the noteholders may need to demonstrate that enforcement is reasonably necessary to protect against impairment of the lender's security or to protect against an increased risk of default. Although the foregoing court decisions may have been preempted, at least in part, by certain federal laws, the scope of such preemption, if any, is uncertain. Accordingly, a court could prevent the trustee and the holders of the Secured Notes from declaring a default and accelerating the notes by reason of a breach of this covenant, which could have a material adverse effect on the ability of such holders to enforce the covenant.

We may not be able to grant you a collateral interest in our leased satellites.

We currently lease certain of our satellites and may in the future lease additional satellites. In connection with the 2011 Secured Notes, under the Security Agreement (as defined in "Description of the Secured Notes" below), to the extent permitted by the Communications Laws (as defined in "Description of the Secured Notes" below), we agreed to use our commercially reasonable efforts to have the owners of leased satellites consent to our granting a security interest in our rights as lessee under such leases to the Collateral Agent for the benefit of the holders of the 2011 Secured Notes prior to 180 days after the escrow release date (June 8, 2011) relating to the issuance of the 2011 Secured Notes. We have also agreed, so long as the 2011 Secured Notes are outstanding, to use commercially reasonable efforts to obtain consents with respect to new leases within 180 days after entering into a new lease for a satellite. We have not received any consents to date regarding any lease for a satellite under the indenture governing the 2011 Secured Notes and no leases form part of the collateral securing the Secured Notes, Old



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Secured Notes and/or the 2011 Secured Notes. We cannot assure that the owners of such satellites will consent to our grant of a security interest in such leases to the Collateral Agent for the benefit of the noteholders. In the event they do not consent to our grant of such a security interest, the noteholders will not have a collateral interest in such leased satellite.

The value of the Collateral securing the Secured Notes may not be sufficient to satisfy our obligations under the Secured Notes or to secure postpetition interest under U.S. federal bankruptcy law.

The value of the Collateral is subject to fluctuations based on factors that include general economic conditions, the actual fair market value of the Collateral at such time, the timing and the manner of the sale and availability of buyers and similar factors. By its nature, some or all of the Collateral may be illiquid and may have no readily ascertainable market value. We cannot assure you that the Collateral will be saleable or, if saleable, that there will not be substantial delays in its liquidation. Further, to the extent that liens, rights and easements granted to third parties encumber assets located on property owned by us or the guarantors or constitute senior or pari passu or subordinate liens on the Collateral, those third parties have or may exercise rights and remedies with respect to the property subject to such encumbrances (including rights to require marshalling of assets) that could adversely affect the value of the Collateral located at a particular site and the ability of the Collateral Agent to realize or foreclose on the Collateral at that site. Further, the Collateral Agent 's rights to foreclose on certain Collateral consisting of equity interests in our first-tier foreign subsidiaries will be subject to local law, and the Collateral Agent may not be able to realize or foreclose on such Collateral due to foreign law restrictions.

As a result, liquidating the Collateral may not produce proceeds in an amount sufficient to pay any amounts due on the Old Secured Notes, the Secured Notes, the 2011 Secured Notes and any Additional Secured Obligations (as defined in "Description of the Secured Notes" below). In the event of a bankruptcy, liquidation, dissolution, reorganization or similar proceeding, the bankruptcy trustee, the debtor-in-possession or competing creditors could possibly assert that the fair market value of the Collateral on the date of the bankruptcy filing was less than the then-current principal amount of the Old Secured Notes, the Secured Notes, the 2011 Secured Notes and any Additional Secured Obligations. If a bankruptcy court determines that the Secured Notes are under-collateralized, a claim in the bankruptcy proceeding with respect to a Secured Note would be bifurcated between a secured claim and unsecured claim, and the unsecured claim would not be entitled to the benefits of security in the Collateral and may not receive other — adequate protection, including any post-petition interest, under U.S. federal bankruptcy laws. See "U.S. federal bankruptcy laws may significantly impair noteholders' ability to realize value from the Collateral."

In addition, in the event of a bankruptcy, liquidation, dissolution, reorganization or similar proceeding against us or the guarantors, noteholders will be entitled to post-petition interest under Title 11 of the U.S. Code (the "Bankruptcy Code") only if the value of their security interest in the Collateral is greater than their pre-bankruptcy claim. Further, if any payments of post-petition interest were made at the time of such a finding of under-collateralization, such payments could be recharacterized by the bankruptcy court as a reduction of the principal amount of the secured claim with respect to the Old Secured Notes, the Secured Notes, the 2011 Secured Notes and any Additional Secured Obligations.

We therefore cannot assure you of the value of the Collateral or of the amount of gross proceeds that would be received upon a sale or liquidation of the Collateral.

The ability of the Trustee to foreclose on certain of the collateral securing the Secured Notes may be limited by U.S. law.

The ability to foreclose on, or to exercise certain rights or remedies with respect to, certain of the Collateral requires prior approval from the FCC to the extent it would result in an assignment or change of control of the FCC Licenses (as defined herein) of the combined company or any subsidiary (whether as a matter of law or fact). Equity and voting rights in certain of the collateral, and control over such collateral, must remain with the combined company even in the event of default until the FCC gives its consent to the exercise of security holder rights by a purchaser at a public or private sale of such Collateral or to the exercise of such rights by a receiver, trustee, conservator, or other agent duly appointed pursuant to applicable law. There is no assurance that any such required FCC approval can be obtained on a timely basis or at all. In addition, applicable foreign ownership restrictions could prevent non-United States citizens from foreclosing on certain of the collateral securing the Secured Notes.

The pledge of the capital stock, other securities and similar items of our subsidiaries that secure the Secured Notes will automatically be released from the lien on them and no longer constitute Collateral for so long as the pledge of such capital stock or such other securities would require the filing of separate financial statements with the SEC for that subsidiary.

The Secured Notes and the guarantees of the Secured Notes will be secured by a pledge of the stock of some of our subsidiaries. Under the SEC regulations in effect as of the issue date of the Secured Notes, if the par value, book value as

carried by us or market value (whichever is greatest) of the capital stock, other securities or similar items of a subsidiary pledged as part of the Collateral is greater than or equal to 20% of the aggregate principal amount of the Secured Notes then outstanding, such a subsidiary would be required to provide separate financial statements to the SEC. Therefore, the indenture and the collateral documents provide that any capital stock and other securities of any of our subsidiaries will be excluded from the Collateral for so long as the pledge of such capital stock or other securities to secure the Secured Notes would cause such subsidiary to be required to file separate financial statements with the SEC pursuant to Rule 3-16 of Regulation S-X (as in effect from time to time).

As a result, holders of the Secured Notes could lose a portion or all of their security interest in the capital stock or other securities of those subsidiaries during such period. It may be more difficult, costly and time-consuming for holders of the Secured Notes to foreclose on the assets of a subsidiary than to foreclose on its capital stock or other securities, so the proceeds realized upon any such foreclosure could be significantly less than those that would have been received upon any sale of the capital stock or other securities of such subsidiary. See "Description of the Secured Notes — Security."

Foreclosing on any of the Collateral located outside the United States may be difficult due to the laws of certain jurisdictions.

Some of the Collateral securing the Secured Notes may be located outside of the United States. We cannot assure you that the Collateral or the guarantors will be located in a jurisdiction having effective or favorable foreclosure procedures and lien priorities. Any foreclosure proceedings could be subject to lengthy delays, resulting in increased custodial costs, deterioration in the condition of the Collateral and substantial reduction of the value of such Collateral. In addition, some jurisdictions may not provide a legal remedy for the enforcement of mortgages on the Collateral. Such laws may vary significantly from jurisdiction to jurisdiction. Furthermore, all or some of those laws and procedures may be less favorable to mortgagees than those in other jurisdictions and may be less favorable than those applicable in the United States. The costs of enforcement in foreign jurisdictions can be high and can include fees based on the face amount of the mortgage(s) being enforced. Foreign court proceedings can also be slow and have unexpected procedural hurdles. Priorities accorded lien claims and mortgages can vary in foreign jurisdictions, and some jurisdictions prefer certain local claimants to foreign claimants. Consequently, there are no assurances that the Collateral Agent will be able to enforce any one or more of the mortgages covering any of the Collateral that is located outside the United States.

The Collateral securing the Secured Notes is shared with the Old Secured Notes and the 2011 Secured Notes and may be diluted under certain circumstances.

The Secured Notes are secured by security interests granted to the Collateral Agent in the Collateral equally and ratably with the \$990 million in aggregate principal amount outstanding of the 2011 Secured Notes and with any Old Secured Notes that remain outstanding after this offering. In addition, the indentures governing the 2011 Secured Notes, the Old Secured Notes and the Secured Notes permit us to issue additional senior secured indebtedness, including other indebtedness that may be secured on a pari passu basis with the Secured Notes, subject to our compliance with the restrictive covenants in the indenture and the agreements governing our other indebtedness at the time we issue or incur such additional senior secured indebtedness. As a result, the Collateral securing the Secured Notes would be shared by any such other indebtedness, which would dilute the value of the Collateral compared to the aggregate principal amount of indebtedness issued or incurred such that there can be no assurance that the holders of the Secured Notes will realize any proceeds from the Collateral.

There are circumstances other than repayment or discharge of the Secured Notes under which the Collateral securing the Secured Notes will be released automatically, without your consent or the consent of the Collateral Agent.

Under various circumstances, Collateral securing the Secured Notes will be released automatically, including: (a) upon a sale, transfer or other disposal of such Collateral in a transaction not prohibited under the indenture; (b) with respect to Collateral held by a guarantor, upon the release of the guarantor from its guarantee in accordance with the indenture; and (c) otherwise as permitted under the security documents.

The indenture also permits us to designate one or more of our Restricted Subsidiaries that is a guarantor of the Secured Notes as an Unrestricted Subsidiary. If we designate a subsidiary guarantor as an Unrestricted Subsidiary for purposes of the indenture, all of the liens on any Collateral owned by that subsidiary or any of its subsidiaries and any guarantees of the Secured Notes by that subsidiary or any of its subsidiaries will be released under the indenture if so permitted pursuant to the terms of the indenture.

The rights of holders of the Secured Notes in the Collateral may be adversely affected by the failure to perfect security interests in the Collateral and other issues generally associated with the realization of security interests in the Collateral.

Applicable law requires that a security interest in certain tangible and intangible assets can only be properly perfected and its priority retained through certain actions undertaken by the secured party. The senior liens in all Collateral from time to time owned by us or the guarantors and/or the liens in all Collateral from time to time owned by us or the guarantees thereof if the Collateral Agent has not taken the actions necessary to perfect any of those liens upon or prior to the issuance of the Secured Notes. The inability or failure of the Collateral Agent to take all actions necessary to create properly perfected security interests in the Collateral may result in the loss of the priority of the security interest for the benefit of the noteholders to which they would have been otherwise entitled.

In addition, applicable law requires that certain property and rights acquired after the grant of a general security interest can only be perfected at the time such property and rights are acquired and identified. We and the guarantors will have limited obligations to perfect the security interest of the holders of the Secured Notes in specified Collateral. We cannot assure you that the Collateral Agent will monitor, or that we or the guarantors will inform the Collateral Agent of, the future acquisition of property and rights that constitute Collateral, and that the necessary action will be taken to properly perfect the security interest in such after-acquired Collateral. The Collateral Agent for the Secured Notes has no obligation to monitor the acquisition of additional property or rights that constitute Collateral or the perfection of any security interest. Such failure may result in the loss of the security interest in the Collateral or the priority of the security interest in favor of the Secured Notes and the guarantees thereof against third parties.

The security interest of the Collateral Agent will be subject to practical challenges generally associated with the realization of security interests in the Collateral. For example, the Collateral Agent may need to obtain the consent of a third party to obtain or enforce a security interest in an asset. We cannot assure you that the Collateral Agent will be able to obtain any such consent or that the consents of any third parties will be given when required to facilitate a foreclosure on such assets. As a result, the Collateral Agent may not have the ability to foreclose upon those assets and the value of the Collateral may significantly decrease.

In addition, because a portion of the Collateral will consist of pledges of 65% of the capital stock of certain of our foreign subsidiaries, the validity of those pledges under local law, if applicable, and the ability of the holders of the Secured Notes to realize upon that Collateral under local law, to the extent applicable, may be limited by such local law, which limitations may or may not affect the liens securing the Secured Notes.

The Collateral is subject to casualty risks.

Certain losses, including losses resulting from terrorist acts, may be either uninsurable or not economically insurable, in whole or in part. As a result, we cannot assure you that the insurance proceeds, if any, will compensate us fully for our losses. If there is a total or partial loss of any of the Collateral securing the Secured Notes, we cannot assure you that any insurance proceeds received by us will be sufficient to satisfy all the secured obligations, including the Secured Notes. We currently do not carry in-orbit insurance on any of our satellites, other than for SPACEWAY 3, EchoStar XVI, EchoStar XVII, and EchoStar XIX for which we carry launch plus one year in-orbit insurance. We often do not use commercial insurance to mitigate the potential financial impact of launch or in-orbit failures.

Any future note guarantees or additional liens on Collateral provided after the Secured Notes are issued could also be avoided by a trustee in bankruptcy.

The indenture governing the Secured Notes provides that certain of our future subsidiaries will guarantee the Secured Notes and secure the guarantees thereof with liens on their assets. The indenture also requires us and the guarantors to grant liens on certain assets that are acquired after the Secured Notes are issued. Any future Secured Note guarantee or additional lien in favor of the Collateral Agent for the benefit of the holders of the Secured Notes might be avoidable by the grantor (as debtor-in-possession) or by its trustee in bankruptcy or other third parties if certain events or circumstances exist or occur. For instance, if the entity granting the future note guarantee or additional lien were insolvent at the time of the grant and if such grant were made within 90 days before that entity commenced a bankruptcy proceeding (or one year before commencement of a bankruptcy proceeding if the creditor that benefited from the note guarantee or lien is an "insider" under the Bankruptcy Code), and the granting of the future note guarantee or additional lien enabled under Chapter 7 of the Bankruptcy Code, then such note guarantee or lien could be avoided as a preferential transfer.

U.S. federal bankruptcy laws may significantly impair noteholders' ability to realize value from the Collateral.

The right of the Collateral Agent to repossess and dispose of the Collateral securing the Secured Notes upon the occurrence of an event of default under the indenture governing the Secured Notes or any instrument governing future indebtedness is likely to be significantly impaired by U.S. federal bankruptcy law if bankruptcy proceedings were to be commenced by or against us or any guarantor prior to or possibly even after the Collateral Agent has repossessed and disposed of the Collateral. Under the Bankruptcy Code, a secured creditor is prohibited from repossessing its security from a debtor in a bankruptcy proceeding, or from disposing of security repossessed from such debtor, without the approval of the bankruptcy court. Moreover, the Bankruptcy Code permits the debtor to continue to retain and to use the Collateral, and the proceeds, products, rents or profits of the Collateral, even after the debtor is in default under the applicable debt instruments, provided that the secured creditor is given "adequate protection." The meaning of the term "adequate protection" may vary according to circumstances, but it is intended in general to protect the value of the secured creditor's interest in the Collateral and may include cash payments or the granting of additional security, if and at such times as the court in its discretion determines, for any diminution in the value of the Collateral as a result of the stay of repossession or disposition or any use of the Collateral by the debtor during the pendency of the bankruptcy proceeding. In view of the broad discretionary powers of a bankruptcy court, we cannot predict (1) how long payments on the Secured Notes could be delayed following commencement of a bankruptcy proceeding, (2) whether or when the Collateral Agent would repossess or dispose of the Collateral or (3) whether or to what extent noteholders would be compensated for any delay in payment of loss of value of the Collateral through the requirements of "adequate protection." Furthermore, in the event the bankruptcy court determines that the value of the Collateral is not sufficient to repay all amounts due on the Secured Notes, noteholders would have "undersecured claims." U.S. federal bankruptcy laws do not permit the payment or accrual of interest, costs and attorneys' fees for "undersecured claims" during the debtor's bankruptcy proceeding.

The rights of the holders of the Secured Notes with respect to the Collateral will be subject to the terms of the security documents.

The rights of the holders of the Secured Notes with respect to the Collateral will be subject to the terms of the security documents. The security documents allow us to remain in possession of, retain exclusive control over, freely operate, and collect, invest and dispose of any income from, the collateral securing the notes and the guarantees, except, under certain circumstances. Pursuant to the terms of the security documents, if an Event of Default (as referred to in the security documents) has occurred and is continuing, the Collateral Agent will only be permitted, subject to applicable law, to exercise remedies and sell the Collateral at the direction of the holders of a majority in the aggregate principal amount of the outstanding Old Secured Notes, Secured Notes, 2011 Secured Notes and any additional pari passu lien obligations incurred after the issuance of the Secured Notes that are made subject to the terms of the security documents.

The imposition of certain permitted liens could materially adversely affect the value of the Collateral and there are certain assets that are excluded from the Collateral.

The Collateral securing the Secured Notes may also be subject to liens permitted under the terms of the Indenture, whether arising on or after the date the Secured Notes are issued. The existence of any permitted liens could materially adversely affect the value of the Collateral that could be realized by the holders of the Notes as well as the ability of the collateral agent to realize or foreclose on such Collateral. In addition, the imposition of certain permitted liens will cause the relevant assets to become Excluded Assets (as defined in the "Description of the Secured Notes" below), which will not secure the Secured Notes. In addition, certain assets, including Excluded Assets, will be excluded from Collateral. See "Description of the Secured Notes — Security" for the definition of "Excluded Assets."

SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA

The following tables present the selected historical consolidated financial data of HSS and its subsidiaries at the dates and for the periods indicated. We derived these selected historical consolidated financial data from our audited consolidated financial statements. This selected historical consolidated financial data does not include any adjustments that may be necessary as a result of the Share Exchange.

You should read this data in conjunction with, and it is qualified by reference to, the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," our consolidated financial statements and the notes thereto included elsewhere in this prospectus.

	For the Years Ended December 31,												
		2016		2015		2014		2013		2012			
	(dollars in thousands)												
Revenue:													
Services and other revenue – DISH Network	\$	449,547	\$	518,853	\$	487,985	\$	291,924	\$	211,560			
Services and other revenue – other		1,103,127		1,095,249		1,077,101		987,023		941,804			
Equipment revenue - DISH Network		8,840		10,752		31,943		69,119		23,757			
Equipment revenue - other		238,279		212,278		210,948	_	194,825		255,636			
Total revenue		1,799,793		1,837,132		1,807,977		1,542,891		1,432,757			
Costs and Expenses:													
Cost of sales – services and other (exclusive of depreciation and amortization)		517,957		525,471		535,918		502,134		480,040			
Cost of sales – equipment (exclusive of depreciation and amortization)		204,753		195,537		209,022		237,103		232,690			
Selling, general and administrative expenses		281,048		276,616		264,610		239,264		222,986			
Research and development expenses		31,170		26,377		20,192		21,845		21,264			
Depreciation and amortization		414,133		430,127		452,138		403,476		352,367			
Impairments of long-lived assets		—		—		—		34,664		22,000			
Total costs and expenses		1,449,061		1,454,128		1,481,880		1,438,486		1,331,347			
Operating income		350,732		383,004		326,097		104,405		101,410			
Other Income (Expense):													
Interest income		12,598		4,416		3,234		7,487		2,212			
Interest expense, net of amounts capitalized		(187,198)		(169,150)		(191,258)		(197,062)		(153,955)			
Other, net		19,348		(6,922)		4,604		14,822		27,212			
Total other income (expense)		(155,252)		(171,656)		(183,420)		(174,753)		(124,531)			
Income (loss) before income taxes		195,480		211,348		142,677		(70,348)		(23,121)			
Income tax benefit (provision), net		(73,759)		(72,364)		(40,095)		35,525		10,895			
Net income (loss)		121,721		138,984		102,582		(34,823)		(12,226)			
Less: Net income (loss) attributable to noncontrolling interests		1,706		1,617		1,389		876		(35)			
Net income (loss) attributable to HSS	\$	120,015	\$	137,367	\$	101,193	\$	(35,699)	\$	(12,191)			
	_				-		_						

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	For the Years Ended December 31,										
Balance Sheet Data:	2016			2015 2014 (1			(1) 2013			2012	
		(dollars in thousands)									
Cash, cash equivalents and current marketable securities	\$	2,258,887	\$	636,333	\$	620,549	\$	280,569	\$	178,641	
Total assets (2) (3)	\$	6,381,534	\$	4,571,279	\$	4,625,522	\$	3,996,936	\$	4,166,261	
Total debt and capital lease obligations (3)	\$	3,655,447	\$	2,185,272	\$	2,326,101	\$	2,373,997	\$	2,434,387	
Total stockholders' equity	\$	1,755,023	\$	1,541,640	\$	1,369,597	\$	1,024,818	\$	1,059,911	

(1) In March 2014, we issued the Tracking Stock to DISH Network in exchange for five satellites and \$11.4 million in cash. Please see Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus. As a result, our results of operations for the years ended December 31, 2016, 2015 and 2014 are not comparable to our results of operations for the years ended December 31, 2013 and 2012.

(2) In 2015, we prospectively adopted Accounting Standard Update No. 2015-17, Balance Sheet Classification of Deferred Taxes. As a result, our total assets as of December 31, 2016 and 2015

are not comparable to our total assets as reported in prior years. In March 2016, we retrospectively adopted Accounting Standard Update No. 2015-03, Simplifying the Presentation of Debt Issuance Costs. As a result, our total assets and total debt and capital lease obligations for all dates presented reflect the application of this Update. (3)

For the Years Ended December 31,

Other Data (unaudited)	 2016	2015	2014	2013		2012
		(d	lollars in thousand	ls)		
Ratio of earnings to fixed charges (1)	1.75	2.06	1.75			_
Deficiency of earnings to fixed charges (1)	\$ — \$		\$	\$ (63,493) \$	(64,249)

(1) For purposes of computing the ratio of earnings to fixed charges, earnings consist of earnings before income taxes, plus fixed charges. Fixed charges consist of interest incurred on all indebtedness, including capitalized interest and the imputed interest component of rental expense under noncancelable operating leases.

USE OF PROCEEDS

The exchange offer is intended to satisfy our obligations under the registration rights agreement we entered into in connection with the issuance of the Old Notes. We will not receive any cash proceeds from the issuance of the Notes in the exchange offer. In consideration for issuing the Notes as contemplated in this prospectus, we will receive in exchange the Old Notes in like principal amount. We will cancel and retire the Old Notes surrendered in exchange for the Notes in the exchange offer. As a result, the issuance of the Notes will not result in any increase or decrease in our indebtedness.

CAPITALIZATION

The following table presents our cash position plus consolidated capitalization as of December 31, 2016. This table is derived from, and should be read in conjunction with, our audited consolidated financial statements and the related notes thereto for the year ended December 31, 2016 that are included as part of this prospectus.

	As of De	ecember 31, 2016
		Actual
	(ir	thousands)
Cash and cash equivalents and marketable investment securities	\$	2,258,887
Debt		
6 1/2% Senior Secured Notes due 2019	\$	990,000
7 5/8% Senior Unsecured Notes due 2021		900,000
5.250% Senior Secured Notes due 2026		750,000
6.625% Senior Unsecured Notes due 2026		750,000
Unamortized debt issuance costs		(31,821)
Capital lease obligations		297,268
Total debt and capital lease obligations (including current portion)		3,655,447
Total shareholders' equity		1,755,023
Total capitalization	\$	5,410,470

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Unless the context indicates otherwise, as used herein, the terms "we," "us," "HSS", the "Company" and "our" refer to Hughes Satellite Systems Corporation and its subsidiaries. References to "\$" are to United States dollars. The following management's discussion and analysis of financial condition and results of operations should be read in conjunction with the consolidated financial statements and notes to our financial statements included elsewhere in this prospectus. This management's discussion and analysis is intended to help provide an understanding of our financial condition, changes in our financial condition and our results of operations. Many of the statements in this management's discussion and analysis are forward-looking statements that involve assumptions and are subject to risks and uncertainties that are often difficult to predict and beyond our control. Actual results could differ materially from those expressed or implied by such forward-looking statements. See "Disclosure Regarding Forward-Looking Statements" in this prospectus for further discussion. For a discussion of additional risks, uncertainties and other factors that could impact our results of operations or financial condition, see the caption "Risk Factors" in this prospectus. Further, such forward-looking statements speak only as of the date of this prospectus and we undertake no obligation to update them except as required by law.

EXECUTIVE SUMMARY

HSS is a holding company and a subsidiary of EchoStar. We were formed as a Colorado corporation in March 2011. We are a global provider of satellite service operations, video delivery solutions, broadband satellite technologies and broadband services for home and small office customers. We deliver innovative network technologies, managed services, and various communications solutions for enterprise and government customers. We currently operate in two business segments, which are differentiated primarily by their operational focus: Hughes and EchoStar Satellite Services ("ESS"). These segments are consistent with the way decisions regarding the allocation of resources are made, as well as how operating results are reviewed by our chief operating decision maker ("CODM"), who for HSS, is the Company's Chief Executive Officer.

On January 31, 2017, our parent company EchoStar Corporation and certain of our and its subsidiaries entered into a Share Exchange Agreement. Pursuant to the Share Exchange Agreement, which was consummated on February 28, 2017, among other things, EchoStar Corporation and its subsidiaries received all of the shares of the EchoStar Tracking Stock and HSS Tracking Stock that were issued as a result of the Satellite and Tracking Stock Transaction (as defined and described in Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus) in exchange for 100% of the equity interests of certain subsidiaries of EchoStar Corporation that held substantially all of its EchoStar Technologies segment businesses. Following consummation of the Share Exchange, the EchoStar Tracking Stock and the HSS Tracking Stock were retired and all agreements, arrangements and policy statements with respect to, and terms of, such Echostar Tracking Stock and HSS Tracking Stock terminated and are of no further effect.

Highlights from our financial results are as follows:

Consolidated Results of Operations for the Year Ended December 31, 2016

- Revenue of \$1.80 billion
- Operating income of \$350.7 million
- Net income of \$121.7 million
- Net income attributable to HSS of \$120.0 million
- EBITDA of \$782.5 million (see reconciliation of this non-GAAP measure on page 48)

Consolidated Financial Condition as of December 31, 2016

- Total assets of \$6.38 billion
- Total liabilities of \$4.62 billion
- Total shareholders' equity of \$1.76 billion
- · Cash, cash equivalents and current marketable investment securities of \$2.26 billion

HUGHES SEGMENT

Our Hughes segment is a global provider of broadband satellite technologies and broadband services for home and small office customers. We deliver network technologies, managed services, equipment, and communications solutions for domestic and international consumers and enterprise and government customers. In addition, our Hughes segment provides and installs gateway and terminal equipment and provides satellite ground segment systems and terminals for other satellite systems, including mobile system operators.

We continue to focus our efforts on growing our Hughes segment consumer revenue by maximizing utilization of our existing satellites while planning for new satellites to be launched. Our consumer revenue growth depends on our success in adding new subscribers and driving higher average revenue per subscriber across our wholesale and retail channels.

Our Hughes segment currently uses its three owned satellites, the SPACEWAY 3 satellite, the EchoStar XVII satellite and the EchoStar XIX satellite, and additional satellite capacity acquired from multiple third-party providers, to provide satellite broadband internet access and communications services to our customers. In December 2016, EchoStar launched the EchoStar XIX satellite, a next-generation, high throughput geostationary satellite, which will provide significant capacity for continued subscriber growth. The EchoStar XIX satellite employs a multi-spot beam, bent pipe Ka-band architecture and will provide additional capacity for the Hughes broadband services to our customers in North America and added capacity in Mexico and certain Latin American countries and is expected to add capability for aeronautical, enterprise and international broadband services. Capital expenditures associated with the construction and launch of the EchoStar XIX satellite have been incurred by EchoStar. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

In addition to our broadband consumer service offerings, our Hughes segment also provides network technologies, managed services, hardware, equipment and satellite services to large enterprise and government customers globally. Examples of such customers include lottery agencies, gas station operators and companies with multi-branch networks that rely on satellite or terrestrial networks for critical communication across wide geographies. Most of our enterprise customers have contracts with us for the services they purchase.

Developments toward the launch of next-generation satellite systems including LEO and geostationary systems could provide additional opportunities to drive the demand for our network equipment and services. The growth of our enterprise and equipment businesses relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies.

We continue our efforts to grow our consumer satellite services business outside of the U.S. In April 2014, we entered into a satellite services agreement pursuant to which Eutelsat do Brasil provides us Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite for a 15-year term. That satellite was launched in March 2016 and we began delivering high-speed consumer satellite broadband services in Brazil in July 2016. In September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat Canada ("Telesat") will provide to us the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 and plan to provide service in additional markets across South America once that capacity is available for commercial use.

We are tracking closely the developments in next-generation satellite businesses, and we are seeking to utilize our services, technologies and expertise to find new commercial opportunities for our business. In June 2015, EchoStar made an equity investment in WorldVu Satellites Limited ("OneWeb"), a global LEO satellite service company. In addition, our Hughes segment entered into an agreement with OneWeb to provide certain equipment and services in connection with the ground systems for OneWeb's LEO satellites.

As of December 31, 2016, 2015 and 2014, our Hughes segment had approximately 1,036,000, 1,035,000 and 977,000 broadband subscribers, respectively. These broadband subscribers include customers that subscribe to our HughesNet broadband services through retail, wholesale and small/medium enterprise service channels. Gross subscriber additions increased by approximately 19,000 in the fourth quarter of 2016 when compared to the third quarter of 2016 offset partially by a decrease in additions in our retail channel due to the launch of our broadband service in Brazil in the second quarter of 2016 offset partially by a decrease in additions in our wholesale channel due to our lack of free capacity due to satellite beams servicing certain areas reaching capacity. Our average monthly subscriber churn percentage for the fourth quarter of 2016 decreased as compared to the third quarter of 2016. As a result of higher gross subscriber additions and a decrease in churn, net subscribers for the quarter ended December 31, 2016 increased by approximately 30,000 when compared to the third quarter of 2016 with increases in retail and decreases in wholesale subscribers. Subscriber additions and churn include only subscribers through our retail and wholesale channels.

As of December 31, 2016 and 2015, our Hughes segment had approximately \$1.52 billion and \$1.44 billion, respectively, of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue under customer contracts that are non-cancelable, excluding agreements with customers in our consumer market. The increase in contracted revenue backlog is primarily due to an increase in customer contracts from our international markets as a result of future commitments to provide satellite services and gateway and network management services on the EchoStar XIX satellite. Of the total contracted revenue backlog as of December 31, 2016, we expect to recognize approximately \$436.5 million of revenue in 2017.

ECHOSTAR SATELLITE SERVICES SEGMENT

Our ESS segment is a global provider of satellite service operations and video delivery solutions. We operate our business using our owned and leased inorbit satellites. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network (our largest customer), Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers and private enterprise customers.

We depend on DISH Network for a significant portion of the revenue for our ESS segment, and we expect that DISH Network will continue to be the primary source of revenue for our ESS segment. Therefore, the results of operations of our ESS segment are linked to changes in DISH Network's satellite capacity requirements. DISH Network's capacity requirements have been driven by the addition of new channels and migration of programming to high-definition TV and video on demand services. The services that we provide to DISH Network are critical to its nationwide delivery of content to its customers across the U.S. While we expect to continue to provide satellite services to DISH Network, its satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch its own satellites. Any termination or reduction in the services we provide to DISH Network may cause us to have unused capacity on our satellites and require that we aggressively pursue alternative sources of revenue for this business.

In August 2014, we entered into: (i) a construction contract with Airbus Defence and Space SAS for the construction of the EchoStar 105/SES-11 satellite with C-band, Ku-band and Ka-band payloads; (ii) an agreement with SES Satellite Leasing Limited for the procurement of the related launch services; and (iii) an agreement with SES Americom Inc. ("SES") pursuant to which we will transfer the title to the C-band and Ka-band payloads to SES Satellite Leasing Limited at launch and transfer the title to the Ku-band payload to SES following in-orbit testing of the satellite. Simultaneously, SES will provide to us satellite service on the entire Ku-band payload on the EchoStar 105/SES-11 satellite for an initial ten-year term, with an option for us to renew the agreement on a year-to-year basis. Due to anomalies experienced by our launch provider, the expected launch date of the EchoStar 105/SES-11 satellite has been delayed. We currently expect to launch the EchoStar 105/SES-11 satellite in the second or third quarter of 2017. Our Ku-band payload on the EchoStar 105/SES-11 satellite will replace and augment our current capacity on the AMC-15 satellite. As a result of this launch delay, we have incurred and expect to incur additional costs related to the lease of the AMC-15 satellite.

Revenue growth in our ESS segment depends largely on our ability to continuously make additional satellite capacity available for sale. Once the EchoStar 105/SES-11 satellite is launched and placed into operation, we expect periodic revenue from the satellite to exceed the amount currently generated by the AMC-15 satellite. As a result of the launch delay, we expect a delay in revenue generated from the EchoStar 105/SES-11 satellite.

We continue to pursue expanding our business offerings by providing value added services such as telemetry, tracking, and control services to third parties, which leverages the ground monitoring networks and personnel currently within our ESS segment.

As of December 31, 2016 and 2015, our ESS segment had contracted revenue backlog attributable to satellites currently in orbit of approximately \$1.16 billion and \$1.41 billion, respectively. The decrease is primarily driven by the fixed-term nature of the satellite services agreements with DISH Network. Of the total contracted revenue backlog as of December 31, 2016, we expect to recognize approximately \$365.1 million of revenue in 2017.

NEW BUSINESS OPPORTUNITIES

Our industry is evolving with the increase in worldwide demand for broadband internet access for information, entertainment and commerce. In addition to fiber and wireless systems, other technologies such as geostationary high throughput satellites, LEO networks, balloons, and High Altitude Platform Systems have begun to play significant roles in enabling global broadband access, networks and services. We intend to use our expertise, technologies, capital, investments, global presence, relationships and other capabilities to continue to provide broadband internet systems, equipment, networks and services for information, entertainment and commerce in North America and internationally for consumers, enterprises and governments.

We continue to selectively explore opportunities to pursue partnerships, joint ventures and strategic acquisitions, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets and new customers, broaden our portfolio of services, products and intellectual property, and strengthen our relationships with our customers. We may allocate significant resources for long-term initiatives that may not have a short or medium-term or any positive impact on our revenue, results of operations, or cash flow.

RESULTS OF OPERATIONS

Basis of Presentation

The following discussion and analysis of our consolidated results of operations is presented on a historical basis.

Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015

	Fo	r the Years End	ded I	December 31,	Variance			
Statements of Operations Data (1)		2016		2015		Amount	%	
				(Dollars in	thousa	ands)		
Revenue:								
Services and other revenue - DISH Network	\$	449,547	\$	518,853		(69,306)	(13.4)	
Services and other revenue - other		1,103,127		1,095,249		7,878	0.7	
Equipment revenue - DISH Network		8,840		10,752		(1,912)	(17.8)	
Equipment revenue - other		238,279		212,278		26,001	12.2	
Total revenue		1,799,793		1,837,132		(37,339)	(2.0)	
Costs and Expenses:								
Cost of sales - services and other		517,957		525,471		(7,514)	(1.4)	
% of Total services and other revenue		33.4%		32.6%				
Cost of sales - equipment		204,753		195,537		9,216	4.7	
% of Total equipment revenue		82.9%		87.7%				
Selling, general and administrative expenses		281,048		276,616		4,432	1.6	
% of Total revenue		15.6%		15.1%				
Research and development expenses		31,170		26,377		4,793	18.2	
% of Total revenue		1.7%		1.4%				
Depreciation and amortization		414,133		430,127		(15,994)	(3.7)	
Total costs and expenses		1,449,061		1,454,128		(5,067)	(0.3)	
Operating income		350,732		383,004		(32,272)	(8.4)	
Other Income (Expense):								
Interest income		12,598		4,416		8,182	*	
Interest expense, net of amounts capitalized		(187,198)		(169,150)		(18,048)	10.7	
Loss from partial redemption of debt		_		(5,044)		5,044	(100.0)	
Gains (losses) and impairment on marketable investment securities, net		6,995		(12,602)		19,597	*	
Other, net		12,353		10,724		1,629	15.2	
Total other expense, net		(155,252)		(171,656)		16,404	(9.6)	
Income before income taxes		195,480	<u> </u>	211,348		(15,868)	(7.5)	
Income tax provision, net		(73,759)		(72,364)		(1,395)	1.9	
Net income		121,721		138,984		(17,263)	(12.4)	
Less: Net income attributable to noncontrolling interests		1,706		1,617		89	5.5	
Net income attributable to HSS	\$	120,015	\$	137,367	\$	(17,352)	(12.6)	
Other Data:							、	
EBITDA (2)	\$	782,507	\$	804,592	\$	(22,085)	(2.7)	
Subscribers, end of period		1,036,000	· —	1,035,000		1,000	0.1	
	_	1,000,000	-	1,000,000		1,000	0.1	

* Percentage is not meaningful.

An explanation of our key metrics is included under the heading "Explanation of Key Metrics and Other Items."
 A reconciliation of EBITDA to "Net income," the most directly comparable GAAP measure in the accompanying financial statements, is included on page 48. For further information on our use of EBITDA, see "Explanation of Key Metrics and Other Items."

Services and other revenue — *DISH Network.* "Services and other revenue — DISH Network" totaled \$449.5 million for the year ended December 31, 2016, a decrease of \$69.3 million, or 13.4%, compared to the same period in 2015.

Services and other revenue — DISH Network from our Hughes segment for the year ended December 31, 2016 increased by \$4.0 million, or 4.3%, to \$98.5 million compared to the same period in 2015. The increase was primarily attributable to an increase in the average revenue per subscriber as a result of an increase in wholesale subscribers receiving higher end service plans pursuant to our Distribution Agreement with dishNET Satellite Broadband L.L.C. ("dishNET"), partially offset by a decrease in wholesale subscribers.

Services and other revenue — DISH Network from our ESS segment for the year ended December 31, 2016 decreased by \$73.9 million, or 17.5%, to \$349.6 million compared to the same period in 2015. The decrease was mainly due to a decrease of \$74.1 million in revenue as a result of the termination of the satellite services provided to DISH Network from the EchoStar I and EchoStar VIII satellites effective in November 2015.

Services and other revenue — *other.* "Services and other revenue — other" totaled \$1.10 billion for the year ended December 31, 2016, an increase of \$7.9 million, or 0.7%, compared to the same period in 2015.

Services and other revenue — other from our Hughes segment for the year ended December 31, 2016 increased by \$16.7 million, or 1.6%, to \$1.05 billion compared to the same period in 2015. The increase was primarily attributable to an increase of \$28.6 million in sales of broadband services to our domestic consumer customers as a result of an increase in retail subscribers and the average revenue per subscriber. This increase was partially offset by a decrease of \$10.8 million of broadband services to our international enterprise customers attributable to an unfavorable foreign exchange impact and non-renewal of certain service contracts.

Services and other revenue — other from our ESS segment for the year ended December 31, 2016 decreased by \$9.0 million, or 13.4%, to \$58.1 million compared to the same period in 2015. The decrease was primarily attributable to a decrease in sales of transponder services due to a decrease in the number of transponders available for use in providing service as our lease of the AMC-16 satellite ended in February 2016.

Equipment revenue — *DISH Network.* "Equipment revenue — DISH Network" totaled \$8.8 million for the year ended December 31, 2016, a decrease of \$1.9 million, or 17.8%, compared to the same period in 2015. The decrease in revenue was primarily due to the decrease in the unit sales of broadband equipment to dishNET.

Equipment revenue — *other.* "Equipment revenue — other" totaled \$238.3 million for the year ended December 31, 2016, an increase of \$26.0 million, or 12.2%, compared to the same period in 2015. The increase was mainly due to an increase of \$40.7 million in sales of broadband equipment to our domestic enterprise and government customers, partially offset by a decrease of \$14.7 million in revenue from our international and telecom systems customers from our Hughes segment.

Cost of sales — *services and other.* "Cost of sales — services and other" totaled \$518.0 million for the year ended December 31, 2016, a decrease of \$7.5 million, or 1.4%, compared to the same period in 2015.

Cost of sales — services and other from our Hughes segment for the year ended December 31, 2016 decreased by \$2.2 million, or 0.5%, to \$454.5 million compared to the same period in 2015. The decrease was primarily attributable to the decrease of Ku-band space segment costs as customers either terminated services or migrated to the Ka-band platform offset by the increase in service costs as a result of the increase in sales of broadband services to our domestic consumer customers.

Cost of sales — services and other from our ESS segment for the year ended December 31, 2016 decreased by \$6.0 million, or 8.6%, to \$64.2 million compared to the same period in 2015. The decrease was primarily due to a decrease in cost of sales of transponder services as a result of a decrease in the number of leased transponders available for use in providing service as our lease of the AMC-16 satellite ended in February 2016.

Cost of sales — *equipment.* "Cost of sales — equipment" totaled \$204.8 million for the year ended December 31, 2016, an increase of \$9.2 million, or 4.7%, compared to the same period in 2015. The increase was primarily attributable to an increase of \$20.3 million in equipment costs related to the increase in sales volume of broadband equipment to our domestic enterprise and government customers, partially offset by a decrease of \$12.3 million in equipment costs related to the decrease in sales to our international and telecom systems customers from our Hughes segment.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$281.0 million for the year ended December 31, 2016, an increase of \$4.4 million, or 1.6%, compared to the same period in 2015. The increase was mainly due to a \$3.8 million increase in marketing and promotional costs in our Hughes segment.

Research and development expenses. "Research and development expenses" totaled \$31.2 million for the year ended December 31, 2016, an increase of \$4.8 million, or 18.2%, compared to the same period in 2015. The increase was related to an increase in research and development expense of \$4.8 million in our Hughes segment. The Company's research and development activities vary based on the activity level and scope of other engineering and customer related development contracts.

Depreciation and amortization. "Depreciation and amortization" expenses totaled \$414.1 million for the year ended December 31, 2016, a decrease of \$16.0 million, or 3.7%, compared to the same period in 2015. The decrease was primarily related to certain of our fully amortized other intangible assets in our Hughes segment and the fully depreciated EchoStar IX satellite as of October 2015 in our ESS segment.

Interest income. "Interest income" totaled \$12.6 million for the year ended December 31, 2016, an increase of \$8.2 million compared to the same period in 2015. The increase was primarily attributable to the increase in our short term investments from proceeds from the issuance of long-term debt in the third quarter of 2016 and an increase in yield percentage.

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" totaled \$187.2 million for the year ended December 31, 2016, an increase of \$18.0 million, or 10.7%, compared to the same period in 2015. The increase was mainly attributable to an increase of \$38.1 million related to the issuance of the Old Notes in the third quarter of 2016. The increase was partially offset by an increase in capitalized interest of \$14.3 million related to the construction of the EchoStar XIX, EchoStar XXI and EchoStar 105/SES-11 satellites, and payments for satellite services on the EUTELSAT 65 West A and 63 West satellites, a decrease of \$3.2 million relating to the partial redemption of the outstanding principal amount of HSS' 6 1/2 % Senior Secured Notes due 2019 (the "2011 Secured Notes") in the second quarter of 2015, and a decrease of \$2.8 million relating to the accounting impact of two of our satellites that are treated as capital leases.

Loss from partial redemption of debt. "Loss from partial redemption of debt" totaled zero for the year ended December 31, 2016. In 2015, the \$5.0 million loss was related to the partial redemption of the 2011 Secured Notes in the second quarter of 2015 which included a \$3.3 million redemption premium and a \$1.7 million write off of related unamortized financing costs.

Gains (losses) and impairment on marketable investment securities, net. "Gains (losses) and impairment on marketable investment securities, net" totaled \$7.0 million in gains for the year ended December 31, 2016 compared to \$12.6 million in losses for the same period in 2015. The change of \$19.6 million was primarily due to an increase of \$10.5 million in gains on our trading securities in 2016, an other than temporary impairment loss of \$6.1 million on certain strategic equity securities in 2015, and an increase of \$3.0 million in realized gains on our securities classified as available-for-sale in 2016.

Other, net. "Other, net" totaled \$12.4 million in income for the year ended December 31, 2016, an increase of \$1.6 million, or 15.2%, compared to the same period in 2015. The increase was primarily related to a \$13.5 million for a provision recorded in the first half of 2015 in connection with FCC regulatory fees, which was reversed in the first quarter of 2016 and an unfavorable foreign exchange impact of \$3.7 million in 2015. The increases were partially offset by a decrease of \$8.8 million related to a protective put associated with our trading securities in 2016 when compared to the same period in 2015, a \$4.5 million non-recurring reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites recorded in the first quarter of 2015 as a result of anomalies that previously affected the operation of these satellites, and a gain of \$1.7 million on the exchange of accounts receivable for certain trading securities in the second quarter of 2015.

Income tax provision, net. Income tax expense was \$73.8 million for the year ended December 31, 2016, an increase of \$1.4 million, or 1.9%, compared to the same period in 2015. Our effective income tax rate was 37.7% for the year ended December 31, 2016, compared to 34.2% for the same period in 2015. The variation in our current year effective tax rate from the U.S. federal statutory rate was primarily due to state income taxes, partially offset by research and experimentation tax credits and valuation allowances. The variation in our effective tax rate from the U.S. federal statutory rate for the same period in 2015 was primarily due to research and experimentation tax credits.

Net income attributable to HSS. Net income attributable to HSS was \$120.0 million for the year ended December 31, 2016, a decrease of \$17.4 million, or 12.6%, compared to the same period in 2015. The decrease was primarily due to (i) a decrease of \$39.0 million in gross margin, which we define as total revenue less total cost of sales, (ii) an increase of \$38.1 million in interest expense related to the issuance of the Old Notes in the third quarter of 2016, (iii) an increase in research and

development expense of \$4.8 million, (iv) a decrease of \$8.8 million related to a protective put associated with our trading securities in 2016 when compared to the same period in 2015, (v) \$4.5 million non-recurring reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites recorded in the first quarter of 2015, (vi) an increase of \$4.4 million in selling, general and administrative expense and (vii) an increase in income tax expense of \$1.4 million in 2016. The decreases were partially offset by (i) an increase of \$19.6 million in gains on marketable investments, net, (ii) a decrease of \$16.0 million in depreciation and amortization expense related to certain of our fully amortized other intangible assets in our Hughes segment and the fully depreciated EchoStar IX satellite as of October 2015 in our ESS segment, (iii) higher capitalized interest of \$14.3 million related to the construction of the EchoStar XIX, EchoStar XXI and EchoStar 105/SES-11 satellites, and payments for satellite services on the EUTELSAT 65 West A and 63 West satellites, (iv) \$13.5 million for a provision recorded in the first half of 2015 in connection with FCC regulatory fees which was reversed in the first quarter of 2016, (v) an increase of \$8.2 million in interest income primarily attributable to the increase in our short term investments from proceeds from the issuance of long-term debt in the third quarter of 2016 and an increase in yield percentage, (vi) a \$5.0 million loss related to the partial redemption of the 2011 Secured Notes in the second quarter of 2015, (vii) an unfavorable foreign exchange impact of \$3.7 million in 2015 and (viii) a decrease in interest expense of \$3.2 million relating to the partial redemption of the outstanding principal amount of the 2011 Secured Notes in the second quarter of 2015.

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA was \$782.5 million for the year ended December 31, 2016, a decrease of \$22.1 million, or 2.7%, compared to the same period in 2015. The decrease was primarily due to (i) a decrease of \$39.0 million in gross margin, (ii) a decrease of \$8.8 million related to a protective put associated with our trading securities in 2016 when compared to the same period in 2015, (iii) an increase of \$4.8 million related to research and development, (iv) a \$4.5 million non-recurring reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites recorded in the first quarter of 2015 as a result of anomalies that previously affected the operation of these satellites and (v) an increase of \$4.4 million in selling, general and administrative expense. The decreases were partially offset by (i) an increase of \$19.6 million in gains (losses) on marketable investments, net, (ii) \$13.5 million for a provision recorded in the first half of 2015 in connection with FCC regulatory fees, which was reversed in the first quarter of 2016, (iii) a \$5.0 million loss related to the partial redemption of the 2011 Secured Notes in the second quarter of 2015, and (iv) an unfavorable foreign exchange impact of \$3.7 million in 2015. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items below. The following table reconciles EBITDA to Net income, the most directly comparable GAAP measure in the accompanying financial statements.

	Fo	r the Years En	ded I	December 31,		Varia	iance					
		2016		2015		Amount	%					
	(Dollars in thousands)											
Net income	\$	121,721	\$	138,984	\$	(17,263)	(12.4)					
Interest income and expense, net		174,600		164,734		9,866	6.0					
Income tax provision		73,759		72,364		1,395	1.9					
Depreciation and amortization		414,133		430,127		(15,994)	(3.7)					
Net income attributable to noncontrolling interests		(1,706)		(1,617)		(89)	5.5					
EBITDA	\$	782,507	\$	804,592	\$	(22,085)	(2.7)					

Segment Operating Results and Capital Expenditures

Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015

					All		
	Hughes	Sat	EchoStar tellite Services		Other and Eliminations	(Consolidated Total
			(In the	ousan	ıds)		
For the Year Ended December 31, 2016							
Total revenue	\$ 1,392,361	\$	407,660	\$	(228)	\$	1,799,793
Capital expenditures	\$ 322,362	\$	58,925	\$	—	\$	381,287
EBITDA	\$ 427,802	\$	339,496	\$	15,209	\$	782,507
For the Year Ended December 31, 2015							
Total revenue	\$ 1,347,340	\$	490,591	\$	(799)	\$	1,837,132
Capital expenditures	\$ 285,499	\$	101,215	\$	—	\$	386,714
EBITDA	\$ 396,684	\$	412,607	\$	(4,699)	\$	804,592

Hughes Segment

	For th									
	Ended De	eceml	oer 31,		Varianc	e				
	2016		2015		Amount	%				
	 (Dollars in thousands)									
Total revenue	\$ 1,392,361	\$	1,347,340	\$	45,021	3.3				
Capital expenditures	\$ 322,362	\$	285,499	\$	36,863	12.9				
EBITDA	\$ 427,802	\$	396,684	\$	31,118	7.8				

Revenue

Hughes segment total revenue for the year ended December 31, 2016 increased by \$45.0 million, or 3.3%, compared to the same period in 2015. The increase was primarily due to an increase of \$40.7 million in sales of broadband equipment to our domestic enterprise and government customers and an increase of \$28.6 million in sales of broadband services to our domestic consumer customers. These increases were partially offset by a decrease of \$25.5 million in revenue of broadband equipment and services to our international and telecom systems customers.

Capital Expenditures

Hughes segment capital expenditures for the year ended December 31, 2016 increased by \$36.9 million, or 12.9%, compared to the same period in 2015, primarily due to an increase in expenditures on the 63 West satellite. The increase was partially offset by a decrease in capital expenditures on satellite ground infrastructures related to the EchoStar XIX and EchoStar XXI satellites. Capital expenditures associated with the construction and launch of the EchoStar XIX satellite are included in "All Other and Eliminations" in our segment reporting.

EBITDA

Hughes segment EBITDA for the year ended December 31, 2016 was \$427.8 million, an increase of \$31.1 million, or 7.8%, compared to the same period in 2015. The increase was primarily attributable to a \$37.9 million increase in total gross margin and an unfavorable foreign exchange impact of \$3.6 million in 2015. These increases were partially offset by an increase of \$4.8 million in research and development expenses and an increase of \$3.8 million in marketing and promotional costs.

	For th Ended De	 -		Variance	2
	 2016	2015		Amount	%
		(Dollars i	n tho	usands)	
Total revenue	\$ 407,660	\$ 490,591	\$	(82,931)	(16.9)
Capital expenditures	\$ 58,925	\$ 101,215	\$	(42,290)	(41.8)
EBITDA	\$ 339,496	\$ 412,607	\$	(73,111)	(17.7)

Revenue

ESS segment total revenue for the year ended December 31, 2016 decreased by \$82.9 million, or 16.9%, compared to the same period in 2015, primarily due to a decrease of \$74.1 million in revenue as a result of the termination of the satellite services provided to DISH Network from the EchoStar I and EchoStar VIII satellites effective in November 2015 and a decrease of \$9.0 million primarily attributable to a decrease in sales of transponder services.

Capital Expenditures

ESS segment capital expenditures for the year ended December 31, 2016 decreased by \$42.3 million, or 41.8%, compared to the same period in 2015, primarily related to a decrease in expenditures on the EchoStar 105/SES-11 satellite.

EBITDA

ESS segment EBITDA for the year ended December 31, 2016 was \$339.5 million, a decrease of \$73.1 million, or 17.7%, compared to the same period in 2015. The decrease in EBITDA for our ESS segment was primarily due to a decrease of \$76.9 million in gross margin and \$4.5 million non-recurring reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites recorded in the first quarter of 2015 as a result of anomalies that previously affected the operation of these satellites. The decrease in EBITDA was partially offset by \$7.5 million for a provision recorded in the first half of 2015 in connection with FCC regulatory fees, which was reversed in the first quarter of 2016.

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Year Ended December 31, 2015 Compared to the Year Ended December 31, 2014

	Fo	or the Years End	ded I	December 31,		Variance			
Statements of Operations Data (1)		2015		2014		Amount	%		
				(Dollars in	thous	ands)			
Revenue:									
Services and other revenue - DISH Network	\$	518,853	\$	487,985		30,868	6.3		
Services and other revenue - other		1,095,249		1,077,101		18,148	1.7		
Equipment revenue - DISH Network		10,752		31,943		(21,191)	(66.3)		
Equipment revenue - other		212,278		210,948		1,330	0.6		
Total revenue		1,837,132		1,807,977		29,155	1.6		
Costs and Expenses:					-				
Cost of sales - services and other		525,471		535,918		(10,447)	(1.9)		
% of Total services and other revenue		32.6%		34.2%					
Cost of sales - equipment		195,537		209,022		(13,485)	(6.5)		
% of Total equipment revenue		87.7%		86.1%					
Selling, general and administrative expenses		276,616		264,610		12,006	4.5		
% of Total revenue		15.1%		14.6%					
Research and development expenses		26,377		20,192		6,185	30.6		
% of Total revenue		1.4%		1.1%					
Depreciation and amortization		430,127		452,138		(22,011)	(4.9)		
Total costs and expenses		1,454,128		1,481,880		(27,752)	(1.9)		
Operating income		383,004		326,097		56,907	17.5		
Other Income (Expense):					-				
Interest income		4,416		3,234		1,182	36.5		
Interest expense, net of amounts capitalized		(169,150)		(191,258)		22,108	(11.6)		
Loss from partial redemption of debt		(5,044)		—		(5,044)	*		
Gains (losses) and impairment on marketable investment securities, net		(12,602)		(32)		(12,570)	*		
Other, net		10,724		4,636		6,088	*		
Total other expense, net		(171,656)		(183,420)		11,764	(6.4)		
Income before income taxes		211,348		142,677		68,671	48.1		
Income tax provision, net		(72,364)		(40,095)		(32,269)	80.5		
Net income		138,984		102,582		36,402	35.5		
Less: Net income attributable to noncontrolling interests		1,617		1,389		228	16.4		
Net income attributable to HSS	\$	137,367	\$	101,193	\$	36,174	35.7		
Other Data:									
EBITDA (2)	\$	804,592	\$	781,450	\$	23,142	3.0		
Subscribers, end of period		1,035,000		977,000		58,000	5.9		
•		_,000,000		377,000		20,000	5.5		

* Percentage is not meaningful.
(1) An explanation of our key metrics is included under the heading "Explanation of Key Metrics and Other Items."

(2) A reconciliation of EBITDA to "Net income," the most directly comparable GAAP measure in the accompanying financial statements, is included on page 54. For further information on our use of EBITDA, see "Explanation of Key Metrics and Other Items."

Services and other revenue — *DISH Network.* "Services and other revenue — DISH Network" totaled \$518.9 million for the year ended December 31, 2015, an increase of \$30.9 million, or 6.3%, compared to the same period in 2014.

Services and other revenue — DISH Network from our Hughes segment for the year ended December 31, 2015 increased by \$13.7 million, or 16.9%, to \$94.4 million compared to the same period in 2014. The increase was primarily attributable to an increase in wholesale subscribers receiving services pursuant to our Distribution Agreement with dishNET.

Services and other revenue — DISH Network from our ESS segment for the year ended December 31, 2015 increased by \$16.2 million, or 4.0%, to \$423.5 million compared to the same period in 2014. The increase was mainly due to an increase of \$26.9 million in revenue recognized from certain satellite services provided to DISH Network for the five satellites transferred to us from DISH Network as part of the Satellite and Tracking Stock Transaction. See Note 3 in the notes to consolidated financial statements included in this prospectus for further discussion related to the Satellite and Tracking Stock Transaction. The increase was partially offset by a decrease of \$9.0 million in services provided to DISH Network on the EchoStar VIII and EchoStar XII satellites.

Services and other revenue — *other.* "Services and other revenue — other" totaled \$1.10 billion for the year ended December 31, 2015, an increase of \$18.1 million, or 1.7%, compared to the same period in 2014.

Services and other revenue — other from our Hughes segment for the year ended December 31, 2015 increased by \$26.2 million, or 2.6%, to \$1.03 billion compared to the same period in 2014. The increase was primarily attributable to an increase of \$54.2 million in sales of broadband services to our domestic consumer markets, partially offset by a decrease of \$24.7 million of broadband services to our international customers, primarily due to weakening foreign exchange rates in certain markets.

Services and other revenue — other from our ESS segment for the year ended December 31, 2015 decreased by \$10.0 million, or 13.0%, to \$67.1 million compared to the same period in 2014. The decrease was primarily attributable to a decrease in sales of transponder services in 2015 compared to the same period in 2014 due to a decrease in transponders available for sale.

Equipment revenue — *DISH Network.* "Equipment revenue — DISH Network" totaled \$10.8 million for the year ended December 31, 2015, a decrease of \$21.2 million, or 66.3%, compared to the same period in 2014. The decrease was primarily due to the decrease in the volume of unit sales of broadband equipment to dishNET. Sales of broadband equipment to dishNET have been decreasing as a result of a decrease in the unit sales of broadband equipment to dishNET.

Equipment revenue — *other.* "Equipment revenue — other" totaled \$212.3 million for the year ended December 31, 2015, an increase of \$1.3 million, or 0.6%, compared to the same period in 2014. The increase was mainly due to an increase of \$5.8 million in sales of broadband equipment to our international customers and domestic enterprise market, partially offset by a decrease of \$5.5 million in sales of broadband equipment to our domestic consumer market and government projects.

Cost of sales — *services and other*. "Cost of sales — services and other" totaled \$525.5 million for the year ended December 31, 2015, a decrease of \$10.4 million, or 1.9%, compared to the same period in 2014. The decrease in our Hughes segment was primarily attributable to a decrease of \$19.2 million in service costs of our broadband services provided to our international customers primarily due to lower in-country costs denominated in local currency and a decrease of \$3.7 million in the cost of sales related to our domestic broadband services due to the decrease of third party space segment costs as customers either terminated services or migrated to our platform. These decreases were partially offset by an increase of \$13.5 million in cost of sales of our EchoStar Satellite Services segment primarily related to the commencement of the AMC-15 and AMC-16 satellite operating leases in the fourth quarter of 2014 and the first quarter of 2015, respectively.

Cost of sales — *equipment.* Cost of sales — equipment" totaled \$195.5 million for the year ended December 31, 2015, a decrease of \$13.5 million, or 6.5%, compared to the same period in 2014. The decrease was primarily attributable to a decrease in equipment costs related to the decrease in sales volume of broadband equipment to DISH Network related to our Distribution Agreement with dishNET, partially offset by an increase in the cost of sales of broadband equipment to our domestic enterprise market.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$276.6 million for the year ended December 31, 2015, an increase of \$12.0 million, or 4.5%, compared to the same period in 2014. The increase was mainly due to a \$4.7 million increase in marketing and promotional expenses primarily in our Hughes segment, a \$3.0 million expense related to other general and administrative expenses, and a \$2.5 million increase in other personnel expenses.

Research and development expenses. "Research and development expenses" totaled \$26.4 million for the year ended December 31, 2015, an increase of \$6.2 million, or 30.6%, compared to the same period in 2014. The increase was primarily related to an increase in research and development expense of \$6.2 million in our Hughes segment. The Company's research and development activities vary based on the activity level and scope of other engineering and customer related development contracts.

Depreciation and amortization. "Depreciation and amortization" expenses totaled \$430.1 million for the year ended December 31, 2015, a decrease of \$22.0 million, or 4.9%, compared to the same period in 2014. The decrease was primarily attributable to a decrease in depreciation expense of \$18.5 million relating to the fully depreciated EchoStar VIII and EchoStar XII satellites, a decrease of \$10.4 million in amortization expense from certain of our fully amortized other intangible assets, and a decrease in depreciation expense of \$3.5 million relating to the expiration of the capital lease for the AMC-15 satellite in December 2014. The decreases were partially offset by increases in depreciation of \$7.9 million from our EchoStar Satellite Services segment, primarily due to the depreciation of the five satellites we received from DISH Network as part of the Satellite and Tracking Stock Transaction.

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" totaled \$169.2 million for the year ended December 31, 2015, a decrease of \$22.1 million, or 11.6%, compared to the same period in 2014. The decrease was primarily due to higher capitalized interest of \$13.7 million related to the construction of the EchoStar XIX, EchoStar XXI, EchoStar 105/SES-11 and EUTELSAT 65 West A satellites, and a decrease in interest expense of \$7.7 million relating to the partial redemption of \$110.0 million of the outstanding principal amount of our 2011 Secured Notes in the second quarter of 2015, the expiration of capital leases for the AMC-15 and AMC-16 satellites, and interest expense relating to two of our satellites that are accounted for as capital leases.

Loss from partial redemption of debt. "Loss from partial redemption of debt" totaled \$5.0 million for the year ended December 31, 2015, which was due to the loss recorded on the partial redemption of the 2011 Secured Notes in the second quarter of 2015. The \$5.0 million loss from the partial redemption of the 2011 Secured Notes included a \$3.3 million redemption premium and a \$1.7 million write off of related unamortized financing costs.

Gains (losses) and impairment on marketable investment securities, net. "Gains (losses) and impairment on marketable investment securities, net" totaled \$12.6 million in losses for the year ended December 31, 2015, an increase in loss of \$12.6 million compared to the same period in 2014. The increase in loss was primarily due to an increase of \$6.4 million in unrealized holding losses on our trading securities and an other than temporary impairment loss of \$6.1 million on a strategic equity security in our available-for-sale securities portfolio.

Other, net. "Other, net" totaled \$10.7 million in income for the year ended December 31, 2015 compared to \$4.6 million in income for the same period in 2014, an increase of \$6.1 million. The increase in income was primarily related to a \$4.8 million gain on an instrument related to our trading securities, a \$4.5 million reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites in the first quarter of 2015 and a \$3.4 million increase in equity in earnings of unconsolidated affiliate in 2015. These increases were offset partially by a loss of \$6.8 million attributable to FCC regulatory fees.

Income tax provision, net. Income tax expense was \$72.4 million for the year ended December 31, 2015, compared to \$40.1 million for the same period in 2014. Our effective income tax rate was 34.2% for the year ended December 31, 2015, compared to 28.1% for the same period in 2014. The variation in our current year effective tax rate from the U.S. federal statutory rate was primarily due to research and experimentation tax credits. The variation in our effective tax rate from the U.S. federal statutory rate for the same period in 2014 was primarily due to research and experimentation tax credits and lower state effective tax rate.

Net income attributable to HSS. Net income attributable to HSS was \$137.4 million for the year ended December 31, 2015, an increase of \$36.2 million, or 35.7%, compared to the same period in 2014. The increase was primarily attributable to an increase in operating income, including depreciation and amortization, of \$56.9 million, and a decrease in interest expense of \$22.1 million due to an increase in capitalization of interest expense associated with the construction of the EchoStar XIX,

EchoStar XXI, EchoStar 105/SES-11 and EUTELSAT 65 West A satellites, and a decrease in interest expense relating to the partial redemption of the 2011 Secured Notes, the expiration of capital leases for the AMC-15 and AMC-16 satellites, and interest expense relating to two of our satellites that are accounted for as capital leases. These increases were partially offset by an increase in income tax expense of \$32.3 million, and other-than temporary impairment loss of \$6.1 million on a strategic equity security, offset partially by a \$4.8 million gain on an instrument related to our trading securities, and a loss of \$5.0 million from the partial redemption of the 2011 Secured Notes.

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA was \$804.6 million for the year ended December 31, 2015, an increase of \$23.1 million, or 3.0%, compared to the same period in 2014. Gross margin, which we define as total revenue less total cost of sales, increased by \$53.1 million. There was also a \$4.8 million gain on an instrument related to our trading securities, as well as a \$4.5 million reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites in the first quarter of 2015. These increases in EBITDA were partially offset by increases in Selling, general and administrative expenses of \$12.0 million and in research and development expenses of \$6.2 million, a loss of \$6.8 million attributable to FCC regulatory fees, an other-than-temporary impairment loss of \$6.1 million on a certain strategic equity security and a loss of \$5.0 million from the partial redemption of the 2011 Secured Notes. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items below. The following table reconciles EBITDA to Net income, the most directly comparable GAAP measure in the accompanying financial statements.

		For th Ended D		-		Varia	ince				
		2015 2014				2015 2014 Amount					%
				in thousands)							
Net income	\$	138,984	\$	102,582	\$ 36,4	402	35.5 %				
Interest income and expense, net		164,734		188,024	(23,2	90)	(12.4)%				
Income tax provision, net		72,364		40,095	32,2	269	80.5 %				
Depreciation and amortization		430,127		452,138	(22,0	11)	(4.9)%				
Net loss attributable to noncontrolling interest		(1,617)		(1,389)	(2	28)	16.4 %				
EBITDA		804,592		781,450	23,	142	3.0 %				

Segment Operating Results and Capital Expenditures

Year Ended December 31, 2015 Compared to the Year Ended December 31, 2014

	Hughes			EchoStar Satellite Services	All Other and Eliminations			Consolidated Total
				(In tho	usan	ıds)		
For the Year Ended December 31, 2015								
Total revenue	\$	1,347,340	\$	490,591	\$	(799)	\$	1,837,132
Capital expenditures	\$	285,499	\$	101,215	\$	—	\$	386,714
EBITDA	\$	396,684	\$	412,607	\$	(4,699)	\$	804,592
For the Year Ended December 31, 2014								
Total revenue	\$	1,327,718	\$	484,455	\$	(4,196)	\$	1,807,977
Capital expenditures	\$	218,607	\$	28,734	\$	—	\$	247,341
EBITDA	\$	356,871	\$	419,442	\$	5,137	\$	781,450

		For th Ended De		-		Variance				
	2015			2014	2014 Amount					
		(Dollars in thousands)								
Total revenue	\$	1,347,340	\$	1,327,718	\$	19,622	1.5			
Capital expenditures	\$	285,499	\$	218,607	\$	66,892	30.6			
EBITDA	\$	396,684	\$	356,871	\$	39,813	11.2			

Revenue

Hughes segment total revenue for the year ended December 31, 2015 increased by \$19.6 million, or 1.5%, compared to the same period in 2014. The increase was primarily due to an increase of \$70.5 million in revenue related to sales of broadband services to our consumer markets and dishNET. These increases were partially offset by a decrease of \$24.7 million of broadband services to our international customers primarily due to weakening foreign exchange rates in certain markets and a decrease of \$21.2 million in sales of broadband equipment to dishNET.

Capital Expenditures

Hughes segment capital expenditures for the year ended December 31, 2015 increased by \$66.9 million, or 30.6%, compared to the same period in 2014, primarily as a result of an increase in expenditures on satellite ground infrastructures and the EUTELSAT 65 West A satellite.

EBITDA

Hughes segment EBITDA for the year ended December 31, 2015 was \$396.7 million, an increase of \$39.8 million, or 11.2%, compared to the same period in 2014. The increase was primarily driven by an increase of \$66.6 million in gross margin primarily related to an increase in sales of broadband services to our consumer market and dishNET, offset partially by a decrease in broadband services to our international market, \$11.3 million increase in selling, general and administrative expenses, and a \$6.2 million increase in research and development expenses.

EchoStar Satellite Services Segment

		For th Ended De		-		Variance				
	2015			2014		Amount	%			
	(Dollars in thousands)									
Total revenue	\$	490,591	\$	484,455	\$	6,136	1.3			
Capital expenditures	\$	101,215	\$	28,734	\$	72,481	*			
EBITDA	\$	412,607	\$	419,442	\$	(6,835)	(1.6)			

* Percentage is not meaningful.

Revenue

ESS segment total revenue for the year ended December 31, 2015 increased by \$6.1 million, or 1.3%, compared to the same period in 2014, primarily due to an increase of \$16.2 million in service revenue primarily related to satellite services provided to DISH Network on the five satellites we received as part of the Satellite and Tracking Stock Transaction, partially offset by a decrease of \$10.0 million in service revenue — other attributable to a decrease in sales of transponder services due to a decrease in transponders available for sale.



Capital Expenditures

ESS segment capital expenditures for the year ended December 31, 2015 increased by \$72.5 million, compared to the same period in 2014, primarily related to the increase in expenditures on the EchoStar 105/SES-11 satellite.

EBITDA

ESS segment EBITDA for the year ended December 31, 2015 was \$412.6 million, a decrease of \$6.8 million, or 1.6%, compared to the same period in 2014. The decrease in EBITDA for our ESS segment was primarily due to an increase in cost of sales — services of \$13.5 million primarily related to the commencement of the AMC-15 and AMC-16 satellite operating leases in the fourth quarter of 2014 and the first quarter of 2015, respectively, partially offset by an increase in service revenue.

LIQUIDITY AND CAPITAL RESOURCES

Cash, Cash Equivalents and Current Marketable Investment Securities

We consider all liquid investments purchased with an original maturity of 90 days or less to be cash equivalents. See "Quantitative and Qualitative Disclosures about Market Risk" for further discussion regarding our marketable investment securities.

As of December 31, 2016, our cash, cash equivalents and current marketable investment securities totaled \$2.26 billion compared to \$636.3 million as of December 31, 2015, an increase of \$1.62 billion.

As of December 31, 2016 and 2015, we held \$187.9 million and \$253.3 million, respectively, of marketable investment securities, consisting of various debt and equity instruments including corporate bonds, corporate equity securities, government bonds and mutual funds.

The following discussion highlights our cash flow activities for the years ended December 31, 2016, 2015 and 2014.

Cash flows from operating activities. We typically reinvest the cash flow from operating activities in our business. For the years ended December 31, 2016, 2015 and 2014, we reported net cash inflows from operating activities of \$565.9 million, \$575.5 million and \$653.6 million, respectively.

Net cash inflows from operating activities for the year ended December 31, 2016 decreased by \$9.6 million compared to the same period in 2015. The decrease in cash inflows was primarily attributable to a lower net income of \$27.2 million adjusted to exclude: (i) "Depreciation and amortization;" (ii) "Loss from partial redemption of debt;" (iii) "Equity in earnings of unconsolidated affiliates, net;" (iv) "Losses (gains) and other-than-temporary impairment on marketable investment securities, net;" (v) "Stock-based compensation;" (vi) "Deferred tax provision (benefit);" (vii) "Amortization of debt issuance costs;" (viii) "Dividends received from unconsolidated entity;" (ix) "Proceeds from sale of trading securities;" and (x) "Other, net.", partially offset by an increase of \$17.6 million resulting from changes in operating assets and liabilities related to timing differences.

Net cash inflows from operating activities for the year ended December 31, 2015 decreased by \$78.1 million compared to the same period in 2014. The decrease in cash inflows was primarily attributable to a decrease of \$123.3 million resulting from changes in operating assets and liabilities related to timing differences, partially offset by higher net income of \$45.2 million adjusted to exclude: (i) "Depreciation and amortization;" (ii) "Loss from partial redemption of debt;" (iii) "Equity in earnings of unconsolidated affiliates, net;" (iv) "Losses (gains) and other-than-temporary impairment on marketable investment securities, net;" (v) "Stock-based compensation;" (vi) "Deferred tax provision (benefit);" (vii) "Amortization of debt issuance costs;" (viii) "Dividends received from unconsolidated entity;" (ix) "Proceeds from sale of trading securities;" and (x) "Other, net."

Cash flows from investing activities. Our investing activities generally include purchases and sales of marketable investment securities, capital expenditures, acquisitions, and strategic investments. For the years ended December 31, 2016, 2015 and 2014, we reported net cash outflows from investing activities of \$365.9 million, \$277.0 million and \$547.7 million, respectively.

Net cash outflows from investing activities for the year ended December 31, 2016 increased by \$88.9 million compared to the same period in 2015. The increase in cash outflows primarily related to an increase of \$90.7 million in purchases of marketable investment securities, net of sales and maturities, an increase of \$11.9 million in payments under the EchoStar XXI launch service contract, partially offset by a decrease of \$9.1 million in restricted cash relating to a release in funds for certain satellite slots as a result of a FCC settlement in 2016 and a decrease of \$5.4 million in purchases of property and equipment primarily attributable to a decrease in capital expenditures on satellite ground infrastructures related to the EchoStar XIX and EchoStar XXI satellites and a decrease in expenditures on the EchoStar 105/SES-11 satellite, partially offset by an increase in expenditures on the 63 West satellite.

Net cash outflows from investing activities for the year ended December 31, 2015 decreased by \$270.7 million compared to the same period in 2014. The decrease in cash outflows primarily related to a decrease of \$421.2 million in purchases of marketable investment securities, net of sales and maturities, partially offset by an increase of \$139.4 million in expenditures for the EchoStar 105/SES-11 and EUTELSAT 65 West A satellites and satellite ground infrastructures and an increase of \$11.9 million in payments under the EchoStar XXI launch service contract.

Cash flows from financing activities. Our financing activities generally include proceeds related to the issuance of debt and cash used for the repurchase, redemption or payment of debt and capital lease obligations. For the years ended December 31, 2016, 2015 and 2014, we reported net cash inflows from financing activities of \$1.49 billion, net cash outflows from financing activities of \$137.9 million and net cash outflows from financing activities of \$49.1 million, respectively.

Net cash inflows from financing activities increased by \$1.63 billion for the year ended December 31, 2016 compared to the same period in 2015. The increase in cash inflows was primarily due to the proceeds of \$1.5 billion from the issuance of the Old Notes in the third quarter of 2016, the partial redemption of the 2011 Secured Notes of \$110.0 million and related premium of \$3.3 million in the second quarter of 2015, a decrease of \$7.7 million in capital lease obligation payments relating to the expiration of the capital lease for the AMC-15 and AMC-16 satellites, effective February 2015, partially offset by payments of debt issuance costs of \$7.1 million related to the issuance of the Old Notes and decrease of \$13.0 million in cash advances, net of repayments, provided by EchoStar and certain of its subsidiaries to certain of our foreign subsidiaries to fund certain expenditures.

Net cash outflows from financing activities increased by \$88.8 million for the year ended December 31, 2015 compared to the same period in 2014. The increase in cash outflows was primarily due to the partial redemption of the 2011 Secured Notes of \$110.0 million and related premium of \$3.3 million in the second quarter of 2015 and proceeds of \$11.4 million, net of offering costs of \$0.8 million from the issuance of the Tracking Stock received in 2014, partially offset by a decrease of \$22.7 million in capital lease obligation payments relating to the expiration of the capital lease for the AMC-15 and AMC-16 satellites, effective February 2015 and an increase of \$16.9 million in cash advances, net of repayments, provided by EchoStar and certain of its subsidiaries to certain of our foreign subsidiaries to fund certain expenditures.

Obligations and Future Capital Requirements

Contractual Obligations and Off-Balance Sheet Arrangements

The following table summarizes our contractual obligations at December 31, 2016:
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	Payments Due in the Year Ending December 31,													
		Total	2017			2018		2019		2020		2021		Thereafter
							(Ir	thousands)						
Long-term debt	\$	3,390,000	\$	_	\$	_	\$	990,000	\$	_	\$	900,000	\$	1,500,000
Capital lease obligations		297,268		32,984		36,511		40,370		44,733		46,131		96,539
Interest on long-term debt and capital lease obligations		1,487,520		252,940		248,424		212,318		175,799		136,673		461,366
Satellite-related obligations		636,702		192,878		131,741		59,254		56,233		41,063		155,533
Operating lease obligations		65,017		26,775		8,773		6,950		6,685		6,007		9,827
Total	\$	5,876,507	\$	505,577	\$	425,449	\$	1,308,892	\$	283,450	\$	1,129,874	\$	2,223,265

"Satellite-related obligations" primarily include payments pursuant to agreements for the construction of the EchoStar XIX, EchoStar XXI, EchoStar XXII, and EchoStar 105/SES-11 satellites, payments pursuant to launch services contracts and regulatory authorizations, executory costs for our capital lease satellites, costs under satellite service agreements and in-orbit incentives relating to certain satellites; as well as commitments for long-term satellite operating leases and satellite service arrangements.

The table above does not include amounts related to deferred tax liabilities, unrecognized tax positions and certain other amounts recorded in our noncurrent liabilities as the timing of any payments is uncertain. The table also excludes long-term deferred revenue and other long-term liabilities that do not require future cash payments.

In certain circumstances, the dates on which we are obligated to pay our contractual obligations could change.

Off-Balance Sheet Arrangements

Other than the transactions described below, we generally do not engage in off-balance sheet financing activities or use derivative financial instruments for hedge accounting or speculative purposes.

As of December 31, 2016, we had \$30.7 million of letters of credit and insurance bonds. Of this amount, \$11.2 million was secured by restricted cash, \$0.9 million was related to insurance bonds, and \$18.5 million was issued under credit arrangements available to our foreign subsidiaries. Certain letters of credit are secured by assets of our foreign subsidiaries.

As of December 31, 2016, we had foreign currency forward contracts with a notional value of \$3.4 million in place to partially mitigate foreign currency exchange risk. From time to time, we may enter into foreign currency forward contracts, or take other measures, to mitigate risks associated with foreign currency denominated assets, liabilities, commitments and anticipated foreign currency transactions.

Satellite Insurance

We historically have not carried in-orbit insurance on our satellites because we assessed that the cost of insurance was uneconomical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures. Pursuant to the terms of the agreements governing certain portions of our indebtedness, we are required, subject to certain limitations on coverage, to maintain in-orbit insurance for our SPACEWAY 3, EchoStar XVI, and EchoStar XVII satellites. Based on economic analysis of the current insurance market we obtained launch plus one year in-orbit insurance for the EchoStar XIX satellite. All other satellites, either in orbit or under construction, are not covered by launch or in-orbit insurance. We will continue to assess circumstances going forward and make insurance decisions on a case by case basis.

Future Capital Requirements

We primarily rely on our existing cash and marketable investment securities balances, as well as cash flow generated through our operations to fund our business. We currently depend on DISH Network for a significant portion of our revenue. The loss of, or a significant reduction in, orders from, or a decrease in selling prices of broadband equipment and services and/or provision of satellite services would significantly reduce our revenue and materially adversely impact our results of operations. There can be no assurance that we will have positive cash flows from operations. Furthermore, if we experience negative cash flows, our existing cash and marketable investment securities balances may be reduced.

We have a significant amount of outstanding indebtedness. As of December 31, 2016, our total indebtedness was approximately \$3.66 billion, of which approximately \$297.3 million related to capital lease obligations. For a discussion of the terms of our indebtedness, see Note 10 in the notes to our consolidated financial statements included elsewhere in this prospectus. Our liquidity requirements will be significant, primarily due to our debt service requirements. In addition, our future capital expenditures are likely to increase if we make acquisitions or additional investments in infrastructure or joint ventures necessary to support and expand our business, or if we decide to purchase one or more additional satellites. Furthermore, we expect to become a federal cash taxpayer in 2017 which will require additional liquidity. Other aspects of our business operations may also require additional capital. We periodically evaluate various strategic initiatives, the pursuit of which could also require us to invest or raise significant additional capital, which may not be available on acceptable terms or at all.

We anticipate that our existing cash and marketable investment securities are sufficient to fund the currently anticipated operations of our business through the next twelve months.

Satellites

As our satellite fleet ages, we will be required to evaluate replacement alternatives such as acquiring, leasing or constructing additional satellites, with or without customer commitments for capacity. We may also construct or lease additional satellites in the future to provide satellite services at additional orbital locations or to improve the quality of our satellite services.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with GAAP requires us to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the balance sheets, the reported amounts of revenue and expenses for each reporting period, and certain information disclosed in the notes to consolidated financial statements included in this prospectus. We base our estimates, judgments, and assumptions on historical experience and on various other factors that we believe to be relevant under the circumstances. Actual results may differ from previously estimated amounts, and such differences may be material to our consolidated financial statements. We review our estimates and assumptions periodically, and the effects of revisions are reflected in the period they occur or prospectively if the revised estimate affects future periods. The following represent what we believe are the critical accounting policies that may involve a high degree of estimation, judgment and complexity. For a summary of our significant accounting policies, including those discussed below, see Note 2 in the notes to our consolidated financial statements included elsewhere in this prospectus.

Marketable Securities and Other Investments

We hold investments in debt and equity securities of various companies, including marketable investments in publicly traded securities and non-marketable investments in securities of privately held companies. Our marketable investment securities ordinarily are accounted for as available-for-sale; accordingly, we report those securities at fair value on a recurring basis and generally recognize unrealized gains and losses in other comprehensive income (loss). Except in unusual circumstances, the estimated fair values of our marketable investment securities are determined by reference to quoted prices for identical securities or based primarily on other observable market inputs. Our investments in non-marketable securities typically are strategic investments in privately held companies and may be highly speculative. We account for such investments using the equity method when we exercise significant influence over the investee; otherwise, we account for such investments using the cost method.

All of our investments are subject to quarterly evaluations to determine whether an other-than-temporary impairment has occurred, in which case we record an impairment loss in determining net income. For our marketable investment securities, our impairment evaluation considers factors such as the length of time the security has been in a continuous unrealized loss position, the magnitude of the unrealized loss, current market conditions, company-specific information, and whether we have the intent and ability to hold the investment in the foreseeable future. Generally, it is not practicable to estimate fair value of our cost method and equity method investments on a recurring basis. Our impairment evaluation for such investments considers whether events or changes in circumstances have occurred that may have a significant adverse effect on the fair value of the investment. As part of our evaluation, we review available information such as recent company financial statements, business plans and current economic conditions for factors that may indicate an impairment of our investments. When we determine that an investment is impaired and the impairment is other than temporary, we adjust the carrying amount of the investment to its estimated fair value and recognize an impairment loss in earnings. In these circumstances, our fair value estimates may reflect significant unobservable inputs.

Our periodic investment impairment evaluations require us to make significant estimates, judgments and assumptions about uncertain future events. In some cases, there may be limited or no observable market data to support significant assumptions in our estimates. As a result of weakening economic conditions, or other future events and changes in circumstances affecting our investments, we may subsequently determine that an investment is impaired or that an existing impairment is other than temporary. Such events and changes in circumstances could result in our recognition of material investment impairment losses in the future.

Impairment of Long-lived Assets

We evaluate our long-lived assets other than goodwill and intangible assets with indefinite lives for impairment whenever events and changes in circumstances indicate that their carrying amounts may not be recoverable. The carrying amount of a long-lived asset or asset group is considered to not be recoverable when the estimated future undiscounted cash flows from such asset or asset group is less than its carrying amount. In that event, an impairment loss is recorded in the determination of operating income based on the amount by which the carrying amount exceeds the estimated fair value of the long-lived asset or asset group. Fair value is determined primarily using discounted cash flow techniques reflecting the estimated cash flows and discount rate that would be assumed by a market participant for the asset or asset group under review. Our discounted cash flow estimates typically include assumptions based on unobservable inputs and may reflect probability-weighting of alternative scenarios. Estimated losses on long-lived assets to be disposed of by sale may be determined in a similar manner, except that fair value estimates are reduced for estimated selling costs. Changes in estimates of future cash flows, discount rates and other assumptions could result in recognition of additional impairment losses in future periods.

Impairment of Goodwill and Indefinite-lived Intangible Assets

We test our goodwill for impairment annually and more frequently when events or changes in circumstances indicate that an impairment may have occurred. There are two steps to the goodwill impairment test. Step one compares the fair value of a reporting unit with its carrying amount, including goodwill. If the reporting unit's carrying amount exceeds its estimated fair value, it is necessary to perform the second step of the impairment test, which compares the implied fair value of reporting unit goodwill with the carrying amount of such goodwill to determine the amount of impairment loss. We may bypass the twostep quantitative impairment test when we determine based on a qualitative assessment that it is more likely than not that the fair value of a reporting unit exceeds its carrying amount including goodwill.

As of December 31, 2016, our goodwill consisted primarily of goodwill assigned to reporting units of the Hughes segment. We test such goodwill annually in our second fiscal quarter. Based on our qualitative assessment of impairment of the goodwill assigned to the Hughes segment in the second quarter of each of 2016 and 2015, we determined that no further testing of goodwill for impairment was necessary as it was more likely than not that the fair values of the Hughes segment reporting units exceeded their corresponding carrying amounts. Depending on our assessment of future events and changes in circumstances, we may be required to perform the two-step quantitative impairment test in the future. We may determine that some or all of our goodwill is impaired in connection with future impairment tests.

Our indefinite-lived intangible assets consist primarily of regulatory authorizations for the use of spectrum in specified orbital locations. We test these intangible assets annually in our fourth fiscal quarter, or more frequently if events or changes in circumstances indicate that an impairment may have occurred. We recognize an impairment loss in the determination of operating income when we determine that the carrying amount of an intangible asset exceeds its estimated fair value. Fair value is determined primarily using discounted cash flow techniques reflecting the estimated cash flows and discount rate that we believe would be assumed by market participants. Our cash flow projections typically include significant assumptions based on unobservable inputs. Changes in economic conditions, laws and regulations, technology, competition and other factors could affect the assumptions reflected in our fair value estimates and may result in future intangible asset impairments. We may bypass the quantitative impairment test when we determine based on a qualitative assessment that it is not more likely than not that an indefinite-lived intangible asset is impaired.

Revenue Recognition

Our Hughes segment enters into contracts to design, develop, and deliver telecommunication networks to customers in our enterprise and mobile satellite systems markets. Those contracts require significant effort to develop and construct the network over an extended time period. Revenue from such contracts is recognized using the percentage-of-completion method. Depending on the nature of the arrangement, we measure progress toward completion using the cost-to-cost method or the units-of-delivery method. Under the cost-to-cost method, revenue reflects the ratio of costs incurred to estimated total costs at completion. Under the units-of-delivery method, revenue and related costs are recognized as products are delivered based on the expected profit for the entire agreement. Profit margins on long-term contracts are based on estimates of total revenue and costs at completion. We review and revise our estimates periodically and recognize related adjustments in the period in which the revisions are made. Estimated losses on contracts are recorded in the period in which they are identified. Changes in our periodic estimates for these contracts could result in significant adjustments to our revenue or costs, which could be material to our consolidated results of operations.

Income Taxes

We record deferred tax assets and liabilities for the estimated future tax effects of temporary differences between the tax bases of assets and liabilities and their corresponding carrying amounts reported in our consolidated balance sheets, as well as for operating loss and tax credit carryforwards. Determining necessary valuation allowances for deferred tax assets requires us to make assessments about the timing of future events, including the probability of expected future taxable income and available tax planning opportunities. We periodically evaluate the need for valuation allowances based on both historical evidence, including trends, and future events. Our future operating results and other events and circumstances could have a significant effect on the realization of tax benefits. Those future events and circumstances could require significant adjustments to our valuation allowances in future periods, which could be material to our consolidated results of operations.

Management evaluates the recognition and measurement of uncertain tax positions based on applicable tax law, regulations, case law, administrative rulings and pronouncements, and the facts and circumstances surrounding the tax position. Changes in our estimates related to the recognition and measurement of the amount recorded for uncertain tax positions could result in significant adjustments to our income tax provision or benefit in future periods, which could be material to our consolidated results of operations.

Contingent Liabilities

We record an accrual for litigation and other loss contingencies when we determine that a loss is probable and the amount of the loss can be reasonably estimated. Legal fees and other costs of defending litigation are charged to expense as incurred. A significant amount of management judgment is required in determining whether an accrual should be recorded for a loss contingency and the amount of such accrual. Estimates generally are developed in consultation with legal counsel and are based on an analysis of potential outcomes. Due to the inherent uncertainty in determining the likelihood of potential outcomes and the potential financial statement impact of such outcomes, it is possible that upon further development or resolution of a contingent matter, charges related to existing loss contingencies could be recorded in future periods, which could be material to our consolidated results of operations and financial position.

New Accounting Pronouncements

For a discussion of new accounting pronouncements, see Note 2 in the notes to our consolidated financial statements included elsewhere in this prospectus. We are continuing to assess the impact of adopting the recently issued accounting pronouncements on our consolidated financial statements and related disclosures.

Seasonality

For our Hughes segment, service revenue is generally not impacted by seasonal fluctuations other than those associated with fluctuations related to sales and promotional activities. However, like many communications infrastructure equipment vendors, a higher amount of our hardware revenue occurs in the second half of the year due to our customers' annual procurement and budget cycles. Large enterprises and operators often allocate their capital expenditure budgets at the beginning of their fiscal year (which often coincides with the calendar year). The typical sales cycle for large complex system procurements is six to 12 months, which often results in the customer expenditure occurring towards the end of the year. Customers often seek to expend the budgeted funds prior to the end of the year and the next budget cycle.

Our ESS segment is not generally affected by seasonal impacts.

Inflation

Inflation has not materially affected our operations during the past three years. We believe that our ability to increase the prices charged for our products and services in future periods will depend primarily on competitive pressures or contractual terms.

EXPLANATION OF KEY METRICS AND OTHER ITEMS

Services and other revenue — *DISH Network*. "Services and other revenue — DISH Network" primarily includes revenue associated with satellite and transponder services, satellite uplinking/downlinking, signal processing, conditional access management, telemetry, tracking and control, professional services, facilities rental revenue and other services provided to DISH Network. "Services and other revenue — DISH Network" also includes subscriber wholesale service fees for the Hughes service sold to dishNET.

Services and other revenue — *other*. "Services and other revenue— other" primarily includes the sales of enterprise and consumer broadband services, as well as maintenance and other contracted services. "Services and other revenue— other" also includes revenue associated with satellite and transponder services, satellite uplinking/downlinking and other services provided to customers other than DISH Network.

Equipment revenue — *DISH Network*. "Equipment revenue — DISH Network" primarily includes sales of satellite broadband equipment and related equipment, related to the Hughes service, to DISH Network.

Equipment revenue — *other*. "Equipment revenue — other" primarily includes broadband equipment and networks sold to customers in our enterprise and consumer markets.

Cost of sales — *services and other*. "Cost of sales — services and other" primarily includes the cost of broadband services provided to our enterprise and consumer customers, and to DISH Network, as well as the cost of providing maintenance and other contracted services. "Cost of sales — services and other" also includes the costs associated with satellite and transponder services, satellite uplinking/downlinking, signal processing, conditional access management, telemetry, tracking and control, professional services, facilities rental costs, and other services provided to our customers, including DISH Network.

Cost of sales — *equipment.* "Cost of sales — equipment" consists primarily of the cost of broadband equipment and networks sold to customers in our enterprise and consumer markets.

Selling, general and administrative expenses. "Selling, general and administrative expenses" primarily includes selling and marketing costs and employeerelated costs associated with administrative services (e.g., information systems, human resources and other services), including stock-based compensation expense. It also includes professional fees (e.g. legal, information systems and accounting services) and other items associated with facilities and administrative services provided by EchoStar, DISH Network and other third parties.

Research and development expenses. "Research and development expenses" primarily includes costs associated with the design and development of products to support future growth and provide new technology and innovation to our customers.

Interest income. "Interest income" primarily includes interest earned on our cash, cash equivalents and marketable investment securities, including premium amortization and discount accretion on debt securities.

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" primarily includes interest expense associated with our debt and capital lease obligations (net of capitalized interest), and amortization of debt issuance costs.

Loss from partial redemption of debt. "Loss from partial redemption of debt" primarily includes the loss from the partial redemption of the 2011 Secured Notes representing the redemption premium that the Company paid to the holders of its 2011 Secured Notes and the write-off of related unamortized debt issuance costs.

Gains (losses) and impairment on marketable investment securities, net. "Gains (losses) and impairment on marketable investment securities, net" primarily includes gains, net of any losses, on the sale or exchange of investments and other-than-temporary impairment on certain of our marketable investment securities.

Other, net. "Other, net" primarily includes foreign exchange gains and losses, dividends received from our marketable investment securities, equity in earnings of unconsolidated affiliate, and other non-operating income or expense items that are not appropriately classified elsewhere in our consolidated statements of operations and comprehensive income (loss).

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA is defined as "Net income" excluding "Interest expense, net of amounts capitalized," "Interest income," "Income tax provision, net," and "Depreciation and

amortization." EBITDA is not a measure determined in accordance with GAAP. This non-GAAP measure is reconciled to "Net income" in our discussion of "Results of Operations" above. EBITDA should not be considered in isolation or as a substitute for operating income, net income or any other measure determined in accordance with GAAP. EBITDA is used by our management as a measure of operating efficiency and overall financial performance for benchmarking against our peers and competitors. Management believes EBITDA provides meaningful supplemental information regarding the underlying operating performance of our business. Management also believes that EBITDA is useful to investors because it is frequently used by securities analysts, investors, and other interested parties to evaluate the performance of companies in our industry.

Subscribers. "Subscribers" include customers that subscribe to our Hughes segment's HughesNet broadband services, through retail, wholesale and small/medium enterprise service channels.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risks Associated with Financial Instruments and Foreign Currency

Our investments and debt are exposed to market risks, discussed below.

Cash, Cash Equivalents and Current Marketable Investment Securities

As of December 31, 2016, our cash, cash equivalents and current marketable investment securities had a fair value of \$2.26 billion. Of this amount, a total of \$2.25 billion was invested in: (a) cash; (b) commercial paper and corporate notes with an overall average maturity of less than one year and rated in one of the four highest rating categories by at least two nationally recognized statistical rating organizations; (c) debt instruments of the U.S. government and its agencies; and/or (d) instruments with similar risk, duration and credit quality characteristics to the commercial paper and corporate obligations described above. The primary purpose of these investing activities has been to preserve principal until the cash is required to, among other things, fund operations, make strategic investments and expand the business. Consequently, the size of this portfolio fluctuates significantly as cash is received and used in our business. The value of this portfolio may be negatively impacted by credit losses; however, this risk is mitigated through diversification that limits our exposure to any one issuer.

Interest Rate Risk

A change in interest rates would not affect the fair value of our cash, or materially affect the fair value of our cash equivalents due to their maturities of less than 90 days. A change in interest rates would affect the fair value of our current marketable debt securities portfolio; however, we normally hold these investments to maturity. Based on our current non-strategic investment portfolio of \$2.25 billion as of December 31, 2016, a hypothetical 10% change in average interest rates during 2016 would not have a material impact on the fair value of our cash, cash equivalents and debt securities portfolio due to the limited duration of our investments.

Our cash, cash equivalents and current marketable debt securities had an average annual rate of return for the year ended December 31, 2016 of 0.9%. A change in interest rates would affect our future annual interest income from this portfolio, since funds would be re-invested at different rates as the instruments mature. A hypothetical 10% decrease in average interest rates during 2016 would have an insignificant impact to our annual interest income.

Investments in Unconsolidated Entities

As of December 31, 2016, we had \$42.6 million of noncurrent equity instruments that we hold for strategic business purposes and account for under the cost or equity methods of accounting. The fair value of these instruments is not readily determinable. We periodically review these investments and estimate fair value when there are indications of impairment. A hypothetical adverse change equal to 10% of the carrying amount of these equity instruments would result in a decrease of approximately \$4.3 million in the value of these investments.

Our ability to realize value from our strategic investments in companies that are privately held depends on the success of those companies' businesses and their ability to obtain sufficient capital to execute their business plans. Because private markets are not as liquid as public markets, there is also increased risk that we will not be able to sell these investments, or that when we desire to sell them we will not be able to obtain fair value for them.

Foreign Currency Exchange Risk

We generally conduct our business in U.S. dollars. Our international business is conducted in a variety of foreign currencies with our largest exposures being to the Brazilian real, the Indian rupee, and the British pound. This exposes us to fluctuations in foreign currency exchange rates. Transactions in foreign currencies are converted into U.S. dollars using exchange rates in effect on the dates of the transactions.

Our objective in managing our exposure to foreign currency changes is to reduce earnings and cash flow volatility associated with foreign exchange rate fluctuations. Accordingly, we may enter into foreign currency forward contracts, or take other measures, to mitigate risks associated with foreign currency denominated assets, liabilities, commitments and anticipated foreign currency transactions. As of December 31, 2016, we had \$30.9 million of net foreign currency denominated receivables and payables outstanding, and foreign currency forward contracts with a notional value of \$3.4 million in place to partially mitigate foreign currency exchange risk. The estimated fair values of the foreign exchange contracts were not material as of December 31, 2016. The impact of a hypothetical 10% adverse change in exchange rates on the carrying amount of the net assets and liabilities of our foreign subsidiaries would be an estimated loss to the cumulative translation adjustment of \$29.6 million as of December 31, 2016.

Derivative Financial Instruments

We generally do not use derivative financial instruments for speculative purposes and we generally do not apply hedge accounting treatment to our derivative financial instruments. We evaluate our derivative financial instruments from time to time but there can be no assurance that we will not enter into additional foreign currency forward contracts, or take other measures, in the future to mitigate our foreign exchange risk.

BUSINESS

OVERVIEW

HSS is a holding company and a subsidiary of EchoStar Corporation. We are a global provider of satellite service operations, video delivery solutions, broadband satellite technologies and broadband services for home and small office customers. We deliver innovative network technologies, managed services, and various communications solutions for enterprise and government customers.

We currently operate in the following two business segments:

- *Hughes* which provides broadband satellite technologies and broadband services to home and small office customers and network technologies, managed services and communication solutions to domestic and international consumers and enterprise and government customers. The Hughes segment also provides managed services, hardware, and satellite services to large enterprises and government customers, and designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment provides satellite ground segment systems and terminals to mobile system operators.
- EchoStar Satellite Services ("ESS") which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite service operations and video delivery solutions on a full-time and occasional-use basis primarily to DISH Network, Dish Mexico, a joint venture that EchoStar entered into in 2008, U.S. government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. We also manage satellite operations for several satellites owned by third parties.

We were formed as a Colorado corporation in March 2011 to facilitate the Hughes Acquisition. In connection with our formation, EchoStar contributed the assets and liabilities of its satellite services business, including the principal operating subsidiary of its satellite services business, EchoStar Satellite Services L.L.C., to us. A substantial majority of the voting power of the shares of EchoStar and DISH is owned beneficially by Charles W. Ergen, our Chairman, and by certain trusts established by Mr. Ergen for the benefit of his family.

SHARE EXCHANGE

On January 31, 2017, our parent company EchoStar Corporation and certain of our and its subsidiaries entered into a Share Exchange Agreement (the "Share Exchange Agreement") among DISH, DISH Network L.L.C., an indirect wholly owned subsidiary of DISH ("DNLLC"), DISH Operating L.L.C., a direct wholly owned subsidiary of DNLLC ("DOLLC" and, collectively with DISH and DNLLC, the "DISH Parties"), EchoStar Corporation, EchoStar Broadcasting Holding Parent L.L.C., our direct wholly owned subsidiary ("EB LLC"), EchoStar Broadcasting Holding Corporation, a direct wholly owned subsidiary of EB LLC ("EB Corp"), EchoStar Technologies Holding Corporation, a direct wholly owned subsidiary of EchoStar Corporation ("ET Corp"), and EchoStar Technologies L.L.C., a direct wholly owned subsidiary of EchoStar Corporation.

Pursuant to the Share Exchange Agreement, on February 28, 2017, among other things: (i) EchoStar Corporation received all of the shares of the EchoStar Tracking Stock (described in Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus) owned by DNLLC in exchange for 100% of the equity interests of ET Corp, which held that portion of the EchoStar Technologies business segment of EchoStar that (a) designed, developed and distributed secure end-to-end video technology solutions including digital set-top boxes and related products and technology, primarily for satellite TV service providers and telecommunications companies, (b) provided TV Anywhere technology through Slingbox® units directly to consumers via retail outlets and online, as well as to the pay-TV operator market, and (c) included EchoStar's over-the-top, Streaming Video on Demand platform business, which included assets acquired from Sling TV Holding L.L.C. (formerly DISH Digital Holding L.L.C.) and primarily provided support services to DISH's Sling TV[™] operations, and (ii) EB LLC received all of the shares of HSS Tracking Stock owned by DOLLC in exchange for 100% of the equity interests of EB Corp, formerly a direct wholly owned subsidiary of EB LLC, which held EchoStar's business of providing online video delivery and satellite video delivery for broadcasters and pay-TV operators, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management and other services (the "Uplinking Businesses") ((i) and (ii) collectively, the "Share Exchange"). The Share Exchange has been structured in a manner to be a tax-free exchange for each of EchoStar Tracking Stock and the HSS Tracking Stock were retired and all agreements, arrangements and policy statements with respect to the Tracking Stock were terminated and are of no further effect.



Prior to consummation of the Share Exchange, EchoStar completed steps necessary for the transferring assets and liabilities to be owned by ET Corp and EB Corp and their respective subsidiaries. As part of these steps, HSS issued additional shares of common stock to a subsidiary of EchoStar Corporation and such shares were then distributed as a dividend to EchoStar Corporation.

Certain data center assets within the Uplinking Businesses were not included in the Share Exchange and, following the consummation of the Share Exchange, are owned by us. Cheyenne Data Center L.L.C., our subsidiary holding such data center assets, has been added as an additional guarantor under the indentures governing the Old Notes and the 2011 Notes (as defined herein) and as an additional pledgor of collateral under the indentures governing the Old Secured Notes, the Secured Notes and the 2011 Secured Notes (as defined herein) and related security agreement.

In connection with the Share Exchange, EchoStar Corporation and DISH and certain of their subsidiaries (i) entered into certain customary agreements covering, among other things, matters relating to taxes, employees, intellectual property and the provision of transitional services, (ii) terminated certain previously existing agreements, and (iii) entered into agreements for new transactions pursuant to which EchoStar and DISH and certain of their respective subsidiaries, including HSS, will obtain certain products, services and rights from each other.

BUSINESS STRATEGIES

Capitalize on demand for broadband services. We intend to capitalize on the global demand for satellite-delivered broadband services and enterprise solutions by utilizing, among other things, our industry expertise, technology leadership, increased satellite capacity, access to spectrum resources, and high-quality, reliable service to drive growth in consumer subscribers and enterprise customers.

Expand satellite capacity and related infrastructure. With the launch in December 2016 of the EchoStar XIX satellite and the start of service on the satellite in March 2017, we expect to significantly increase our satellite capacity in North America, Mexico and certain Latin American countries and to add capability for aeronautical, enterprise and international broadband services. We expect that our expertise in the identification, acquisition and development of satellite spectrum and orbital rights and satellite operations, together with our increased satellite capacity and existing, acquired or developed infrastructure, will provide opportunities to enter new international markets. We also believe market opportunities exist that will facilitate the acquisition or leasing of additional satellite capacity which will enable us to provide services to a broader customer base, including providers of pay-TV services, satellite-delivered broadband, corporate communications, and government services.

Develop improved and new technologies. Our engineering capabilities provide us with the opportunity to develop and deploy cutting edge technologies, license our technologies to others, and maintain a leading technological position in the industries in which we are active.

BUSINESS SEGMENTS

Hughes Segment

Our Products and Services

Our Hughes segment is a global provider of broadband satellite technologies and broadband services for home and small office customers. We deliver network technologies, managed services, equipment, and communications solutions for domestic and international consumers and enterprise and government customers. In addition, our Hughes segment provides and installs gateway and terminal equipment and provides satellite ground segment systems and terminals for other satellite systems, including mobile system operators.

Our Hughes segment provides satellite broadband internet access and satellite technologies to North American home and office costumers, which we refer to as the consumer market, and broadband network technologies, managed services, equipment and communications solutions to domestic and international enterprise and government customers. Our Hughes segment also provides managed services, equipment and communications solutions to large enterprise customers for mobile satellite systems. We incorporate advances in technology to reduce costs and to increase the functionality and reliability of our products and services. Through the usage of advanced spectrally efficient modulation and coding methodologies, proprietary software web acceleration and compression techniques, we continue to improve the efficiency of our networks. We invest in technologies to enhance our system and network management capabilities, specifically our managed services for enterprises. We also continue to invest in next generation technologies that can be applied to our future products and services. Our consumer revenue growth depends on our success in adding new subscribers and driving higher average revenue per subscriber across our wholesale and



retail channels. The growth of our enterprise and equipment businesses relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies.

With the launch of the EchoStar XIX satellite in December 2016 and start of service on the satellite in March of 2017, we expect to increase our subscribers and grow our consumer, enterprise and government revenue. The addition of new subscribers and the performance of our consumer service offering, primarily drive the revenue growth in our consumer business. Service costs related to ongoing support of our direct and indirect customers and partners are typically impacted most significantly by our growth. Long-term trends continue to be influenced primarily by the subscriber growth in our consumer business.

Our Hughes segment currently uses its three owned satellites, the SPACEWAY 3 satellite, the EchoStar XVII satellite and the EchoStar XIX satellite, and additional satellite capacity acquired from multiple third-party providers, to provide satellite broadband internet access and communications services to our customers. In December 2016, EchoStar launched the EchoStar XIX satellite, a next-generation, high throughput geostationary satellite, which will provide significant capacity for continued subscriber growth. The EchoStar XIX satellite employs a multi-spot beam, bent pipe Ka-band architecture and will provide additional capacity for the Hughes broadband services to our customers in North America and added capacity in Mexico and certain Latin American countries and is expected to add capability for aeronautical, enterprise and international broadband services. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

We continue our efforts to grow our consumer satellite services business outside of the U.S. In April 2014, we entered into a satellite services agreement pursuant to which Eutelsat do Brasil provides us Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite for a 15-year term. That satellite was launched in March 2016 and we began delivering high-speed consumer satellite broadband services in Brazil in July 2016. In September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat Canada ("Telesat") will provide to us the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 and plan to provide service in additional markets across South America once that capacity is available for commercial use.

Our Customers

Our Hughes segment delivers broadband satellite technologies and broadband internet services to North American home and small office customers. It also delivers network technologies, managed services, hardware, equipment and satellite communications solutions for domestic and international consumers and enterprise and government customers worldwide. In addition, our Hughes segment provides and installs gateway and terminal equipment and provides satellite ground segment systems and terminals for other satellite systems, including mobile system operators. Examples of our enterprise and government customers include lottery agencies, gas station operators and companies with multi-branch networks that rely on satellite or terrestrial networks for critical communication across wide geographies. Most of our enterprise customers have contracts with us for the services they purchase. Developments toward the launch of next-generation satellite systems including LEO and geostationary systems could provide additional opportunities to drive the demand for our network equipment and services.

In October 2012, one of our subsidiaries entered into a distribution agreement (the "Distribution Agreement") with dishNET Satellite Broadband L.L.C. ("dishNET"), a wholly-owned subsidiary of DISH, pursuant to which dishNET has the right, but not the obligation, to market, sell and distribute the Hughes satellite internet service (the "Hughes service") under the dishNET brand. In March 2017, one of our subsidiaries entered into a master service agreement (the "MSA") with DNLLC, a wholly-owned subsidiary of DISH, pursuant to which DNLLC will have the right, but not the obligation, to: (i) market, promote and solicit orders for the Hughes service and related equipment; (ii) install Hughes service equipment; and (iii) purchase and distribute Hughes service equipment. DISH Network accounted for 7.7%, 7.8% and 8.5% of our total Hughes segment revenue for the years ended December 31, 2016, 2015 and 2014, respectively. See Note 16 in the notes to consolidated financial statements included in this prospectus for further discussion of our related party transactions with DISH Network.

We are tracking closely the developments in next-generation satellite businesses, and we are seeking to utilize our services, technologies and expertise to find new commercial opportunities for our business. In June 2015, EchoStar made an equity investment in WorldVu Satellites Limited ("OneWeb"), a global LEO satellite service company. In addition, our Hughes segment entered into an agreement with OneWeb to provide certain equipment and services in connection with the ground systems for OneWeb's LEO satellites.

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As of December 31, 2016, 2015 and 2014, our Hughes segment had approximately 1,036,000, 1,035,000 and 977,000 broadband subscribers, respectively. These broadband subscribers include customers that subscribe to our HughesNet broadband services through retail, wholesale and small/medium enterprise service channels.

As of December 31, 2016 and 2015, our Hughes segment had approximately \$1.52 billion and \$1.44 billion, respectively, of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue under customer contracts that are non-cancelable, excluding agreements with customers in our consumer market. Of the total contracted revenue backlog as of December 31, 2016, we expect to recognize approximately \$436.5 million of revenue in 2017.

Our Competition

The network communications industry is highly competitive. As a global provider of data network products and services, our Hughes segment competes with a large number of telecommunications service providers. This increasingly competitive environment has put pressure on prices and margins. To compete effectively, we emphasize our network quality, our customization capability, our offering of networks as a turnkey managed service, our position as a single point of contact for products and services and our competitive prices.

In our consumer market, we compete against traditional telecommunications and wireless carriers, other satellite internet providers, as well as digital subscriber line ("DSL") and cable internet service providers offering competitive services in many communities we seek to serve. Cost, speed and accessibility are key determining factors in the selection of a service provider by the consumer. Our primary satellite competitor in our North American consumer market is ViaSat Communications, Inc. ("ViaSat Communications"), which is owned by ViaSat, Inc. ("ViaSat"). We seek to differentiate ourselves based on the ubiquitous availability of our service, quality, proprietary technology, and distribution channels.

In our enterprise and government markets, our principal competitors for the supply of very-small-aperture terminal ("VSAT") satellite networks are Gilat Satellite Networks Ltd, ViaSat, SageNet LLC, Newtec and iDirect Technologies ("iDirect"). To differentiate ourselves from our competitors, we emphasize particular technological features of our products and services, our ability to customize networks and perform desired development work and the quality of our customer service. We also face competition from resellers and numerous local companies who purchase equipment and sell services to local customers, including domestic and international telecommunications operators, cable companies and other major carriers.

Manufacturing

Certain products in our Hughes segment are assembled at our facilities in Maryland and we outsource a significant portion of the manufacturing of our products to third parties. We believe that the manufacturing facilities used by our Hughes segment have sufficient capacity to handle current demand. We adjust our capacity based on our production requirements. We also work with third-party vendors for the development and manufacture of components that are integrated into our products. We develop dual sourcing capabilities for critical parts when practical and we evaluate outsourced subcontract vendors on a periodic basis. Our operations group, together with our engineering group, works with our vendors and subcontractors to reduce development costs, to increase production efficiency, and to obtain components at lower prices.

EchoStar Satellite Services Segment

Our Services

Our ESS segment is a global provider of satellite service operations and video delivery solutions. We operate our business using our owned and leased inorbit satellites. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network (our largest customer), Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. We also manage satellite operations for several satellites owned by third parties. Our satellite capacity is currently used by our customers for a variety of applications:

- DTH Services. We provide satellite capacity to satellite TV providers, broadcasters and programmers who use our satellites to deliver
 programming. Our satellites are also used for the transmission of live sporting events, internet access, disaster recovery, and satellite news gathering
 services.
- *Government Services*. We provide satellite services and technical services to U.S. government service providers. We believe the U.S. government may increase its use of commercial satellites for homeland security, emergency response, continuing education, distance learning, and training.



• *Network Services*. We provide satellite capacity and terrestrial network services to companies. These networks are dedicated private networks that allow delivery of video and data services for corporate communications. Our satellites can be used for point-to-point or point to multi-point communications.

Our Customers

We provide satellite capacity on our satellite fleet primarily to DISH Network, Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. For the years ended December 31, 2016, 2015 and 2014, DISH Network accounted for approximately 85.7%, 86.3% and 84.1% of our total ESS segment revenue. We have entered into certain commercial agreements with DISH Network pursuant to which we are obligated to provide DISH Network with satellite services at fixed prices for varying lengths of time depending on the satellite. See Note 16 in the notes to consolidated financial statements included in this prospectus for further discussion of our related party transactions with DISH Network. DISH Network's capacity requirements have been driven by the addition of new channels and migration of programming to high-definition TV and video on demand services. The services that we provide to DISH Network are critical to its nationwide delivery of content to its customers across the U.S. While we expect to continue to provide satellite services to DISH Network, its satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch its own satellites. Any termination or reduction in the services we provide to DISH Network may cause us to have unused capacity on our satellites and require that we aggressively pursue alternative sources of revenue for this business.

We currently have available satellite capacity. Our other satellite service sales generally are characterized by shorter-term contracts or spot market sales. Revenue growth in our ESS segment depends largely on our ability to continuously make additional satellite capacity available for sale. We continue to pursue expanding our business offerings by providing value added services such as telemetry, tracking, and control services to third parties, which leverages the ground monitoring networks and personnel currently within our ESS segment.

The agreements with DISH Network for the EchoStar I and EchoStar VIII satellites expired pursuant to their terms effective November 2015. In addition, our agreement with SES Americom Colorado, Inc. ("SES") for satellite services on the AMC-16 satellite terminated according to its terms in February 2016. The loss of capacity and/or service provided on these three satellites has, and is expected to continue to, adversely impact our revenue, results of operations and cash flow.

As of December 31, 2016 and 2015, our ESS segment had contracted revenue backlog attributable to satellites currently in orbit of approximately \$1.16 billion and \$1.41 billion, respectively. Of the total contracted revenue backlog as of December 31, 2016, we expect to recognize approximately \$365.1 million of revenue in 2017.

Our Competition

In the fixed satellite services market, our ESS segment competes against larger, well-established satellite service companies, such as Intelsat S.A. ("Intelsat"), SES S.A., Telesat, and Eutelsat Communications S.A. ("Eutelsat"), in an industry that is characterized by long-term contracts and high costs for customers to change service providers. Therefore, it is difficult to displace customers from their current relationships with our competitors. Intelsat, SES S.A. and other competitors maintain key North American and other international orbital slots that may further limit competition and competitive pricing.

While we believe that there may be opportunities to capture new business as a result of market trends such as the increased communications demands of homeland security initiatives, there can be no assurance that we will be able to effectively compete against our competitors due to their significant resources and operating history.

NEW BUSINESS OPPORTUNITIES

Our industry is evolving with the increase in worldwide demand for broadband internet access for information, entertainment and commerce. In addition to fiber and wireless systems, other technologies such as geostationary high throughput satellites, LEO networks, balloons, and High Altitude Platform Systems have begun to play significant roles in enabling global broadband access, networks and services. We intend to use our expertise, technologies, capital, investments, global presence, relationships and other capabilities to continue to provide broadband internet systems, equipment, networks and services for information, entertainment and commerce in North America and internationally for consumers, enterprises and governments.



We continue to selectively explore opportunities to pursue partnerships, joint ventures and strategic acquisitions, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets and new customers, broaden our portfolio of services, products and intellectual property, and strengthen our relationships with our customers. We may allocate significant resources for long-term initiatives that may not have a short or medium-term or any positive impact on our revenue, results of operations, or cash flow.

OUR SATELLITE FLEET

Our operating satellite fleet consists of both owned and leased satellites detailed in the table below as of December 31, 2016.

			Nominal Degree Orbital Locations	Depreciable Life
Satellites	Segment	Launch Date	(West Longitude)	(In Years)
Owned:				
SPACEWAY 3 (1)	Hughes	August 2007	95	12
EchoStar XVII	Hughes	July 2012	107	15
EchoStar I (2)(3)(4)	ESS	December 1995	77	—
EchoStar III (4)	ESS	October 1997	61.5	12
EchoStar VI (4)	ESS	July 2000	96.2	12
EchoStar VII (2)(3)	ESS	February 2002	119	3
EchoStar VIII (2)(4)	ESS	August 2002	77	12
EchoStar IX (2)(4)	ESS	August 2003	121	12
EchoStar X (2)(3)	ESS	February 2006	110	7
EchoStar XI (2)(3)	ESS	July 2008	110	9
EchoStar XII (2)(4)(5)	ESS	July 2003	61.5	2
EchoStar XIV (2)(3)	ESS	March 2010	119	11
EchoStar XVI (2)	ESS	November 2012	61.5	15
Capital Leases:				
Nimiq 5 (2)	ESS	September 2009	72.7	15
QuetzSat-1 (2)	ESS	September 2011	77	10
Eutelsat 65 West A	Hughes	March 2016	65	15
Operating Lease:				
AMC-15	ESS	October 2004	105	—

(1) Depreciable life represents the remaining useful life as of June 8, 2011, the date EchoStar completed its acquisition of Hughes Communications.

(2)

See Note 16 in the notes to our consolidated financial statements included elsewhere in this prospectus for discussion of related party transactions with DISH Network. Depreciable life represents the remaining useful life as of March 1, 2014, the effective date of our receipt of the satellites from DISH Network as part of the Satellite and Tracking Stock (3)Transaction (See Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus).

(4) Fully depreciated assets

Depreciable life represents the remaining useful life as of June 30, 2013, the date the EchoStar XII satellite was impaired. (5)

Construction in progress included the following owned and leased satellites under construction or undergoing in-orbit testing as of December 31, 2016.

Satellites	Segment	Expected Launch Date
EchoStar 105/SES-11	ESS	Second or third quarter of 2017
Telesat T19V ("63 West") (1)	Hughes	Second quarter of 2018

(1) We entered into a satellite services agreement for certain capacity on this satellite once launched, but are not party to the construction contract.

Recent Developments

EchoStar XIX. The EchoStar XIX satellite was launched in December 2016 and the satellite was placed into service in March 2017. We expect the EchoStar XIX satellite to provide additional capacity for the Hughes broadband services to our customers in North America and added capacity in Mexico and certain Latin American countries and to add capability for aeronautical, enterprise and international broadband services. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

Eutelsat 65 *West A*. The Eutelsat 65 West A satellite was launched in March 2016 and our Hughes segment began to offer consumer broadband services in Brazil using our leased Ka-band payload on the satellite in July 2016.

EchoStar 105/SES-11. Due to anomalies experienced by our launch provider, the expected launch date of our EchoStar 105/SES-11 satellite has been delayed until the second or third quarter of 2017. Our Ku-band payload on the EchoStar 105/SES-11 satellite will replace our current capacity on the AMC-15 satellite.

AMC-15 and AMC-16. In August 2014, in connection with the execution of agreements related to the EchoStar 105/SES-11 satellite, we entered into amendments that extend the terms of our existing agreements with SES Americom Colorado, Inc. ("SES") for satellite services on the AMC-15 and AMC-16 satellites. As amended, the term of our agreement for satellite services on certain transponders on the AMC-15 satellite was extended from December 2014 through a certain period following the in-service date of the EchoStar 105/SES-11 satellite and is being accounted for as an operating lease. The amended agreement for the AMC-16 satellite services extended the term for the satellite's entire communications capacity, subject to available power, for one year following expiration of the initial term in February 2015 and the agreement terminated according to its terms in February 2016.

As a result of anomalies that affected the operation of the AMC-15 and AMC-16 satellites, our monthly recurring payments were reduced under the related capital lease agreements during the year ending December 31, 2015. We have accounted for these lease modifications generally by reducing the carrying amounts of the satellite and related capital lease obligation by the present value of the payment reduction. In such instances where the carrying amount of the satellite had been reduced to zero as a result of accumulated depreciation or impairments, we have recognized the reductions in the capital lease obligations as gains in " Other, net" in our consolidated statements of operations and comprehensive income (loss). For the years ended December 31, 2015, and 2014, we recognized such gains of zero, \$4.5 million and zero, respectively.

Satellite Anomalies and Impairments

Our satellites may experience anomalies from time to time, some of which may have a significant adverse impact on their remaining useful lives, the commercial operation of the satellites or our operating results. We are not aware of any anomalies with respect to our owned or leased satellites that have had any such material adverse effect during the year ended December 31, 2016. There can be no assurance, however, that anomalies will not have any such adverse impacts in the future. In addition, there can be no assurance that we can recover critical transmission capacity in the event one or more of our in-orbit satellites were to fail.

We historically have not carried in-orbit insurance on our satellites because we assessed that the cost of insurance was uneconomical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures. Pursuant to the terms of the agreements governing certain portions of our indebtedness, we are required, subject to certain limitations on coverage, to maintain in-orbit insurance for our SPACEWAY 3, EchoStar XVI, and EchoStar XVII satellites. Based on economic analysis of the current insurance market we obtained launch plus one year in-orbit insurance for the EchoStar XIX satellite. All other satellites, either in orbit or under construction, are not covered by launch or in-orbit insurance. We will continue to assess circumstances going forward and make insurance decisions on a case by case basis.

We evaluate our satellites for impairment and test for recoverability whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Certain of the anomalies previously disclosed, may be considered to represent a significant adverse change in the physical condition of a particular satellite. However, based on the redundancy designed within each satellite, certain of these anomalies are not necessarily considered to be significant events that would require a test of recoverability.

GOVERNMENT REGULATIONS

We are subject to comprehensive regulation by the FCC for our domestic, as well as some international, satellite and telecommunications operations and equipment businesses. We are also regulated by other U.S. federal agencies, state and local authorities, the International Telecommunication Union ("ITU"), and certain foreign governments, including the EU. In addition, we are also subject to the export control laws and regulations and trade sanctions laws and regulations of the U.S. and other countries with respect to the export of telecommunications equipment and services. Depending upon the circumstances, noncompliance with applicable legislation or regulations could result in suspension or revocation of our licenses or authorizations, the termination or loss of contracts or the imposition of contractual damages, civil fines or criminal penalties.

The following summary of regulations and legislation is not intended to describe all present and proposed government regulation and legislation affecting our business. Government regulations that are currently the subject of judicial or administrative proceedings, draft legislation or administrative proposals could impact us and our industries to varying degrees. The FCC and other regulators from time to time initiate proceedings that could adversely impact our satellite operations, including spectrum usage. We cannot predict either the outcome of these proceedings or proposals or any potential impact they might have on the industry or on our operations. Under its Spectrum Frontiers proceeding, the FCC enabled the use of one of the frequency bands we utilize, the Ka-band, on a shared basis with 5G services, which could limit our flexibility to change the way we use the Ka-band in the future. The FCC has also opened a proceeding on non-geostationary satellites, which may adversely impact our ability to use certain spectrum for user terminals.

FCC Regulations Applicable to Our Operations

FCC Jurisdiction over Satellite and Terrestrial Operations. Non-governmental, including commercial entities, that use radio frequencies to provide communications services to, from or within the U.S. are subject to the jurisdiction of the FCC under the Communications Act of 1934, as amended (the "Communications Act"). The Communications Act gives the FCC regulatory jurisdiction over many areas relating to communications operations, including:

- the assignment of satellite radio frequencies and orbital locations to specific services and companies, the licensing of satellites and earth stations, and the granting of related authorizations;
- approval for the relocation of satellites to different orbital locations, the replacement of a satellite with another new or existing satellite, and the
 authorization of specific earth stations to communicate with such newly relocated satellites;
- ensuring compliance with the terms and conditions of assignments, licenses, authorizations, and approvals;
- avoiding harmful interference with other radio frequency emitters; and
- ensuring compliance with other applicable provisions of the Communications Act and FCC rules and regulations.

All satellite licenses issued by the FCC are subject to expiration unless extended by the FCC. The term of each of our U.S. direct broadcast satellite ("DBS") licenses is 10 years, and our U.S. fixed satellite services ("FSS") licenses generally have 15 year terms. We hold licenses and authorizations for satellite and earth stations as well as other services, including terrestrial wireless services. To obtain and operate under such FCC licenses and authorizations, we must satisfy legal, technical qualification requirements and other conditions including, among other things, satisfaction of certain technical and ongoing due diligence obligations, implementation bonds, annual regulatory fees and various reporting requirements. A license must be obtained prior to launching or operating a satellite.

Telecommunications Regulation. Many of the services we provide are also subject to FCC regulation as telecommunications services. For certain services in the U.S., we are required to contribute fees, computed as a percentage of our revenue from telecommunications services to the Universal Service Fund ("USF") to support mechanisms that subsidize the provision of services to low-income consumers, high-cost areas, schools, libraries, and rural health care providers. Current FCC rules permit us to pass this USF contribution through to our customers. The FCC also requires broadband internet access and internet telephony service providers to comply with the requirements of the Federal Communications Assistance for Law Enforcement Act ("CALEA"). CALEA generally requires telecommunications carriers to ensure that law enforcement agencies are able to conduct lawfully-authorized surveillance of users of their services. In addition, as a provider of interconnected voice over internet protocol services ("VOIP"), we are required to abide by a number of rules related to telephony service, including rules dealing with the protection of customer information and the processing of emergency calls.

State and Local Regulation

We are also regulated by state and local authorities. While the FCC has preempted many state and local regulations that would impair the installation and use of VSATs and other consumer satellite dishes, our businesses nonetheless are subject to state and local regulation, including, among others, obtaining regulatory authorizations and zoning regulations that affect the ability to install these consumer satellite earth station antennas.

International Regulation

Foreign Administrations' Jurisdiction Over Satellite and Terrestrial Operations. Some of our satellites and earth stations are licensed in foreign jurisdictions. We also have terrestrial authorizations in foreign jurisdictions. In order to provide service to a foreign location from a U.S. satellite, we are required to obtain approvals from the FCC and foreign administrative agencies. The laws and regulations addressing access to satellite and terrestrial systems vary from country to country. In most countries,

a license is required to provide our services and to operate satellite earth stations. Such licenses may impose certain conditions, including implementation and operation of the satellite system in a manner consistent with certain milestones (such as for contracting, satellite design, construction, launch, and implementation of service), that the satellite or its launch be procured through a national entity, that the satellite control center be located in national territory, that a license be obtained prior to launching or operating the satellite, or that a license be obtained before interconnecting with the local switched telephone network. Some countries may have restrictions on the services we provide and how we provide them. In addition, certain countries may limit the rates that can be charged for the services we provide or impose other service terms or restrictions.

The ITU Frequency and Orbital Location Registration. The orbital location and frequencies for our satellites are subject to the frequency registration and coordination process of the ITU. The ITU Radio Regulations define the international rules, regulations, and rights for a satellite and associated earth stations to use specific radio frequencies at a specific orbital location. These rules, which include deadlines for the bringing of satellite networks into use, differ depending on the type of service to be provided and the frequencies to be used by the satellite. On our behalf, various countries have made, and may in the future make, additional filings for the frequency assignments at particular orbital locations that are used or to be used by our current satellite networks and potential future satellite networks we may build or acquire. In the event the international coordination process that is triggered by ITU filings under applicable rules is not successfully completed, or that the requests for modification of the BSS plan regarding the allocation of orbital locations and frequencies are not granted by the ITU, we will have to operate the applicable satellite(s) on a non-interference basis, which could have an adverse impact on our business operations. If we cannot do so, we may have to cease operating such satellite(s) at the affected orbital locations. We cannot be sure of the successful outcome of these ITU coordination processes. We make commercially reasonable efforts to cooperate with the filing nation in the preparation of ITU filings, coordination of our operations in accordance with the relevant ITU Radio Regulations, and responses to relevant ITU inquiries.

Registration in the UN Registry of Space Objects. The U.S. and other jurisdictions in which we license satellites are generally parties to the United Nations ("UN") Convention on the Registration of Objects Launched into Outer Space ("UN Convention"). The UN Convention requires a satellite's launching state to register the satellite as a space object. The act of registration carries liability for the registering country in the event that the satellite causes third party damage. Administrations may place certain requirements on satellite licensees in order to procure the necessary launch or operational authorizations that accompany registration of the satellite. In some jurisdictions, these authorizations are separate and distinct, with unique requirements, from the authorization to use a set of frequencies to provide satellite services.

Telecommunications Regulation. Many of the services we provide are also are subject the regulation of other countries as telecommunications services. For certain services, we may be required to contribute fees to a universal service or other fund to support mechanisms that subsidize the provision of services to designated groups. Many countries also impose requirements on telecommunications carriers to ensure that law enforcement agencies are able to conduct lawfully-authorized surveillance of users of their services. In addition, we are subject to a number of other rules, including rules related to telephony service such as the protection of customer information and processing of emergency calls.

Export Control Regulation

In the operation of our business, we must comply with all applicable export control and trade sanctions laws and regulations of the U.S. and other countries. Applicable U.S. laws and regulations include the Arms Export Control Act, the International Traffic in Arms Regulations ("ITAR"), the Export Administration Regulations ("EAR"), and the trade sanctions laws and regulations administered by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC").

The export of certain hardware, technical data, and services relating to satellites and the supply of certain ground control equipment, technical data and services to non-U.S. persons or to destinations outside the U.S. is regulated by the U.S. Department of Commerce's Bureau of Industry and Security ("BIS") under the EAR. In addition, BIS regulates our export of satellite communications network equipment to non-U.S. persons or to destinations outside of the U.S. The export of other items is regulated by the U.S. Department of State's Directorate of Defense Trade Controls ("DDTC") under the ITAR and are subject to strict export control and prior approval requirements. In addition, we cannot provide certain equipment or services to certain countries subject to U.S. trade sanctions unless we first obtain the necessary authorizations from OFAC. We are also subject to the Foreign Corrupt Practices Act and other similar foreign regulations, which generally prohibits companies and their intermediaries from making improper payments or giving or promising to give anything of value to foreign government officials and other individuals for the purpose of obtaining or retaining business or gaining a competitive advantage.

Environmental Regulation

We are subject to the requirements of federal, state, local, and foreign environmental and occupational safety and health laws and regulations. These include laws regulating air emissions, waste-water discharge and waste management, most significantly the Resource Conservation and Recovery Act ("RCRA") and the Emergency Planning and Community Right-to-Know Act ("EPCRA"). Under the RCRA, our Hughes segment is considered a small quantity generator.

As required by the EPCRA, we file annual reports with regulatory agencies covering four areas: Emergency Planning, Emergency Release, Hazardous Chemical Storage, and Toxic Chemical Release Inventory. We maintain small quantities of hazardous materials on our premises and utilize contract services for the removal of hazardous waste. We therefore, have relatively modest reporting requirements under the EPCRA. We are also subject to the requirements of other environmental and occupational safety and health laws and regulations. Additionally, we review SARA Title III regulatory requirements and annually report quantities of onsite material storage using Tier II, state DEQ (Department of Environmental Quality) reporting systems.

Our environmental compliance costs to date have not been material, and we currently have no reason to believe that such costs will become material in the foreseeable future. We do not expect capital or other expenditures for environmental compliance to be material in 2017. However, environmental requirements are complex, change frequently, and have become more stringent over time. Accordingly, we cannot provide assurance that these requirements will not change or become more stringent in the future in a manner that could have a material adverse effect on our business.

PATENTS AND TRADEMARKS

We currently rely on a combination of patent, trade secret, copyright and trademark law, together with licenses, non-disclosure and confidentiality agreements and technical measures, to establish and protect proprietary rights in our products. We hold U.S. and foreign patents covering various aspects of our products and services. The duration of each of our U.S. patents is generally 20 years from the earliest filing date to which the patent has priority. We have granted licenses to use our trademarks and service-marks to affiliates and resellers worldwide, and we typically retain the right to monitor the use of those marks and impose significant restrictions on their use in efforts to ensure a consistent brand identity. We protect our proprietary rights in our software through software licenses that, among other things, require that the software source code be maintained as confidential information and that prohibit any reverse-engineering of that code.

We believe that our patents are important to our business. We also believe that, in some areas, the improvement of existing products and the development of new products, as well as reliance upon trade secrets and unpatented proprietary know-how, are important in establishing and maintaining a competitive advantage. We believe, to a certain extent, that the value of our products and services are dependent upon our proprietary software, hardware, and other technology remaining trade secrets and/or subject to copyright protection. Generally, we enter into non-disclosure and invention assignment agreements with our employees, subcontractors, and certain customers and other business partners. Please see "Legal Proceedings" for more information.

RESEARCH AND DEVELOPMENT AND ENGINEERING

We have a skilled and multi-disciplined engineering organization that develops our products and services. Our in-house technological capability includes a wide range of skills required to develop systems, hardware, software, and firmware used in our products and services. In addition, we have pioneered numerous advances in the area of wireless communication systems and techniques and methodologies.

With respect to hardware development, we have skill sets that include complex digital designs, radio frequency and intermediate frequency analog designs, advanced application-specific integrated circuit designs, and sophisticated consumer and system level packaging designs. We also have extensive experience in developing products for manufacturing for the consumer industry, including dual mode satellite and wireless handsets.

As a complement to our hardware development, we have extensive experience in designing reliable, real time, embedded software systems as part of our communication systems and services offerings. For example, our broadband product line for the enterprise market supports an extensive range of protocols for data communications. Our engineers have also developed many large turnkey systems for our customers by designing the overall solution, implementing the various subsystems, deploying the entire network and user terminals, integrating and verifying the operational system, and ultimately training the customers' technicians and operators.

Costs incurred in research and development activities generally are expensed as incurred. A significant portion of our research and development costs are incurred in connection with the specific requirements of a customer's order. In such instances, the amounts for these customer funded development efforts are included in cost of sales. Cost of sales includes research and development costs incurred in connection with customer's orders of approximately \$23.7 million, \$19.6 million and \$25.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. In addition, we incurred other research and development expenses of approximately \$31.2 million, \$26.4 million and \$20.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

GEOGRAPHIC AREA DATA AND TRANSACTIONS WITH MAJOR CUSTOMERS

For information relating to HSS's geographic area data and transactions with major customers, refer to Note 14 "Segment Reporting" in the notes to our consolidated financial statements included elsewhere in this prospectus.

PROPERTIES

The following table sets forth certain information concerning our principal properties related to our Hughes segment ("Hughes") and EchoStar Satellite Services segment ("ESS") and to our other operations and administrative functions ("Other") as of December 31, 2016. We operate various facilities in the U.S. and abroad. We believe that our facilities are well maintained and are sufficient to meet our current and projected needs.

San Diego, CaliforniaHughesLeasedEngineering and sales officesGaithersburg, MarylandHughesLeasedManufacturing and testing facilities, engineering and logistics and administrative officesSouthfield, Michigan (1)HughesLeasedShared hub, antennae yards, gateway, backup network operation and control centerLas Vegas, Nevada (1)HughesLeasedControl centerAmerican Fork, UtahHughesLeasedOffice space and engineering officesBarueri, Brazil (1)HughesLeasedShared hub, warehouse and spacecraft operations centerSao Paulo, BrazilHughesLeasedHughes Brazil corporate headquarters, sales offices, and warehouseGurgaon, India (1)(2)HughesLeasedHughes India corporate headquartersNew Delhi, IndiaHughesLeasedSales office, gatewaysMexico City, MexicoHughesLeasedSales office, gatewaysMilton Keynes, United KingdomHughesLeasedSales office, gateways
Gaithersburg, MarylandHughesLeasedadministrative officesSouthfield, Michigan (1)HughesLeasedShared hub, antennae yards, gateway, backup network operation and control centerLas Vegas, Nevada (1)HughesLeasedShared hub, antennae yards, gateway, backup network operation and control centerAmerican Fork, UtahHughesLeasedOffice space and engineering officesBarueri, Brazil (1)HughesLeasedShared hub, warehouse and spacecraft operations centerSao Paulo, BrazilHughesLeasedHughes Brazil corporate headquarters, sales offices, and warehouse, and development centerNew Delhi, IndiaHughesLeasedHughes India corporate headquartersMexico City, MexicoHughesLeasedSales office, gateways
Southfield, Michigan (1)HughesLeasedcontrol centerLas Vegas, Nevada (1)HughesLeasedShared hub, antennae yards, gateway, backup network operation and control centerAmerican Fork, UtahHughesLeasedOffice space and engineering officesBarueri, Brazil (1)HughesLeasedShared hub, warehouse and spacecraft operations centerSao Paulo, BrazilHughesLeasedHughes Brazil corporate headquarters, sales offices, and warehouseGurgaon, India (1)(2)HughesLeasedHughes India corporate headquartersNew Delhi, IndiaHughesLeasedSales office, gatewaysMexico City, MexicoHughesLeasedSales office, gateways
Las Vegas, Nevada (1)HughesLeasedcontrol centerAmerican Fork, UtahHughesLeasedOffice space and engineering officesBarueri, Brazil (1)HughesLeasedShared hub, warehouse and spacecraft operations centerSao Paulo, BrazilHughesLeasedHughes Brazil corporate headquarters, sales offices, and warehouseGurgaon, India (1)(2)HughesLeasedHughes India corporate headquartersNew Delhi, IndiaHughesLeasedSales office, gateways
Barueri, Brazil (1)HughesLeasedShared hub, warehouse and spacecraft operations centerSao Paulo, BrazilHughesLeasedHughes Brazil corporate headquarters, sales offices, and warehouseGurgaon, India (1)(2)HughesLeasedAdministrative offices, shared hub, operations, warehouse, and development centerNew Delhi, IndiaHughesLeasedHughes India corporate headquartersMexico City, MexicoHughesLeasedSales office, gateways
Sao Paulo, BrazilHughesLeasedHughes Brazil corporate headquarters, sales offices, and warehouse Administrative offices, shared hub, operations, warehouse, and development centerGurgaon, India (1)(2)HughesLeaseddevelopment centerNew Delhi, IndiaHughesLeasedHughes India corporate headquartersMexico City, MexicoHughesLeasedSales office, gateways
Gurgaon, India (1)(2)HughesLeasedAdministrative offices, shared hub, operations, warehouse, and development centerNew Delhi, IndiaHughesLeasedHughes India corporate headquartersMexico City, MexicoHughesLeasedSales office, gateways
Gurgaon, India (1)(2)HughesLeaseddevelopment centerNew Delhi, IndiaHughesLeasedHughes India corporate headquartersMexico City, MexicoHughesLeasedSales office, gateways
Mexico City, Mexico Hughes Leased Sales office, gateways
Milton Keynes United Kingdom Hughes Leased Hughes Furone corporate headquarters and operations
Million Reynes, officer Reliadon and operations
Germantown, Maryland (1)HughesOwnedHughes corporate headquarters, engineering offices, network
Griesheim, Germany (1)HughesShared hub, antennae yards, operations, administrative offices and warehouse
Gilbert, Arizona (1)(5)ESS(3)Spacecraft operations center and satellite access center
Black Hawk, South Dakota (1)ESS(3)Earth Station
Cheyenne, Wyoming (1)(6)ESS(3)Spacecraft operations center and satellite access center
Englewood, Colorado (5)Hughes/ESS/Other(3)ESS corporate headquarters, gateways

(1)We perform network services and customer support functions 24 hours a day, 365 days a year at these locations.

(2)

(3)

These properties are used by subsidiaries that are less than wholly-owned by the Company. These properties are owned by EchoStar Corporation or its subsidiaries, other than HSS and its subsidiaries, and are made available for use to HSS and its subsidiaries. In addition to the above properties, we have multiple gateways throughout the Western part of the U.S., Mexico and Canada that support the SPACEWAY 3, EchoStar XVII, and EchoStar XIX (4) satellites as well as multiple regional broadcast operations centers. These properties or a portion thereof were transferred in connection with, and upon consummation of, the Share Exchange. Hughes and ESS entered into agreements with DISH Network for

(5)continued use of all or a portion of some of these facilities.

This property was owned by EchoStar Corporation and one of its subsidiaries. A portion of this property was transferred to DISH, and the other portion was contributed to us, in connection (6) with, and upon consummation of, the Share Exchange.

EMPLOYEES AND LABOR RELATIONS

As of December 31, 2016, we had approximately 2,100 employees and generally consider relations with them to be good. Other than approximately 170 of our employees located in Italy and Brazil, none are represented by a union.



LEGAL PROCEEDINGS

For a discussion of legal proceedings, see Note 13 in the notes to our consolidated financial statements included elsewhere in this prospectus. Except as provided below, there were no material changes to our legal proceedings as previously disclosed in such Note 13.

TQ Beta LLC

On June 30, 2014, TQ Beta LLC ("TQ Beta") filed suit against DISH Network, DISH DBS Corporation, DISH Network L.L.C., as well as HSS, EchoStar Corporation, EchoStar Technologies, L.L.C, and Sling Media, Inc., a subsidiary of EchoStar, in the United States District Court for the District of Delaware, alleging infringement of United States Patent No. 7,203,456 (the "456 patent"), which is entitled "Method and Apparatus for Time and Space Domain Shifting of Broadcast Signals." TQ Beta alleges that the Hopper, Hopper with Sling, ViP 722 and ViP 722k DVR devices, as well as the DISH Anywhere service and DISH Anywhere mobile application, infringe the 456 patent, but has not specified the amount of damages that it seeks. TQ Beta is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein. During August 2015, EchoStar Corporation and DISH Network L.L.C. filed petitions before the United States Patent and Trademark Office challenging the validity of certain claims of the 456 patent, and in February 2016, the United States Patent and Trademark Office agreed to institute proceedings on our petitions. On February 25, 2016, the case was stayed pending resolution of these proceedings before the United States Patent and Trademark Office, and the Court vacated all pending court dates and deadlines. On January 30, 2017, the United States Patent and Trademark Office issued its final written decisions on our petitions, invalidating all claims of the 456 patent that were asserted in the litigation. TQ Beta is appealing this ruling.

RELATED PARTY TRANSACTIONS

Policies and Procedures for Reviewing Related Party Transactions

EchoStar Corporation's Board of Directors has adopted a written policy for the review and approval of transactions involving EchoStar Corporation or its subsidiaries, on the one hand, and related parties, such as directors or executive officers and their immediate family members, and DISH Network, on the other hand. EchoStar Corporation distributes questionnaires to its officers and directors on a quarterly basis. The General Counsel of EchoStar Corporation directs the appropriate review of all potential related-party transactions and schedules their presentation at meetings of the Audit Committee and the Board of Directors of EchoStar Corporation and, as applicable, our Board of Directors. Both the Audit Committee and the Board of Directors of EchoStar Corporation and, as applicable, our Board of Directors undertake a review of all recurring potential related-party transactions and, as applicable, our Board of Directors undertake a review of all recurring potential related-party transaction of each such transaction, with all interested parties abstaining. In addition, transactions involving DISH Network also are subject to the approval of a committee of non-interlocking directors of the EchoStar Board of Directors. EchoStar Corporation's Board of Directors, however, has delegated authority to approve certain transactions with DISH Network to non-interlocking management which reports such approvals to EchoStar Corporation's Board of Directors.

Restrictions on Related Party Transactions Under the Indentures Governing the 2011 Notes and Governing the Old Notes and the Notes

Under the indentures governing the 2011 Notes, the Old Notes and the Notes, subject to certain exceptions, HSS and its restricted subsidiaries are required not to sell, lease, transfer or otherwise dispose of any of their properties or assets to, or purchase any property or assets from, or enter into any contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any affiliate unless such affiliate transaction is on terms that are no less favorable to HSS or its restricted subsidiaries than those that would have been obtained in a comparable transaction by HSS or such subsidiaries with an unrelated person and unless certain other conditions under the indentures (if applicable) are met.

Related Party Transactions with EchoStar

We and EchoStar have agreed that we shall have the right, but not the obligation, to receive from EchoStar certain corporate services, including among other things: treasury, tax, accounting and reporting, risk management, legal, internal audit, human resources, and information technology. These services are provided at cost. We may terminate a particular service we receive from EchoStar for any reason upon at least 30 days' notice. We recorded expenses for services received from EchoStar of \$16.7 million for the year ended December 31, 2016. In addition, we occupy certain office space in buildings owned or leased by EchoStar and pay a portion of the taxes, insurance, utilities and maintenance of the premises in accordance with the percentage of the space we occupy.



We participate in certain of EchoStar's shared services arrangements for its subsidiaries in the ordinary course of business, including arrangements for payroll, accounts payable and cash management. From time to time in connection with the processing of transactions under these arrangements, we may pay or receive amounts attributable to other domestic subsidiaries of EchoStar. We report net payments on behalf of other subsidiaries in "Advances to affiliates, net" within current assets and we report net receipts on behalf of other subsidiaries in "Advances from affiliates, net" within current liabilities in our consolidated balance sheets. No repayment schedule for these net advances has been determined.

EchoStar and certain of its subsidiaries have provided cash advances to certain of our foreign subsidiaries to fund certain expenditures pursuant to loan agreements that mature in 2018 and 2022. Advances under these agreements bear interest at annual rates ranging from one to three percent, subject to periodic adjustment based on the one-year U.S. LIBOR rate. We report amounts payable under these agreements in "Advances from affiliates" within noncurrent liabilities in our consolidated balance sheets. For the twelve months ended December 31, 2016, the largest total amount outstanding was approximately \$32.0 million, the amount of interest paid was \$0.6 million and zero principal was paid. As of December 31, 2016, a total of approximately \$32.0 million was outstanding under these agreements.

Contribution of EchoStar XIX Satellite. On February 1, 2017, EchoStar contributed the EchoStar XIX satellite and assigned the related construction contract with the satellite manufacturer to us.

EchoStar XXI and EchoStar XXIII Launch Facilitation and Operational Control Agreements. As part of applying for our launch licenses for EchoStar XXI and XXIII through the UK Space Agency, our subsidiary, Hughes Network Systems, Ltd. ("HNS Ltd.") and a subsidiary of EchoStar, EchoStar Operating L.L.C. ("EOC"), entered into agreements in June 2015 and March 2016 to transfer to HNS Ltd., EOC's launch service contracts for the EchoStar XXI and EchoStar XXIII satellites, respectively, and to grant HNS Ltd. certain rights to control the in-orbit operations of these satellites. EOC retained ownership of the satellites. In March 2016, we recorded a \$70.3 million addition to "Other noncurrent assets, net" and a corresponding increase in "Additional paid-in capital" in our condensed consolidated balance sheet to reflect EOC's cumulative payments under the EchoStar XXIII launch service contract prior to the transfer date. The EchoStar XXIII satellite was successfully launched in March 2017. EOC also contracted to make future payments to HNS Ltd. for amounts that HNS Ltd. is required to pay under both launch service contracts. In March and November 2016, HNS Ltd. received a total of \$23.8 million in cash from EOC to fund required payments under the EchoStar XXII launch service contracts are included in our disclosure of satellite-related obligations in Note 13 in the notes to our consolidated financial statements included elsewhere in this prospectus.

Share Exchange Agreement. Prior to consummation of the Share Exchange, EchoStar was required to complete steps necessary for the transferring of certain assets and liabilities to the DISH Parties. As part of these steps, subsidiaries of EchoStar that, prior to the consummation of the Share Exchange, owned the Uplinking Businesses and related assets and liabilities were contributed to our subsidiary EB Corp in consideration for additional shares of EB Corp's common stock that were then issued to a subsidiaries and have been pledged as collateral to support our obligations under the indentures relating to the 2011 Secured Notes, the Old Secured Notes and the Secured Notes.

Related Party Transactions with DISH Network

Following the Spin-off, EchoStar and DISH have operated as separate publicly-traded companies. A substantial majority of the voting power of the shares of EchoStar and DISH is owned beneficially by Charles W. Ergen, our Chairman, and by certain trusts established by Mr. Ergen for the benefit of his family.

In connection with and following both the Spin-off and the Share Exchange, EchoStar and DISH Network have entered into certain agreements pursuant to which we and EchoStar obtain certain products, services and rights from DISH Network; DISH Network obtains certain products, services and rights from us and EchoStar; and we and DISH Network have indemnified each other against certain liabilities arising from our respective businesses. We and/or EchoStar also may enter into additional agreements with DISH Network in the future. Generally, the amounts DISH Network pays for products and services provided under the agreements are based on our cost plus a fixed margin (unless noted differently below), which varies depending on the nature of the products and services provided.

Caltech. On October 1, 2013, Caltech Institute of Technology ("Caltech") filed complaints against two of our subsidiaries, Hughes Communications and HNS, as well as against DISH and certain of its subsidiaries, in the United States District Court for the Central District of California alleging infringement of United States Patent Nos. 7,116,710; 7,421,032; 7,916,781; and 8,284,833,

each of which is entitled "Serial Concatenation of Interleaved Convolutional Codes forming Turbo-Like Codes." Caltech asserted that encoding data as specified by the DVB-S2 standard infringed each of the asserted patents. Caltech claimed that certain of our Hughes segment's satellite broadband products and services, infringed the asserted patents by implementing the DVB-S2 standard. Pursuant to a settlement agreement among us, DISH and Caltech, in May 2016, Caltech dismissed with prejudice all of its claims in these actions. There were no expenses or payments to DISH Network under this agreement for the year ended December 31, 2016.

Collocation and Antenna Space Agreements. In connection with the Share Exchange Agreement, effective March 2017, we entered into certain agreements pursuant to which DISH Network will provide collocation and antenna space to EchoStar through March 2022 at the following locations: Cheyenne, Wyoming; Gilbert, Arizona; New Braunfels, Texas; Monee, Illinois; and Englewood, Colorado. We may terminate any of these agreements with 180 days' prior written notice. The fees for the services provided under these agreements depend on the number of racks leased at the location.

DBSD North America Agreement. In March 2012, DISH Network completed its acquisition of 100% of the equity of reorganized DBSD North America, Inc. ("DBSD North America"). Prior to DISH Network's acquisition of DBSD North America and the completion of Hughes Acquisition, DBSD North America and HNS entered into various agreements pursuant to which our Hughes segment provides, among other things, warranty, operations and maintenance and hosting services of DBSD North America's gateway and ground-based communications equipment. DBSD North America generally has the right to continue to receive warranty services from us on a month-to-month basis until February 2019. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by DBSD North America upon at least 120 days' written notice to us prior to the end of the term. The provision of hosting services will continue until February 2022 and will automatically renew for an additional five-year period until February 2027 unless terminated by DBSD North America upon at least 180 days' written notice to us prior to the end of the term. The provision of services for convenience, subject to providing us with prior notice and/or payment of termination charges. We earned revenue of approximately \$2.3 million from DBSD North America under this agreement for the year ended December 31, 2016.

Hughes Broadband Distribution Agreement. Effective October 2012, HNS and dishNET Satellite Broadband L.L.C. ("dishNET"), a wholly-owned subsidiary of DISH , entered into a distribution agreement (the "Distribution Agreement") pursuant to which dishNET has the right, but not the obligation, to market, sell and distribute the Hughes satellite internet service (the "Hughes service"). dishNET pays HNS a monthly per subscriber wholesale service fee for the Hughes service based upon a subscriber's service level, and based upon certain volume subscription thresholds. The Distribution Agreement also provides that dishNET has the right, but not the obligation, to purchase certain broadband equipment from us to support the sale of the Hughes service. The Distribution Agreement had an initial term of five years with automatic renewal for successive one year terms unless terminated by either party with a written notice at least 180 days before the expiration of the then-current term. In February 2014, HNS and dishNET entered into an amendment to the Distribution Agreement which, among other things, extended the initial term of the Distribution Agreement until March 2024. Upon expiration or termination of the Distribution Agreement, the parties will continue to provide the Hughes service to the then-current dishNET subscribers pursuant to the terms and conditions of the Distribution Agreement. We earned revenue of approximately \$100.3 million from dishNET under this agreement for the year ended December 31, 2016.

Hughes Broadband Sales Agency Agreement. During March 2017, HNS and DNLLC, a wholly-owned subsidiary of DISH, entered into a master service agreement (the "MSA") pursuant to which DNLLC will have the right, but not the obligation, to: (i) market, promote and solicit orders for the Hughes service and related equipment; (ii) install Hughes service equipment; and (iii) purchase and distribute Hughes service equipment. Under the MSA, HNS will make certain payments to DNLLC for each Hughes service sale and installation, and DNLLC will make payments to HNS for the purchase of Hughes service equipment from HNS, which will be reimbursed by HNS after the equipment is installed and activated at the customer's residence. The MSA has an initial term of 5 years with automatic renewal for successive one year terms. After the first anniversary, either party has the ability to terminate the MSA, in whole or in part, for any reason upon at least 90 days' notice to the other party. Upon expiration or termination of the MSA, HNS will continue to provide the Hughes service to subscribers and make certain payments to DNLLC pursuant to the terms and conditions of the MSA.

Intellectual Property and Technology License Agreement. Effective March 2017, in connection with the Share Exchange, EchoStar and DISH Network entered into an Intellectual Property and Technology License Agreement ("IPTLA") pursuant to which EchoStar Corporation and DISH and their respective subsidiaries license to each other certain intellectual property and technology. The IPTLA will continue in perpetuity, unless mutually terminated by the parties. Pursuant to the IPTLA, EchoStar granted to DISH Network a license to EchoStar and its subsidiaries' intellectual property and technology for use by DISH Network in connection with its continued operation of the businesses acquired pursuant to the Share Exchange, including a limited license to use the

"ECHOSTAR" trademark during a transition period. EchoStar retains full ownership of the "ECHOSTAR" trademark. In addition, DISH Network granted a license back to EchoStar and its subsidiaries for the continued use of all intellectual property and technology that is used in EchoStar and its subsidiaries' retained businesses but the ownership of which was transferred to DISH Network pursuant to the Share Exchange.

Professional Services Agreement. In connection with the Spin-off, EchoStar entered into various agreements with DISH including the Transition Services Agreement, Satellite Procurement Agreement and Services Agreement, which all expired in January 2010 and were replaced by a Professional Services Agreement. In January 2010, EchoStar and DISH agreed that EchoStar shall continue to have the right, but not the obligation, to receive the following services from DISH Network, among others, certain of which were previously provided under the Transition Services Agreement: information technology, travel and event coordination, internal audit, legal, accounting and tax, benefits administration, program acquisition services and other support services. Additionally, EchoStar and DISH agreed that DISH Network would continue to have the right, but not the obligation, to engage us to manage the process of procuring new satellite capacity for DISH Network (previously provided under the Satellite Procurement Agreement), receive logistics, procurement and quality assurance services from EchoStar (previously provided under the Services Agreement) and other support services. In connection with the consummation of the Share Exchange, EchoStar and DISH amended and restated the Professional Services Agreement to provide that EchoStar and DISH Network shall have the right to receive additional services that either EchoStar or DISH Network may require as a result of the Share Exchange. The term of the Amended and Restated Professional Services Agreement is through January 2018 and renews automatically for successive one-year periods thereafter, unless the agreement is terminated earlier by either party upon at least 60 days' notice. However, either party may terminate the Amended and Restated Professional Services Agreement in part with respect to any particular service it receives for any reason upon at least 30 days' notice.

Real Estate Lease. Prior to the Share Exchange, EchoStar Corporation leased to DISH Network certain space at 530 EchoStar Drive, Cheyenne, Wyoming. In connection with the Share Exchange, EchoStar Corporation transferred ownership of a portion of this property to DISH Network and contributed a portion to us and we amended the agreement to (i) terminate the lease for the transferred space and (ii) provide for a continued lease to the portion of the property contributed to us for a period ending in December 2031. The rent on a per square foot basis for the lease is comparable to per square foot rental rates of similar commercial property in the same geographic area at the time of the lease, and DISH Network is responsible for its portion of the taxes, insurance, utilities and maintenance of the premises. This agreement may be extended by mutual consent, in which case this agreement will be converted to a month-to-month lease agreement. Upon extension, either party has the right to terminate this agreement upon 30 days' notice.

RUS Implementation Agreement. In September 2010, DISH Broadband L.L.C. ("DISH Broadband"), DISH's indirect, wholly-owned subsidiary, was selected by the Rural Utilities Service ("RUS") of the United States Department of Agriculture to receive up to approximately \$14.1 million in broadband stimulus grant funds (the "Grant Funds"). Effective November 2011, HNS and DISH Broadband entered into a RUS Implementation Agreement (the "RUS Agreement") pursuant to which HNS provided certain portions of the equipment and broadband service used to implement DISH Broadband's RUS program. While the RUS Agreement expired in June 2013 when the Grant Funds were exhausted, HNS is required to continue providing services to DISH Broadband's customers activated prior to the expiration of the RUS Agreement in accordance with the terms and conditions of the RUS Agreement. We recognized revenue of approximately \$0.1 million previously received from DISH Broadband under this agreement for the year ended December 31, 2016.

Satellite Services Provided to DISH Network. Since the Spin-off, we have entered into certain satellite service agreements pursuant to which DISH Network receives satellite services on certain satellites owned or leased by us. The fees for the services provided under these satellite service agreements depend, among other things, upon the orbital location of the applicable satellite, the number of transponders that are providing services on the applicable satellite, and the length of the service arrangements. The terms of each service arrangement is set forth below:

EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV. As part of the Satellite and Tracking Stock Transaction described below, in March 2014, we began providing certain satellite services to DISH Network on the EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. The term of each satellite services agreement generally terminates upon the earlier of: (i) the end of life of the satellite; (ii) the date the satellite fails; or (iii) a certain date, which depends upon, among other things, the estimated useful life of the satellite. DISH Network generally has the option to renew each satellite service agreement on a year-to-year basis through the end of the respective satellite's life. There can be no assurance that any options to renew such agreements will be exercised. In December 2016, DISH Network renewed the satellite services agreement relative to the EchoStar VII satellite for one year to June 2018. We earned revenue of approximately \$42.8 million, \$20.4 million, \$38.8 million, and \$42.8 million from DISH Network for each of the EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites, respectively, under these agreements for the year ended December 31, 2016.

EchoStar IX. Effective January 2008, DISH Network began receiving satellite services from us on the EchoStar IX satellite. Subject to availability, DISH Network generally has the right to continue to receive satellite services from us on the EchoStar IX satellite on a month-to-month basis. We earned revenue of approximately \$7.2 million from DISH Network under this agreement for the year ended December 31, 2016.

EchoStar XII. DISH Network receives satellite services from us on the EchoStar XII satellite. The term of the satellite services agreement terminates September 2017. DISH Network generally has the option to renew the agreement on a year-to-year basis through the end of the satellite's life. There can be no assurance that any options to renew this agreement will be exercised. We earned revenue of approximately \$11.7 million from DISH Network under this agreement for the year ended December 31, 2016.

EchoStar XVI. In December 2009, we entered into an initial ten-year transponder service agreement with DISH Network, pursuant to which DISH Network has received satellite services from us on the EchoStar XVI satellite since January 2013. Effective December 2012, we and DISH Network amended the transponder service agreement to, among other things, change the initial term to generally expire upon the earlier of: (i) the end-of-life or replacement of the satellite; (ii) the date the satellite fails; (iii) the date the transponder(s) on which service is being provided under the agreement fails; or (iv) four years following the actual service commencement date. In July 2016, we and DISH Network further amended the transponder service agreement to, among other things, extend the initial term by one additional year and to reduce the term of the first renewal option by one year. Prior to expiration of the initial term, we, upon certain conditions, and DISH Network have the option to renew for an additional five-year period. If either we or DISH Network exercise our respective five-year renewal option or DISH Network does not exercise the first five-year renewal option or DISH Network does not exercise the first five-year renewal option or DISH Network does not exercise the EchoStar XVI satellite for a certain price. If DISH Network does not elect to purchase the EchoStar XVI satellite at that time, we may sell the EchoStar XVI satellite to a third party and DISH Network is required to pay us a certain amount in the event we are not able to sell the EchoStar XVI satellite for more than a certain amount. We earned revenue of approximately \$73.2 million from DISH Network under this agreement for the year ended December 31, 2016.

Nimiq 5 Agreement. In September 2009, we entered into a fifteen-year satellite service agreement with Telesat Canada ("Telesat") to receive service on all 32 DBS transponders on the Nimiq 5 satellite at the 72.7 degree west longitude orbital location (the "Telesat Transponder Agreement"). In September 2009, we also entered into a satellite service agreement (the "DISH Nimiq 5 Agreement") with DISH Network, pursuant to which DISH Network receives satellite services from us on all 32 of the DBS transponders covered by the Telesat Transponder Agreement. Under the terms of the DISH Nimiq 5 Agreement, DISH Network makes certain monthly payments to us that commenced in September 2009, when the Nimiq 5 satellite was placed into service, and continue through the service term. Unless earlier terminated under the terms and conditions of the DISH Nimiq 5 Agreement, the service term will expire ten years following the date the Nimiq 5 satellite was placed into service. Upon expiration of the initial term, DISH Network has the option to renew the DISH Nimiq 5 Agreement on a year-to-year basis through the end of life of the Nimiq 5 satellite. Upon in-orbit failure or end of life of the Nimiq 5 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. We earned revenue of approximately \$78.9 million from DISH Network under this agreement for the year ended December 31, 2016.

QuetzSat-1 Agreement. In November 2008, we entered into a ten-year satellite service agreement with SES Latin America, which provides, among other things, for the provision by SES Latin America to us of service on 32 DBS transponders on the QuetzSat-1 satellite. Concurrently, in 2008, we entered into a transponder service agreement with DISH Network, pursuant to which DISH Network receives satellite services on 24 of the DBS transponders on the QuetzSat-1 satellite. The QuetzSat-1 satellite was launched in September 2011 and was placed into service in November 2011 at the 67.1 degree west longitude orbital location. In February 2013, EchoStar and DISH Network entered into an agreement pursuant to which we receive certain satellite services from DISH Network on five DBS transponders on the QuetzSat-1 satellite. In January 2013, the QuetzSat-1 satellite was moved to the 77 degree west longitude orbital location and DISH Network commenced commercial operations at such location in February 2013. Under the terms of our contractual arrangements with DISH Network, we began to provide service to DISH Network on the QuetzSat-1 satellite in February 2013 and will continue to provide service through the remainder of the service term. Unless extended or earlier terminated under the terms and conditions of our agreement with DISH Network for the QuetzSat-1 satellite, the initial service term will expire in November 2021. Upon expiration of the initial service term, DISH Network has the option to renew the agreement for the QuetzSat-1 satellite on a year-to-year basis through the end of life of the QuetzSat-1 satellite, and

in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no assurance that any options to renew this agreement will be exercised or that DISH Network will exercise its option to receive service on a replacement satellite. We earned revenue of approximately \$30.2 million from DISH Network under this agreement for the year ended December 31, 2016.

103 Degree Orbital Location/SES-3. In May 2012, we entered into a spectrum development agreement (the "103 Spectrum Development Agreement") with Ciel Satellite Holdings Inc. ("Ciel") to develop certain spectrum rights at the 103 degree west longitude orbital location (the "103 Spectrum Rights"). In June 2013, we and DISH Network entered into a spectrum development agreement (the "DISH 103 Spectrum Development Agreement") pursuant to which DISH Network may use and develop the 103 Spectrum Rights. Unless earlier terminated under the terms and conditions of the DISH 103 Spectrum Development Agreement, the term generally will continue for the duration of the 103 Spectrum Rights. In connection with the 103 Spectrum Development Agreement, in May 2012, we also entered into a ten-year service agreement with Ciel pursuant to which we receive certain satellite services from Ciel on the SES-3 satellite at the 103 degree orbital location. In June 2013, we and DISH Network entered into an agreement pursuant to which DISH Network receives certain satellite services from us on the SES-3 satellite (the "DISH 103 Service Agreement"). Under the terms of the DISH 103 Service Agreement, DISH Network makes certain monthly payments to us through the service term. Unless earlier terminated under the terms and conditions of the DISH 103 Service Agreement, the initial service term will expire on the earlier of: (i) the date the SES-3 satellite fails; (ii) the date the transponder(s) on which service was being provided under the agreement fails; or (iii) June 2023. Upon in-orbit failure or end of life of the SES-3 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no assurance that DISH Network will exercise its option to receive service on a replacement satellite. We earned revenue of approximately \$1.3 million from DISH Network under this agreement for the year ended December 31, 2016.

Satellite and Tracking Stock Transaction. In February 2014, we entered into agreements with DISH Network to implement a transaction pursuant to which, among other things: (i) in March 2014, EchoStar and HSS issued shares of Tracking Stock to DISH Network in exchange for five satellites owned by DISH Network (EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV) (including assumption of related in-orbit incentive obligations) and approximately \$11.4 million in cash; and (ii) in March 2014, DISH Network began receiving certain satellite services on these five satellites from us (collectively, the "Satellite and Tracking Stock Transaction"). The Tracking Stock was retired in March 2017 and all agreements, arrangements and policy statements with respect to, and terms of, such Tracking Stock terminated and are of no further effect. See Note 3 in the notes to our consolidated financial statements included elsewhere in this prospectus for further information. See the "Satellite Services Provided to DISH Network" discussion above for the revenue we earned from DISH Network for the year ended December 31, 2016 on these satellites.

Share Exchange Agreement. On January 31, 2017, EchoStar Corporation and certain of its subsidiaries entered into the Share Exchange Agreement with DISH and certain of its subsidiaries pursuant to which on February 28, 2017 EchoStar Corporation and its subsidiaries received all of the shares of the Tracking Stock described above in exchange for the equity interests of certain of EchoStar subsidiaries that held substantially all of EchoStar Corporation's EchoStar Technologies businesses and certain other assets. Following consummation of the Share Exchange on February 28, 2017, EchoStar no longer operates the transferred EchoStar Technologies businesses and the Tracking Stock was retired and all agreements, arrangements and policy statements with respect to, and terms of, such Tracking Stock terminated and are of no further effect. Pursuant to the Share Exchange Agreement, EchoStar transferred certain assets, investments in joint ventures, spectrum licenses and real estate properties and DISH Network assumed certain liabilities relating to the transferring assets, and businesses. The Share Exchange Agreement contains customary representations and warranties by the parties, including representations by EchoStar related to the transferring assets, assumed liabilities and the financial condition of the transferring businesses. EchoStar and DISH Network have also agreed to customary indemnification provisions whereby each party indemnifies the other against certain losses with respect to breaches of representations, warranties or covenants and certain liabilities and if certain actions undertaken by it causes the transaction to be taxable to the other party after closing.

Tax Matters Agreement. Effective March 2017, in connection with the Share Exchange, EchoStar Corporation and DISH entered into a tax matters agreement. This agreement governs certain rights, responsibilities and obligations of EchoStar Corporation and DISH and their respective subsidiaries with respect to taxes of the transferred businesses pursuant to the Share Exchange. Generally, EchoStar is responsible for all tax returns and tax liabilities for the transferred businesses and assets for periods prior to the Share Exchange and DISH Network is responsible for all tax returns and tax liabilities for the transferring businesses from and after the Share Exchange. Both EchoStar and DISH Network have made certain tax-related representations and are subject to various tax-related covenants after the consummation of the Share Exchange. Both EchoStar and DISH Network have agreed to indemnify each other if there is a breach of any such tax representation or violation of any such tax covenant and that breach or violation results in the Share Exchange not qualifying for tax free treatment for the other party. In addition, DISH Network has agreed to

indemnify EchoStar if the transferred businesses are acquired, either directly or indirectly (e.g., via an acquisition of DISH Network), by one or more persons and such acquisition results in the Share Exchange not qualifying for tax free treatment. The tax matters agreement supplements the Tax Sharing Agreement outlined below, which continues in full force and effect.

Tax Sharing Agreement. EchoStar Corporation and DISH Network entered into a tax sharing agreement in connection with the Spin-off. This agreement governs EchoStar Corporation and DISH and their respective subsidiaries' respective rights, responsibilities and obligations after the Spin-off with respect to taxes for the periods ending on or before the Spin-off. Generally, all pre-Spin-off taxes, including any taxes that are incurred as a result of restructuring activities undertaken to implement the Spin-off, are borne by DISH Network, and DISH Network will indemnify EchoStar for such taxes. However, DISH Network is not liable for and will not indemnify EchoStar for any taxes that are incurred as a result of the Spin-off or certain related transactions failing to qualify as tax-free distributions pursuant to any provision of Section 355 or Section 361 of the Internal Revenue Code of 1986, as amended, because of: (i) a direct or indirect acquisition of any of EchoStar's stock, stock options or assets; (ii) any action that EchoStar takes or fails to take; or (iii) any action that EchoStar takes that is inconsistent with the information and representations furnished to the IRS in connection with the request for the private letter ruling, or to counsel in connection with any opinion being delivered by counsel with respect to the Spin-off or certain related transactions. In such case, EchoStar will be solely liable for, and will indemnify DISH Network for, any resulting taxes, as well as any losses, claims and expenses. The tax sharing agreement will only terminate after the later of the full period of all applicable statutes of limitations, including extensions, or once all rights and obligations are fully effectuated or performed.

In light of the tax sharing agreement, among other things, and in connection with EchoStar's consolidated federal income tax returns for certain tax years prior to and for the year of the Spin-off, in September 2013, EchoStar and DISH Network agreed upon a supplemental allocation of the tax benefits arising from certain tax items resolved in the course of the IRS's examination of EchoStar's consolidated tax returns. As a result, DISH Network agreed to pay EchoStar an aggregate amount of \$93.1 million that includes the federal tax benefit they received as a result of our operations.

TerreStar Agreement. In March 2012, DISH Network completed its acquisition of substantially all the assets of TerreStar Network's Inc. ("TerreStar"). Prior to DISH Network's acquisition of substantially all the assets of TerreStar and our completion of the Hughes Acquisition, TerreStar and HNS entered into various agreements pursuant to which our Hughes segment provides, among other things, warranty, operations and maintenance and hosting services for TerreStar's ground-based communications equipment. TerreStar generally has the right to continue to receive warranty services from us for one of our products on a month-to-month basis. The provision of warranty services for our other product will continue until March 2018 and will automatically renew in March 2018 for an additional one-year period, unless terminated by TerreStar upon at least 60 days' written notice to us prior to the end of the term. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by TerreStar upon at least 60 days' written notice to us prior to the end of the term. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by TerreStar or us upon at least 90 days' written notice prior to the end of the term. The provision of hosting services for convenience subject to providing us with prior notice and/or payment of termination charges. We earned revenue of approximately \$4.5 million from DISH Network under these agreements for the year ended December 31, 2016.

TT&C Agreement. Effective January 2012, we entered into a telemetry, tracking and control ("TT&C") agreement pursuant to which we provide TT&C services to DISH Network for a period ending in December 2016 (the "2012 TT&C Agreement"). In November 2016, we and DISH Network amended the 2012 TT&C Agreement to extend the term for one year through December 2017. The 2012 TT&C Agreement replaced the TT&C agreement we entered into with DISH Network in connection with the Spin-off. The fees for services provided under the 2012 TT&C Agreement are calculated at either: (i) a fixed fee or (ii) cost plus a fixed margin, which will vary depending on the nature of the services provided. DISH Network is able to terminate the 2012 TT&C Agreement to cease the provision of TT&C services to DISH Network for the EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. Effective March 2014, we provide TT&C services for the D-1 and EchoStar XV satellites; however, for the period that we received satellite services on the EchoStar XV satellite from DISH Network, we waived the fees for the TT&C services on the EchoStar XV satellite. Effective August 2016, we provide TT&C services to DISH Network for the EchoStar XVIII satellite. We earned revenue of approximately \$2.7 million from DISH Network under this agreement for the year ended December 31, 2016.

Related Party Transactions with Hughes Systique Corporation ("Hughes Systique")

In addition to our 43.9% ownership in Hughes Systique, Mr. Pradman Kaul, the President of Hughes Communications and a member of EchoStar's Board of Directors, and his brother, who is the CEO and President of Hughes Systique, in the aggregate, own approximately 25.8%, on an undiluted basis, of Hughes Systique's outstanding shares as of December 31, 2016. Furthermore,

Mr. Pradman Kaul serves on the board of directors of Hughes Systique. Hughes Systique is a variable interest entity and we are considered the primary beneficiary of Hughes Systique due to, among other factors, our ability to direct the activities that most significantly impact the economic performance of Hughes Systique. As a result, we consolidate Hughes Systique's financial statements in our consolidated financial statements.

We contract with Hughes Systique for software development services. We incurred expenses of approximately \$15.9 million payable to Hughes Systique for the year ended December 31, 2016.

In 2008, Hughes Communications loaned \$1.5 million to Hughes Systique pursuant to a term loan facility. The initial interest rate on the outstanding loans was 6%, payable annually, and the accrued and unpaid interest was added to the principal amount outstanding under the loan facility in certain circumstances. The loans were convertible into shares of Hughes Systique upon non-payment or an event of default. In May 2014, we amended the term loan facility to increase the interest rate from 6% to 8%, payable annually, to reflect then-current market conditions and extend the maturity date of the loans to May 1, 2015, and in April 2015, we extended the maturity date of the loans to May 1, 2016 on the same terms. In 2015, Hughes Systique repaid \$1.5 million of the outstanding principal of the loan facility. In February 2016, Hughes Systique repaid \$0.3 million of the outstanding principal of the loan facility. In April 2016, Hughes Systique repaid \$0.3 million of the loan facility. In 2016, the largest aggregate principal amount outstanding under the loan facility was \$0.6 million and Hughes Systique repaid \$0.6 million of the outstanding principal of the loan facility and \$14,000 in interest. As of December 31, 2016, the principal outstanding amount of the loan facility was zero.

Related Party Transaction with AsiaSat

We contract with AsiaSat Telecommunications Inc. ("AsiaSat") for the use of transponder capacity on one of AsiaSat's satellites. In 2016, Mr. William David Wade, a member of EchoStar's Board of Directors, served as the Chief Executive Officer of AsiaSat and Mr. Wade served as a senior advisor to the CEO of AsiaSat through March 2017. We incurred expenses of approximately \$1.45 million payable to AsiaSat under this agreement for the year ended December 31, 2016.

Related Party Transactions with Dish Mexico

EchoStar owns 49.0% of an entity that provides direct-to-home satellite services in Mexico known as Dish Mexico, and we provide certain satellite services to Dish Mexico. We recognized satellite services revenue from Dish Mexico of approximately \$23.3 million for the year ended December 31, 2016. As of December 31, 2016, we had trade accounts receivable from Dish Mexico of approximately \$10.7 million.

Related Party Transactions with Deluxe/EchoStar LLC

We own 50.0% of Deluxe/EchoStar LLC ("Deluxe"), a joint venture that we entered into in 2010 to build an advanced digital cinema satellite distribution network targeting delivery to digitally equipped theaters in the U.S. and Canada. We account for our investment in Deluxe using the equity method. We recognized revenue from Deluxe for transponder services and the sale of broadband equipment of approximately \$3.0 million for the year ended December 31, 2016. As of December 31, 2016, we had trade accounts receivable from Deluxe of approximately \$0.7 million.

MANAGEMENT

The following table and information below sets forth the name, age and position with us of each of our executive officers and directors, the period during which each executive officer or director has served as such, and the business experience of each executive officer or director during at least the past five years:

Name	Age	Position
Charles W. Ergen	64	Chairman
Michael T. Dugan	68	Chief Executive Officer, President and Director
David J. Rayner	60	Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer, EchoStar Corporation and Executive Vice President, Chief Financial Officer and Treasurer, Hughes Satellite Systems Corporation
Anders N. Johnson	60	President, EchoStar Satellite Services L.L.C. and Chief Strategy Officer, EchoStar Corporation
Pradman P. Kaul	70	President, Hughes Communications, Inc.
Dean A. Manson	50	Executive Vice President, General Counsel, Secretary and Director
Kranti K. Kilaru	52	Executive Vice President, Technical Operations, EchoStar Corporation

Charles W. Ergen. Mr. Ergen has served as executive Chairman of EchoStar since November 2009 and as Chairman of EchoStar's Board of Directors since its formation in 2007. Mr. Ergen has also served as our executive Chairman and as Chairman of our Board of Directors since 2011. Mr. Ergen served as Chief Executive Officer of EchoStar from its formation in 2007 until November 2009. Mr. Ergen serves as executive Chairman and has been Chairman of the Board of Directors of DISH since its formation and, during the past five years, has held executive officer and director positions with DISH and its subsidiaries. He has been serving as the Chief Executive Officer of DISH since March 2015.

Michael T. Dugan. Mr. Dugan has served as Chief Executive Officer and President of EchoStar since November 2009 and as a member of EchoStar's Board of Directors since its formation in 2007. Mr. Dugan has also served as a member of our Board of Directors and as our President and Chief Executive Officer, positions he has held since 2011. Mr. Dugan served as a senior advisor to EchoStar from January 1, 2008 until November 2009. From May 2004 to December 2007, he was a director of DISH, and from 1990 to 2004 served in several executive roles at DISH, including as President, Chief Operating Officer, Chief Technical Officer and senior advisor.

David J. Rayner. Mr. Rayner has served as our and EchoStar's Executive Vice President, Chief Financial Officer, and Treasurer since December 2012. In September 2016, Mr. Rayner also was appointed Chief Operating Officer of EchoStar Corporation. From November 2011 to November 2012, Mr. Rayner served as Chief Financial Officer of Tendril Networks, Inc., a Boulder, Colorado software company. Mr. Rayner served as Chief Financial Officer of EchoStar Corporation from June 2010 to November 2011 and served as Chief Administrative Officer of EchoStar Corporation from January 2008 to June 2010. Prior to that, Mr. Rayner served as Executive Vice President of Installation and Service Networks of DISH and previously as Chief Financial Officer of Time Warner Telecom in Denver, beginning in June 1998.

Anders N. Johnson. Mr. Johnson has served as President of EchoStar Satellite Services L.L.C. since June 2011. In September 2016, Mr. Johnson also was appointed as Chief Strategy Officer of EchoStar Corporation. Before joining EchoStar Corporation, Mr. Johnson was most recently at SES World Skies where he served as Senior Vice President of Strategic Satellite Development. Mr. Johnson joined SES GLOBAL after the combination of GE Americom and SES GLOBAL in 2001. Prior to SES GLOBAL, Mr. Johnson worked at GE Capital beginning in 1985 in a variety of executive level roles in Satellite Services, Aviation Services, and Transportation & Industrial Financing.

Pradman P. Kaul. Mr. Kaul has served as President of Hughes Communications, Inc., our wholly owned subsidiary, since its formation in February 2006, and as President of Hughes Network Systems, LLC, a wholly owned subsidiary of Hughes Communications, Inc. ("HNS" and, together with Hughes Communications, Inc., "Hughes") since 2000. Mr. Kaul has also served as a member of EchoStar's Board of Directors since August 2011 as well as a member of the board of directors of Hughes Communications, Inc. from February 2006 until June 2011. Previously, Mr. Kaul served as the Chief Operating Officer, Executive Vice President and Director of Engineering of HNS.

Dean A. Manson. Mr. Manson has served as our and EchoStar's Executive Vice President, General Counsel and Secretary since November 2011 and he has served as a member of our Board of Directors since November 2011. Mr. Manson also serves as Executive Vice President, General Counsel and Secretary of Hughes Communications, Inc. Mr. Manson joined Hughes in 2000 from the law firm of Milbank, Tweed, Hadley & McCloy, where he focused on international project finance and corporate transactions, and was appointed General Counsel of Hughes in 2004.

Kranti K. Kilaru. Mr. Kilaru has served as EchoStar's Executive Vice President, Technical Operations, since March 2017 and previously served as EchoStar's Executive Vice President, Business Systems from July 2013 until March 2017. Mr. Kilaru served as Senior Vice President of EchoStar's systems engineering group from April 2005 to July 2013. Mr. Kilaru joined EchoStar Technologies L.L.C. in 1989.

There are no arrangements or understandings between any executive officer or director and any other person pursuant to which any person was selected as such. Pursuant to our Bylaws, executive officers serve at the discretion of the Board of Directors.

Our Board of Directors consists of three directors, Messrs. Ergen, Dugan and Manson. As a wholly owned subsidiary of EchoStar, we currently do not have any independent director serving on our Board of Directors.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

HSS is a wholly owned subsidiary of EchoStar. All compensation matters pertaining to our named executive officers ("NEOs"), including compensation philosophy, are administered by EchoStar. As a result, information set forth below is derived from the "Compensation Discussion and Analysis" section of EchoStar's Definitive Proxy Statement on Schedule 14A filed with the SEC on March 23, 2017. Amounts paid by EchoStar to our NEOs include amounts paid for services to us.

This Compensation Discussion and Analysis ("CD&A") addresses our compensation objectives and policies for our NEOs, the elements of NEO compensation and the application of those objectives and policies to each element of fiscal year 2016 compensation for our NEOs. To the extent applicable, this CD&A contains information regarding performance targets and goals for our executive compensation program. These targets and goals were disclosed to provide information on how executive compensation was determined in 2016 but are not intended to be estimates of future results or other forward-looking guidance. We caution investors against using these targets and goals outside of the context of their use in our executive compensation program as described herein.

Our NEOs in 2016 were Messrs. Michael T. Dugan, Anders N. Johnson, Pradman P. Kaul, David J. Rayner and Kranti K. Kilaru. All of our NEOs were employed and solely compensated by EchoStar during 2016. With the exception of Mr. Kaul, who entered into an agreement regarding his employment with Hughes Communications, Inc. and its wholly owned subsidiary Hughes Network Systems, LLC prior to the Hughes Acquisition, none of our NEOs are party to an employment agreement with EchoStar or us.

Overall Executive Compensation Program Objectives and Policies

Compensation Philosophy

EchoStar's executive compensation program was guided by the following key principles in 2016:

- attraction, retention and motivation of executive officers over the long-term;
- recognition of individual performance;
- recognition of the achievement of company-wide and group performance goals, if any; and
- creation of shareholder value by aligning the interests of management and EchoStar's shareholders through equity incentives.

General Compensation Levels

The total compensation opportunities, both base salaries and incentives, offered to our NEOs have been designed to ensure that they are competitive with market compensation levels, support our executive recruitment, retention and motivation objectives, reward individual, group and company-wide performance and contribute to our success by aligning the interests of our executive officers and EchoStar's shareholders.

In determining the overall compensation of our NEOs, EchoStar considers the subjective recommendations of our and EchoStar's Chairman, Mr. Ergen, and our and EchoStar's Chief Executive Officer and President, Mr. Dugan, who may take into account the following factors: (i) information described in "Compilation of Certain Peer Group Data" below, including the base salaries and range of the percentage increases in base salaries, for named executive officers of the companies contained in the Peer Group Data (as defined in "Compilation of Certain Peer Group Data" below), (ii) the executive's performance and contributions and/or considerations of retention, including, without limitation, the executive's success in achieving individual, group and company-wide goals and the extent to which the executive's individual efforts resulted in tangible increases in corporate, division or department success, (iii) whether the performance goals of any short-term or long-term incentive plans were met and the payouts that would become payable upon achievement of those performance goals, (iv) the value of historic and current components of each NEO's compensation, including the base salary and any bonus or incentive compensation paid to the NEO in the prior year, (v) the value of equity awards previously granted to the executive, (vi) EchoStar's overall financial and business performance, (vii) the performance of the NEO's business unit, (viii) the rate of standard annual merit increases for employees who are performing at a satisfactory level, (ix) the expected compensation to be paid to other senior officers in the applicable year in relation to a particular NEO, (x) whether the NEO was promoted or newly hired in the prior or applicable year, and (xi) equity awards that would normally be granted upon a promotion in accordance with our policies for promotions. This approach to general compensation levels is not formulaic or standard and does not utilize formalized benchmarking, and the weight given to any



particular factor in determining a particular NEO's compensation depends on the subjective consideration of all factors described above in the aggregate.

With respect to equity incentive compensation, EchoStar generally attempts to ensure that our NEOs have appropriate incentives tied to the performance of EchoStar Class A Shares. Therefore, EchoStar may grant more equity awards to a particular NEO in a given year if a substantial portion of the NEO's equity incentives are vested and the underlying stock is capable of being sold. In addition, the amount of equity incentives and/or severance benefits may be considered when determining whether to grant equity incentives to an NEO in a particular year. EchoStar also generally takes into account whether an NEO has recently been promoted in determining whether to grant equity awards to that individual. EchoStar may grant equity awards based on a number of subjective criteria, including an NEO's position and role in EchoStar's and our success and whether an NEO has made any exceptional contributions to EchoStar's and our success.

Mr. Ergen recommends, the Executive Compensation Committee of EchoStar's Board of Directors (the "Compensation Committee") reviews and discusses, and EchoStar's Board of Directors ultimately approves the base salary compensation of Mr. Dugan. Messrs. Ergen and Dugan recommend, the Compensation Committee reviews and discusses, and EchoStar's Board of Directors ultimately approves the base salary compensation of our other NEOs. After considering these recommendations and other considerations discussed above, EchoStar's Board of Directors determines the annual base salary for each NEO. The Compensation Committee also makes and approves grants of options and other equity-based compensation to our NEOs. EchoStar has adopted a short-term cash incentive program for EchoStar's executive officers, including our NEOs, which we refer to as the Executive Officer Bonus Incentive Plan. Pursuant to the Executive Officer Bonus Incentive Plan, the Compensation Committee also determines and establishes applicable payout targets and performance metrics for the payment of short-term cash incentive awards, determines whether and to what extent such performance metrics have been met for each NEO for a particular year and approves short-term cash incentive awards. The Compensation Committee and EchoStar's Board of Directors place substantial weight on Mr. Ergen's recommendations regarding all compensation matters in light of his role as Chairman of EchoStar and as EchoStar's controlling shareholder.

Compilation of Certain Peer Group Data

In connection with the approval process for EchoStar's 2016 executive officer compensation, EchoStar prepared a compilation of the compensation components for the named executive officers of companies similar in size and/or industry to EchoStar, as disclosed in their respective publicly-filed proxy statements (the "Peer Group Data"). The surveyed companies included: Loral Space & Communications, Inc., Cisco Systems, Inc., ViaSat Communications, Inc., Akamai Technologies, Inc., EarthLink Holdings Corp., Frontier Communications Corporation, IDT Corporation, and SBA Communications Corporation. The Peer Group Data, along with other information obtained from media reports or other generally available sources related to executive compensation is used solely as a subjective frame of reference, rather than for benchmarking compensation for the NEOs. EchoStar does not utilize a formulaic or standard, formalized benchmarking level or element in setting executive compensation relative to that of other companies. Generally, EchoStar believes its overall executive compensation lags behind most of the companies contained in the Peer Group Data in the areas of short-term incentives and severance packages, and may be competitive over time in equity compensation.

Deductibility of Compensation

Section 162(m) of the Internal Revenue Code of 1986 (as amended, the "Internal Revenue Code") places a limit on the tax deductibility of compensation in excess of \$1.0 million paid to certain "covered employees" of a publicly held corporation (generally, the corporation's chief executive officer and its next three most highly compensated executive officers (other than the chief financial officer) in the year that the compensation is paid). This limitation applies to compensation that is not considered performance-based under Section 162(m) of the Internal Revenue Code. EchoStar may structure its compensation programs, where feasible, to minimize or eliminate the impact of the limitations of Section 162(m) of the Internal Revenue Code. However, there is no assurance that any aspect of EchoStar's and our compensation program has met or will in the future meet the requirements of Section 162(m) of the Internal Revenue Code to be considered deductible compensation and nondeductible compensation in excess of the application limitation may be paid. In addition, EchoStar retains discretion to approve annual, short-term, long-term or other compensation arrangements in a manner that does not permit the compensation to qualify for tax deductibility under Section 162(m) of the Internal Revenue Code.

Use of Compensation Consultants

No compensation consultants were retained by EchoStar, EchoStar's Board of Directors or the Compensation Committee to evaluate or recommend the setting of executive compensation during the past fiscal year.

Implementation of Executive Compensation Program Objectives and Policies

Elements of Executive Compensation

The primary components of EchoStar's executive compensation program include:

- base salary;
- equity incentive compensation (short-term and/or long-term) in the form of stock options and/or restricted stock units offered under EchoStar's stock incentive plan;
- short-term cash incentive compensation;
- EchoStar's 401(k) Employee Savings Plan (the "401(k) Plan"); and
- other compensation, including perquisites, personal benefits and post-termination compensation.

Our long and short-term incentive compensation generally include conditional and/or performance-based cash or equity incentive compensation and discretionary bonuses.

The components of EchoStar's executive compensation program combine to promote the objectives and policies described above. Base salary, 401(k) Plan benefits and other benefits and perquisites provided generally to employees provide a minimum level of compensation for our NEOs. Long-term equity and/or performance-based incentive compensation align NEO compensation with the creation of long-term EchoStar shareholder value and generally promotes retention. Short-term cash or equity incentives reward individual, group or company performance and achievement of shorter-term goals important to EchoStar.

EchoStar has not required that a certain percentage of an executive's compensation be provided in one form versus another. However, EchoStar's goal is to award compensation that is reasonable in relation to our compensation program and objectives when all elements of potential compensation are considered. Each element of EchoStar's executive compensation and the rationale for each element are described below.

Base Salary

EchoStar has traditionally included salary in our executive compensation package under the belief that it is appropriate that some portion of the compensation paid to its executives be provided in a form that is fixed and liquid occurring over regular intervals. EchoStar's Board of Directors has traditionally been free to set base salary at any level deemed appropriate, with the Compensation Committee setting the base salary of the Chairman. The Compensation Committee and the EchoStar Board of Directors typically review base salaries of our NEOs. Any increases or decreases in base salary on a year-over-year basis have usually been dependent on a combination of the factors outlined above in "General Compensation Levels," with particular emphasis on:

- EchoStar's overall financial and business performance;
- the performance of the NEO's business unit;
- the NEO's individual contributions to EchoStar; and
- the rate of standard annual merit increases for employees who are performing at a satisfactory level.

Equity Incentive Compensation

EchoStar believes that executive officers generally will be better able to contribute to EchoStar's long-term success and help build incremental shareholder value if they have a stake in EchoStar's future success and value. EchoStar believes this stake helps retain executives and focuses the executive officers' attention on managing as owners with equity positions and aligns their interests with the interests of EchoStar's shareholders. Equity awards therefore have generally represented an important component of EchoStar's compensation program for most of our NEO's. EchoStar has attempted to create general incentives with standard stock option grants and conditional or performance-based incentives through awards that may include payouts in cash or equity. Grants of equity incentive compensation have usually been dependent on a combination of the factors outlined above in "General Compensation Levels."

To aid in retention of employees, options and restricted stock unit awards granted under EchoStar's stock incentive plan, including those granted to our NEOs, generally vest at the rate of 20% per year and, in the case of options, have exercise prices not less than the fair market value of EchoStar Class A Shares on the date of grant or the last trading day prior to the date of grant (if the date of grant is not a trading day). Generally, EchoStar's option agreements and restricted stock unit agreements with executive officers have included acceleration of vesting upon a change in control for those executive officers who are terminated by EchoStar or the

surviving entity, as applicable, for any reason other than for cause during the twenty-four month period following such change in control.

Stock Incentive Plan

EchoStar has adopted an employee stock incentive plan, which we refer to as the Amended and Restated 2008 Stock Incentive Plan (the "2008 Stock Incentive Plan"). The purpose of the 2008 Stock Incentive Plan is to provide incentives to attract and retain executive officers and other key employees. The 2008 Stock Incentive Plan is administered by the Compensation Committee and the Compensation Committee retains discretion, subject to plan limits, to modify the terms of outstanding awards and to re-price awards. Awards available to be granted under the 2008 Stock Incentive Plan include: (i) stock options; (ii) stock appreciation rights; (iii) restricted stock and restricted stock units; (iv) performance awards; (v) dividend equivalents; and (vi) other stock-based awards. EchoStar generally grants equity awards on the first day of each calendar quarter following the quarter in which the award was approved and has set exercise prices at not less than the fair market value of EchoStar Class A Shares on the date of grant or the last trading day prior to the date of grant (if the grant date is not a trading day). As of December 31, 2016, there were (i) outstanding options to purchase approximately 6 million of EchoStar Class A Shares, (ii) 6,667 outstanding restricted stock units of EchoStar, and (iii) approximately 3.8 million of EchoStar Class A Shares remaining available for issuance under the 2008 Stock Incentive Plan. EchoStar's option and restricted stock unit awards generally vest at the rate of 20% per year commencing one year from the date of grant. Prior to February 2016, EchoStar also granted to certain of our NEOs fully vested stock-based awards under EchoStar's Employee Innovator Recognition Program, which is available to all of our eligible employees. After February 2016, EchoStar's executive officers, including our NEOs, are no longer eligible to receive awards under EchoStar's Employee Innovator Recognition Program.

If approved by EchoStar's shareholders at EchoStar's 2017 Annual Meeting of Shareholders (the "2017 EchoStar Annual Meeting"), the 2017 Employee Stock Incentive Plan will be used for equity grants to our named executive officers after the date of 2017 EchoStar Annual Meeting.

Class B Chairman Stock Option Plan

EchoStar has adopted a Class B Chairman stock option plan, which we refer to as the 2008 Class B Chairman Stock Option Plan. The purpose of the 2008 Class B Chairman Stock Option Plan is to promote the interests of EchoStar Corporation by aiding in the retention of Mr. Ergen, who EchoStar's Board of Directors believes is crucial to assuring EchoStar's future success, to offer Mr. Ergen incentives to put forth maximum efforts for EchoStar Board of Directors' and to afford Mr. Ergen an opportunity to acquire additional proprietary interests in EchoStar. Mr. Ergen abstained from the EchoStar Board of Directors' vote regarding the adoption of the 2008 Class B Chairman Stock Option Plan. Awards available to be granted under the 2008 Class B Chairman Stock Option Plan include nonqualified stock options and dividend equivalent rights with respect to EchoStar Class B Shares. Up to four million EchoStar Class B Shares are available for awards under the 2008 Class B Chairman Stock Option Plan. Only Mr. Ergen is eligible to participate in the 2008 Class B Chairman Stock Option Plan. No awards have been granted under the 2008 Class B Chairman Stock Option Plan.

Employee Stock Purchase Plan

EchoStar has an employee stock purchase plan, which we refer to as the ESPP. The purpose of the ESPP is to provide EchoStar's eligible employees with an opportunity to acquire a proprietary interest in EchoStar through the purchase of EchoStar Class A Shares. Generally full-time employees who have been employed by EchoStar for at least one calendar quarter are eligible to participate in the ESPP. Employee stock purchases are made through payroll deductions. Under the terms of the ESPP, each employee's deductions are limited so that the maximum such employee may purchase under the ESPP is \$25,000 in fair market value of EchoStar Class A Shares per year. Stock purchases are made on the last business day of each calendar quarter at 85% of the closing price of the EchoStar Class A Shares on that date. The ESPP is intended to qualify under Section 423 of the Internal Revenue Code and thereby provide participating employees with an opportunity to receive certain favorable income tax consequences as to stock purchase rights under the ESPP. Our NEOs participate in the ESPP on the same terms as our and EchoStar's other employees.

If approved by EchoStar's shareholders at the 2017 EchoStar Annual Meeting, the Amended and Restated 2017 ESPP will amend and restate the ESPP.

Short-Term Cash Incentive Compensation

EchoStar has adopted a short-term cash incentive program for EchoStar's executive officers, including our NEOs, which we refer to as the Executive Officer Bonus Incentive Plan. The Executive Officer Bonus Incentive Plan is a cash bonus plan intended to

promote the success of EchoStar by providing performance-oriented incentives to motivate executive officers whose decisions and performance have a significant impact on EchoStar's success and to reward them for superior managerial performance and successful growth. Participants in the Executive Officer Bonus Incentive Plan include those executive officers of EchoStar who are subject to Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as the Compensation Committee may designate from time to time as participants in the Executive Officer Bonus Incentive Plan, bonuses are paid in cash and are based on target award amounts for each year determined by the Compensation Committee for each fiscal year from among those set forth in the Executive Officer Bonus Incentive Plan. For each participant, 25% of the payout target is based on the achievement of EchoStar-wide performance metrics and 75% of the payout target is based on the achievement of applicable business segment performance metrics. Individual awards under the Executive Officer Bonus Incentive Plan may range between zero and an amount equal to or exceeding 100% of the applicable target award amount as determined by the Compensation Committee for each participant. Certain of our NEOs are eligible to receive, and have received, short-term cash incentive payments for 2016 pursuant to the Executive Officer Bonus Incentive Plan. See "Summary Compensation Table" below.

EchoStar may provide a discretionary cash bonus to the extent that it considers an individual to have made an extraordinary contribution towards EchoStar's performance. None of our NEOs received a discretionary cash bonus for 2016.

401(k) Plan

EchoStar has adopted a defined-contribution tax-qualified 401(k) Plan for eligible EchoStar employees, including our executives, to facilitate employees' ability to save some percentage of their cash compensation for retirement. New employees become immediately eligible for participation in the 401(k) Plan upon the commencement of their employment. Participants in the 401(k) Plan are entitled to contribute up to 75% of their eligible compensation subject to the maximum contribution limit provided by the Internal Revenue Code. Eligible employees have the option to make after-tax contributions under the 401(k) Plan so that they may contribute up to 75% of their compensation on a pre-tax and/or after-tax basis subject to the Internal Revenue Code limits. All employee contributions to the 401(k) Plan are immediately vested. EchoStar matches 50 cents on the dollar for the first 6% of each employee's salary contributions to the 401(k) Plan for a total of 3% match on a pre-tax basis up to a maximum of \$7,500 annually. The EchoStar match is calculated each pay period there is an employee contribution. In addition, EchoStar may make an annual discretionary contribution to the 401(k) Plan in cash or EchoStar stock. All EchoStar contributions under the 401(k) Plan vest at 20% per year and are 100% vested after an eligible employee has completed five years of employment. Our NEOs participate in the 401(k) Plan, including corporate contributions, on the same terms as our and EchoStar's other employees.

Nonqualified Plan

EchoStar has adopted a nonqualified plan for the benefit of a select group of officers (the "Nonqualified Plan"), including our NEOs, whose benefits under our 401(k) Plan are limited by the Internal Revenue Code. Nonqualified Plan participants may elect to contribute up to 16% of their eligible compensation into the Nonqualified Plan on a pre-tax basis each payroll period. EchoStar does not match any employee contributions in the Nonqualified Plan. Participants are always 100% vested in the contributions they make into the Nonqualified Plan. During 2016, all of our NEOs were eligible to participate in the Nonqualified Plan, and Mr. Rayner was the only NEO who contributed to the Nonqualified Plan. See "Nonqualified Deferred Compensation" below.

Perquisites, Personal Benefits, Post-Termination Compensation and Other Compensation

EchoStar has traditionally offered numerous plans and other benefits to its executive officers, including our NEOs, on the same terms as other employees. These plans and benefits have included medical, vision, and dental insurance, life insurance, the ESPP and the 401(k) Plan as well as discounts on our and EchoStar's and other companies' products and services. Relocation benefits may also be provided and reimbursed, but are individually negotiated when they occur. In some years, EchoStar has permitted certain NEOs and their family members and guests to use its corporate aircraft for personal use. During 2016, Mr. Dugan was the only NEO that used EchoStar's corporate aircraft for personal use. See "Summary Compensation Table" below. We have also paid on behalf of Mr. Kaul amounts relating to excess medical benefits, personal liability insurance, and financial planning services pursuant to programs put in place by Hughes Communications, Inc. and its wholly owned subsidiary Hughes Network Systems, LLC prior to the Hughes Acquisition. See "Summary Compensation Table" below.

EchoStar has not traditionally had any plans in place to provide severance benefits to employees. However, generally stock options and restricted stock units have been granted to EchoStar's executive officers, including our NEOs, subject to acceleration of vesting upon a change in control of EchoStar for those executive officers who are terminated by us or EchoStar or the surviving entity, as applicable, for any reason other than for cause during the twenty-four month period following such change in control. In addition, Mr. Kaul has severance benefits that were approved by the board of directors of Hughes Communications, Inc. and its wholly

owned subsidiary Hughes Network Systems, LLC as part of his employment agreement prior to the Hughes Acquisition and which were modified by the Compensation Committee during 2016. See "Potential Payments Upon Termination or Following a Change in Control" below.

Shareholder Advisory Vote on Executive Compensation

EchoStar provided its shareholders with the opportunity to cast a non-binding advisory vote on executive compensation at EchoStar's annual meeting of shareholders held in October 2014 and EchoStar will provide its shareholders with this opportunity again at EchoStar's annual meeting of shareholders in May 2017. Over 96% of the voting power represented at the meeting and entitled to vote on that matter voted to approve, on a non-binding advisory basis, the compensation paid to our named executive officers, as described in the proxy statement for that meeting. The Compensation Committee reviewed these voting results after such meeting, and EchoStar did not change its approach to executive compensation in 2014, 2015 or 2016 as a direct result of the vote. In 2011, EchoStar's shareholders approved, on a non-binding advisory basis, that EchoStar should provide its shareholders with the opportunity to cast a non-binding advisory vote on executive compensation at its annual meeting of shareholders at least once every three years.

2016 Executive Compensation

EchoStar generally makes decisions with respect to executive compensation for a particular compensation year in the first or second quarter of the applicable year. With respect to the executive compensation of our NEOs, EchoStar reviewed total compensation of each NEO and the factors outlined above in "General Compensation Levels." As described in "General Compensation Levels" above, EchoStar aims to provide compensation that is competitive with market practice with an emphasis on providing a substantial portion of overall compensation in the form of equity incentives. The Compensation Committee and EchoStar's Board of Directors placed substantial weight on Mr. Ergen's recommendations regarding all executive compensation matters in light of his role as Chairman and as our and EchoStar's controlling shareholder.

Compensation of Our Chief Executive Officer and President

2016 Base Salary. Base salary for our Chief Executive Officer and President is reviewed and discussed by the Compensation Committee and determined by EchoStar's Board of Directors primarily based on Mr. Ergen's recommendations. Mr. Ergen made a recommendation with respect to the 2016 base salary of our Chief Executive Officer and President after considering the factors outlined above in "General Compensation Levels," placing primary weight on (a) Mr. Dugan's base salary in 2015, (b) Mr. Dugan's performance in 2015, and (c) whether, in Mr. Ergen's subjective view, an increase in base salary was warranted based on such performance or in order to retain Mr. Dugan. In determining Mr. Dugan's 2016 base salary, Mr. Ergen recommended, the Compensation Committee reviewed, discussed and recommended and the Board of Directors determined that Mr. Dugan's existing base compensation was already within the range of market compensation indicated in the Peer Group Data in light of EchoStar's practices with respect to base salaries and that therefore an increase over Mr. Dugan's 2015 base salary was not necessary.

2016 Cash Bonus. EchoStar may provide a discretionary cash bonus to the extent that it considers an individual to have made an extraordinary contribution towards EchoStar's performance. No discretionary cash bonus was paid to Mr. Dugan in 2016. See "Summary Compensation Table" below.

2016 Short-Term Cash Incentive Compensation. The purpose of short-term cash incentives under EchoStar's Executive Officer Bonus Incentive Plan is to provide performance-oriented incentives to motivate the achievement of superior managerial performance and successful growth of EchoStar. Taking into account, among other things, the factors described in "General Compensation Levels" above, Mr. Ergen did not recommend and the Compensation Committee did not make any short-term cash incentive awards to Mr. Dugan for 2016 under the Executive Officer Bonus Incentive Plan. See "Summary Compensation Table" below.

2016 Equity Incentives. With respect to equity incentives, EchoStar primarily evaluates the position of our Chief Executive Officer and President to ensure that he has appropriate incentives tied to the performance of EchoStar Class A Shares. This determination is made by the Compensation Committee primarily on the basis of Mr. Ergen's subjective recommendation. Taking into account, among other things, the factors described in "General Compensation Levels" above, including, among other things, the equity awards necessary to retain Mr. Dugan, the value of Mr. Dugan's existing equity awards and whether Mr. Dugan is entitled to severance payments, Mr. Ergen did not recommend and the Compensation Committee did not make any equity incentive awards to Mr. Dugan in 2016.

The Compensation Committee determined on April 30, 2015 that Mr. Dugan would receive a grant of 100,000 EchoStar restricted stock units ("RSUs") with a grant date of July 1, 2015. Mr. Dugan's RSUs vested based upon certain quarterly and/or cumulative



earnings goals subject to the Compensation Committee's authorization to determine and calculate the achievement of each goal in accordance with the terms of the 2008 Stock Incentive Plan and a restricted stock unit agreement (the "Earnings Goals"). The Earnings Goals were as follows: (i) \$209 million of EchoStar's earnings before interest, taxes, depreciation and amortization ("EBITDA") in the second quarter of 2015; (ii) \$218 million of EchoStar's EBITDA in the third quarter of 2015; (iii) \$231 million of EchoStar's EBITDA in the fourth quarter of 2015; or (iv) an aggregate \$658 million of EchoStar's EBITDA in the second through fourth quarters of 2015. The RSUs vested in three tranches with 33,333 of the RSUs vesting on August 6, 2015, 33,333 of the RSUs vesting on November 6, 2015 and 33,334 of the RSUs vesting on February 24, 2016, respectively.

Compensation of Other Named Executive Officers

2016 Base Salary. Base salaries for each of the NEOs, other than Mr. Dugan, are reviewed and discussed by the Compensation Committee and determined by EchoStar's Board of Directors primarily based on Mr. Dugan's and Mr. Ergen's recommendations. Messrs. Dugan and Ergen made recommendations with respect to the 2016 base salary of each of the NEOs, other than Mr. Dugan, after considering the factors outlined above in "General Compensation Levels." Placing primary weight on (a) the NEO's base salary in 2015, (b) the NEO's performance in 2015, and (c) whether, in their subjective view, an increase in base salary was warranted based on such performance or in order to retain the NEO, Messrs. Ergen and Dugan recommended base salary increases for 2016 for each of Messrs. Johnson, Kilaru and Rayner and recommended that a base salary increase for 2016 for Mr. Kaul was not necessary. The Compensation Committee reviewed, discussed and recommended, and EchoStar's Board of Directors accepted, Messrs. Ergen's and Dugan's recommendations with respect to the base salaries for each of these NEOs.

2016 Cash Bonus. EchoStar may provide a discretionary cash bonus to the extent that it considers an individual to have made an extraordinary contribution towards EchoStar's performance. None of our NEOs received a discretionary cash bonus in 2016. See "Summary Compensation Table" below.

2016 Short-Term Cash Incentive Compensation With respect to short-term cash incentives under EchoStar's Executive Officer Bonus Incentive Plan, EchoStar attempts to ensure that our NEOs have performance-oriented incentives to motivate them to achieve superior managerial performance and successful growth of EchoStar and their business units. This determination is made by the Compensation Committee primarily on the basis of Mr. Dugan's and Mr. Ergen's recommendations. For 2016, Messrs. Dugan and Ergen based their recommendations on, and the Compensation Committee took into account, among other things, the factors described in "General Compensation Levels" above, placing primary weight on each NEO's role in driving EchoStar's overall performance and such NEO's applicable business unit's financial and operational performances in 2016. Messrs. Dugan and Ergen made recommendations regarding, and the Compensation Committee reviewed, discussed and determined, payout targets and performance metrics for 2016 for the payment of short-term cash incentive awards under EchoStar's Executive Officer Bonus Incentive Plan for each of our NEOs, other than Mr. Dugan, and the Compensation Committee determined whether and to what extent such performance metrics were met for each NEO for 2016 and the amount of the cash incentive award for 2016 paid under the Executive Officer Bonus Incentive Plan to each of our NEOs, other than Mr. Dugan.

Based on the recommendations of Messrs. Dugan and Ergen, the Compensation Committee approved the following short-term cash incentive awards under EchoStar's Executive Officer Bonus Incentive Plan for 2016 for our NEOs other than Mr. Dugan:

NEO	2016 Payout Target	2016 Performance Metrics	2016 Incentive Award Payment
Mr. Johnson	\$550,000 (100% of base salary)	Financial and operational performance of our EchoStar Satellite Services ("ESS") business segment, including EBITDA, revenue and satellite launch, compliance and regulatory matters, as well as subjective factors regarding ESS activities.	\$353,650
Mr. Kaul	\$769,600 (100% of base salary)	Financial and operational performance of our Hughes business segment, including EBITDA, revenue, consumer subscriber performance, EchoStar XIX satellite readiness and other compliance and regulatory matters, as well as subjective factors regarding Hughes activities.	\$615,680
Mr. Kilaru	\$264,000 (60% of base salary)	Combination of financial and operational performance of EchoStar overall and our Hughes, EchoStar Technologies and ESS business segments.	\$184,184
Mr. Rayner	\$330,013 (60% of base salary)	Combination of financial and operational performance of EchoStar overall and our Hughes, EchoStar Technologies and ESS business segments.	\$230,239

See "Summary Compensation Table" below.

2016 Equity Incentives. With respect to equity incentives, EchoStar primarily evaluates the position of each NEO to ensure that the NEO has appropriate incentives tied to the performance of EchoStar Class A Shares. This determination is made by the Compensation Committee primarily on the basis of Messrs. Ergen's and Dugan's subjective recommendations. For 2016, Messrs. Ergen and Dugan based their recommendation on, and the Compensation Committee took into account, among other things, the factors described in "General Compensation Levels" above, including, among other things, the equity awards necessary to retain our NEOs, the value of our NEOs' existing equity awards and whether each NEO is entitled to severance payments. During 2016, the Compensation Committee granted Mr. Johnson an option to purchase 50,000 EchoStar Class A Shares, granted Mr. Kaul an option to purchase 100,000 EchoStar Class A Shares, and granted Mr. Kilaru an option to purchase 25,000 EchoStar Class A Shares, in each case, to ensure that each NEO had appropriate incentives tied to the performance of EchoStar Class A Shares. See "Grants of Plan-Based Awards" below.

RISK ASSESSMENT

EchoStar believes that its compensation programs and practices, which consist primarily of fixed cash salary and cash and equity incentive awards, assist in EchoStar's and our efforts to mitigate excessive risk taking by EchoStar's and our employees. EchoStar annually reviews the cash and equity incentive programs for EchoStar's senior officers, including our executive officers, who are the employees whose actions could expose EchoStar and us to the most significant business risks. EchoStar concluded that certain features of these programs tend to reduce the likelihood of excessive risk taking. These features include a compensation mix that delivers a substantial portion of compensation in the form of long-term equity awards to create incentives to work for the long-term growth of EchoStar; multi-year vesting of equity awards; use of short-term incentive awards that reward individual, group or company performance and achievement of shorter-term goals important to EchoStar, thus reducing the incentive to take short-term risks that are not consistent with EchoStar's goals; and the Compensation Committee and Board of Directors' ongoing oversight to ensure EchoStar's compensation programs and practices appropriately balance the interests of employees and EchoStar's shareholders.

For the foregoing reasons, the Board of Directors believes that EchoStar's compensation policies and practices do not create risks that are reasonably likely to have a material adverse effect on EchoStar or us.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The Compensation Committee is comprised solely of independent directors. The current Compensation Committee members are Messrs. Tom A. Ortolf, C. Michael Schroeder, Anthony M. Federico and William David Wade. None of these individuals was an officer or employee of EchoStar, of us or of our subsidiaries or of DISH or its subsidiaries at any time during the 2016 fiscal year. During the 2016 fiscal year, no executive officer of EchoStar or of us served on: (i) the compensation committee of another entity, one of whose executive officers served on EchoStar's Compensation Committee, (ii) the board of directors of another entity, one of whose executive officers served on EchoStar's Compensation committee of another entity, one of whose executive officers served on EchoStar's or our Board of Directors.

EXECUTIVE COMPENSATION TABLES

Summary Compensation Table

Our executive officers are compensated by certain of EchoStar's subsidiaries. The following table sets forth the cash and noncash compensation earned by each NEO for the fiscal years ended December 31, 2016, 2015 and 2014.

Name and Principal Position	Year	Salary (\$)	Bonus (\$) (1)	Stock Awards (\$) (2)	Option Awards (\$) (2)	Non-Equity Incentive Plan Compensation (\$) (1)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$) (3)	All Other Compensation (\$) (4)	Total (\$)
Michael T. Dugan (5)	2016	850,013	_	391	_		4,943	17,976	873,323
Chief Executive Officer and President	2015	850,013	_	5,001,927	_	-	1,951	29,042	5,882,933
	2014	863,850	—	1,988	—	—	4,877	80,395	951,110
Anders N. Johnson (6)	2016	534,629	—	_	624,510	353,650	966	13,790	1,527,545
Chief Strategy Officer, EchoStar Corporation, and President, EchoStar Satellite	2015	483,855	50,000	—	570,160	—	(41)	14,203	1,118,177
Services L.L.C.	2014	440,002	—	—	591,578	—	_	14,662	1,046,242
Pradman P. Kaul (7)	2016	769,621	_	_	1,249,020	615,680	47,620	49,731	2,731,672
President, Hughes Communications, Inc.	2015	761,646	_	_	—	718,000	26,994	48,236	1,554,876
	2014	740,000	66,600	_	—	747,400	56,881	51,088	1,661,969
Kranti K. Kilaru (8)	2016	427,696	—	782	312,255	184,184	_	20,190	945,107
Executive Vice President, Technical Operations	2015	390,636	30,000	963	356,350	_	—	13,190	791,139
······	2014	362,338	—	—	295,789	—	_	12,950	671,077
David J. Rayner (9)	2016	542,451	—	_	—	230,239	5,150	17,351	795,191
Executive Vice President, CFO, COO and Treasurer, EchoStar Corporation, and	2015	518,119	_	_	926,510	_	(262)	13,790	1,458,157
Executive Vice President, CFO and Treasurer, HSSC	2014	483,410	_	_	1,290,630	_	767	20,723	1,795,530

(1) Each of our NEOs other than Mr. Dugan was eligible to receive, and did receive, short-term cash incentive payments for 2016 under EchoStar's Executive Officer Bonus Incentive Program. These 2016 short-term cash incentive payments are reported in the "Non-Equity Incentive Plan Compensation" column. For 2016, these cash incentive payments equaled approximately 64%, 80%, 70% and 70% of the respective payout targets under EchoStar's Executive Officer Bonus Incentive Program for Messrs. Johnson, Kaul, Kilaru and Rayner, respectively, as a result of the achievement of certain financial and operational metrics as well as, for Messrs. Johnson and Kaul, subjective factors regarding business segment activities, in all cases as determined by the Compensation Committee. Pursuant to an annual incentive plan that was established prior to the Hughes Acquisition (the "Hughes Annual Incentive Plan"), Mr. Kaul was eligible to receive, and did receive, short-term cash incentive payments for 2015 and 2014. For 2015 and 2014, the Hughes Annual Incentive Plan applicable to Mr. Kaul had metrics that were weighted as 100% and 92%, respectively, associated with the financial performance of Hughes Communications, Inc. and its wholly owned subsidiary Hughes Network Systems, LLC and 0% and 8%, respectively, associated with a subjective factor. The portion of Mr. Kaul's short-term cash incentive payments for 2015 and 2014 related to the subjective factors is reported in the "Bonus" column and the portion of his cash incentive plaments related to the Hughes financial performance is reported in the "Non-Equity Incentive Plan for 2015 or 2014. Mr. Johnson's and Mr. Kilaru's subjective cash bonuses for 2015 are reported in the "Bonus" column. None of our other NEOs received subjective cash bonuses for 2015 or 2014.

- (2) The amounts reported in the "Stock Awards" column and the "Option Awards" column reflect the aggregate grant date fair values in accordance with FASB ASC Topic 718. Assumptions used in the calculation of these amounts are included in Note 15 in the Notes to EchoStar's audited financial statements for the fiscal years ended December 31, 2016, 2015 and 2014, respectively, included in EchoStar's Annual Reports on Form 10-K filed with the SEC on February 24, 2017, February 24, 2016 and February 20, 2015, respectively. These amounts include both performance and non-performance based awards and vested and unvested awards. The grant date fair value for Mr. Dugan's 2015 performance-based restricted stock unit award is based on the probable outcome of the performance conditions under the award and reflects the amount of compensation actually realized or that may be realized.
- (3) Aggregate earnings are dependent on the investment decisions made by the executive. All earnings are market earnings, and none are preferential or set by EchoStar.
- (4) "All Other Compensation" includes: (a) for all of the NEOs, amounts contributed by EchoStar pursuant to the 401(k) Plan, \$5,000 of EchoStar Class A Shares granted to each NEO pursuant to our annual discretionary contribution to the 401(k) Plan and amounts related to vacation carryover, (b) for Mr. Kaul, amounts related to programs put in place by Hughes Communications, Inc. and its wholly owned subsidiary Hughes Network Systems, LLC prior to the Hughes Acquisition, including \$11,604 of executive medical benefits in 2016, \$14,930 of financial planning services in 2016, and personal liability insurance, and (c) for Mr. Dugan, amounts associated with Mr. Dugan's personal use of the corporate aircraft in 2016 and 2014. EchoStar calculated the value of personal use of the corporate aircraft based upon the incremental cost of such usage to EchoStar.
- (5) Mr. Dugan's annual base salary was increased effective November 2013 to \$850,000. Mr. Dugan's 2014 salary includes \$13,850 of such salary increase related to November and December 2013 that was paid in 2014.
- (6) Mr. Johnson's base salary was increased effective April 2015 and April 2016.
- (7) Mr. Kaul's base salary was increased effective April 2015.

- (8) Mr. Kilaru's base salary was increased effective April 2015 and April 2016.
- (9) Mr. Rayner's base salary was increased effective April 2015 and April 2016.

Grants of Plan-Based Awards

The following table provides information on awards granted to our NEOs in 2016.

				ture Payouts Und centive Plan Awa			uture Payouts U centive Plan Awa		All Other Stock Awards:	All Other Option Awards:		
Name	Grant Date	Date of Compensation Committee Approval	Threshold (\$)(1)	Target (\$)(1)	Maximum (\$)(1)	Threshold (#)	Target (#)	Maximum (#)	Number of Shares of Stock or Units(#) (2)	Number of Securities Underlying Options (#) (3)	Exercise or Base Price of Option Awards (\$/sh)	Grant Date Fair Value of Stock and Option Awards (\$) (4)
Michael T. Dugan	1/1/2016	_	_	_	_	_	_	_	10	_	_	391
Anders N. Johnson.	—	—	71,500	550,000	660,000	_	—	—	—	—	—	—
	4/1/2016	3/31/2016	—	_	_	_	—	—	_	50,000	43.94	624,510
Pradman P. Kaul	—	—	146,224	769,600	923,520	_	—	—	—	—	—	—
	4/1/2016	3/31/2016	—	_	_	_	_	—	_	100,000	43.94	1,249,020
Kranti K. Kilaru	_	_	45,672	264,000	316,800	_	_	_	_	_	_	_
	1/1/2016	_	—	_	_	_	_	—	20	_	—	782
	4/1/2016	3/31/2016	_	_	_	_	_	_	_	25,000	43.94	312,255
David J. Rayner	_	—	57,092	330,013	396,016	_	_	_	_	-	_	—

(1) These amounts reflect threshold, target and maximum payout amounts for 2016 for our NEOs under EchoStar's Executive Officer Bonus Incentive Plan. Threshold amounts are not guaranteed minimum amounts payable under EchoStar's Executive Officer Bonus Plan. See "Summary Compensation Table" for actual short-term cash incentives earned by our NEOs for 2016 under EchoStar's Executive Officer Bonus Incentive Plan.

(2) The shares granted to Mr. Dugan on January 1, 2016, and to Mr. Kilaru on January 1, 2016, respectively, and reported in the "All Other Stock Awards" column represent shares awarded pursuant to EchoStar's Employee Innovator Recognition Program. After February 2016, our NEOs were no longer eligible to receive awards under EchoStar's Employee Innovator Recognition Program.

(3) Mr. Johnson's and Mr. Kilaru's option awards vest at the rate of 20% per year commencing on April 1, 2017 if the executive officer is employed by EchoStar or its subsidiaries on each vesting date. Mr. Kaul's option award vests at the rate of 20% per year commencing on April 1, 2017 if Mr. Kaul is either employed by EchoStar or its subsidiaries or is a member of the Board of Directors of EchoStar on each vesting date.

(4) The amounts reported in the "Grant Date Fair Value of Stock and Option Awards" column reflect the aggregate grant date fair values in accordance with FASB ASC Topic 718. Assumptions used in the calculation of these amounts are included in Note 15 in the Notes to EchoStar's audited financial statements for the fiscal year ended December 31, 2016, included in EchoStar's Annual Report on Form 10-K filed with the SEC on February 24, 2017. These amounts include both vested and unvested awards.

Outstanding Equity Awards at Fiscal Year-End

Except as indicated elsewhere, all awards reflected in this table were made in EchoStar Class A Shares and were granted under the terms of EchoStar's 2008 Stock Incentive Plan.

	Option Awards						Stock Awards			
Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Unearned Options (#)	Equity Incentive Plan Awards Number of Securities Underlying Unexercised Options Unexercisable (#) (1)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) (2)	
Michael T. Dugan	420,614	_	_	20.14	12/31/2019	_	_	_	_	
	250,000	_	_	34.22	12/31/2022	-	_	_	_	
Anders N. Johnson	100,000	—	_	36.43	6/30/2021	_	_	—	_	
	30,000	_	20,000	39.05	7/1/2023	_	-	_	_	
	8,000	—	12,000	52.49	7/1/2024	_	_	—	_	
	8,000	_	12,000	46.85	10/1/2024	-	-	_	_	
	8,000	—	32,000	51.77	4/1/2025	-	-	_	_	
	_	_	50,000	43.94	4/1/2026	-	_	_	_	
Pradman P. Kaul	—	—	100,000	43.94	4/1/2026	-	—	—	—	
Kranti K. Kilaru	5,183	_	_	19.08	6/30/2020	-	_	_	_	
	20,000	—	—	36.43	6/30/2021	-	—	—	—	
	30,000	_	20,000	39.05	7/1/2023	-	-	_	_	
	4,000	—	6,000	52.49	7/1/2024	-	-	_	_	
	4,000	_	6,000	46.85	10/1/2024	-	_	_	_	
	5,000	—	20,000	51.77	4/1/2025	-	—	—	—	
	_	_	25,000	43.94	4/1/2026	-	_	_	_	
David J. Rayner	—	—	—	—	-	-	—	6,667 (3)	342,617	
	60,000	_	20,000	34.22	12/31/2022	_	-	-	_	
	30,000	_	45,000	49.72	1/1/2024	_	-	-	-	
	13,000	_	52,000	51.77	4/1/2025	_	_	_	_	

(1) Except for Messrs. Dugan and Kaul, all option awards vest at the rate of 20% per year, commencing one year after the grant date, if the executive officer is employed by EchoStar or its subsidiaries on each vesting date. Mr. Dugan's option award expiring on December 31, 2022 vested 100% on the first anniversary of the grant date. Mr. Kaul's option award vests at the rate of 20% per year commencing on April 1, 2017 if Mr. Kaul is either employed by EchoStar or its subsidiaries or its subsidiaries or its a member of the Board of Directors of EchoStar on each vesting date.

(2) Amounts represent the number of unvested shares underlying the awards multiplied by \$51.39, the closing market price of EchoStar Class A Shares on December 30, 2016.

(3) Each restricted stock unit represents the right to receive one EchoStar Class A Share upon vesting. On December 31, 2012, Mr. Rayner was granted 33,333 EchoStar restricted stock units. Mr. Rayner's remaining unvested restricted stock units vest on December 31, 2017.

Option Exercises and Stock Vested

The following table summarizes the exercises of stock options by our NEOs and the vesting of stock and restricted stock units held by our NEOs during the year ended December 31, 2016.

	Option	Awards	Stock Awards		
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) (1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(1)	
Michael T. Dugan	—	—	33,344 (2)	1,421,753	
Anders N. Johnson	—	—	6,660 (3)	264,402	
Pradman P. Kaul	_	_	_	_	
Kranti K. Kilaru	122,617	3,235,616	20 (4)	782	
David J. Rayner	5,000	78,970	6,667 (3)	342,617	

(1) The value realized on exercise is computed by multiplying the difference between (i) for stock options, the exercise price of the stock option and the market price of the shares by the number of shares with respect to which the option was exercised, and (ii) for other stock awards, zero and the closing market price of the shares on the date of acquisition (or the prior trading day if the date of acquisition was not a trading day) by the number of shares acquired.

- (2) Includes (i) EchoStar Class A Shares acquired upon the vesting of restricted stock units, and (ii) fully vested EchoStar Class A Shares granted under EchoStar's Employee Innovator Recognition Program. After February 2016, our NEOs are no longer eligible to receive awards under EchoStar's Employee Innovator Recognition Program. Mr. Dugan received a grant of 100,000 EchoStar restricted stock units with a grant date of July 1, 2015. The restricted stock units vested in three tranches with the last remaining 33,334 of the restricted stock units vesting on February 24, 2016.
- (3) Consists of EchoStar Class A Shares acquired upon the vesting of restricted stock units. On June 30, 2011, Mr. Johnson was granted 33,330 EchoStar restricted stock units that vested 20% per year, beginning one year following the grant date. On December 31, 2012, Mr. Rayner was granted 33,333 EchoStar restricted stock units that vest 20% per year, beginning one year following the grant date. Mr. Rayner's remaining unvested restricted stock units vest on December 31, 2017.
- (4) Consists of fully vested EchoStar Class A Shares granted under EchoStar's Employee Innovator Recognition Program. After February 2016, our NEOs are no longer eligible to receive awards under EchoStar's Employee Innovator Recognition Program.

Nonqualified Deferred Compensation

The following table summarizes nonqualified deferred compensation earned or contributed by, or on behalf of our NEOs under EchoStar's Nonqualified Plan for the year ended December 31, 2016.

Name	Executive Contributions in 2016 (\$)	Registrant Contributions in 2016 (\$)	Aggregate Earnings in 2016 (1) (\$)	Aggregate Withdrawals/ Distributions (\$)	Aggregate Balance at 12/31/16 (\$)
Michael T. Dugan	—	—	4,943	—	94,058
Anders N. Johnson	—	—	966	—	14,001
Pradman P. Kaul	_	—	47,620	—	663,774
Kranti K. Kilaru	—	—	—	—	—
David J. Rayner	27,745	—	5,150	—	92,539

(1) Aggregate earnings are dependent on the investment decisions made by the executive. All earnings are market earnings, and none are preferential or set by EchoStar.

Potential Payments Upon Termination or Following a Change in Control

As discussed in "Compensation Discussion and Analysis" above, certain of EchoStar's option agreements and restricted stock unit agreements given to our NEOs include acceleration of vesting upon a change in control of EchoStar for those executive officers who are terminated by EchoStar or the surviving entity, as applicable, for any reason other than for cause during the twenty-four month period following such change in control. There are no benefits under such agreements triggered solely by a change in control or solely because of termination. Mr. Kaul's option agreement provides for acceleration of vesting upon a change in control only of EchoStar and only if Mr. Kaul is terminated by EchoStar or the surviving entity, as applicable, for any reason other than for cause and ceases to be a member of the EchoStar Board of Directors, in each case during the twenty-four month period following such change in control.

Generally a change in control is deemed to occur upon: (i) a transaction or a series of transactions the result of which is that any person (other than Mr. Ergen, EchoStar's and our controlling shareholder, or a related party) individually owns more than fifty percent (50%) of the total equity interests of either (a) EchoStar or (b) the surviving entity in any such transaction(s) or a controlling affiliate of such surviving entity in such transaction(s); and (ii) the first day on which a majority of the members of the EchoStar Board of Directors are not continuing directors (as such term is used in the individual award agreements). Accordingly, a change of control at HSS would not necessarily constitute a change in control under EchoStar's option agreements and restricted stock unit agreements.

Assuming a change in control was to have taken place as of December 31, 2016 and, the NEOs had been terminated by EchoStar or the surviving entity on December 31, 2016 and Mr. Kaul ceased to be a member of the EchoStar Board of Directors on December 31, 2016, the estimated benefits that would have been provided to our NEOs are as follows:

Name	Maximum Value of Accelerated Vesting of Options and stock (\$)
Michael T. Dugan	
Anders N. Johnson	673,780
Pradman P. Kaul	745,000
Kranti K. Kilaru	460,290
David J. Rayner	761,167

Mr. Kaul's termination benefits were set by Hughes Communications, Inc. and its wholly owned subsidiary Hughes Network Systems, LLC prior to the Hughes Acquisition and were amended in 2016. Other than as set forth above, Mr. Kaul does not have any benefits triggered by a change of control of EchoStar.

Pursuant to his employment agreement (the "Employment Agreement"), if Mr. Kaul's employment is terminated by Hughes Communications for cause, Mr. Kaul terminates his employment without good reason or provides notice of non-renewal of the Employment Agreement, Mr. Kaul becomes permanently disabled and is terminated by EchoStar, or Mr. Kaul dies during the term of the Employment Agreement, then, subject to the execution in certain circumstances of a waiver and release of claims in favor of Hughes Communications and its affiliates, Mr. Kaul will receive his: (i) earned but unpaid base salary; (ii) any bonus earned in accordance with the terms of the applicable bonus plan but which has not been paid; (iii) accrued but unused vacation; and (iv) accrued but unreimbursed documented business expenses (subject to company policies), in each case through the date of termination (collectively, the "Accrued Amounts"). If Mr. Kaul's employment agreement, subject to his execution of a waiver and release of claims in favor of Hughes Communications without cause, terminated by him for good reason, or if EchoStar provides him with notice of non-renewal of his employment agreement, subject to his execution of a waiver and release of claims in favor of Hughes Communications and its affiliates, Mr. Kaul would receive: (i) the Accrued Amounts; plus (ii) a percentage of Severance Payments depending on the date of termination or non-renewal as outlined in the chart below. The Severance Payments equal (i) a lump sum amount equal to three times the sum of (x) and (y), where (x) is Mr. Kaul's annual base salary (in effect on the date of termination) and (y) is 100% of Mr. Kaul's base salary which represents Mr. Kaul's target bonus amount, (ii) cash payments equal to 1.5 times the monthly COBRA premium paid by Mr. Kaul, and (iii) reasonable outplacement benefits.

Termination or Non-Renewal Date	Percentage of Severance Payments
Before April 1, 2017	100%
On or after April 1, 2017, and before April 1, 2018	80%
On or after April 1, 2018, and before April 1, 2019	60%
On or after April 1, 2019, and before April 1, 2020	40%
On or after April 1, 2020, and before April 1, 2021	20%
On or after April 1, 2021	0%

Mr. Kaul's Employment Agreement will terminate on April 1, 2021 and any employment of Mr. Kaul by us or any of our affiliates after that date will be atwill employment.

Assuming Mr. Kaul's employment was terminated under any of the following circumstances as of December 31, 2016, the payments and benefits that would have been provided to Mr. Kaul are as follows:

Pradman Kaul – Payments Upon Termination									
Circumstance	Cash Severance (\$) (1)	Bonus (\$) (2)	Medical Continuation (\$) (3)	Value of Accelerated Equity and Performance Awards and Nonqualified Plan Accounts (\$)	Accrued Vacation (\$)	Outplacement Benefits (\$)			
For cause	_	615,680	_	_	74,992	_			
Without cause, for good reason or non-renewal of agreement by us	4,617,600	615,680	26,110	_	74,992	20,000			
Without good reason or non-renewal of agreement by executive	_	615,680	_	_	74,992	_			
Disability or death	_	615,680	_	_	74,992	_			

(1) This amount represents three times the sum of (a) Mr. Kaul's annual base salary as in effect on December 31, 2016, plus (b) Mr. Kaul's target payout amount for 2016 under EchoStar's Executive Officer Bonus Incentive Plan.

(2) This amount represents Mr. Kaul's cash incentive payment for 2016 under EchoStar's Executive Officer Bonus Incentive Plan.

(3) This amount represents the amount of Mr. Kaul's payments for 18 months of COBRA coverage times 1.5.

DIRECTOR COMPENSATION

All of HSS's directors are employees of EchoStar and are not compensated for their services as directors.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

All of HSS' issued and outstanding capital stock is owned by EchoStar Corporation. The following table sets forth, to the best of our knowledge, the beneficial ownership of EchoStar Corporation's voting securities as of the close of business on March 6, 2017 (the "Record Date") by: (i) each person known by us to be the beneficial owner of more than five percent of any class of EchoStar Corporation's voting securities; (ii) each of our directors; (iii) each of our NEOs; and (iv) all of our directors and executive officers as a group. Unless otherwise indicated, each person listed in the following table (alone or with family members) has sole voting and dispositive power over the shares listed opposite such person's name.

Name (1)	Amount and Nature of Beneficial Ownership	Percentage of Class (2)	Total Voting Power (3)
EchoStar Class A Common Stock:			
Charles W. Ergen (4)	35,270,098	43.2%	63.6%
William R. Gouger (5)	14,496,212	23.5%	27.7%
Trusts (5)	14,494,734	23.5%	27.7%
Putnam Investments, LLC (6)	12,201,761	25.9%	2.3%
Renaissance Technologies LLC (7)	2,572,980	5.5%	*
The Vanguard Group, Inc. (8)	2,748,294	5.8%	*
Michael T. Dugan (9)	729,303	1.5%	*
Anders N. Johnson (10)	181,760	*	*
David J. Rayner (11)	135,819	*	*
Kranti K. Kilaru (12)	79,440	*	*
Pradman P. Kaul (13)	21,656	*	*
Dean A. Manson (14)	69,506	*	*
All Directors and Executive Officers as a Group (7 persons) (15)	36,487,581	44.0%	63.7%
EchoStar Class B Common Stock:			
Charles W. Ergen (4)	33,193,945	69.6%	63.6%
William R. Gouger (5)	14,493,094	30.4%	27.7%
Trusts (5)	14,493,094	30.4%	27.7%
All Directors and Executive Officers as a Group (7 persons) (16)	33,193,945	69.6%	63.7%

*Less than 1%.

- (1) Except as otherwise noted below, the address of each such person is 100 Inverness Terrace East, Englewood, Colorado 80112. As of the close of business on the Record Date, there were 47,170,466 EchoStar Class A Shares outstanding and 47,687,039 EchoStar Class B Shares outstanding. EchoStar Class B Shares are convertible into EchoStar Class A Shares on a one-for-one basis at any time.
- (2) Describes the ownership percentage of each class of shares beneficially owned by such beneficial owner. For the EchoStar Class A Shares, the calculation assumes the conversion only of the EchoStar Class B Shares beneficially owned by such person into EchoStar Class A Shares and after giving effect to the exercise of EchoStar options and vesting of EchoStar restricted stock units held by such person that are either currently exercisable or vested or may become exercisable or may vest within 60 days of the Record Date.
- (3) Describes the total voting power held by each beneficial owner taking into account all classes of shares beneficially owned by such beneficial owner, assuming no conversion of the EchoStar Class B Shares and after giving effect to the exercise of EchoStar options and vesting of EchoStar restricted stock units held by such person that are either currently exercisable or vested or may become exercisable or vest within 60 days of the Record Date. Each EchoStar Class B Share is entitled to ten votes per share.
- (4) Mr. Ergen's beneficial ownership includes: (i) 700,678 EchoStar Class A Shares beneficially owned directly by Mr. Ergen; (ii) 3,705 EchoStar Class A Shares beneficially owned indirectly by Mr. Ergen in the DISH Network Corporation 401(k) Employee Savings Plan (the "DISH 401(k) Plan"); (iii) 1,360,000 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date; (iv) 47 EchoStar Class A Shares beneficially owned by Mr. Ergen's spouse, Cantey M. Ergen; (v) 201 EchoStar Class A Shares beneficially owned indirectly by Mrs. Ergen in the DISH 401(k) Plan; (vi) 6,122 EchoStar Class A Shares beneficially owned by one of Mr. Ergen's children; (vii) 5,400 EchoStar Class A Shares beneficially owned by a charitable foundation for which Mr. Ergen is an officer and for which he shares investment control and voting power with Mrs. Ergen; and (viii) 33,193,945 EchoStar Class A Shares issuable upon conversion of Mr. Ergen's EchoStar Class B Shares. Mr. Ergen's beneficial ownership of EchoStar Class A Shares excludes the shares owned by the Trusts (as defined below) as described in footnote 5. Because each EchoStar Class B Share is convertible on a one-for-one basis into a EchoStar Class A Share, assuming conversion of all shares of outstanding EchoStar Class B Shares into EchoStar Class A Shares and giving effect to the exercise of EchoStar options held by Mr.

Ergen that are either currently exercisable or may become exercisable within 60 days of the Record Date, the percentage of EchoStar Class A Shares that Mr. Ergen may be deemed to beneficially own would be approximately 36.7%.

- The address of Mr. William R. Gouger is 5701 S. Santa Fe Drive, Littleton, Colorado 80123. Mr. Gouger's beneficial ownership includes: (i) 28 EchoStar Class A (5)Shares owned directly by Mr. Gouger; (ii) 1,450 EchoStar Class A Shares beneficially owned indirectly by Mr. Gouger in the DISH 401(k) Plan; (iii) 1,640 EchoStar Class A Shares beneficially owned by Mr. Gouger solely by virtue of his position as the sole member of the investment committee (with sole voting and dispositive power) of Centennial Fiduciary Management LLC, which serves as trustee of certain trusts established by Mr. Ergen for the benefit of his family; (iv) 9,684,889 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares held by certain grantor retained annuity trusts ("GRATs") established by Mr. Ergen for the benefit of his family of which Mr. Gouger is trustee, including: (A) 7,004,758 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares beneficially owned by Mr. Gouger solely by virtue of his position as trustee of the Ergen Three-Year 2015 SATS GRAT dated November 30, 2015; and (B) 2,680,131 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares beneficially owned by Mr. Gouger solely by virtue of his position as trustee of the Ergen Three-Year 2014 SATS GRAT dated May 30, 2014; and (v) 4,808,205 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares held by certain other trusts established by Mr. Ergen for the benefit of his family, which are beneficially owned by Mr. Gouger solely by virtue of his position as the sole member of the investment committee of Centennial Fiduciary Management LLC, which serves as trustee of such trusts, including: (A) 3,560,833 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares owned beneficially by Mr. Gouger solely by virtue of his position as the sole member of the investment committee of Centennial Fiduciary Management LLC, which serves as trustee of the Ergen 2010 Family Wyoming Trust; and (B) 1,247,372 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares, beneficially owned by Mr. Gouger solely by virtue of his position as the sole member of the investment committee (with sole voting and dispositive power) of Centennial Fiduciary Management LLC, which serves as trustee of certain other trusts established by Mr. Ergen for the benefit of his family. Because each EchoStar Class B Share is convertible on a one-for-one basis into an EchoStar Class A Share, assuming conversion of all shares of outstanding EchoStar Class B Shares into EchoStar Class A Shares, the percentage of EchoStar Class A Shares that Mr. Gouger may be deemed to beneficially own would be approximately 15.3%. The Trusts listed in the beneficial ownership table are those GRATS and other trusts established by Mr. Ergen for the benefit of his family that are referenced in this footnote 5.
- (6) The address of Putnam Investments, LLC (d/b/a Putnam Investments) is One Post Office Square, Boston, Massachusetts 02109. Of the EchoStar Class A Shares beneficially owned, Putnam Investments has sole voting power as to 11,819 EchoStar Class A Shares beneficially owned by it and it has sole dispositive power as to 12,201,761 EchoStar Class A Shares beneficially owned by it. The foregoing information is based solely upon a Schedule 13G/A filed by Putnam Investments with the SEC on February 14, 2017.
- (7) The address of Renaissance Technologies LLC is 800 Third Avenue, New York, New York 10022. Of the EchoStar Class A Shares beneficially owned, Renaissance Technologies LLC has sole voting power as to 2,475,092 EchoStar Class A Shares beneficially owned by it and sole dispositive power as to 2,497,552 EchoStar Class A Shares beneficially owned by it. The foregoing information is based solely upon a Schedule 13G filed by Renaissance Technologies LLC with the SEC on February 14, 2017.
- (8) The address of The Vanguard Group, Inc. is 100 Vanguard Blvd., Malvern, Pennsylvania 19355. Of the EchoStar Class A Shares beneficially owned, Vanguard Group, Inc. has sole voting power as to 27,248 EchoStar Class A Shares beneficially owned by it and sole dispositive power as to 2,717,611 EchoStar Class A Shares beneficially owned by it. The foregoing information is based solely upon a Schedule 13G/A filed by Vanguard Group, Inc. with the SEC on February 9, 2017.
- (9) Mr. Dugan's beneficial ownership includes: (i) 57,092 EchoStar Class A Shares held directly by Mr. Dugan; (ii) 1,597 EchoStar Class A Shares held by Mr. Dugan in the 401(k) Plan; and (iii) 670,614 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date.
- (10) Mr. Johnson's beneficial ownership includes: (i) 9,128 EchoStar Class A Shares held directly by Mr. Johnson; (ii) 632 EchoStar Class A Shares held by Mr. Johnson in the 401(k) Plan; and (iii) 172,000 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date.
- (11) Mr. Rayner's beneficial ownership includes: (i) 13,967 EchoStar Class A Shares held directly by Mr. Rayner; (ii) 852 EchoStar Class A Shares held by Mr. Rayner in the 401(k) Plan; and (iii) 121,000 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date.
- (12) Mr. Kilaru's beneficial ownership includes: (i) 137 EchoStar Class A Shares held directly by Mr. Kilaru; (ii) 1,120 EchoStar Class A Shares held by Mr. Kilaru in the 401(k) Plan; and (iii) 78,183 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date.
- (13) Mr. Kaul's beneficial ownership includes: (i) 1,332 EchoStar Class A Shares held directly by Mr. Kaul; (ii) 324 EchoStar Class A Shares held by Mr. Kaul in the 401(k) Plan; and (iii) 20,000 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date.
- (14) Mr. Manson's beneficial ownership includes: (i) 2,182 EchoStar Class A Shares held directly by Mr. Manson; (ii) 324 EchoStar Class A Shares held by Mr. Manson in the 401(k) Plan; and (iii) 67,000 EchoStar Class A Shares subject to employee stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date.
- (15) Includes: (i) 784,516 EchoStar Class A Shares held directly; (ii) 4,848 EchoStar Class A Shares held in the 401(k) Plan and 3,705 EchoStar Class A Share held by executive officers or directors in the DISH 401(k) Plan; (iii) 2,488,797 EchoStar Class A Shares subject to employee and non-employee director stock options that are either currently exercisable or may become exercisable within 60 days of the Record Date; (iv) 33,193,945 EchoStar Class A Shares issuable upon conversion of EchoStar Class B Shares; (v) 5,400 EchoStar Class A Shares held by a charitable foundation; and (vi) 6,370 EchoStar Class A Shares held by a spouse or child directly and by a spouse indirectly in the DISH 401(k) Plan.
- (16) Comprises the 33,193,945 EchoStar Class B Shares beneficially owned by Mr. Ergen.

THE EXCHANGE OFFER

Purpose of the exchange offer

The sole purpose of the exchange offer is to fulfill our obligations with respect to the registration of the Old Notes. We originally issued and sold the Old Notes on July 27, 2016. We did not register those sales under the Securities Act, in reliance upon the exemption provided in section 4(a)(2) of the Securities Act and Rule 144A and Regulation S promulgated under the Securities Act. In connection with the sale of the Old Notes, we agreed to file with the SEC an exchange offer registration statement relating to the exchange offer. Under the exchange offer registration statement, we will offer the Notes, in exchange for the Old Notes.

How to determine if you are eligible to participate in the exchange offer

We hereby offer to exchange, upon the terms and subject to the conditions set forth in this prospectus and in the letter of transmittal accompanying it, \$1,000 in principal amount of Notes for each \$1,000 in principal amount of the Old Notes that you hold. You may only tender Old Notes in minimum denominations of \$2,000 principal amount and any integral multiples of \$1,000 in excess thereof. The terms of the Secured Notes and the Unsecured Notes are substantially identical to the terms of the Old Secured Notes, and the Old Unsecured Notes, respectively, that you may exchange pursuant to this exchange offer, except that, generally, you may freely transfer the Notes, and you will not be entitled to certain registration rights and certain other provisions which are applicable to the Old Notes under the registration rights agreement. The Notes will be entitled to the benefits of the respective indentures. See "Description of the Secured Notes."

We are not making the exchange offer to, nor will we accept surrenders for exchange from, holders of outstanding Old Notes in any jurisdiction in which this exchange offer or the acceptance thereof would not be in compliance with the securities or blue sky laws of such jurisdiction.

We are not making the exchange offer conditional upon the holders tendering, or us accepting, any minimum aggregate principal amount of Old Notes.

Under existing SEC interpretations, the Notes would generally be freely transferable after the exchange offer without further registration under the Securities Act, except that broker-dealers receiving the Notes in the exchange offer will be subject to a prospectus delivery requirement with respect to their resale. This view is based on interpretations by the staff of the SEC in no-action letters issued to other issuers in exchange offers like this one. We have not, however, asked the SEC to consider this particular exchange offer in the context of a no-action letter. Therefore, the SEC might not treat it in the same way it has treated other exchange offers in the past. You will be relying on the no-action letters that the SEC has issued to third parties in circumstances that we believe are similar to ours. Based on these no-action letters, the following conditions must be met:

- you must not be a broker-dealer that acquired the Old Notes from us;
- you must acquire the Notes in the ordinary course of your business;
- you must not be engaged in nor intend to engage in, and must have no arrangements or understandings with any person to participate in the distribution of the Notes within the meaning of the Securities Act; and
- you must not be an affiliate of ours, as defined in Rule 405 under the Securities Act.

If you wish to exchange Old Notes for Notes in the exchange offer you must represent to us that you satisfy all of the above listed conditions. If you do not satisfy all of the above listed conditions:

- you cannot rely on the position of the SEC set forth in the no-action letters referred to above; and
- you must comply with the registration and prospectus delivery requirements of the Securities Act in connection with a resale of the new Notes.

The SEC considers broker-dealers that acquired Old Notes directly from us, but not as a result of market-making activities or other trading activities, to be making a distribution of the Notes if they participate in the exchange offer. Consequently, these broker-dealers must comply with the registration and prospectus delivery requirements of the Securities Act in connection with a resale of the Notes.

A broker-dealer that has bought Old Notes for market-making or other trading activities must deliver a prospectus in order to resell any Notes it receives for its own account in the exchange offer. The SEC has taken the position that broker-dealers may

fulfill their prospectus delivery requirements with respect to the Notes by delivering the prospectus contained in the registration statement for the exchange offer. Each broker-dealer that receives Notes for its own account pursuant to this exchange offer must acknowledge that it will deliver a prospectus in connection with any resale of such Notes. The letter of transmittal states that by so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of Notes received in exchange for Old Notes where such Old Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities. We have agreed that, for a period of six months after we consummate the exchange offer (or such shorter period as will terminate when all Notes received in exchange for such Old Notes acquired by any broker-dealer as a result of market-making activities or other trading activities have been resold by such broker-dealer), we will make this prospectus available to any broker-dealer for use in connection with any such resale.

By tendering Old Notes for exchange, you will exchange, assign and transfer the Old Notes to us and irrevocably appoint the exchange agent as your agent and attorney-in-fact to assign, transfer and exchange the Old Notes. You will also represent and warrant that you have full power and authority to tender, exchange, assign and transfer the Old Notes and to acquire Notes issuable upon the exchange of such tendered Old Notes. The letter of transmittal requires you to agree that, when we accept your Old Notes for exchange, we will acquire good, marketable and unencumbered title to them, free and clear of all security interests, liens, restrictions, charges and encumbrances and that they are not subject to any adverse claim.

You will also warrant that you will, upon our request, execute and deliver any additional documents that we believe are necessary or desirable to complete the exchange, assignment and transfer of your tendered Old Notes. You must further agree that our acceptance of any tendered Old Notes and the issuance of Notes in exchange for them will constitute performance in full by us of our obligations under the registration rights agreement and that we will have no further obligations or liabilities under that agreement, except in certain limited circumstances. All authority conferred by you will survive your death, incapacity, liquidation, dissolution, winding up or any other event relating to you, and every obligation of you shall be binding upon your heirs, personal representatives, successors, assigns, executors and administrators.

If you are tendering Old Notes, we will not require you to pay brokerage commissions or fees or, subject to the instructions in the letter of transmittal, transfer taxes with respect to the exchange of the Old Notes pursuant to the exchange offer. Each of the Notes will bear interest from the most recent date through which interest has been paid on the Old Notes for which they were exchanged. If we accept your Old Notes for exchange, you will waive the right to have interest accrue, or to receive any payment in respect to interest, on the Old Notes from the most recent interest payment date to the date of the issuance of the Notes. Interest on the Notes is payable semiannually in arrears on February 1 and August 1.

Information about the expiration date of the exchange offer and changes to it

The exchange offer expires on the expiration date, which is 5:00 p.m., New York City time, on , 2017, unless we, in our sole discretion, extend the period during which the exchange offer is open. If we extend the expiration date for the exchange offer, the term "expiration date" means the latest time and date on which the exchange offer, as so extended, expires. We reserve the right to extend the exchange offer at any time and from time to time prior to the expiration date by giving written notice to U.S. Bank National Association, which is the exchange agent, and by timely public announcement communicated by no later than 5:00 p.m. New York City time on the next business day following the expiration date, unless applicable law or regulation requires otherwise, by making a release to the Dow Jones News Service. During any extension of the exchange offer, all Old Notes previously tendered pursuant to the exchange offer will remain subject to the exchange offer.

The initial exchange date will be the first business day following the expiration date. We expressly reserve the right to terminate the exchange offer and not accept for exchange any Old Notes for any reason, including if any of the events set forth below under "We may modify or terminate the exchange offer under some circumstances" have occurred and we have not waived them. We also reserve the right to amend the terms of the exchange offer in any manner, whether before or after any tender of the Old Notes. If we terminate or amend the exchange offer, we will notify the exchange agent in writing and will either issue a press release or give written notice to you as a holder of the Old Notes as promptly as practicable. Unless we terminate the exchange offer prior to 5:00 p.m., New York City time, on the expiration date, we will exchange the Notes for Old Notes on the exchange date (subject to any extension as a result of the guaranteed delivery procedures described below).

We will mail this prospectus and the related letter of transmittal and other relevant materials to you as a record holder of Old Notes and we will furnish these items to brokers, banks and similar persons whose names, or the names of whose nominees, appear on the lists of holders for subsequent transmittal to beneficial owners of Old Notes.

How to tender your Old Notes

If you tender to us any of your Old Notes pursuant to one of the procedures set forth below, that tender will constitute an agreement between you and us in accordance with the terms and subject to the conditions that we describe below and in the letter of transmittal for the exchange offer.

You may tender Old Notes by properly completing and signing the letter of transmittal or a facsimile of it. All references in this prospectus to the "letter of transmittal" include a facsimile of the letter. You must deliver it, together with the certificate or certificates representing the Old Notes that you are tendering and any required signature guarantees, or a timely confirmation of a book-entry transfer pursuant to the procedure that we describe below, to the exchange agent at its address set forth on the back cover of this prospectus on or prior to the expiration date. You may also tender Old Notes by complying with the guaranteed delivery procedures that we describe below.

Your signature does not need to be guaranteed if you registered your Old Notes in your name, you will register the Notes in your name and you sign the letter of transmittal. In any other case, the registered holder of your notes must endorse them or send them with duly executed written instruments of transfer in the form satisfactory to us. Also, an "eligible institution," such as a bank, broker, dealer, credit union, savings association, clearing agency or other institution that is a member of a recognized signature guarantee medallion program within the meaning of Rule 17Ad-15 under the Exchange Act must guarantee the signature on the endorsement or instrument of transfer. If you want us to deliver the Notes or non-exchanged Old Notes to an address other than that of the registered holder appearing on the note register for the Old Notes, an "eligible institution" must guarantee the signature on the letter of transmittal.

If your Old Notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee and you wish to tender Old Notes, you should contact the registered holder promptly and instruct the holder to tender Old Notes on your behalf. If you wish to tender your Old Notes yourself, you must, prior to completing and executing the letter of transmittal and delivering your Old Notes, either make appropriate arrangements to register ownership of the Old Notes in your name or follow the procedures described in the immediately preceding paragraph. Transferring record ownership from someone else's name to your name may take considerable time.

How to tender if you hold your Old Notes through a broker or other institution and you do not have the actual Old Notes

Any financial institution that is a participant in The Depository Trust Company's ("DTC") systems may make book-entry delivery of your Old Notes by causing DTC to transfer your Old Notes into the exchange agent's account at DTC in accordance with DTC's procedures for transfer. Although you may deliver your Old Notes through book-entry transfer at DTC, you still must send the letter of transmittal, with any required signature guarantees and any other required documents, to the exchange agent at the address specified on the back cover of this prospectus on or prior to the expiration date and the exchange agent must receive these documents on time. If you will not be able to send all the documents on time, you can still tender your Old Notes by using the guaranteed delivery procedures described below.

You assume the risk of choosing the method of delivery of Old Notes and all other documents. If you send your Old Notes and your documents by mail, we recommend that you use registered mail, return receipt requested, you obtain proper insurance, and you mail these items sufficiently in advance of the expiration date to permit delivery to the exchange agent on or before the expiration date.

If you do not provide your taxpayer identification number, which is your social security number or employer identification number, as applicable, and certify that such number is correct, the exchange agent will withhold 28% of the gross proceeds otherwise payable to you pursuant to the exchange offer, unless an exemption applies under the applicable law and regulations concerning "backup withholding" of federal income tax. You should complete and sign the main signature form and the Substitute Form W-9 included as part of the letter of transmittal, so as to provide the information and certification necessary to avoid backup withholding, unless an applicable exemption exists and you prove it in a manner satisfactory to us and the exchange agent.

How to use the guaranteed delivery procedures if you will not have enough time to send all documents to us

If you desire to accept the exchange offer, and time will not permit a letter of transmittal or Old Notes to reach the exchange agent before the expiration date, you may tender your Old Notes if the exchange agent has received at its office listed on the letter of transmittal on or prior to the expiration date a letter, telegram or facsimile transmission from an eligible institution setting forth your name and address, the principal amount of the Old Notes that you are tendering, the names in which you registered the Old Notes and, if possible, the certificate numbers of the Old Notes that you are tendering.

The eligible institution's correspondence to the exchange agent must state that the correspondence constitutes the tender and guarantee that within three New York Stock Exchange trading days after the date that the eligible institution executes such correspondence, the eligible institution will deliver the Old Notes, in proper form for transfer, together with a properly completed and duly executed letter of transmittal and any other required documents. We may, at our option, reject the tender if you do not tender your Old Notes and accompanying documents by either the above-described method or by a timely book-entry confirmation, and if you do not deposit your Old Notes and tender documents with the exchange agent within the time period set forth above. Copies of a notice of guaranteed delivery that eligible institutions may use for the purposes described in this paragraph are available from the exchange agent.

Valid receipt of your tender will occur as of the date when the exchange agent receives your properly completed letter of transmittal, accompanied by either the Old Notes or a timely book-entry confirmation. We will issue Notes in exchange for Old Notes that you tendered pursuant to a notice of guaranteed delivery or correspondence to similar effect as described above by an eligible institution only against deposit of the letter of transmittal, any other required documents and either the tendered Old Notes or a timely book-entry confirmation.

We reserve the right to determine validity of all tenders

We will be the sole judge of all questions as to the validity, form, eligibility, including time of receipt, and acceptance for exchange of your tender of Old Notes and our judgment will be final and binding. We reserve the absolute right to reject any or all of your tenders that are not in proper form or the acceptances for exchange of which may, in our opinion or in the opinion of our counsel, be unlawful. We also reserve the absolute right to waive any of the conditions of the exchange offer or any defect or irregularities in your case. Neither we, the exchange agent nor any other person will be under any duty to give you notification of any defects or irregularities in tenders nor shall any of us incur any liability for failure to give you any such notification. Our interpretation of the terms and conditions of the exchange offer, including the letter of transmittal and its instructions, will be final and binding.

If you tender Old Notes pursuant to the exchange offer, you may withdraw them at any time prior to the expiration date

For your withdrawal to be effective, the exchange agent must timely receive your written or fax notice of withdrawal prior to the expiration date at the exchange agent's address set forth on the back cover page of this prospectus. Your notice of withdrawal must specify the following information:

- The person named in the letter of transmittal as tendering Old Notes you are withdrawing;
- The certificate numbers of Old Notes you are withdrawing;
- The principal amount of Old Notes you are withdrawing;
- A statement that you are withdrawing your election to have us exchange such Old Notes; and
- The name of the registered holder of such Old Notes, which may be a person or entity other than you, such as your broker-dealer.

The person or persons who signed your letter of transmittal, including any eligible institutions that guaranteed signatures on your letter of transmittal, must sign the notice of withdrawal in the same manner as their original signatures on the letter of transmittal including any required signature guarantees. If such persons and eligible institutions cannot sign your notice of withdrawal, you must send it with evidence satisfactory to us that you now hold beneficial ownership of the Old Notes that you are withdrawing. The exchange agent will return the properly withdrawn Old Notes promptly following receipt of notice of withdrawal. We will determine all questions as to the validity of notices of withdrawals, including time of receipt, and our determination will be final and binding on all parties.

How we will either exchange your Old Notes for Notes or return them to you

On the exchange date, we will determine which Old Notes the holders validly tendered, and we will issue Notes in exchange for the validly tendered Old Notes. The exchange agent will act as your agent for the purpose of receiving Notes from us and sending the Old Notes to you in exchange for Notes promptly after acceptance of the tendered Old Notes. If we do not accept your Old Notes for exchange, we will return them without expense to you. If you tender your Old Notes by book-entry transfer into the exchange agent's account at DTC pursuant to the procedures described above and we do not accept your Old Notes for exchange, DTC will credit your non-exchanged Old Notes to an account maintained with DTC. In either case, we will return your non-exchanged Old Notes to you promptly following the expiration of the exchange offer.

We may modify or terminate the exchange offer under some circumstances

We are not required to issue Notes in respect of any properly tendered Old Notes that we have not previously accepted and we may terminate the exchange offer or, at our option, we may modify or otherwise amend the exchange offer. If we terminate the exchange offer, it will be by oral or written notice to the exchange agent and by timely public announcement communicated no later than 5:00 p.m. on the next business day following the expiration date, unless applicable law or regulation requires us to terminate the exchange offer in the following circumstances:

- Any court or governmental agency brings a legal action seeking to prohibit the exchange offer or assessing or seeking any damages as a result of the exchange offer, or resulting in a material delay in our ability to accept any of the Old Notes for exchange offer; or
- Any government or governmental authority, domestic or foreign, brings or threatens any law or legal action that in our sole judgment, might directly
 or indirectly result in any of the consequences referred to above; or, if in our sole judgment, such activity might result in the holders of Notes having
 obligations with respect to resales and transfers of Notes that are greater than those we described above in the interpretations of the staff of the SEC
 or would otherwise make it inadvisable to proceed with the exchange offer; or
- A material adverse change has occurred in our business, condition (financial or otherwise), operations or prospects.

The foregoing conditions are for our sole benefit and we may assert them with respect to all or any portion of the exchange offer regardless of the circumstances giving rise to such condition. We also reserve the right to waive these conditions in whole or in part at any time or from time to time in our discretion. Our failure at any time to exercise any of the foregoing rights will not be a waiver of any such right, and each right will be an ongoing right that we may assert at any time or from time to time. In addition, we have reserved the right, notwithstanding the satisfaction of each of the foregoing conditions, to terminate or amend the exchange offer.

Any determination by us concerning the fulfillment or nonfulfillment of any conditions will be final and binding upon all parties.

In addition, we will not accept for exchange any tendered Old Notes, and we will not issue Notes in exchange for any such Old Notes, if at that time there is, or the SEC has threatened, any stop order with respect to the registration statement that this prospectus is a part of, or if qualification of the indenture is required under the Trust Indenture Act of 1939.

Where to send your documents for the exchange offer

We have appointed Wells Fargo Bank, National Association as the exchange agent for the exchange offer. You must send your letter of transmittal to the exchange agent at:

By hand, overnight delivery or mail (registered or certified mail recommended): U.S. Bank National Association 60 Livingston Avenue St. Paul, Minnesota 55107 Attention: Specialized Finance or By facsimile: (651) 466-7372 Attention: Specialized Finance

If you send your documents to any other address or fax number, you will have not validly delivered them and you will not receive Notes in exchange for your Old Notes. We will return your Old Notes to you.

We are paying our costs for the exchange offer

We have not retained any dealer-manager or similar agent in connection with the exchange offer and will not make any payments to brokers, dealers or others for soliciting acceptances of the exchange offer. We will, however, pay the exchange agent reasonable and customary fees for its services and will reimburse it for reasonable out-of-pocket expenses. We will also pay brokerage houses and other custodians, nominees and fiduciaries the reasonable out-of-pocket expenses that they incur in forwarding tenders for their customers. We estimate that our costs and expenses for the exchange offer will be approximately \$500,000.

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No person has been authorized to give you any information or to make any representations to you in connection with the exchange offer other than those that this prospectus contains.

If anyone else gives you information or representations about the exchange offer, you should not rely upon that information or representation or assume that we have authorized it. Neither the delivery of this prospectus nor any exchange made hereunder shall, under any circumstances, create any implication that there has been no change in our affairs since the respective dates as of which this prospectus gives information. We are not making the exchange offer to, nor will we accept tenders from or on behalf of, holders of Old Notes in any jurisdiction in which it is unlawful to make the exchange offer or to accept it. However, we may, at our discretion, take such action as we may deem necessary to make the exchange offer in any such jurisdiction and extend the exchange offer to holders of Old Notes in such jurisdiction. In any jurisdiction where the securities laws or blue sky laws require a licensed broker or dealer to make the exchange offer on our behalf.

There are no dissenters' or appraisal rights

Holders of Old Notes will not have dissenters' rights or appraisal rights in connection with the exchange offer.

Federal income tax consequences to you

Your exchange of Old Notes for Notes should not be a taxable exchange for federal income tax purposes, and you should not recognize any taxable gain or loss or any interest income as a result of the exchange. See "Material United States Federal Income Tax Considerations" below.

This is the only exchange offer for the Old Notes that we are required to make

Your participation in the exchange offer is voluntary, and you should carefully consider whether to accept the terms and conditions of it. You are urged to consult your financial and tax advisors in making your own decisions on what action to take with respect to the exchange offer. If you do not tender your Old Notes in the exchange offer, you will continue to hold such Old Notes and you will be entitled to all the rights and limitations applicable to the Old Notes under the Indenture. All non-exchanged Old Notes will continue to be subject to the restriction on transfer set forth in the Indenture. If we exchange Old Notes in the exchange offer, the trading market, if any, for any remaining Old Notes could be much less liquid.

We may in the future seek to acquire non-exchanged Old Notes in the open market or privately negotiated transactions, through subsequent exchange offers or otherwise. We have no present plan to acquire any Old Notes that are not exchanged in the exchange offer.

DESCRIPTION OF CERTAIN OTHER INDEBTEDNESS

As of December 31, 2016, our other indebtedness (excluding the Old Notes) primarily consisted of \$990.0 million aggregate principal amount of the 2011 Secured Notes, \$900.0 million aggregate principal amount of the 2011 Unsecured Notes and approximately \$297.3 million of capital lease obligations. The 2011 Notes are governed by indentures that are similar in certain respects to the indentures that will govern the Notes. However, the indentures governing the 2011 Notes also contain provisions that are different from those that will be contained in the indentures that will govern the Notes, including, but not limited to, those in respect of maturity, interest rates, redemption prices and periods during which we may exercise our options to redeem the notes issued thereunder, as well as in respect of the scope and content of many of the restrictive covenants contained therein. The 2011 Notes are guaranteed on a senior basis by the same domestic subsidiaries of ours that will guarantee the Notes. Copies of these existing indentures may be obtained from HSS' filings with the SEC, which are available to the public on the SEC's Internet website at *http://www.sec.gov* and from us. See "Incorporation of Certain Documents by Reference" and "Where You Can Find More Information."

Our capital lease obligations reflect the present value of future minimum lease payments under noncancelable lease agreements, primarily for certain of our satellites. These agreements require monthly recurring payments, which generally include principal, interest, an amount for use of the orbital location and estimated executory costs, such as insurance and maintenance. The monthly recurring payments generally are subject to reduction in the event of failures that reduce the satellite transponder capacity. Certain of these agreements provide for extension of the initial lease term at our option.

DESCRIPTION OF THE SECURED NOTES

The Secured Notes will be issued under an indenture (as supplemented to date, the "Secured Indenture"), dated as of July 27, 2016, among Hughes Satellite Systems Corporation (the "Company"), the Guarantors, U.S. Bank National Association, as Trustee, and Wells Fargo Bank, National Association, as collateral agent. The rights of the holders of the Secured Notes are governed solely by the Secured Indenture and our obligations under the Secured Indenture are solely for the benefit of the holders of the Old Secured Notes and the Secured Notes. The terms of the Secured Notes will be substantially identical to the terms of the Old Secured Notes. However, the Secured Notes will not be subject to transfer restrictions or registration rights unless held by certain broker-dealers, our affiliates or certain other Persons. We refer to our outstanding 5.250% Senior Secured Notes due 2026 as the "Old Secured Notes," our outstanding 6.625% Senior Notes due 2026 as the "Old Unsecured Notes" (together with the Old Secured Notes, the "Unsecured Notes"), the new 5.250% Senior Secured Notes due 2026 issued in this offer as the "Secured Notes" and the new 6.625% Senior Notes due 2026 issued in this offer as the "Secured Notes" and "Unsecured Notes" shall be deemed to have been issued on the Issue Date for all purposes under the Secured Indenture.

The following description is a summary of the material provisions of the Secured Indenture. It does not restate the Secured Indenture in its entirety. We urge you to read the Secured Indenture and the Secured Notes because they, and not this description, define your rights as a holder of the Secured Notes. Copies of the Secured Indenture and the Secured Notes are available to you upon request.

You can find the definitions of some of the capitalized terms used in this section under the subheading "Certain Definitions." In this section of the prospectus:

- the terms "HSS," the "Company," the "Issuer," "we," "us," "our" or similar terms refer only to Hughes Satellite Systems Corporation and not to any
 of our subsidiaries;
- references to "Guarantors" shall mean our direct and indirect Wholly Owned Restricted Subsidiaries that guarantee the Secured Notes; and
- references to "Parent" mean HSS' parent, EchoStar Corporation, together with each Subsidiary of Parent that beneficially owns a majority of the total voting power of HSS' Equity Interests, but only so long as such other entity remains a Subsidiary of Parent, provided that if EchoStar Corporation no longer beneficially owns a majority of the total voting power of HSS' Equity Interests, references to "Parent" mean any person or entity that directly beneficially owns a majority of the total voting power of HSS' Equity Interests, together with any future Subsidiary of such person or entity for so long as such future Subsidiary remains such and beneficially owns a majority of the total voting power of HSS' Equity Interests.

The terms of the Secured Notes include those stated in the Secured Indenture and those made part of the Secured Indenture by reference to the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"). The Secured Notes are subject to all such terms, and holders of Secured Notes should refer to the Secured Indenture and the Trust Indenture Act for a statement thereof.

Brief Description of the Secured Notes

The Secured Notes

The Secured Notes will be:

- general secured obligations of the Issuer;
- secured by a first priority security interest in substantially all of the assets of the Issuer, subject to certain exceptions and Permitted Liens, which will be shared equally and ratably with the \$990 million aggregate principal amount of our outstanding 6 ½% Senior Secured Notes due 2019 (the "2011 Secured Notes") and the Old Secured Notes;
- effectively junior to the Issuer's obligations that are secured by assets that are not part of the Collateral (as defined under "Security" below) that is securing the Secured Notes and the 2011 Secured Notes, in each case to the extent of the value of the Collateral securing such obligations;
- effectively senior to the Issuer's existing and future unsecured obligations to the extent of the value of the Collateral securing the Secured Notes (which also secure the 2011 Secured Notes and the Old Secured Notes), after giving effect to Permitted Liens, including the 2011 Unsecured Notes and the Unsecured Notes offered hereby;



- senior in right of payment to all existing and future obligations of the Issuer that are expressly subordinated to the Secured Notes;
- structurally junior to any existing and future obligations of any non-Guarantor Subsidiaries; and
- fully and unconditionally guaranteed, on a joint and several basis, by each Guarantor (which are the same guarantors as under the 2011 Secured Notes and the 2011 Unsecured Notes).

The Secured Notes will be issued in fully registered form only, without coupons, in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. Any Old Secured Notes that remain outstanding after the completion of this exchange offer, together with the Secured Notes issued in connection with this exchange offer, will be treated as a single class of securities for all purposes under the Secured Indenture, and have terms substantially identical to the terms of the Secured Notes, including, without limitation, with respect to waivers, amendments, redemptions, "Change of Control Offer" and "Certain Covenants—Asset Sales," each as discussed under their respective subheadings below.

The Guarantees

The Secured Notes will be guaranteed by the Guarantors. The Guarantee of each Guarantor will be:

- a general secured obligation of such Guarantor;
- secured by a first priority security interest in substantially all of the assets of such Guarantor, subject to certain exceptions and Permitted Liens, which will be shared equally and ratably with the 2011 Secured Notes and the Old Secured Notes;
- effectively junior to such Guarantor's obligations that are secured by assets that are not part of the Collateral that is securing the Secured Notes, in each case to the extent of the value of the collateral securing such obligations;
- effectively senior to such Guarantor's existing and future unsecured obligations to the extent of the value of the Collateral securing the Secured Notes (which also secure the 2011 Secured Notes and the Old Secured Notes), after giving effect to Permitted Liens; and
- senior in right of payment to all existing and future obligations of such Guarantor that are expressly subordinated to the Secured Notes.

In addition, the Secured Indenture permits us and the Guarantors to incur additional Indebtedness, including secured and unsecured Indebtedness that ranks equally with the Secured Notes. Any secured Indebtedness will, as to the collateral securing such Indebtedness, be effectively senior to the Secured Notes or the Guarantees, as the case may be, to the extent of the value of such collateral.

The Guarantors consist of all of the existing guarantors of the 2011 Notes.

Principal, Maturity and Interest

The Secured Notes will be issued in an aggregate principal amount of up to \$750,000,000. Additional notes ("Additional Secured Notes") may be issued under the Secured Indenture from time to time, subject to the limitations set forth under (x) "Certain Covenants — Limitation on Incurrence of Indebtedness" without regard to clause (1) under the second paragraph thereof and (y) clause (c) of the definition of "Permitted Liens." Any Additional Secured Notes will be part of the same series as the Secured Notes offered hereby and will vote on all matters with the Secured Notes offered hereby. The Secured Notes will mature on August 1, 2026.

Interest on the Secured Notes will accrue at a rate of 5.250% per annum. Interest on the Secured Notes will be payable semiannually in arrears in cash on February 1 and August 1 of each year, commencing August 1, 2017 or if any such day is not a business day on the next succeeding business day, to holders of record on the immediately preceding January 15 and July 15, respectively. Interest on the Secured Notes will accrue from the most recent date to which interest has been paid or, if no interest has been paid, from the date of issuance. Interest on the Secured Notes will be computed on the basis of a 360-day year of twelve 30-day months.

The Secured Notes are payable both as to principal and interest at our office or agency maintained for such purpose or, at our option, payment of interest may be made by check mailed to the holders of the Secured Notes at their respective addresses set

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forth in the register of holders of Secured Notes. Until otherwise designated by us, our office or agency will be the office of the Trustee maintained for such purpose.

Guarantees

Each Guarantor will jointly and severally guarantee the Issuer's obligations under the Secured Notes. The obligations of each Guarantor under its Guarantee for the Secured Notes will be limited as necessary to prevent such Guarantee from constituting a fraudulent conveyance or fraudulent transfer under applicable law. See "Risk Factors — Risks Related to the Notes and the Exchange Offer — The guarantees of the Notes by our subsidiaries may be subject to challenge." Each Guarantor that makes a payment or distribution under a Guarantee will be entitled to a pro rata contribution from each other Guarantor based on the net assets of such Guarantor and each other Guarantor.

Each Guarantor may consolidate with or merge into or sell its assets to us or another Guarantor that is a Restricted Subsidiary, or with or to other Persons upon the terms and conditions set forth in the Secured Indenture. A Guarantor may not sell or otherwise dispose of all or substantially all of its assets, or consolidate with or merge with or into another Person (whether or not such Guarantor is the surviving Person), unless certain conditions are met. See "Certain Covenants — Merger, Consolidation, or Sale of Assets."

A Guarantee of a Guarantor will be deemed automatically discharged and released in accordance with the terms of the Secured Indenture:

- in connection with any direct or indirect sale, conveyance or other disposition of all of the capital stock or all or substantially all of the assets of that Guarantor (including by way of merger or consolidation), if such sale or disposition is made in compliance with the applicable provisions of the Secured Indenture (see "Certain Covenants — Asset Sales");
- (2) if such Guarantor is dissolved or liquidated in accordance with the provisions of the Secured Indenture;
- (3) if we designate any such Guarantor as an Unrestricted Subsidiary in compliance with the terms of the Secured Indenture; or
- (4) the Issuer's exercise of its legal defeasance option or covenant defeasance option as described under "Legal Defeasance and Covenant Defeasance" or if the Issuer's obligations under the Secured Indenture are discharged in accordance with the terms of the Secured Indenture.

In addition to the release provisions above, following such time when a Guarantor is no longer guaranteeing the 2011 Notes or the Unsecured Notes, a Guarantee of a Guarantor will also be deemed automatically discharged and released in accordance with the terms of the Secured Indenture, upon the consent of the holders of at least a majority in principal amount of the Old Secured Notes and the Secured Notes then outstanding under the Secured Indenture. In addition, upon the Issuer's election, by written notice to the Trustee, a Guarantee of a Guarantor that is an Immaterial Subsidiary may be deemed automatically discharged and released in accordance with the terms of the Secured Indenture.

Security

Except for the Excluded Assets, the Secured Notes and the Guarantees will be secured by a first priority security interest (on a shared basis with the 2011 Secured Notes and the Old Secured Notes and any Additional Secured Obligations), subject to Permitted Liens and certain other exceptions, in substantially all of the assets of the Issuer and the Guarantors, whether now owned or hereafter acquired, including, without limitation, the following assets (to the extent they do not constitute Excluded Assets or as otherwise provided in the Security Documents):

- intellectual property,
- equipment, inventory and all other personal property,
- satellites and associated equipment, including all ground segment equipment for TT&C and monitoring of such satellites and any agreement relating to any of such satellites or associated equipment, owned or leased by the Issuer and the Guarantors,
- accounts, documents, chattel paper, letter of credit rights, and general intangibles, including contract rights and payment intangibles,

- · deposit accounts, collateral accounts, securities accounts, promissory notes and other investment property,
- the Capital Stock of each of the Restricted Subsidiaries, and
- proceeds of the foregoing (collectively, together with the Real Property Interests, the "Collateral").

The Secured Indenture and the Security Documents require that the Issuer and the Guarantors grant to the Collateral Agent, for its benefit and for the benefit of the Trustee and the holders of the Old Secured Notes and the Secured Notes, a first priority lien (on a shared basis with the 2011 Secured Notes and any Additional Secured Obligations), subject to Permitted Liens and certain other exceptions, on all property acquired after the Issue Date of the kinds described above as Collateral. In addition, any future domestic Restricted Subsidiaries will be required to become Guarantors and similarly grant liens (on a shared basis with the 2011 Secured Notes and any Additional Secured Obligations), subject to Permitted Liens and certain other exceptions, on their assets to the Collateral Agent, for its benefit and for the benefit of the Trustee and the holders of the Secured Notes.

The Secured Indenture and the Security Documents require that the Issuer and the Guarantors grant to the Collateral Agent, for its benefit and for the benefit of the Trustee and the holders of the Old Secured Notes and the Secured Notes, a first priority lien (on a shared basis with the 2011 Secured Notes and any Additional Secured Obligations), subject to Permitted Liens and certain other exceptions, in all right, title and interest, including, without limitation certain fee and leasehold interests of the Issuer and the Guarantors in certain real property, together with all easements, hereditaments and appurtenances relating thereto and fixtures located thereon, with respect to (i) the real property that is mortgaged under the 2011 Secured Notes (and the applicable Guarantor has granted such a security interest) and (ii) with respect to a future-acquired fee interest, which fee interest has a value of at least \$5,000,000 and with respect to future-acquired leasehold interest, which leasehold interest has a base rent of at least \$1,000,000 per annum; provided that the grant of each lien on each fee and leasehold interest will be made to the extent required and to the extent applicable consents are obtained and otherwise in accordance with the provisions of the Security Agreement (the "Real Property Interest").

Other than with respect to foreign assets, the Issuer and the Guarantors shall execute any and all further documents, financing statements, agreements and instruments, and take all further action as is reasonably necessary or appropriate in order to grant, preserve, protect and perfect the validity and priority of the security interests created or intended to be created by the Security Documents in the Collateral. In addition, from time to time, the Issuer and each Guarantor will promptly secure the obligations under the Secured Indenture and the Security Documents by pledging or creating, or causing to be pledged or created, perfected security interests with respect to the Collateral. Such security interests and Liens will be created under the Security Documents and other security agreements, mortgages, deeds of trust and other instruments and documents in form and substance reasonably satisfactory to the Collateral Agent.

With respect to after-acquired real property leasehold interests, so long as the 2011 Secured Notes remain outstanding, the Security Agreement requires us to use our commercially reasonable efforts to obtain a landlord's consent, to the extent such consent is required pursuant to the terms of the applicable lease.

"Excluded Assets" includes, among other things, and subject to certain limitations set forth in the Security Agreement, (i) the equity interests of a foreign subsidiary to the extent such pledge would constitute an investment of earnings in U.S. property under Section 956 of the IRS Internal Revenue Code of 1986, as amended (the "Code"), which investment could reasonably be expected to trigger a material increase in the net income of a U.S. shareholder of foreign subsidiary pursuant to Section 951 of the Code, (ii) assets securing purchase money indebtedness and capital lease obligations, (iii) after acquired property already subject to a lien, (iv) any intent-to-use trademark application to the extent such security interest would result in the loss by such Pledgor of any rights therein, (v) capital stock the pledge of which is prohibited by organizational documents or contracts with third parties, (vi) leasehold interests where such pledge would require landlord or owner consent, other than with respect to leased satellites as set forth below, (vii) equity interests of subsidiaries to the extent such pledge would require separate financial statements of such subsidiary pursuant to Rule 3-16 of Regulation S-X, (viii) any FCC Licenses, to the extent, but only to the extent, the Communications Laws prohibit the grant of an executing interest thereon, and (ix) assets of the Issuer or any Guarantor located outside the United States, to the extent any Lien on such assets cannot be created and perfected under the United States federal or state law.

We currently lease certain of our satellites and may in the future lease additional satellites. In connection with the 2011 Secured Notes, under the Security Agreement, to the extent permitted by the Communications Laws, we agreed to use our commercially reasonable efforts to have the owners of leased satellites consent to our granting a security interest in our rights as lessee under such leases to the Collateral Agent for the benefit of the holders of the 2011 Secured Notes within 180 days after the escrow release date (June 8, 2011) relating to the issuance of the 2011 Secured Notes. We have also agreed, so long as the 2011 Secured Notes are outstanding, to use commercially reasonable efforts to obtain consents with respect to new leases prior to 180 days after entering into a new lease for a satellite. We have not received any consents to date regarding any lease for a satellite under

the indenture governing the 2011 Secured Notes and no leases form part of the collateral securing the Secured Notes and the 2011 Secured Notes. We cannot assure that the owners of such satellites will consent to our grant of a security interest in such leases to the Collateral Agent for the benefit of the noteholders. In the event they do not consent to our grant of such a security interest, the noteholders will not have a collateral interest in such leased satellite. See "Risk Factors—We may not be able to grant you a collateral interest in our leased satellites."

The Collateral is pledged pursuant to the Security Agreement dated as of June 8, 2011, as supplemented to date (the "Security Agreement") by and among the Issuer, the Guarantors and the Collateral Agent, or other grants or transfers for security executed and delivered by the Issuer or the applicable Guarantor to the Collateral Agent, creating a Lien upon property owned or leased or to be acquired by the Issuer or the applicable Guarantor in favor of the Collateral Agent for the benefit of the secured parties under the Security Documents. It is possible that HSS and its subsidiaries may transfer or license all or a portion of their existing and future patents to one or more third parties, including EchoStar Corporation or a subsidiary of EchoStar Corporation other than the Company or its Restricted Subsidiaries. Any such transfer or license would be conducted in accordance with the terms of the indentures and security agreement with respect to the Secured Notes and if such transaction were to consist of a transfer, by sale or otherwise, any such patents would no longer form part of the Collateral with respect to the Secured Notes.

So long as no Event of Default and no event of default under any 2011 Secured Notes or any Additional Secured Obligations shall have occurred and be continuing, and subject to certain terms and conditions, the Issuer and the Guarantors are entitled to exercise any voting and other consensual rights pertaining to all Capital Stock pledged pursuant to the Security Documents and to remain in possession and retain exclusive control over the Collateral (other than as set forth in the Security Documents), to operate the Collateral, to alter or repair the Collateral and to collect, invest and dispose of any income thereon. The Security Documents, *however*, generally require the Issuer to deliver to the Collateral Agent for the Collateral Agent to maintain in its possession certificates evidencing pledges of stocks and instruments evidencing indebtedness and to use commercially reasonable efforts to obtain control agreements on deposit accounts, securities accounts or collateral accounts, within a certain specified period of time after the establishing of such account, in favor of the Collateral Agent subject to certain exceptions agreed to in the Security Documents. Upon the occurrence and during the continuance of an Event of Default or an event of default under any 2011 Secured Notes or any Additional Secured Obligations, to the extent permitted by law and subject to the provisions of the Security Documents:

- all of the rights of the Issuer and the Guarantors to exercise voting or other consensual rights with respect to all Capital Stock included in the Collateral shall cease, and all such rights shall become vested in the Collateral Agent, which, to the extent permitted by law, shall have the sole right to exercise such voting and other consensual rights; and
- 2) the Collateral Agent may take possession of and sell the Collateral or any part thereof in accordance with the terms of applicable law and the Security Documents.

If an Event of Default or an "event of default" under the 2011 Secured Notes or any Additional Secured Obligations has occurred and is continuing, the Collateral Agent will be permitted, subject to applicable law, to exercise remedies and sell the Collateral. Except as provided in the succeeding sentence, if an Event of Default or an "event of default" under the 2011 Secured Notes or any Additional Secured Obligations has occurred and is continuing, the Collateral Agent will only be permitted, subject to applicable law, to exercise remedies and sell the Collateral under the Security Agreement at the direction of the holders of a majority in the aggregate principal amount of the outstanding 2011 Secured Notes, the Old Secured Notes, the Secured Notes and Additional Secured Obligations. If the Collateral Agent shall not have received appropriate instruction within 10 days of a request therefor from the applicable Secured Parties or their representatives (or such shorter period as reasonably may be specified in such notice or as may be necessary under the collateral Agent shall have no liability to any Person for such action or inaction. If such remedies are exercised by the Collateral Agent, the proceeds from the sale of the Collateral will be applied to all of the Indebtedness secured by such Collateral (not just the Secured Notes), and may not be sufficient to satisfy our obligations under the Secured Notes and the other Indebtedness secured by the Collateral in full. See "Risk Factors—Additional Risks Related to the Secured Notes."

Certain Limitations on the Collateral

There can be no assurance that the proceeds of any sale of Collateral following an Event of Default or an event of default under the 2011 Secured Notes or any other Additional Secured Obligations would be sufficient to satisfy, or would not be substantially less than, amounts due on the Secured Notes, the Old Secured Notes, the 2011 Secured Notes and such other



Additional Secured Obligations. See "Risk Factors—Additional Risks Related to the Secured Notes — The value of the Collateral securing the Secured Notes may not be sufficient to satisfy our obligations under the Secured Notes or to secure post-petition interest under U.S. federal bankruptcy law."

With respect to some of the Collateral, the Collateral Agent's security interest and ability to foreclose also will be limited by the need to meet certain requirements, such as complying with applicable law, obtaining third party consents and making additional filings. If the Issuer or the Guarantors are unable to obtain these consents or make these filings, the security interests may be invalid and the holders will not be entitled to the Collateral or any recovery with respect thereto. In particular, the Collateral Agent under the Security Documents will not be entitled to exercise any rights with respect to the Collateral constituting FCC Licenses upon the occurrence of an Event of Default or an event of default under the 2011 Secured Notes or any Additional Secured Obligations if such action would constitute or result in any assignment of the FCC Licenses or any change of control of the Issuer or any Guarantor, as applicable, unless the prior approval of the FCC is first obtained. The Issuer cannot assure you that any such required FCC approval can be obtained on a timely basis or at all. These requirements may limit the number of potential bidders for certain Collateral in any foreclosure and may delay any sale, either of which events may have an adverse effect on the sale price of the Collateral. Therefore, the practical value of realizing on the Collateral may, without the appropriate consents and filings, be limited.

No appraisals of any of the Collateral have been prepared by or on behalf of the Issuer or the Guarantors in connection with this exchange offer. The value of the Collateral in the event of a liquidation will depend upon market and economic conditions, the availability of buyers and similar factors. By its nature, some or all of the Collateral will be illiquid and may have no readily ascertainable market value. There also can be no assurance that the Collateral will be saleable and, even if saleable, the timing of its liquidation is uncertain. The Collateral does not include any assets that constitute Excluded Assets or as otherwise provided in the Security Documents.

Accordingly, there can be no assurance that the proceeds of any sale of the Collateral pursuant to the Secured Indenture and the Security Documents following an Event of Default or an event of default under the 2011 Secured Notes or any other Additional Secured Obligations would be sufficient to satisfy, or would not be substantially less than, amounts due on the Old Secured Notes, the Secured Notes, the 2011 Secured Notes and the Additional Secured Notes, the 2011 Secured Notes and the Additional Secured Notes, the 2011 Secured Notes and the Additional Secured Notes, the 2011 Secured Notes and the Additional Secured Notes, the 2011 Secured Notes and the Additional Secured Notes, the 2011 Secured Notes and the Additional Secured Notes, the Secured Notes (to the extent not repaid from the proceeds of the sale of the Collateral) would have only an unsecured claim against the remaining assets of the Issuer and the Guarantors.

Release of Collateral

The Secured Indenture and the Security Documents provide that the Liens securing the Secured Notes will, upon compliance with the condition that the Issuer or the applicable Guarantor delivers to the Trustee all documents, if any, required by the Trust Indenture Act, automatically and without the need for any further action by any Person be released so long as such release is otherwise in compliance with the Trust Indenture Act:

(1) in whole or in part, as applicable, as to all or any portion of property subject to such Liens which has been taken by eminent domain, condemnation or other similar circumstances, subject to the satisfaction of certain conditions set forth in the Secured Indenture or the Security Documents;

- (2) in whole, as to all property subject to such Liens, upon:
 - (a) payment in full of the principal and unpaid interest and premium on the Secured Notes and all other obligations under the Secured Indenture, Secured Notes, Guarantees and Security Documents; or
 - (b) legal defeasance or covenant defeasance of the Secured Indenture as set forth below under "Legal Defeasance and Covenant Defeasance";

(3) in part, as to any property that (a) is sold, transferred or otherwise disposed of by the Issuer or any Restricted Subsidiary in a transaction not prohibited by the Secured Indenture at the time of such sale, transfer or disposition, to the extent of the interest sold, transferred or disposed of or (b) is owned or at any time acquired by a Guarantor that has been released from its Guarantee, concurrently with the release of such Guarantee;

(4) in part, as to any property with the consent of the Trustee (with the vote of the holders of the Secured Notes required under the Secured Indenture see "Amendment, Supplement and Waiver");



(5) in part, in the event that (i)(A) a satellite suffers a total loss or a constructive total loss, (B) insurance proceeds are paid pursuant to such total loss or constructive total loss, and (C) the title of such satellite is required to be transferred to such insurer pursuant to the terms of the insurance policy pursuant to which such insurance proceeds are paid, in each case to the extent the terms of the insurance proceeds from the total loss or the constructive total loss of such satellite were received by the Issuer or the applicable Guarantor, such proceeds constitute Collateral and are applied in accordance with the terms of the Secured Indenture and/or any document governing the 2011 Secured Notes or Additional Secured Obligations, as the case may be, to the extent required to be so applied; or

(6) as to assets that become Excluded Assets.

So long as the Secured Indenture is not qualified under the Trust Indenture Act, the Issuer will not be required to comply with Section 314 of the Trust Indenture Act. In addition, any certificate or opinion required by Section 314(d) Trust Indenture Act may be made by an officer of the Issuer except in cases where Section 314(d) requires that such certificate or opinion be made by an independent engineer, appraiser or other expert. Notwithstanding anything to the contrary in this paragraph, the Issuer will not be required to comply with all or any portion of Section 314(d) if the Issuer determines that under the terms of Section 314(d) and/or any interpretation or guidance as to the meaning thereof of the SEC and its staff, including "no action" letters or exemptive orders, all or any portion of Section 314(d) is inapplicable to the released Collateral. Any release of Collateral permitted as described under this section "Release of Collateral" will be deemed not to impair the Liens under the Secured Indenture and the Security Documents in contravention thereof.

Certain Bankruptcy Limitations

The right of the Collateral Agent to take possession and dispose of the Collateral upon the occurrence of an Event of Default is likely to be significantly impaired by applicable bankruptcy law if a bankruptcy proceeding were to be commenced by or against the Issuer or the Guarantors prior to the Collateral Agent having taken possession and disposed of the Collateral. Under Bankruptcy Law, a secured creditor is prohibited from taking its security from a debtor in a bankruptcy case, or from disposing of security taken from such debtor, without bankruptcy court approval. Moreover, the Bankruptcy Law permits the debtor in certain circumstances to continue to retain and to use collateral owned as of the date of the bankruptcy filing (and the proceeds, products, offspring, rents or profits of such Collateral) even though the debtor is in default under the applicable debt instruments; provided that the secured creditor is given "adequate protection". The meaning of the term "adequate protection" may vary according to circumstances. In view of the lack of a precise definition of the term "adequate protection" and the broad discretionary powers of a bankruptcy court, it is impossible to predict how long payments under the Secured Notes could be delayed following commencement of a bankruptcy case, whether or when the Collateral Agent could repossess or dispose of the Collateral or whether or to what extent holders would be compensated for any delay in payment or loss of value of the Collateral through the requirement of "adequate protection."

Furthermore, in the event a bankruptcy court determines the value of the Collateral is not sufficient to repay all amounts due on the Old Secured Notes, the Secured Notes, the 2011 Secured Notes and any other Additional Secured Obligations, the holders of the Old Secured Notes, the Secured Notes, the 2011 Secured Notes and such other Additional Secured Obligations would hold secured claims to the extent of the value of the Collateral, and would hold unsecured claims with respect to any shortfall. Bankruptcy Law does not permit the payment and/or accrual of post-petition interest, costs and attorneys' fees during a debtor's bankruptcy case unless the claims are oversecured or the debtor is solvent at the time of reorganization. In addition, if the Issuer or the Guarantors were to become the subject of a bankruptcy case, the bankruptcy court, among other things, may avoid certain prepetition transfers made by the entity that is the subject of the bankruptcy filing, including, without limitation, transfers held to be preferences or fraudulent conveyances.

Optional Redemption

Except as stated below, the Secured Notes are not redeemable at our option prior to their stated maturity.

The Secured Notes will be redeemable, at our option, at any time in whole, or from time to time in part, upon not less than 30 and not more than 60 days' notice, at a price equal to 100% of the principal amount of the Secured Notes plus accrued and unpaid interest, if any, to (but excluding) the redemption date plus a make-whole premium. Holders of record on the relevant record date have the right to receive interest due on an interest payment date that is on or prior to the redemption date. The redemption price will never be less than 100% of the principal amount of the Secured Notes being redeemed plus accrued interest to the redemption date.

The amount of the make-whole premium on any Secured Note, or portion of a Secured Note, to be redeemed will be equal to the greater of (a) 1.00% of the principal amount of such Secured Note or such portion of a Secured Note being redeemed and (b) the excess, if any, of:

(1) the sum of the present values, calculated as of the redemption date, of: (i) each interest payment that, but for the redemption, would have been payable on the Secured Note, or portion of a Secured Note, being redeemed on each interest payment date occurring after the redemption date, excluding any accrued interest for the period prior to the redemption date, plus (ii) the principal amount that, but for the redemption, would have been payable on the maturity date of the Secured Note, or portion of a Secured Note, being redeemed;

over

(2) the principal amount of the Secured Note, or portion of a Secured Note, being redeemed.

The present values of interest and principal payments referred to in clause (1) above will be determined in accordance with generally accepted principles of financial analysis. The present values will be calculated by discounting the amount of each payment of interest or principal from the date that each such payment would have been payable, but for the redemption, to the redemption date at a discount rate equal to the Treasury Yield, as defined below, plus 50 basis points.

We will appoint an independent investment banking institution of national standing to calculate the make-whole premium; *provided* that if we fail to appoint an institution at least 45 days prior to the date set for redemption or if the institution that we appoint is unwilling or unable to make such calculation, such calculation will be made by Deutsche Bank Securities Inc., or, if such firm fails to make such calculation, by an independent investment banking institution of national standing appointed by the Trustee (it being understood that the Trustee's agreement to appoint such an institution is a matter of courtesy and accommodation only and the Trustee shall not be liable to any Person as a result).

For purposes of determining the make-whole premium, "Treasury Yield" refers to an annual rate of interest equal to the weekly average yield to maturity of United States Treasury Notes that have a constant maturity that corresponds to the remaining term to maturity of the Secured Notes being redeemed, calculated to the nearest one-twelfth of a year, which we call the remaining term. The Treasury Yield will be determined as of the third business day immediately preceding the applicable redemption date.

The weekly average yields of United States Treasury Notes will be determined by reference to the most recent statistical release published by the Federal Reserve Bank of New York and designated "H.15(519) Selected Interest Rates" or any successor release, which we call the H.15 Statistical Release. If the H.15 Statistical Release sets forth a weekly average yield for United States Treasury Notes having a constant maturity that is the same as the remaining term, then the Treasury Yield will be equal to such weekly average yield. In all other cases, the Treasury Yield will be calculated by interpolation, on a straight-line basis, between the weekly average yields on the United States Treasury Notes that have a constant maturity closest to and greater than the remaining term and the United States Treasury Notes that have a constant maturity closest to and greater than the remaining term and the United States Treasury Notes are not available in the nearest 0.01%, with any figure of 0.005% or more being rounded upward. If weekly average yields for United States Treasury Notes are not available in the H.15 Statistical Release or otherwise, then the Treasury Yield will be calculated by interpolation of comparable rates selected by the independent investment banking institution.

In addition, prior to August 1, 2020 the Issuer may redeem up to 10% of the outstanding Old Secured Notes and Secured Notes per year (including any Additional Secured Notes) upon not less than 30 nor more than 60 days' prior notice mailed by first-class mail to each holder's registered address, at a redemption price equal to 103% of the principal amount thereof plus accrued and unpaid interest and additional interest, if any, to, but not including, the applicable redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

Redemption with the Proceeds of Certain Capital Contributions or Equity Offerings

Notwithstanding the foregoing, at any time prior to August 1, 2019, we may redeem up to 35% of the aggregate principal amount of the Old Secured Notes and the Secured Notes outstanding at a redemption price equal to 105.250% of the principal amount thereof, together with accrued and unpaid interest to (but excluding) such redemption date, with the net cash proceeds of any capital contributions or one or more public or private sales (including sales to Parent, regardless of whether Parent obtained such funds from an offering of Equity Interests or Indebtedness of Parent or otherwise, and *provided* that such funds are contributed to us) of Equity Interests (other than Disqualified Stock) of us (other than proceeds from a sale to any of our Subsidiaries or any employee benefit plan in which we or any of our Subsidiaries participates); *provided* that:

- At least \$487.5 million aggregate principal amount of Old Secured Notes and Secured Notes (such amount representing at least 65% in aggregate of the principal amount of the Old Secured Notes that were initially issued) remain outstanding immediately after the occurrence of such redemption; and
- the sale of such Equity Interests is made in compliance with the terms of the Secured Indenture.

Selection and Notice

If less than all of the Secured Notes are to be redeemed at any time, the selection of Secured Notes for redemption will be made by the Trustee in compliance with the requirements of the principal national securities exchange, if any, on which the Secured Notes are listed or, if the Secured Notes are not so listed, on a *pro rata* basis, by lot or by such other method as the Trustee deems fair and appropriate in accordance with DTC procedures; *provided* that no Secured Notes with a principal amount of \$2,000 or less shall be redeemed in part. Notice of redemption shall be mailed by first-class mail at least 30 but not more than 60 days before the redemption date to each holder of Secured Notes to be redeemed at its registered address. If any Note is to be redeemed in part only, the notice of redemption that relates to such Note shall state the portion of the principal amount thereof to be redeemed. A new Note in principal amount equal to the unredeemed portion thereof will be issued in the name of the holder thereof upon cancellation of the original Note. On and after the redemption date, if we do not default in the payment of the redemption price, interest will cease to accrue on Secured Notes or portions thereof called for redemption.

Change of Control Offer

Upon the occurrence of a Change of Control, we will be required to make an offer (a "Change of Control Offer") to each holder of Secured Notes to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of such holder's Secured Notes at a purchase price equal to 101% of the aggregate principal amount thereof, together with accrued and unpaid interest thereon to (but excluding) the date of repurchase (the "Change of Control Payment"). Within 30 days following any Change of Control, we shall mail a notice to each holder stating:

- (1) that the Change of Control Offer is being made pursuant to the covenant entitled "Change of Control Offer";
- (2) the purchase price and the purchase date, which shall be no earlier than 30 days nor later than 60 days after the date such notice is mailed (the "Change of Control Payment Date");
- (3) that any Secured Notes not tendered will continue to accrue interest in accordance with the terms of the Secured Indenture;
- (4) that, unless we default in the payment of the Change of Control Payment, all Secured Notes accepted for payment pursuant to the Change of Control Offer shall cease to accrue interest after the Change of Control Payment Date;
- (5) that holders will be entitled to withdraw their election if the paying agent receives, not later than the close of business on the second business day preceding the Change of Control Payment Date, a facsimile transmission or letter setting forth the name of the holder, the principal amount of Secured Notes delivered for purchase, and a statement that such holder is withdrawing his election to have such Secured Notes purchased;
- (6) that holders whose Secured Notes are being purchased only in part will be issued new Secured Notes equal in principal amount to the unpurchased portion of the Secured Notes surrendered, which unpurchased portion must be equal to \$2,000 or an integral multiple of \$1,000 in excess thereof; and
- (7) any other information material to such holder's decision to tender Secured Notes.

We will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent such laws and regulations are applicable in connection with the repurchase of the Secured Notes required in the event of a Change of Control. We may not be able to repurchase all of the Secured Notes tendered upon a Change of Control. If we fail to repurchase all of the Secured Notes tendered for purchase upon a Change of Control, such failure will constitute an Event of Default. In addition, the terms of other indebtedness to which we may be subject may prohibit us from purchasing the Secured Notes or offering to purchase the Secured Notes, and a Change of Control Offer or a Change of Control Payment could trigger a default or event of default under the terms of such indebtedness. If we were unable to obtain the consent of the holders of any such other indebtedness to make a Change of Control Offer or make the Change of Control Payment or to repay such indebtedness, a Default or Event of Default may occur. See the subheading, "Events of Default."

Except as described above with respect to a Change of Control, the Secured Indenture does not contain any provisions that would permit the holders of any of the Secured Notes to require that we repurchase or redeem any Secured Notes in the event of a takeover, recapitalization or similar transaction.

Certain Covenants

Limitation on Restricted Payments. The Secured Indenture provides that neither we nor any of our Restricted Subsidiaries may, directly or indirectly:

(a) declare or pay any dividend or make any distribution on account of any of our Equity Interests other than dividends or distributions payable in Equity Interests (other than Disqualified Stock) of us;

(b) purchase, redeem or otherwise acquire or retire for value any Equity Interests of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of its or our respective Subsidiaries or Affiliates, other than any such Equity Interests owned by us or by any Wholly Owned Restricted Subsidiary;

(c) purchase, redeem, defease or otherwise acquire or retire for value any Indebtedness that is expressly subordinated in right of payment to the Secured Notes issued under the Secured Indenture or the Guarantees thereof, except (i) in accordance with the scheduled mandatory redemption, sinking fund or repayment provisions set forth in the original documentation governing such Indebtedness and (ii) the purchase, repurchase or other acquisition of subordinated Indebtedness with a stated maturity earlier than the maturity of the Secured Notes issued under the Secured Indenture or the Guarantees thereof purchased in anticipation of satisfying a payment of principal at the stated maturity thereof, within one year of such stated maturity;

(d) declare or pay any dividend or make any distribution on account of any Equity Interests of any Restricted Subsidiary, other than:

(i) to us or any Wholly Owned Restricted Subsidiary; or

(ii) to all holders of any class or series of Equity Interests of such Restricted Subsidiary on a pro rata basis; provided that in the case of this clause (ii), such dividends or distributions may not be in the form of Indebtedness or Disqualified Stock; or

(e) make any Restricted Investment;

(all such prohibited payments and other actions set forth in clauses (a) through (e) being collectively referred to as "*Restricted Payments*"), unless, at the time of such Restricted Payment:

(i) no Default or Event of Default shall have occurred and be continuing or would occur as a consequence thereof;

(ii) after giving effect to such Restricted Payment and the incurrence of any Indebtedness the net proceeds of which are used to finance such Restricted Payment, our Indebtedness to Cash Flow Ratio would not have exceeded 6.00 to 1.00; and

(iii) such Restricted Payment, together with the aggregate of all other Restricted Payments made by us after June 1, 2011, is less than the sum of:

(A) the difference of:

(x) our cumulative Consolidated Cash Flow determined at the time of such Restricted Payment (or, in case such Consolidated Cash Flow shall be a deficit, minus 100% of such deficit); *minus*

(y) 1.4 times our Consolidated Interest Expense,

each as determined for the period (taken as one accounting period) from June 1, 2011 to the end of our most recently ended fiscal quarter for which internal financial statements are available at the time of such Restricted Payment; *plus*

(B) an amount equal to 100% of the aggregate net cash proceeds (other than the net cash proceeds received from EchoStar Corporation or any of its subsidiaries that are used to consummate the 2011 Transactions) and, in the case of proceeds consisting of assets used in or constituting a business permitted under the covenant described under "Limitations on Activities of the Issuer," 100% of the fair market value of the aggregate net proceeds other than cash received by us, either from capital contributions from Parent, or from the issue or sale (including an issue or sale to Parent which is contributed to us) of Equity Interests (other than Disqualified Stock) of us (other than Equity Interests sold to any of our Subsidiaries), since June 1, 2011; *plus*

(C) if any Unrestricted Subsidiary is designated by us as a Restricted Subsidiary, an amount equal to the fair market value of the net Investment by us or a Restricted Subsidiary in such Subsidiary at the time of such designation; provided, however, that the foregoing sum shall not exceed the amount of the Investments made by us or any Restricted Subsidiary in any such Unrestricted Subsidiary since June 1, 2011; *plus*

(D) 100% of any cash dividends and other cash distributions received by us and our Wholly Owned Restricted Subsidiaries from an Unrestricted Subsidiary since June 1, 2011 to the extent not included in our cumulative Consolidated Cash Flow; *plus*

(E) to the extent not included in clauses (A) through (D) above, an amount equal to the net reduction in Investments of us and our Restricted Subsidiaries since June 1, 2011 resulting from payments in cash of interest on Indebtedness, dividends, or repayment of loans or advances, or other transfers of property, in each case, to us or to a Wholly Owned Restricted Subsidiary or from the net cash proceeds from the sale, conveyance or other disposition of any such Investment; provided, however, that the foregoing sum shall not exceed, with respect to any Person in whom such Investment was made, the amount of Investments previously made by us or any Restricted Subsidiary in such Person which were included in computations made pursuant to this clause (iii).

The foregoing provisions will not prohibit the following (provided that with respect to clauses (2), (3), (4), (5), (6), (7), (8), (14), (20) and (23) below, no Default or Event of Default shall have occurred and be continuing):

(1) the payment of any dividend or distribution within 60 days after the date of declaration thereof, if at such date of declaration such payment would have complied with the provisions of the Secured Indenture;

(2) the redemption, repurchase, retirement or other acquisition of any of our Equity Interests or subordinated Indebtedness of us or any Guarantor in exchange for, or out of the net proceeds of the substantially concurrent capital contribution from Parent or from the substantially concurrent issue or sale (including to Parent) of Equity Interests (other than Disqualified Stock) of us (other than Equity Interests issued or sold to any Subsidiary of us);

(3) Investments in an aggregate amount not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets plus, to the extent not included in Consolidated Cash Flow, an amount equal to the net reduction in such Investments resulting from payments in cash of interest on Indebtedness, dividends or repayment of loans or advances, or other transfers of property, in each case, to us or to a Wholly Owned Restricted Subsidiary or from the net cash proceeds from the sale, conveyance or other disposition of any such Investment; *provided*, *however*, that the foregoing sum shall not exceed, with respect to any Person in whom such Investment was made, the amount of Investments previously made by us or any Restricted Subsidiary in such Person pursuant to this clause (3);

(4) cash dividends or distributions to the extent required for the purchase, redemption, repurchase or other acquisition or retirement for value of employee stock options to purchase Capital Stock of Parent or Issuer, or Capital Stock of Parent or Issuer issued pursuant to any management equity plan, stock option plan or other management or employee benefit plan or agreement, in an aggregate amount not to exceed \$25.0 million in any calendar year;

(5) a Permitted Refinancing;

(6) Investments in an amount equal to 100% of the aggregate net proceeds (whether or not in cash) received by us or any Wholly Owned Restricted Subsidiary from capital contributions from Parent (other than the net cash proceeds received by EchoStar Corporation or any of its subsidiaries that are used to consummate the 2011 Transactions) or from the issue and sale (including a sale to Parent) of Equity Interests (other than Disqualified Stock)

of us (other than Equity Interests issued or sold to a Subsidiary of Parent), on or after June 8, 2011; plus, to the extent not included in Consolidated Cash Flow, an amount equal to the net reduction in such Investments resulting from payments in cash of interest on Indebtedness, dividends, or repayment of loans or advances, or other transfers of property, in each case, to us or to a Wholly Owned Restricted Subsidiary or from the net cash proceeds from the sale, conveyance, or other disposition of any such Investment; *provided, however*, that the foregoing amount shall not exceed, with respect to any Person in whom such Investment was made, the amount of Investments previously made by us or any Restricted Subsidiary in such Person pursuant to this clause (6) in each case; provided that such Investments are in businesses of the type described under "Limitations on Activities of the Issuer";

(7) Investments in businesses strategically related to businesses described in "Limitations on Activities of the Issuer" in an aggregate amount not to exceed \$400.0 million outstanding at any time;

(8) Investments made as a result of the receipt of non-cash proceeds from Asset Sales made in compliance with the covenants described under "Asset Sales" or any disposition not constituting an Asset Sale and Investments entered into in connection with an acquisition of assets used in or constituting a business permitted under the covenant described under "Limitations on Activities of the Issuer," as a result of "earn-outs" or other deferred payments or similar obligations;

(9) any Investment existing on the Issue Date and any Investments made pursuant to binding commitments in effect on the Issue Date;

(10) any Investment acquired by us or any Restricted Subsidiary (a) in exchange for any other Investment or accounts receivable held by us or any Restricted Subsidiary in connection with or as a result of a bankruptcy, workout, reorganization or recapitalization of the issuer of such other Investment or accounts receivable or (b) as a result of a foreclosure by us or any Restricted Subsidiary with respect to any secured Investment or other transfer of title with respect to any secured Investment in default;

(11) Hedging Obligations permitted under "Limitation on Incurrence of Indebtedness";

(12) Investments consisting of the licensing or contribution of intellectual property pursuant to joint marketing arrangements with other Persons;

(13) Investments consisting of purchases and acquisitions of inventory, supplies, materials and equipment or purchases of contract rights or licenses or leases of intellectual property in each case in the ordinary course of business;

(14) additional Investments in joint ventures of us or any of our Restricted Subsidiaries existing on the Issue Date in an aggregate amount not to exceed \$50.0 million outstanding at any one time;

(15) Investments of a Restricted Subsidiary acquired after the Issue Date or of an entity merged into, amalgamated with, or consolidated with a Restricted Subsidiary in a transaction that is not prohibited by the covenant described under "Merger, Consolidation, or Sale of Assets" after the Issue Date to the extent such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisitions, merger, amalgamation or consolidation;

(16) any Investment in the Old Secured Notes, the Secured Notes, the Old Unsecured Notes, the Unsecured Notes or any of the 2011 Notes;

(17) the redemption, repurchase, defeasance or other acquisition or retirement for value of subordinated Indebtedness, including premium, if any, and accrued and unpaid interest, with the proceeds of, or in exchange for: (a) the proceeds of a capital contribution or a substantially concurrent offering of, shares of Capital Stock of the Issuer (or options, warrants or other rights to acquire such Capital Stock), or (b) Indebtedness that is at least as subordinated in right of payment to the Secured Notes, including premium, if any, and accrued and unpaid interest, as the Indebtedness being redeemed, repurchased, defeased, acquired or retired and with a final maturity equal to or greater than, and a Weighted Average Life to Maturity, respectively of the Indebtedness being redeemed, repurchased, defeased, acquired or retired;

(18) repurchases of Equity Interests deemed to occur upon (a) the exercise of stock options, warrants or convertible securities issued as compensation if such Equity Interests represent a portion of the exercise price thereof

and (b) the withholding of a portion of the Equity Interests granted or awarded to an employee to pay taxes associated therewith (or a dividend or distribution to finance such a deemed repurchase by Parent);

(19) amounts paid by us to Parent or any other Person with which we are included in a consolidated tax return equal to the amount of federal, state and local income taxes payable in respect of the income of the Issuer and its Subsidiaries, including without limitation, any payments made in accordance with tax allocation agreements between the Issuer and its Affiliates in effect from time to time;

(20) the making of a Restricted Payment so long as after giving effect to any such Restricted Payment the aggregate amount of such Restricted Payments made pursuant to this clause (20) shall not exceed \$150.0 million;

(21) amounts paid to any direct or indirect parent company in amounts required for any direct or indirect parent company to pay customary salaries, bonuses and other benefits of any direct or indirect parent company, to the extent such salaries, bonuses and other benefits are attributable to the ownership or operation of the Issuer and the Restricted Subsidiaries;

(22) the making of any payments to fund the 2011 Transactions and the fees and expenses related thereto; and

(23) the making of a Restricted Payment so long as after giving effect to any such Restricted Payment the Indebtedness to Cash Flow Ratio would not be greater than 2.50 to 1.00.

Restricted Payments made pursuant to clauses (1), (2), (6) or (17) (but only to the extent that net proceeds received by us as set forth in such clause (2), (6) or (17) were included in the computations made in clause (iii)(B) of the first paragraph of this covenant) or (23) shall be included as Restricted Payments in any computation made pursuant to clause (iii) of the first paragraph of this covenant.

Restricted Payments made pursuant to clauses (3), (4), (5), (6), (17) (but only to the extent that net proceeds received by us as set forth in such clause (6) or (17) were not included in the computations made in clause (iii)(B) of the first paragraph of this covenant), (7), (8), (9), (10), (11), (12), (13), (14), (15), (16), (18), (19), (20), (21) and (22) shall not be included as Restricted Payments in any computation made pursuant to clause (iii) of the first paragraph of this covenant.

If we or any Restricted Subsidiary makes an Investment that was included in computations made pursuant to this covenant and the Person in which such Investment was made subsequently becomes a Restricted Subsidiary that is a Guarantor, to the extent such Investment resulted in a reduction in the amounts calculated under clause (iii) of the first paragraph of or under any other provision of this covenant, then such amount shall be increased by the amount of such reduction.

Limitation on Incurrence of Indebtedness. The Secured Indenture provides that we shall not, and shall not permit any of our Restricted Subsidiaries to, directly or indirectly, create, incur, issue, assume, guarantee or otherwise become directly or indirectly liable with respect to (collectively, "incur") any Indebtedness (including Acquired Debt); *provided, however*, that, notwithstanding the foregoing, the Issuer and any Guarantor may incur Indebtedness (including Acquired Debt), if, after giving effect to the incurrence of such Indebtedness and the application of the net proceeds thereof on a pro forma basis (including in the case of an acquisition, merger or other business combination giving pro forma effect to such transaction), our Indebtedness to Cash Flow Ratio would not have exceeded 6.00 to 1.00.

The foregoing limitation does not apply to any of the following incurrences of Indebtedness:

- (1) Indebtedness represented by the Old Secured Notes or the Secured Notes issued on the Issue Date and the Guarantees thereof;
- (2) the incurrence by us or any Restricted Subsidiary of Deferred Payments and letters of credit with respect thereto;

(3) Indebtedness of us or any Restricted Subsidiary in an aggregate principal amount not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets at any one time outstanding;

(4) Indebtedness between and among us and any Restricted Subsidiary;

(5) Acquired Debt of a Person, incurred prior to the date upon which such Person was acquired by us or any Restricted Subsidiary (excluding Indebtedness incurred by such entity other than in the ordinary course of its business in connection with, or in contemplation of, such entity being so acquired) *provided* that at the time of such

transaction after giving pro forma effect thereto as if such transaction had occurred at the beginning of the applicable four-quarter period, either

- (a) we would be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Indebtedness to Cash Flow Ratio test set forth in the covenant described under "Limitation on Incurrence of Indebtedness," above, or
- (b) our Indebtedness to Cash Flow Ratio is equal to or less than immediately prior to such transaction;
- (6) Existing Indebtedness;

(7) (a) In an aggregate principal amount not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets at any one time outstanding the incurrence of Purchase Money Indebtedness and Capital Lease Obligations by us or any Restricted Subsidiary in an amount not to exceed the cost of construction, lease, acquisition or improvement of assets used in any business permitted under the covenant described under "Limitations on Activities of the Issuer," as well as any launch costs and insurance premiums related to such assets and (b) Indebtedness of us or any Restricted Subsidiary under Capital Lease Obligations with respect to AMC-15, AMC-16, Nimiq 5, QuetzSat-1, EchoStar 105/SES-11, EUTELSAT 65 West A and Telesat T19V (63 West) and no more than one additional satellite and any replacement satellite for any of the foregoing satellites at any time, as well as any launch costs and insurance premiums related to such assets;

(8) The incurrence by us or any of the Restricted Subsidiaries of Hedging Obligations that are incurred in the ordinary course of business and not for speculative purposes, including without limitation Hedging Obligations covering the principal amount of Indebtedness entered into in order to protect us or any of our Restricted Subsidiaries from fluctuation in interest rates on Indebtedness;

(9) Indebtedness of us or any of our Restricted Subsidiaries in respect of performance bid and appeal bonds or completion guarantees or letters of credit of us or any Restricted Subsidiary or surety bonds provided by us or any Restricted Subsidiary incurred in the ordinary course of business and on ordinary business terms in connection with the businesses permitted under the covenant described under "Limitations on Activities of the Issuer";

(10) the incurrence by us or any Restricted Subsidiary of Indebtedness issued in exchange for, or the proceeds of which are used to extend, refinance, renew, replace, substitute or refund in whole or in part Indebtedness referred to in the first paragraph of this covenant or in clauses (1), (2), (5), (6) or (7) above, this clause (10) or clause (17) ("Refinancing Indebtedness"); *provided, however*, that:

(A) the principal amount of such Refinancing Indebtedness shall not exceed the principal amount and accrued interest of the Indebtedness so exchanged, extended, refinanced, renewed, replaced, substituted or refunded and any premiums payable and reasonable fees, expenses, commissions and costs in connection therewith;

(B) the Refinancing Indebtedness shall have a final maturity equal to or later than, and a Weighted Average Life to Maturity equal to or greater than, the final maturity and Weighted Average Life to Maturity, respectively, of the Indebtedness being exchanged, extended, refinanced, renewed, replaced, substituted or refunded; and

(C) the Refinancing Indebtedness shall be subordinated in right of payment to the Old Secured Notes and the Secured Notes issued under the Secured Indenture and the Guarantees thereof, if at all, on terms at least as favorable to the holders of the Old Secured Notes and the Secured Notes issued under the Secured Indenture as those contained in the documentation governing the Indebtedness being extended, refinanced, renewed, replaced, substituted or refunded (a "*Permitted Refinancing*");

(11) the guarantee by us or any Restricted Subsidiary of Indebtedness of us or a Restricted Subsidiary that was permitted to be incurred by another provision of this covenant;

(12) Indebtedness incurred by us or any Restricted Subsidiary under a revolving credit facility, and any extension, amendment or amendment and restatement thereof, not to exceed \$100.0 million;

(13) Indebtedness of the Issuer or any Restricted Subsidiary owed to (including obligations in respect of letters of credit for the benefit of) any Person in connection with workers' compensation, health, disability or other employee benefits or property, casualty or liability insurance provided by such Person to us or such Restricted Subsidiary pursuant to reimbursement or indemnification obligations to such Person, in each case incurred in the ordinary course of business and consistent with industry practices;

(14) Indebtedness arising from agreements of us or a Restricted Subsidiary providing for indemnification, adjustment of purchase price or similar obligations, in each case incurred in connection with the disposition of any business, assets or a Subsidiary of us in accordance with the terms of the Secured Indenture, other than guarantees of Indebtedness incurred by any Person acquiring all or any portion of such business, assets or Subsidiary for the purpose of financing such acquisition;

(15) Indebtedness of us or any Restricted Subsidiary pursuant to the Equipment Financing Agreements;

(16) Replacement Satellite Vendor Indebtedness in an aggregate principal amount outstanding at any one time not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets; and

(17) Indebtedness represented by the \$750,000,000 aggregate principal amount of Old Unsecured Notes issued on the Issue Date and the guarantees thereof.

For purposes of determining compliance with this covenant, if an item of Indebtedness meets the criteria of more than one of the categories described in clauses (1) through (17) above or is permitted to be incurred pursuant to the first paragraph of this covenant and also meets the criteria of one or more of the categories described in clauses (1) through (17) above, we shall, in our sole discretion, classify such item of Indebtedness in any manner that complies with this covenant and may from time to time reclassify such item of Indebtedness in any manner in which such item could be incurred at the time of such reclassification. Accrual of interest and the accretion of accreted value will not be deemed to be an incurrence of Indebtedness for purposes of this covenant.

Asset Sales. The Secured Indenture provides that the Issuer will not, and will not permit any Restricted Subsidiary to, cause or make an Asset Sale, unless:

(1) the Issuer or such Restricted Subsidiary, as the case may be, receives consideration at the time of such Asset Sale at least equal to the fair market value (as determined in good faith by the Issuer) of the assets sold or otherwise disposed of;

(2) at least 75% of the consideration therefor received by us or such Restricted Subsidiary, as the case may be, is in the form of cash, Cash Equivalents, Marketable Securities or Replacement Assets and/or any asset which is promptly (and in no event later than 365 days after the date of transfer to the Issuer or Restricted Subsidiary) converted into cash, provided that to the extent that such conversion is at a price that is less than the fair market value (as determined in good faith by the Issuer) of such asset at the time of the Asset Sale in which such asset was acquired, the Issuer or Restricted Subsidiary, as the case may be, shall be deemed to have made a Restricted Payment in the amount by which such fair market value exceeds the cash received upon conversion or a combination of the foregoing; provided that the following shall be deemed to be cash for the purposes of this clause (2): (x) Designated Non-Cash Consideration received by the Issuer or any Restricted Subsidiary in such Asset Sale, if such Designated Non-Cash Consideration, taken together with all other Designated Non-Cash Consideration received pursuant to this clause (x), does not exceed the greater of \$75.0 million or 2.50% of Consolidated Net Tangible Assets at the time of the receipt of such Designated Non-Cash Consideration (with the fair market value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value) and (y) the amount of any liabilities of us or any Restricted Subsidiary that are assumed by or on behalf of the transferee in connection with an Asset Sale (and from which we or such Restricted Subsidiary are unconditionally released); provided further that in the case of an Asset Sale involving software or intellectual property, consideration comprising undertakings to pay cash or Cash Equivalents or Marketable Securities over time or at future dates, whether such payments are fixed, contingent or otherwise, shall be deemed to be cash provided that, when received, such cash, Cash Equivalents or Marketable Securities shall be included in determining Net Proceeds from such Asset Sale for purposes of the Secured Indenture;

(3) to the extent that any consideration received by the Issuer or a Restricted Subsidiary in such Asset Sale constitutes securities or other assets that are of a type or class that constitute Collateral, such securities or other assets, including the assets of any Person that becomes a Guarantor as a result of such transaction, are concurrently

with their acquisition added to the Collateral securing the Secured Notes in the manner and to the extent required in the Secured Indenture or any of the Security Documents; and

(4) the Net Proceeds from any such Asset Sale of Collateral are paid directly by the purchaser thereof to the Collateral Agent to be held in trust in an Asset Sale Proceeds Account for application in accordance with this covenant.

Clause (2) above shall not apply to any Asset Sale:

(x) where assets not essential to our and our Restricted Subsidiaries' business are contributed to a joint venture between us or one of our Restricted Subsidiaries and a third party that is not an Affiliate of Parent or any of its Subsidiaries, *provided* that following the sale, lease, conveyance or other disposition we or one of our Wholly Owned Restricted Subsidiaries owns 50% or more of the voting and equity interest in such joint venture or has the right to appoint 50% or more of the board of directors or governing body of such joint venture; or

(y) to the extent the consideration therefor received by us or any of our Restricted Subsidiaries would constitute Indebtedness or Equity Interests of a Person that is not an Affiliate of Parent, us or one of their respective Subsidiaries, *provided* that the acquisition of such Indebtedness or Equity Interests is permitted under the provisions of the covenant described under "Limitation on Restricted Payments".

Within 365 days after the Issuer's or a Restricted Subsidiary's receipt of the Net Proceeds of any Asset Sale covered by this clause (a), the Issuer or such Restricted Subsidiary, at its option, may apply the Net Proceeds from such Asset Sale:

(1) to make one or more offers to the holders of the Old Secured Notes and the Secured Notes (and, at the option of the Issuer, the holders of 2011 Secured Notes and Additional Secured Obligations) to purchase Secured Notes (and such 2011 Secured Notes and Additional Secured Obligations) pursuant to and subject to the conditions contained in the Secured Indenture (each, an "Asset Sale Offer"); *provided, however*, that if the Issuer or such Restricted Subsidiary shall so reduce any 2011 Secured Notes or Additional Secured Obligations, the Issuer will make an offer to all holders of the Old Secured Notes and the Secured Notes to purchase at a purchase price equal to 100% of the principal amount thereof, plus accrued and unpaid interest and additional interest, if any, the pro rata principal amount of the Old Secured Notes and the Secured Notes, such offer to be conducted in accordance with the procedures set forth below for an Asset Sale Offer but without any further limitation in amount;

(2) to an investment in (a) any one or more businesses; *provided* that such investment in any business is in the form of the acquisition of Capital Stock such that it constitutes a Restricted Subsidiary, (b) capital expenditures or (c) acquisitions of other assets, in each of (a), (b) and (c), used or useful in a Permitted Business;

(3) to an investment in (a) any one or more businesses; *provided* that such investment in any business is in the form of the acquisition of Capital Stock such that it constitutes a Restricted Subsidiary, (b) properties or (c) other assets that, in each of (a), (b) and (c), replace the businesses, properties and assets that are the subject of such Asset Sale; or

(4) to the extent such Net Proceeds are not from Asset Sales of Collateral, to permanently reduce Indebtedness of a Restricted Subsidiary that is not a Guarantor, other than Indebtedness owed to the Issuer, a Guarantor or another Restricted Subsidiary.

Pending the final application of any Net Proceeds from Asset Sales in accordance with clauses (1) through (4) above that are not required to be held in an Asset Sale Proceeds Account, the Issuer and their Restricted Subsidiaries may temporarily reduce Indebtedness or otherwise apply such Net Proceeds in any manner not prohibited by the Secured Indenture. Any binding commitment to apply Net Proceeds to invest in accordance with clauses (2) or (3) above shall be treated as a permitted application of Net Proceeds so long as the Issuer or such Restricted Subsidiary enters into such commitment with the good faith expectation that such Net Proceeds will be applied to satisfy such commitment within 365 days of such commitment; *provided* that if such commitment is later canceled or terminated for any reason such Net Proceeds shall constitute "Excess Proceeds" (as defined below). Any Net Proceeds from the Asset Sales covered by this clause (a) that are not invested or applied as provided and within the time period set forth in the first sentence of the immediately preceding paragraph will be deemed to constitute "Excess Proceeds." When the aggregate amount of Excess Proceeds exceeds \$50.0 million, the Issuer shall make an Asset Sale Offer to all holders of the Old Secured Notes and the Secured Notes, and, at the Issuer's option, to the holders of the 2011 Secured Notes and any Additional Secured Obligations, to purchase the maximum principal amount of Old Secured Notes, Secured Notes, 2011 Secured Notes and such Additional Secured Obligations, that are \$2,000 or an integral multiple of \$1,000 in excess thereof that may be purchased out of the Excess Proceeds at an offer price in cash in an amount equal to 100% of the

principal amount thereof, plus accrued and unpaid interest, if any, to the date fixed for the closing of such offer, in accordance with the procedures set forth in the Secured Indenture. The Issuer will commence an Asset Sale Offer with respect to Excess Proceeds within ten business days after the date that Excess Proceeds exceeds \$50.0 million by mailing the notice required pursuant to the terms of the Secured Indenture, with a copy to the Trustee. To the extent that the aggregate amount of the Old Secured Notes, the Secured Notes and such 2011 Secured Notes or Additional Secured Obligations (and any other Indebtedness) tendered pursuant to an Asset Sale Offer is less than the Excess Proceeds, the Issuer may use any remaining Excess Proceeds ("Unutilized Excess Proceeds") for any purpose not prohibited by the terms of the Secured Indenture. If the aggregate principal amount of Old Secured Notes, secured Notes or the 2011 Secured Notes or Additional Secured Obligations surrendered by such holders thereof exceeds the amount of Excess Proceeds, the Trustee shall select the Old Secured Notes and the Secured Notes and the applicable agent or the Issuer shall select such 2011 Secured Notes or such Additional Secured Obligations to be purchased on a *pro rata* basis or in accordance with the applicable DTC procedures based on the accreted value or principal amount of the Old Secured Notes or such 2011 Secured Notes or Additional Secured Notes or Additional Secured Obligations tendered. Upon completion of any such Asset Sale Offer, the amount of Excess Proceeds shall be reset at zero. After the Issuer or any Restricted Subsidiary has applied the Net Proceeds from any Asset Sale of any Collateral as provided in, and within the time periods required by, this paragraph, any Unutilized Excess Proceeds shall be released by the Collateral Agent to the Issuer or such Restricted Subsidiary for any purpose not prohibited by the terms of the Secured Indenture.

Taking and Destruction. Upon any Taking or Destruction, all Net Insurance Proceeds received by the Issuer or any Restricted Subsidiary shall be deemed Net Proceeds derived from Collateral and shall be applied in accordance with and, in the time periods required by the second paragraph of "Asset Sales"; *provided* that Net Insurance Proceeds received in respect of a satellite and related assets need not be used in such 365 day time period set forth in the second and third paragraphs of "Asset Sales" provided that the Issuer has entered into a binding agreement within such time period to acquire another satellite and related assets consideration equal to or greater than the Net Insurance Proceeds.

Limitations on Liens. The Secured Indenture provides that we shall not, and shall not permit any Restricted Subsidiary to, directly or indirectly, create, incur, assume or suffer to exist any Lien on any asset now owned or hereafter acquired, or on any income or profits therefrom or assign or convey any right to receive income therefrom, except Permitted Liens.

Limitations on Activities of the Issuer. The Issuer will not, and will not permit any Restricted Subsidiary to, engage in any business other than Permitted Businesses and other activities that, taken as a whole, are immaterial to the Issuer and its Restricted Subsidiaries.

Additional Guarantors. If after the Issue Date the Issuer or any Restricted Subsidiary of the Issuer acquires or creates another Restricted Subsidiary and such Restricted Subsidiary is a Domestic Subsidiary (other than an Immaterial Subsidiary), that newly acquired or created Restricted Subsidiary must, unless prohibited by law from guaranteeing the Secured Notes, become a Guarantor and execute a supplemental indenture satisfactory to the Trustee and deliver an opinion of counsel to the Trustee within 30 days of the date on which it was acquired or created.

The obligations under the Old Secured Notes, the Secured Notes, the Guarantees and the Secured Indenture, the 2011 Secured Notes and any Additional Secured Obligations of any Person that is or becomes a Guarantor after the Issue Date will be secured equally and ratably by a Lien on the Collateral granted to the Collateral Agent for the benefit of the holders of the Old Secured Notes and the Secured Notes, the 2011 Secured Notes and the holders of Additional Secured Obligations. Such Guarantor will enter into a joinder agreement to the applicable Security Documents defining the terms of the security interests that secure payment and performance when due of the Secured Notes and take all actions advisable in the opinion of the Issuer, as set forth in an officers' certificate accompanied by an opinion of counsel to the Issuer and the Collateral Agent, to cause the Liens created by the Security Documents to be duly perfected to the extent required by such agreement in accordance with all applicable laws, including the filing of financing statements in the jurisdictions of incorporation or formation of the Issuer and the Guarantors.

Limitation on Dividend and Other Payment Restrictions Affecting Subsidiaries. The Secured Indenture provides that we shall not, and shall not permit any Restricted Subsidiary of us to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any encumbrance or restriction on the ability of any Restricted Subsidiary to:

(a) pay dividends or make any other distribution to us or any of our Restricted Subsidiaries on its Capital Stock or with respect to any other interest or participation in, or measured by, its profits, or pay any Indebtedness owed to us or any of our Subsidiaries;

(b) make loans or advances to us or any of our Subsidiaries; or

(c) transfer any of its properties or assets to us or any of our Subsidiaries;

except for such encumbrances or restrictions existing under or by reasons of:

- (i) Existing Indebtedness and existing agreements as in effect on the Issue Date;
- (ii) applicable law or regulation;

(iii) any instrument governing Acquired Debt as in effect at the time of acquisition (except to the extent such Indebtedness was incurred in connection with, or in contemplation of, such acquisition), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired; provided that the Consolidated Cash Flow of such Person shall not be taken into account in determining whether such acquisition was permitted by the terms of the Secured Indenture; except to the extent that dividends or other distributions are permitted notwithstanding such encumbrance or restriction and could have been distributed;

(iv) by reason of customary non-assignment provisions in leases entered into in the ordinary course of business and consistent with past practices;

(v) Refinancing Indebtedness (as defined in "Limitation on Incurrence of Indebtedness"); *provided* that the restrictions contained in the agreements governing such Refinancing Indebtedness are no more restrictive than those contained in the agreements governing the Indebtedness being refinanced;

(vi) the Secured Indenture or any of the Old Secured Notes or the Secured Notes or the Unsecured Indenture or any of the Old Unsecured Notes or the Unsecured Notes;

(vii) Permitted Liens; or

(viii) any agreement for the sale of any Subsidiary or its assets that restricts distributions by that Subsidiary pending its sale; provided that during the entire period in which such encumbrance or restriction is effective, such sale (together with any other sales pending) would be permitted under the terms of the Secured Indenture.

Accounts Receivable Subsidiary. The Secured Indenture provides that we:

(a) may, and may permit any of our Subsidiaries to, notwithstanding the provisions of the covenant entitled "Limitation on Restricted Payments," make Investments in an Accounts Receivable Subsidiary:

- (i) the proceeds of which are applied within five business days of the making thereof solely to finance:
 - (A) the purchase of accounts receivable of us and our Subsidiaries; or

(B) payments required in connection with the termination of all then existing arrangements relating to the sale of accounts receivable or participation interests therein by an Accounts Receivable Subsidiary (*provided* that the Accounts Receivable Subsidiary shall receive cash, Cash Equivalents and accounts receivable having an aggregate fair market value not less than the amount of such payments in exchange therefor); and

(ii) in the form of Accounts Receivable Subsidiary Notes to the extent permitted by clause (b) below;

(b) shall not, and shall not permit any of our Subsidiaries to sell accounts receivable to an Accounts Receivable Subsidiary except for consideration in an amount not less than that which would be obtained in an arm's length transaction and solely in the form of cash or Cash Equivalents; *provided* that an Accounts Receivable Subsidiary may pay the purchase price for any such accounts receivable in the form of Accounts Receivable Subsidiary Notes so long as, after giving effect to the issuance of any such Accounts Receivable Subsidiary Notes, the aggregate principal amount of all Accounts Receivable Subsidiary Notes outstanding shall not exceed 20% of the aggregate purchase price paid for all outstanding accounts receivable purchased by an Accounts Receivable Subsidiary since the Issue Date (and not written off or required to be written off in accordance with the normal business practice of an Accounts Receivable Subsidiary);

(c) shall not permit an Accounts Receivable Subsidiary to sell any accounts receivable purchased from us or our Subsidiaries or participation interests therein to any other Person except on an arm's length basis and solely for consideration in the form of cash or Cash Equivalents or certificates representing undivided interests of a Receivables Trust; *provided* an Accounts Receivable Subsidiary may not sell such certificates to any other Person except on an arm's length basis and solely for consideration in the form of cash or Cash Equivalents;

(d) shall not, and shall not permit any of its Subsidiaries to, enter into any guarantee, subject any of our or their respective properties or assets (other than the accounts receivable sold by them to an Accounts Receivable Subsidiary) to the satisfaction of any liability or obligation or otherwise incur any liability or obligation (contingent or otherwise), in each case, on behalf of an Accounts Receivable Subsidiary or in connection with any sale of accounts receivable or participation interests therein by or to an Accounts Receivable Subsidiary, other than obligations relating to breaches of representations, warranties, covenants and other agreements of us or any of our Subsidiaries with respect to the accounts receivable sold by us or any of our Subsidiaries to an Accounts Receivable Subsidiary or with respect to the servicing thereof; *provided* that neither we nor any of our Subsidiaries shall at any time guarantee or be otherwise liable for the collectibility of accounts receivable sold by them;

(e) shall not permit an Accounts Receivable Subsidiary to engage in any business or transaction other than the purchase and sale of accounts receivable or participation interests therein of us and our Subsidiaries and activities incidental thereto;

(f) shall not permit an Accounts Receivable Subsidiary to incur any Indebtedness other than the Accounts Receivable Subsidiary Notes, Indebtedness owed to us and Non-Recourse Indebtedness; *provided* that the aggregate principal amount of all such Indebtedness of an Accounts Receivable Subsidiary shall not exceed the book value of its total assets as determined in accordance with GAAP;

(g) shall cause any Accounts Receivable Subsidiary to remit to us or a Restricted Subsidiary of us on a monthly basis as a distribution all available cash and Cash Equivalents not held in a collection account pledged to acquirors of accounts receivable or participation interests therein, to the extent not applied to:

(i) pay interest or principal on the Accounts Receivable Subsidiary Notes or any Indebtedness of such Accounts Receivable Subsidiary owed to us;

(ii) pay or maintain reserves for reasonable operating expenses of such Accounts Receivable Subsidiary or to satisfy reasonable minimum operating capital requirements or;

(iii) to finance the purchase of additional accounts receivable of us and our Subsidiaries; and

(h) shall not, and shall not permit any of its Subsidiaries to, sell accounts receivable to, or enter into any other transaction with or for the benefit of, an Accounts Receivable Subsidiary:

- (i) if such Accounts Receivable Subsidiary pursuant to or within the meaning of any bankruptcy law:
 - (A) commences a voluntary case;
 - (B) consents to the entry of an order for relief against it in an involuntary case;
 - (C) consents to the appointment of a custodian of it or for all or substantially all of its property;
 - (D) makes a general assignment for the benefit of its creditors; or
 - (E) generally is not paying its debts as they become due; or

(ii) if a court of competent jurisdiction enters an order or decree under any bankruptcy law that:

(A) is for relief against such Accounts Receivable Subsidiary in an involuntary case;

(B) appoints a custodian of such Accounts Receivable Subsidiary or for all or substantially all of the property of such Accounts Receivable Subsidiary; or



(C) orders the liquidation of such Accounts Receivable Subsidiary, and, with respect to this clause (ii), the order or decree remains unstayed and in effect for 60 consecutive days.

Merger, Consolidation, or Sale of Assets. The Secured Indenture provides that we shall not consolidate or merge with or into (whether or not we are the surviving entity), or sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of our properties or assets in one or more related transactions to, another Person unless:

(a) we are the surviving Person or the Person formed by or surviving any such consolidation or merger (if other than us) or to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made is a corporation organized or existing under the laws of the United States, any state thereof or the District of Columbia;

(b) the Person formed by or surviving any such consolidation or merger (if other than us) or the Person to which such sale, assignment, transfer, lease, conveyance or other disposition will have been made assumes all the obligations of us under the Secured Indenture and the Old Secured Notes and the Secured Notes issued under the Secured Indenture pursuant to a supplemental indenture to the Secured Indenture in form reasonably satisfactory to the Trustee;

(c) immediately after such transaction, no Default or Event of Default exists; and

(d) we or the Person formed by or surviving any such consolidation or merger (if other than us) or to which such sale, assignment, transfer, lease, conveyance or other disposition will have been made would, at the time of such transaction after giving pro forma effect thereto as if such transaction had occurred at the beginning of the applicable four-quarter period, be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Indebtedness to Cash Flow Ratio test set forth in the covenant described under "Limitation on Incurrence of Indebtedness," above.

Notwithstanding the foregoing, we may merge with another Person if:

(a) we are the surviving Person;

(b) the consideration issued or paid by us in such merger consists solely of our Equity Interests (other than Disqualified Stock) or Equity Interests of Parent; and

(c) immediately after giving effect to such merger (determined on a pro forma basis), our Indebtedness to Cash Flow Ratio either (i) does not exceed 6.00 to 1.00 or (ii) does not exceed our Indebtedness to Cash Flow Ratio immediately prior to such merger.

The Secured Indenture provides that each Guarantor of the Old Secured Notes and the Secured Notes issued thereunder (other than any Guarantor whose Guarantee is to be released in accordance with the terms of such Guarantee and the Secured Indenture) will not, and we will not cause or permit any Guarantor to, consolidate or merge with or into (whether or not such Guarantor is the surviving entity), or sell, assign, transfer, lease, convey, or otherwise dispose of all or substantially all of its properties or assets in one or more related transactions to, any Person other than to us or a Guarantor unless:

(a) the Guarantor is the surviving Person or the Person formed by or surviving any such consolidation or merger (if other than the Guarantor) or to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made is a corporation organized or existing under the laws of the United States, any state thereof or the District of Columbia;

(b) the Person formed by or surviving any such consolidation or merger (if other than the Guarantor) or the Person to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made assumes all the obligations of the Guarantor under the Secured Indenture and the Old Secured Notes and the Secured Notes issued under the Secured Indenture, pursuant to a supplemental indenture to the Secured Indenture in form reasonably satisfactory to the Trustee; and

(c) immediately after such transaction, no Default or Event of Default exists.

Transactions with Affiliates. The Secured Indenture provides that we shall not and shall not permit any Restricted Subsidiary to, sell, lease, transfer or otherwise dispose of any of our or their properties or assets to, or purchase any property or assets from, or enter into any contract, agreement, understanding, loan, advance or Guarantee with, or for the benefit of, any Affiliate (including any Unrestricted Subsidiary) (each of the foregoing, an "Affiliate Transaction"), unless:

(a) such Affiliate Transaction is on terms that are no less favorable to us or our Restricted Subsidiaries than those that would have been obtained in a comparable transaction by us or such Subsidiaries with an unrelated Person; and

(b) if such Affiliate Transaction involves aggregate payments in excess of \$100.0 million, such Affiliate Transaction has either (i) been approved by a majority of the disinterested members of the Issuer's Board of Directors or EchoStar Corporation's (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS' board of directors) board of directors or EchoStar Corporation's board of Directors or EchoStar Corporation's board of Directors or a committee thereof or (ii) if there are no disinterested members of the Issuer's Board of Directors or EchoStar Corporation's board of directors (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS' board of directors (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS' board of directors), the Issuer or such Restricted Subsidiary has obtained the favorable opinion of an independent expert as to the fairness of such Affiliate Transaction to the Issuer or the relevant Restricted Subsidiary, as the case may be, from a financial point of view, and we deliver to the Trustee no later than ten business days following a request from the Trustee a resolution of the Issuer's Board of Directors set forth in an officers' certificate certifying that such Affiliate Transaction has been so approved and complies with clause (a) above;

provided, however, that

(i) the payment of reasonable fees, compensation or employee benefit arrangements to, and any indemnity provided for the benefit of, directors, officers, consultants or employees of Parent and its Subsidiaries;

(ii) transactions between or among us and our Wholly Owned Subsidiaries (other than Unrestricted Subsidiaries);

(iii) any issuance of securities, or other payments, awards or grants in cash, securities or otherwise pursuant to, or the funding of employment arrangements, stock options and stock ownership plans approved by our Board of Directors;

(iv) transactions in the ordinary course of business, including loans, expense allowances, reimbursements or extensions of credit (including indemnity arrangements) between the Issuer or any of its Restricted Subsidiaries on the one hand, and any employee of the Issuer or any of its Restricted Subsidiaries, on the other hand;

(v) the granting and performance of registration rights for shares of Capital Stock of the Issuer under a written registration rights agreement approved by a majority of the members of our Board of Directors that are disinterested with respect to these transactions;

(vi) transactions with Affiliates solely in their capacity as holders of Indebtedness or Capital Stock of the Issuer or any of its Subsidiaries, so long as a significant amount of Indebtedness or Capital Stock of the same class is also held by Persons that are not Affiliates of the Issuer and these Affiliates are treated no more favorably than holders of the Indebtedness or the Capital Stock generally;

(vii) (x) Restricted Payments that are permitted by the provisions of the covenant described under the caption "Limitation on Restricted Payments" and (y) Permitted Investments;

(viii) any transactions pursuant to agreements in effect on the Issue Date and any modifications, extensions or renewals thereof that are no less favorable to the Issuer or the applicable Restricted Subsidiary than such agreement as in effect on the Issue Date;

(ix) any transactions under which Parent or any of its controlled Affiliates (other than the Issuer and its controlled Affiliates) leases to or from the Issuer or any of its Restricted Subsidiaries any satellite or any satellite capacity;

(x) the provision of services to Parent and its Affiliates by the Issuer or any of its Restricted Subsidiaries, or the receipt of services from Parent and its Affiliates by the Issuer or any of its Restricted Subsidiaries, so long as no cash or other assets are transferred by the Issuer or its Restricted Subsidiaries, or by Parent and its Affiliates, in connection with such transactions (other than up to \$50.0 million in cash in any fiscal year and other than nonmaterial assets used in the operations of the business in the ordinary course

pursuant to the agreement governing the provision of the services), and so long as such transaction or agreement is determined by a majority of the members of the Issuer's Board of Directors to be fair to the Issuer and its Restricted Subsidiaries when taken together with all other such transactions and agreements entered into with Parent and its Affiliates;

(xi) the disposition of assets of the Issuer and the Restricted Subsidiaries in exchange for assets of Parent and its Affiliates so long as (i) the value to the Issuer in its business of the assets it receives is determined by a majority of the members of Issuer's Board of Directors to be substantially equivalent or greater than the value to Issuer in its business of the assets disposed of and (ii) the assets acquired by the Issuer and its Restricted Subsidiaries constitute properties and capital assets (including Capital Stock of an entity owning such property or assets) to be used by the Issuer or any of its Restricted Subsidiaries in a business permitted as described under "Limitations on Activities of the Issuer";

(xii) sales of Equity Interests (other than Disqualified Stock) to Affiliates of the Issuer;

(xiii) any transactions between us or any of our Restricted Subsidiaries and any Affiliate of us the Equity Interests of which Affiliate are owned solely by us or one of our Restricted Subsidiaries, on the one hand, and by Persons who are not Affiliates of us or Restricted Subsidiaries of us, on the other hand;

(xiv) transactions with EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS), DISH Network Corporation or any of their respective controlled Affiliates that have been approved by (a) a majority of the members of the audit committee of the EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) board of directors or a special committee of the EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) board of directors consisting solely of members of the EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) board of directors who are not officers or employees of DISH Network Corporation or any of its controlled Affiliates (in the case of a transaction with DISH Network Corporation or any of its controlled Affiliates) or EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) or any of its controlled Affiliates (in the case of a transaction with EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) or any of its controlled Affiliates (in the case of a transaction with EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) or any of its controlled Affiliates) and (b) the Issuer's Board of Directors or a committee thereof as the Issuer deems appropriate;

(xv) the 2011 Transactions and the payment of fees and expenses related thereto;

(xvi) overhead and other ordinary-course allocations of costs and services on a reasonable basis so long as such arrangements are comparable to arrangements made on an arm's length basis;

(xvii) allocations of tax liabilities and other tax-related items among the Issuer and its Affiliates based principally upon the financial income, taxable income, credits and other amounts directly related to the respective parties, to the extent that the share of such liabilities and other items allocable to the Issuer and its Restricted Subsidiaries shall not exceed the amount that such Persons would have been responsible for as a direct taxpayer;

(xviii) arrangements or agreements regarding the use of intellectual property between the Issuer and its Subsidiaries, on the one hand, and Parent and its Affiliates, on the other hand;

(xix) arrangements or agreements entered into in the ordinary course of business providing for the acquisition or provision of goods and services; and

(xx) amendments, modifications, renewals or replacements from time to time of any of the contracts, arrangements, services or other matters referred to or contemplated by any of the foregoing items; provided that any such amendments, modifications, renewals or replacements shall not be on terms materially less advantageous to the Issuer and its Restricted Subsidiaries;

shall, in each case, not be deemed Affiliate Transactions.



Reports. Whether or not required by the SEC, so long as any Old Secured Notes or Secured Notes are outstanding, the Issuer will furnish to the holders of Old Secured Notes or Secured Notes, as applicable, or file electronically with the SEC through the SEC's Electronic Data Gathering, Analysis and Retrieval System (or any successor system), within the time periods that would be applicable to the Issuer if it were subject to Section 13(a) or 15(d) of the Exchange Act as a non-accelerated filer:

(1) all quarterly and annual financial information that would be required to be contained in a filing with the SEC on Forms 10-Q and 10-K if the Issuer were required to file these Forms (taking into account, if applicable, the Issuer's status as a subsidiary of an SEC-reporting company), including a "Management's Discussion and Analysis of Financial Condition and Results of Operations" and, with respect to the annual information only, a report on the annual financial statements by the Issuer's certified independent accountants (it being understood that no report on the Issuer's internal control over financial reporting will be required); and

(2) all current reports that would be required to be filed with the SEC on Form 8-K if the Issuer were required to file these reports (taking into account, if applicable, the Issuer's status as a subsidiary of an SEC-reporting company).

In addition, whether or not required by the SEC, the Issuer will file a copy of all of the information and reports referred to in clauses (1) and (2) above with the SEC for public availability within the time periods specified in the SEC's rules and regulations for a non-accelerated filer required to file reports under Section 13(a) or 15(d) of the Exchange Act (unless the SEC will not accept the filing) and make the information available to prospective investors upon request. The Issuer agrees that it will not take any action (including, following the consummation of this exchange offer, terminating its registration under Section 15(d) of the Exchange Act) for the purpose of causing the SEC not to accept such filings. The Issuer and the Guarantors have agreed that, for so long as any Old Secured Notes or Secured Notes remain outstanding, the Issuer will furnish to the holders and to prospective investors, upon their request, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

Payments for Consent. The Secured Indenture provides that we shall not, and shall not permit any of our Subsidiaries to, directly or indirectly, pay or cause to be paid any consideration, whether by way of interest, fee or otherwise, to any holder of a Note for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the Secured Indenture or the Secured Notes unless such consideration is offered to be paid or agreed to be paid to all holders of the Old Secured Notes and the Secured Notes that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or agreement.

Investment Grade Rating. The Secured Indenture provides that if, on any date following the Issue Date, (i) the Old Secured Notes and the Secured Notes receive an Investment Grade rating from both Rating Agencies and (ii) no Default or Event of Default has occurred and is continuing (a "Suspension Event") then, beginning on that date, the provisions of the Secured Indenture summarized under the following captions will not be applicable:

- (1) "Certain Covenants Limitation on Restricted Payments";
- (2) "Certain Covenants Limitation on Incurrence of Indebtedness";
- (3) "Certain Covenants Asset Sales";
- (4) "Certain Covenants Taking and Destruction";
- (5) "Certain Covenants Limitations on Activities of the Issuer";
- (6) "Certain Covenants Limitation on Dividend and Other Payment Restrictions Affecting Subsidiaries";
- (7) "Certain Covenants Accounts Receivable Subsidiary";
- (8) clauses (d)(i) and (ii) of the first paragraph under "Certain Covenants Merger, Consolidation, or Sale of Assets"; and
- (9) "Certain Covenants Transactions with Affiliates"

(collectively, the "Suspension Covenants").

During any Suspension Period, the Issuer may not designate any of its Restricted Subsidiaries as Unrestricted Subsidiaries pursuant to the first sentence of the definition of "Unrestricted Subsidiary."

In the event that the Issuer and its Restricted Subsidiaries are not subject to the Suspension Covenants for any period of time as a result of the foregoing, and on any subsequent date (the "*Reversion Date*") the condition set forth in clause (i) of the first paragraph of this section is no longer satisfied, then the Issuer and its Restricted Subsidiaries will thereafter again be subject to the Suspension Covenants with respect to future events. The period of time between the date of the Suspension Event and the Reversion Date is referred to in this description as the "*Suspension Period*."

On each Reversion Date, all Indebtedness incurred during the Suspension Period prior to such Reversion Date will be deemed to be Indebtedness permitted to be incurred under clause (6) of the second paragraph of the covenant described under "Limitation on Incurrence of Indebtedness." For purposes of calculating the amount available to be made as Restricted Payments under clause (iii) of the first paragraph of the covenant described under "Limitation on Restricted Payments," calculations under such covenant shall be made as though such covenant had been in effect during the entire period of time after the Issue Date (including the Suspension Period). Restricted Payments made during the Suspension Period not otherwise permitted pursuant to the second paragraph of the covenant described under "Limitation on Restricted Payments" will reduce the amount available to be made as Restricted Payments under clause (iii) of the first paragraph of the covenant described under "Limitation on Restricted Payments" will reduce the amount available to be made as Restricted Payments under clause (iii) of the first paragraph of the covenant described under "Limitation on Restricted Payments."

There can be no assurance that Old Secured Notes or the Secured Notes will ever achieve or maintain a rating of Investment Grade from any Rating Agency.

Upon a Suspension Event, the amount of Excess Proceeds for purposes of "Asset Sales" shall be set at zero.

Events of Default

The Secured Indenture provides that each of the following shall constitute an Event of Default:

- (a) default for 30 days in the payment when due of interest on the Old Secured Notes and the Secured Notes;
- (b) default in payment when due of principal of the Old Secured Notes and the Secured Notes at maturity, upon repurchase, redemption or otherwise;
- (c) failure to comply with the provisions described under "Change of Control Offer," "Certain Covenants Transactions with Affiliates," "Certain Covenants Asset Sales" or "Certain Covenants Taking and Destruction," in each case continued for 30 days;
- (d) default under the provisions described under "Certain Covenants Limitation on Restricted Payments" or "Certain Covenants Limitation on Incurrence of Indebtedness" which default remains uncured for 30 days, or the breach of any representation or warranty, or the making of any untrue statement, in any certificate delivered by us pursuant to the Secured Indenture;
- (e) failure by us for 60 days after notice from the Trustee or the holders of at least 25% in principal amount then outstanding of the Old Secured Notes and the Secured Notes issued under the Secured Indenture to comply with any of our other agreements in the Secured Indenture or the Old Secured Notes and the Secured Notes;
- (f) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by us or any of our Restricted Subsidiaries (or the payment of which is guaranteed by us or any of our Restricted Subsidiaries), which default is caused by a failure to pay when due principal or interest on such Indebtedness within the grace period provided in such Indebtedness (a "Payment Default"), and the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default, aggregates \$100.0 million or more;
- (g) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by us or any of our Restricted Subsidiaries (or the payment of which is guaranteed by us or any of our Restricted Subsidiaries), which default results in the acceleration of such Indebtedness prior to its express maturity and the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default or the maturity of which has been so accelerated, aggregates \$100.0 million or more; *provided* that any acceleration (other than an acceleration which is the result of a Payment Default under clause (f) above) of

Indebtedness under the outstanding Deferred Payments in aggregate principal amount not to exceed \$100.0 million shall be deemed not to constitute an acceleration pursuant to this clause (g);

- (h) failure by us or any of our Restricted Subsidiaries to pay final judgments (other than any judgment as to which a reputable insurance company has accepted full liability) aggregating in excess of \$100.0 million, which judgments are not stayed within 60 days after their entry;
- (i) EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries pursuant to or within the meaning of any Bankruptcy Law: (i) commences a voluntary case; (ii) consents to the entry of an order for relief against it in an involuntary case; (iii) consents to the appointment of a custodian of it or for all or substantially all of its property; or (iv) makes a general assignment for the benefit of creditors;
- (j) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that: (i) is for relief against EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries in an involuntary case; (ii) appoints a custodian of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries or for all or substantially all of the property of EchoStar Corporation beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests of such subsidiary), us or any of our Significant Subsidiaries; or (iii) orders the liquidation of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of HSS
- (k) any Guarantee of the Old Secured Notes or the Secured Notes shall be held in a judicial proceeding to be unenforceable or invalid or shall cease for any reason to be in full force and effect, or any Guarantor of the Old Secured Notes or the Secured Notes, or any Person acting on behalf of any Guarantor, shall deny or disaffirm its obligations under its Guarantee of the Old Secured Notes or the Secured Notes; and
- (1) in each case with respect to any Collateral having a fair market value in excess of \$50.0 million individually or in the aggregate, any of the Security Documents at any time for any reason is declared null and void, or shall cease to be effective in all material respects to give the Collateral Agent the Liens with the priority purported to be created thereby subject to no other Liens (in each case, other than as expressly permitted by the Secured Indenture and the applicable Security Documents or by reason of the termination of the Secured Indenture or the applicable Security Document in accordance with its terms), which declaration or cessation is not rescinded, stayed, or waived by the Persons having such authority pursuant to the Security Documents or otherwise cured within 30 days after the Issuer receives written notice thereof specifying such occurrence from the Trustee, the Collateral Agent or the holders of at least 25% of the outstanding principal amount of the Old Secured Notes and the Secured Notes.

If any Event of Default occurs and is continuing, the Trustee or the holders of at least 25% in principal amount then outstanding of the Old Secured Notes and the Secured Notes to be due and payable immediately (plus, in the case of an Event of Default that is the result of an action by us or any of our Subsidiaries intended to avoid restrictions on or premiums related to redemptions of the Old Secured Notes and the Secured Notes contained in the Secured Indenture or the Old Secured Notes and the Secured Indenture). Notwithstanding the foregoing, in the case of an Event of Default arising from the events of bankruptcy or insolvency with respect to us or any Guarantor of the Old Secured Notes and the Secured Notes and the Secured Notes and the Secured Notes and Secured Notes will become due and payable without further action or notice. Holders of the Old Secured Indenture. Subject to certain limitations, holders of a majority in principal amount of the then outstanding Old Secured Notes may direct the Trustee in its exercise of any trust or power. The Trustee may withhold from holders of the Old Secured Notes and the Secured Notes notice of any continuing Default or Event of Default (except a Default or Event of Default relating to the payment of principal or interest) if it determines that withholding notice is in such holders' interest.

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The holders of a majority in aggregate principal amount then outstanding of the Old Secured Notes and the Secured Notes, by written notice to the Trustee, may on behalf of the holders of all of the Old Secured Notes and the Secured Notes waive any existing Default or Event of Default and its consequences under the Secured Indenture, except a continuing Default or Event of Default in the payment of interest or premium on, or principal of, the Old Secured Notes and the Secured Notes.

We are required to deliver to the Trustee, in its capacity as trustee of the Secured Indenture, annually a statement regarding compliance with the Secured Indenture, and we are required upon becoming aware of any Default or Event of Default thereunder to deliver to the Trustee a statement specifying such Default or Event of Default.

All powers of the Trustee under the Secured Indenture, in its capacity as trustee of the Secured Indenture, will be subject to applicable provisions of the Communications Laws, including without limitation, the requirements of prior approval for *de facto* or *de jure* transfer of control or assignment of Title III licenses.

No Personal Liability of Directors, Owners, Employees, Incorporator and Stockholders

No director, officer, employee, incorporator or stockholder of us or any of our Affiliates, as such, shall have any liability for any obligations of us or any of our Affiliates under the Secured Notes, the Guarantees or the Secured Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of Secured Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Secured Notes. Such waiver may not be effective to waive liabilities under the federal securities laws and it is the view of the SEC that such a waiver is against public policy.

Legal Defeasance and Covenant Defeasance

The Secured Indenture provides that with respect to the Old Secured Notes and the Secured Notes, we may, at our option and at any time, elect to have all obligations discharged with respect to the Old Secured Notes and the Secured Notes ("Legal Defeasance"). Such Legal Defeasance means that we will be deemed to have paid and discharged the entire indebtedness represented by the Old Secured Notes and the Secured Notes, except for:

(a) the rights of holders of outstanding Old Secured Notes and Secured Notes to receive payments in respect of the principal of, premium, if any, and interest on the Old Secured Notes and the Secured Notes when such payments are due, or on the redemption date, as the case may be;

(b) our obligations with respect to the Old Secured Notes and the Secured Notes concerning issuing temporary Old Secured Notes and Secured Notes, registration of Old Secured Notes and Secured Notes, mutilated, destroyed, lost or stolen Old Secured Notes and Secured Notes and the maintenance of an office or agency for payment and money for security payments held in trust;

- (c) the rights, powers, trust, duties and immunities of the Trustee, and our obligations in connection therewith; and
- (d) the Legal Defeasance provisions of the Secured Indenture.

In addition, the Secured Indenture provides that we may, at our option and at any time, elect to have all obligations released with respect to certain covenants that are described in the Secured Indenture ("Covenant Defeasance") and thereafter any omission to comply with such obligations shall not constitute a Default or Event of Default. If Covenant Defeasance occurs, certain events (not including non-payment, bankruptcy, receivership, rehabilitation and insolvency events) described under "Events of Default" will no longer constitute an Event of Default with respect to the Old Secured Notes and the Secured Notes.

In order to exercise either Legal Defeasance or Covenant Defeasance, the Secured Indenture provides that:

(i) we must irrevocably deposit with the Trustee, in trust, for the benefit of the holders of the Old Secured Notes and the Secured Notes, cash in United States dollars, non-callable United States government obligations, or a combination thereof, in such amounts as will be sufficient, in the opinion of a nationally recognized firm of independent public accountants selected by us, to pay the principal of, premium, if any, and interest on the outstanding Old Secured Notes and Secured Notes on the stated maturity or on the applicable optional redemption date, as the case may be;

(ii) in the case of Legal Defeasance, we shall have delivered to the Trustee an opinion of counsel in the United States reasonably acceptable to the Trustee confirming that

- (A) we have received from, or there has been published by, the IRS a ruling or
- (B) since the Issue Date, there has been a change in the applicable federal income tax law.

In each case to the effect that, and based thereon such opinion of counsel shall confirm that, the holders of the Old Secured Notes and the Secured Notes will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance, and will be subject to federal income tax in the same amount, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(iii) in the case of Covenant Defeasance, we shall have delivered to the Trustee an opinion of counsel reasonably acceptable to such Trustee confirming that the holders of the Old Secured Notes and the Secured Notes will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(iv) no Default or Event of Default shall have occurred and be continuing on the date of such deposit or insofar as Events of Default from bankruptcy or insolvency events are concerned, at any time in the period ending on the 91st day after the date of deposit;

(v) such Legal Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, the Secured Indenture or any other material agreement or instrument to which we or any of our Subsidiaries is a party or by which we or any of our Subsidiaries is bound;

(vi) we shall have delivered to the Trustee an officers' certificate stating that the deposit was not made by us with the intent of preferring the holders of the Old Secured Notes and the Secured Notes over any of our other creditors or with the intent of defeating, hindering, delaying or defrauding any of our other creditors or others; and

(vii) we shall have delivered to the Trustee an officers' certificate stating that all conditions precedent provided for or relating to the Legal Defeasance or the Covenant Defeasance relating to the Old Secured Notes and the Secured Notes have been complied with.

Amendment, Supplement and Waiver

Except as provided in the next paragraph, the Secured Indenture and the Old Secured Notes and the Secured Notes may be amended or supplemented with the consent of the holders of at least a majority in principal amount of the Old Secured Notes and the Secured Notes then outstanding under the Secured Indenture that are affected by such amendment or supplement (including consents obtained in connection with a tender offer or exchange offer for the Old Secured Notes may be waived Notes), and any existing default or compliance with any provision of the Secured Indenture or the Old Secured Notes and the Secured Not

Without the consent of each holder affected, however, an amendment or waiver may not (with respect to any Old Secured Note or Secured Note held by a non-consenting holder):

(a) reduce the aggregate principal amount of Old Secured Notes and Secured Notes whose holders must consent to an amendment, supplement or waiver;

(b) reduce the principal of or change the fixed maturity of any Old Secured Note or Secured Note or alter the provisions with respect to the redemption of such Old Secured Note or Secured Note;

(c) reduce the rate of or change the time for payment of interest on any Old Secured Note or Secured Note;

(d) waive a Default or Event of Default in the payment of principal of or premium, if any, or interest on the Secured Notes and Old Secured Notes (except a rescission of acceleration of the Secured Notes by the holders of at least a majority in aggregate principal amount of the Old Secured Notes and the Secured Notes and a waiver of the payment default that resulted from such acceleration);

(e) make any Old Secured Note or Secured Note payable in money other than that stated in such Old Secured Note or Secured Note;

(f) make any change in the provisions of the Secured Indenture relating to waivers of past Defaults or the rights of holders of Old Secured Notes and Secured Notes issued under the Secured Indenture to receive payments of principal of or interest on the Old Secured Notes and the Secured Notes;

- (g) waive a redemption payment or mandatory redemption with respect to any Old Secured Note or Secured Note; or
- (h) make any change in the foregoing amendment and waiver provisions.

In addition, without the consent of holders of at least 66 2/3% of the principal amount of the Old Secured Notes and the Secured Notes then outstanding, an amendment or a waiver may not make any change to the covenants in the Secured Indenture entitled "Asset Sales," "Taking and Destruction" and "Change of Control Offer" (including, in each case, the related definitions) as such covenants apply to the Old Secured Notes and the Secured Notes or release all or substantially all of the Collateral from the Liens of the Security Documents otherwise than in accordance with the terms of the Secured Indenture or the Security Documents.

Notwithstanding the foregoing, without the consent of any holder of the Old Secured Notes or the Secured Notes, we, the Guarantors and the Trustee may amend or supplement the Secured Indenture or the Old Secured Notes and the Secured Notes or the Guarantees thereof to cure any ambiguity, defect or inconsistency or to conform the Secured Indenture to this Description of the Secured Notes as evidenced by an officer's certificate, to provide for uncertificated Old Secured Notes and Secured Notes or Guarantees in addition to or in place of certificated Old Secured Notes and Secured Notes or Guarantees, to provide for the assumption of the obligations of us or any Guarantor to holders of the Old Secured Notes and the Secured Notes in the case of a merger or consolidation, to add Guarantees or Collateral, to release Guarantees or release Collateral from the Liens of the Secured Indenture and the Security Documents when permitted or required by the Security Documents or the Secured Indenture, to secure any Additional Secured Obligations under the Secured Notes or the Secured Notes or the Old Secured Notes and the Secured Notes or that does not adversely affect the legal rights under the Secured Indenture of any such holder, or to comply with requirements of the SEC in order to effect or maintain the qualification of the Secured Indenture under the Trust Indenture Act.

Concerning the Trustee

The Secured Indenture contains certain limitations on the rights of the Trustee, if the Trustee becomes a creditor of us or our Subsidiaries, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions with us and our Subsidiaries; however, if the Trustee acquires any conflicting interest, it must eliminate such conflict within 90 days, apply to the SEC for permission to continue as Trustee or resign.

With respect to the Secured Notes, the holders of a majority in principal amount of the then outstanding Old Secured Notes and Secured Notes will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee, subject to certain exceptions. The Secured Indenture provides that in case an Event of Default shall occur thereunder (which shall not be cured), the Trustee will be required, in the exercise of its power, to use the degree of care of a prudent person in the conduct of his or her own affairs. The Trustee will not be relieved from liabilities for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(i) this sentence shall not limit the preceding sentence of this paragraph;

(ii) the Trustee shall not be liable for any error of judgment made in good faith, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts; and

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to the first sentence of this paragraph.

Subject to such provisions, the Trustee will be under no obligation to exercise any of its rights or powers under the Secured Indenture at the request of any holder of Secured Notes issued under the Secured Indenture, unless such holder shall have offered to the Trustee security and indemnity satisfactory to it against any loss, liability or expense.

Certain Definitions

Set forth below are certain defined terms used in the Secured Indenture. Reference is made to the Secured Indenture for a full disclosure of all such terms, as well as any other capitalized terms used herein for which no definition is provided.

"2011 Notes Indentures" means the 2011 Secured Notes Indenture and the 2011 Unsecured Notes Indenture.

"2011 Notes" means the 2011 Secured Notes and the 2011 Unsecured Notes.

"2011 Secured Notes" means the \$1,100,000,000 aggregate principal original issue amount of 6 ½% Senior Secured Notes due 2019.

"2011 Secured Notes Indenture" means the indenture dated as of June 1, 2011, among the Company, the guarantors party thereto and Wells Fargo Bank, N.A., as trustee and collateral agent, as the same may be amended, modified or supplemented from time to time, with respect to the 2011 Secured Notes.

"2011 Transactions" means the Acquisition, the repayment of certain existing indebtedness of Hughes Communications, Inc. and its subsidiaries in connection with the Acquisition, the offering of the 2011 Notes and other transactions contemplated by the Merger Agreement.

"2011 Unsecured Notes" means the \$900,000,000 aggregate principal original issue amount of 7 5/8% Senior Unsecured Notes due 2021.

"2011 Unsecured Notes Indenture" means the indenture dated as of June 1, 2011, among the Company, the guarantors party thereto and Wells Fargo Bank, N.A., as trustee, as the same may be amended, modified or supplemented from time to time, with respect to the 2011 Unsecured Notes.

"Accounts Receivable Subsidiary" means one Unrestricted Subsidiary of us specifically designated as an Accounts Receivable Subsidiary for the purpose of financing our accounts receivable; *provided* that any such designation shall not be deemed to prohibit us from financing accounts receivable through any other entity, including, without limitation, any other Unrestricted Subsidiary.

"Accounts Receivable Subsidiary Notes" means the notes to be issued by the Accounts Receivable Subsidiary for the purchase of accounts receivable.

"Acquired Debt" means, with respect to any specified Person, Indebtedness of any other Person existing at the time such other Person merges with or into or becomes a Subsidiary of such specified Person, or Indebtedness incurred by such specified Person in connection with the acquisition of assets, including Indebtedness incurred in connection with, or in contemplation of, such other Person merging with or into or becoming a Subsidiary of such specified Person or the acquisition of such assets, as the case may be.

"Acquisition" means the acquisition by the Issuer, through Broadband Acquisition Corporation, a Delaware corporation and a wholly-owned subsidiary of the Issuer, of all of the outstanding capital stock of Hughes Communications, Inc., a Delaware corporation, pursuant to the Merger Agreement.

"Additional Secured Obligations" means Pari Passu Indebtedness of the Issuer or any Guarantor permitted to be incurred under "Certain Covenants— Limitation on Incurrence of Indebtedness" and "Permitted Liens" and designated in writing by the Issuer as Indebtedness to be secured on a *pari passu* basis by a Lien granted to the Collateral Agent on the Collateral which is permitted by the Secured Indenture; *provided* that the Authorized Representative (as such term is defined in the Security Documents) of such Additional Secured Obligation executes a joinder agreement to the Security Documents in the form attached thereto agreeing to be bound thereby. For the avoidance of doubt, the 2011 Secured Notes shall not constitute Additional Secured Obligations.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control" (including, with correlative meanings, the terms "controlling," "controlled by" and "under common control with"), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; *provided, however*, that no individual, other than a director of Parent or us or an officer of Parent or us with a policy making function, shall be deemed an Affiliate of us or any of our Subsidiaries solely by reason of such individual's employment, position or responsibilities by or with respect to Parent, us or any of their or our respective Subsidiaries.

"Asset Sale" means:

(1) the sale, conveyance, transfer or other disposition, whether in a single transaction or a series of related transactions, of property or assets (including by way of a sale and leaseback) of the Issuer, a Guarantor or any Restricted Subsidiary (each referred to in this definition as a *"disposition"*), or

(2) the issuance or sale of Equity Interests of any Restricted Subsidiary (other than directors' qualifying shares or shares required by applicable law to be held by a Person other than the Issuer or a Restricted Subsidiary), whether in a single transaction or a series of related transactions (other than preferred stock of Restricted Subsidiaries issued in compliance with the covenant described under "Certain Covenants—Limitation on Incurrence of Indebtedness")

in each case in clause (1) and (2), other than:

(a) a disposition of Cash Equivalents or obsolete, damaged or worn out equipment or the sale or lease of equipment, inventory or accounts receivable in the ordinary course of business and dispositions of property no longer used or useful in the conduct of the business of the Issuer and its Restricted Subsidiaries;

(b) dispositions to the Issuer or any Wholly Owned Restricted Subsidiary by the Issuer or any Restricted Subsidiary;

(c) the disposition of all or substantially all of the assets of the Issuer in a manner permitted pursuant to the provisions described above under "Certain Covenants—Merger, Consolidation, or Sale of Assets" or any disposition that constitutes a Change of Control pursuant to the Secured Indenture;

(d) the making of any Restricted Payment or Permitted Investment that is permitted to be made, and is made, under the covenant described above under "Certain Covenants—Limitation on Restricted Payments" or the granting of a Lien permitted by the covenant contained under "Certain Covenants—Limitations on Liens";

(e) any disposition of assets or issuance or sale of Equity Interests of any Restricted Subsidiary in any transaction or series of transactions with an aggregate fair market value of less than \$25.0 million;

(f) to the extent allowable under Section 1031 of the Internal Revenue Code of 1986, any exchange of like property (excluding any boot thereon) for use in a Permitted Business;

(g) the lease, assignment or sublease of any real or personal property in the ordinary course of business;

(h) licenses or sub-licenses of intellectual property in the ordinary course of business (other than exclusive licenses or sublicenses or assignments of intellectual property that have a material adverse effect on the value of the Collateral or the ability of the Collateral Agent or the lenders to realize the benefits of, and intended to be afforded by, the Collateral);

(i) any financing transaction with respect to property built or acquired by the Issuer or any Restricted Subsidiary after the Issue Date, including, without limitation, sale leasebacks and asset securitizations permitted by the Secured Indenture;

(j) any issuance or sale of Equity Interests in, or Indebtedness or other securities of, an Unrestricted Subsidiary, including in connection with any merger or consolidation;

(k) dispositions of accounts receivable in connection with the compromise, settlement or collection thereof in the ordinary course of business or in bankruptcy or similar proceedings;

(l) any disposition of property or assets or the issuance of securities by a Restricted Subsidiary to us or by us or a Restricted Subsidiary to a Restricted Subsidiary or us;

(m) an exchange of assets for assets (including a combination of assets and Cash Equivalents) related to a similar business of comparable or greater market value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors;

- (n) any Destruction (determined without regard to the dollar limitations set forth in the definition thereof);
- (o) any sale of assets pursuant to the Equipment Financing Agreements;

(p) any swap of owned or leased satellite transponder capacity for other satellite transponder capacity of comparable or greater value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors;

(q) any swap of assets in exchange for services in the ordinary course of business of comparable or greater value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors;

(r) sales or other dispositions of satellites for a consideration of comparable or greater value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors, and sales or other dispositions of satellites in connection with the end of their life;

- (s) sales or other dispositions of rights to construct or launch satellites;
- (t) a disposition, including by way of lease, of any satellite capacity;
- (u) termination of hedging or similar arrangements; and
- (v) any disposition of property or assets the net proceeds from which are re-invested in any Permitted Investment.

"Asset Sale Proceeds Account" means one or more deposit accounts or securities accounts holding the proceeds of any sale or disposition of Collateral.

"Bankruptcy Law" means title 11, U.S. Code or any similar federal or state law for the relief of debtors.

"Board of Directors" means the Board of Directors of the Issuer.

"*Capital Lease Obligation*" means, as to any Person, the obligations of such Person under a lease that are required to be classified and accounted for as capital lease obligations under GAAP and, for purposes of this definition, the amount of such obligations at the time any determination thereof is to be made shall be the amount of the liability in respect of a capital lease that would at such time be so required to be capitalized on a balance sheet in accordance with GAAP.

"*Capital Stock*" means any and all shares, interests, participations, rights or other equivalents, however designated, of corporate stock or partnership or membership interests, whether common or preferred.

"*Cash Equivalents*" means: (a) United States dollars, pounds sterling, euros, national currency of any participating member state in the European Union or, in the case of any non-U.S. Subsidiary that is a Restricted Subsidiary, such local currencies held by it from time to time in the ordinary course of business; (b) securities issued or directly and fully guaranteed or insured by the United States government or any country that is a member of the European Union or any agency or instrumentality thereof having maturities of not more than two years from the date of acquisition; (c) certificates of deposit and eurodollar time deposits with maturities of one year or less from the date of acquisition, bankers' acceptances with maturities not exceeding one year and overnight bank deposits, in each case with any domestic commercial bank having capital and surplus in excess of \$500 million; (d) repurchase obligations with a term of not more than 30 days for underlying securities of the types described in clauses (b) and (c) entered into with any financial institution meeting the qualifications specified in clause (c) above; (e) commercial paper rated P-2, A-2 or better or the equivalent thereof by Moody's or S&P, respectively, and in each case maturing within twelve months after the date of acquisition; (f) money market funds offered by any domestic commercial or investment bank having capital and surplus in excess of \$500 million at least 95% of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (e) of this definition; and (g) securities representing an interest or interests in AAA rated money market funds registered under the Investment Company Act of 1940.

"*Change of Control*" means: any transaction or series of transactions the result of which is that any Person (other than the Principal or a Related Party) individually owns more than 50% of the total voting power of the then-ultimate parent company of HSS.

"*Collateral Agent*" means, the Person (initially, Wells Fargo Bank, National Association), acting as Collateral Agent for the holders of Indebtedness secured by the Security Documents, until a successor replaces it and thereafter means the successor.

"Communications Laws" means the federal Communications Act of 1934, as amended, and all relevant rules, regulations and published policies of the FCC.

"Consolidated Cash Flow" means, with respect to any Person for any period, the Consolidated Net Income of such Person for such period, <u>plus</u>, to the extent deducted in computing Consolidated Net Income: (a) provision for taxes based on income, profits or capital, including state franchise and similar taxes and tax distributions made to holders of Capital Stock of such Person; (b) Consolidated Interest Expense; (c) depreciation and amortization (including amortization of goodwill and other intangibles) of such Person for such period; (d) the amount of any restructuring charges or expenses (which, for the avoidance of doubt, shall include retention, severance, systems establishment costs or excess pension charges); (e) any extraordinary loss and any net loss realized in connection with any Asset Sale; and (f) Consolidated Non-cash Charges, in each case, on a consolidated basis determined in accordance with GAAP <u>minus</u> non-cash items increasing Consolidated Net Income for such period (excluding any items which represent the reversal of any accrual of, or cash reserve for, anticipated cash charges in any prior period and any items for which cash was received in any prior period); *provided* that Consolidated Cash Flow shall not include interest income derived from the net proceeds of the offering of the Secured Notes and the Old Secured Notes.

"Consolidated Interest Expense" means, with respect to any Person for any period, consolidated interest expense of such Person for such period, whether paid or accrued, including amortization of original issue discount and deferred financing costs, non-cash interest payments and the interest component of Capital Lease Obligations, on a consolidated basis determined in accordance with GAAP; *provided*, however, that with respect to the calculation of the consolidated interest expense of us, the interest expense of Unrestricted Subsidiaries shall be excluded.

"Consolidated Net Income" means, with respect to any Person for any period, the aggregate of the Net Income of such Person and its Subsidiaries or, if such Person is HSS, of HSS and its Restricted Subsidiaries for such period, on a consolidated basis, determined in accordance with GAAP; provided, however, that: (a) the Net Income of any Person that is not a Subsidiary or that is accounted for by the equity method of accounting shall be included only to the extent of the amount of dividends or distributions paid in cash to the referent Person, in the case of a gain, or to the extent of any contributions or other payments by the referent Person, in the case of a loss; (b) the Net Income of any Person that is a Subsidiary that is not a Wholly Owned Subsidiary shall be included only to the extent of the amount of dividends or distributions paid in cash to the referent Person; (c) the Net Income of any Subsidiary of such Person shall be excluded to the extent that the declaration or payment of dividends or similar distributions is not at the time permitted by operation of the terms of its charter or bylaws or any other agreement, instrument, judgment, decree, order, statute, rule or government regulation to which it is subject; (d) the cumulative effect of a change in accounting principles shall be excluded; (e) any net after-tax extraordinary or nonrecurring or unusual gains or losses (less all fees and expenses relating thereto), or income or expense or charge (including, without limitation, any severance, relocation or other restructuring costs, fees and expenses) and fees, expenses or charges related to any offering of equity interests of such Person, Investment, acquisition or Indebtedness permitted to be incurred by the Secured Indenture (in each case, whether or not successful), including any such fees, expenses or charges related to the 2011 Transactions, in each case, shall be excluded; (f) any increase in amortization or depreciation or any one-time non-cash charges resulting from purchase accounting in connection with the Acquisition and any acquisition that is consummated after June 1, 2011 shall be excluded; (g) any net after-tax income or loss from discontinued operations and any net after-tax gains or losses on disposal of discontinued operations shall be excluded; (h) any net after-tax gains or losses (less all fees and expenses or charges relating thereto) attributable to the early extinguishment of Indebtedness shall be excluded; (i) any non-cash impairment charge or asset write-off resulting from the application of Statement of Financial Accounting Standards No. 142 and 144, and the amortization of intangibles arising pursuant to Statement of Financial Accounting Standards No. 141, shall be excluded; (j) any non-cash expenses realized or resulting from employee benefit plans or post-employment benefit plans, grants of stock appreciation or similar rights, stock options or other rights to officers, directors and employees of such Person or any of its Restricted Subsidiaries shall be excluded; (k) any one-time non-cash compensation charges shall be excluded; (l) non-cash gains, losses, income and expenses resulting from fair value accounting required by Statement of Financial Accounting Standards No. 133 and related interpretations shall be excluded; and (m) the effects of purchase accounting as a result of the Acquisition and any acquisition that is consummated after June 1, 2011 shall be excluded.

"*Consolidated Net Tangible Assets*" means, with respect to any Person, the aggregate amount of assets of such Person (less applicable reserves and other properly deductible items) after deducting therefrom (to the extent otherwise included therein) (a) all current liabilities and (b) all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangibles, all as set forth on the books and records of such Person and its consolidated Subsidiaries as of the end of the most recently ended fiscal quarter and computed in accordance with GAAP.

"Consolidated Non-cash Charges" means, with respect to any Person for any period, the aggregate depreciation, amortization, impairment, non-cash compensation, non-cash rent and other non-cash expenses of such Person and its Restricted Subsidiaries for such period on a consolidated basis and otherwise determined in accordance with GAAP, but excluding (i) any such charge which consists of or requires an accrual of, or cash reserve for, anticipated cash charges for any future period and (ii) the non-cash impact of recording the change in fair value of any embedded derivatives under Statement of Financial Accounting Standards No. 133 and related interpretations as a result of the terms of any agreement or instrument to which such Consolidated Non-cash Charges relate.

"Default" means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

"Deferred Payments" means Indebtedness owed to satellite construction or launch contractors incurred after the Issue Date in connection with the construction or launch of one or more satellites of the Issuer or the Issuer's Restricted Subsidiaries used by the Issuer and/or them in the businesses described in the covenant "Limitations on Activities of the Issuer" in an aggregate principal amount not to exceed \$50.0 million at any one time outstanding.

"Designated Non-Cash Consideration" means the fair market value of non-cash consideration received by the Issuer or one of its Restricted Subsidiaries in connection with an Asset Sale that is so designated as "Designated Non-Cash Consideration" pursuant to an officer's certificate, setting forth the basis of such valuation, less the amount of cash or Cash Equivalents received in connection with a subsequent sale of such Designated Non-Cash Consideration.

"Destruction" means any damage to, loss or destruction of any portion of any satellite resulting in Net Insurance Proceeds of \$7.5 million or more.

"Disqualified Stock" means any Capital Stock which, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option of the holder thereof, in whole or in part, on or prior to the date on which the Secured Notes mature; *provided, however*, that any such Capital Stock may require the issuer of such Capital Stock to make an offer to purchase such Capital Stock upon the occurrence of certain events if the terms of such Capital Stock provide that such an offer may not be satisfied and the purchase of such Capital Stock may not be consummated until the 91st day after the Secured Notes have been paid in full.

"Domestic Subsidiary" means, with respect to any Person, any Restricted Subsidiary of such Person other than a Foreign Subsidiary.

"Eligible Institution" means a commercial banking institution that has combined capital and surplus of not less than \$500 million or its equivalent in foreign currency, whose debt is rated Investment Grade at the time as of which any investment or rollover therein is made.

"Equipment Financing Agreements" means (A) any and all agreements entered into by us or our Restricted Subsidiaries providing for the lease of equipment to enterprise customers, (B) any and all assignment agreements entered into by us and our Restricted Subsidiaries in the ordinary course of business as contemplated by clause (A) of this definition, in each case, as the same may be refinanced, amended, modified, restated, renewed, supplemented or replaced, and (C) any agreements between us or any of our Restricted Subsidiaries and any third-party relating generally to the subject matter of the agreements set forth in clause (A) of this definition.

"*Equity Interests*" means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

"Exchange Act" means the U.S. Securities Exchange Act of 1934, as amended.

"*Existing Indebtedness*" means the Old Secured Notes, the Secured Notes, the Old Unsecured Notes, the Unsecured Notes and any other Indebtedness of us and our Subsidiaries in existence on the Issue Date, until such amounts are repaid.

"FCC" means the Federal Communications Commission or any successor agency thereto.

"FCC Licenses" means broadcasting and other licenses, authorizations, waivers and permits which are issued from time to time by the FCC.

"Foreign Subsidiary" means, with respect to any Person, any Subsidiary of such Person that is not organized or existing under the laws of the United States, any state thereof or the District of Columbia, and any Subsidiary of such Subsidiary.

"*GAAP*" means United States generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as may be approved by a significant segment of the accounting profession of the United States, which are applicable as of the Issue Date; *provided* that, for purposes of complying with the obligations under the covenant "Reports", such reports shall utilize GAAP as then in effect.

"Government Securities" means direct obligations of, or obligations guaranteed by, the United States of America for the payment of which guarantee or obligations the full faith and credit of the United States of America is pledged.

"*Governmental Authority*" shall mean any Federal, state, provincial, local, foreign or other governmental, quasi-governmental or administrative (including self-regulatory) body, instrumentality, department, agency, authority, board, bureau, commission, office of any nature whatsoever or other subdivision thereof, or any court, tribunal, administrative hearing body, arbitration panel or other similar dispute-resolving body, whether now or hereafter in existence, or any officer or official thereof, having jurisdiction over any pledgor of Collateral or the Collateral or any portion thereof.

"guarantee" means a guarantee (other than by endorsement of negotiable instruments for collection in the ordinary course of business), direct or indirect, in any manner (including, without limitation, letters of credit and reimbursement agreements in respect thereof), of all or any part of any Indebtedness.

"Guarantee" means a guarantee by a Guarantor of the Secured Notes.

"Guarantor" means any entity that executes a Guarantee of the obligations of HSS under the Old Secured Notes or the Secured Notes, and their respective successors and assigns.

"Hedging Obligations" means, with respect to any Person, the obligations of such Person pursuant to any arrangement with any other Person, whereby, directly or indirectly, such Person is entitled to receive from time to time periodic payments calculated by applying either floating or a fixed rate of interest on a stated notional amount in exchange for periodic payments made by such other Person calculated by applying a fixed or a floating rate of interest on the same notional amount and shall include, without limitation, interest rate swaps, caps, floors, collars and similar agreements designed to protect such Person against fluctuations in interest rates.

"Immaterial Subsidiary" means any one or more Subsidiaries of the Issuer that have less than \$5.0 million in total assets in the aggregate.

"Indebtedness" means, with respect to any Person, any indebtedness of such Person, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof) or representing the balance deferred and unpaid of the purchase price of any property (including pursuant to capital leases) or representing any Hedging Obligations, except any such balance that constitutes an accrued expense or trade payable, if and to the extent any of the foregoing (other than Hedging Obligations) would appear as a liability upon a balance sheet of such Person prepared in accordance with GAAP, and also includes, to the extent not otherwise included, the amount of all obligations of such Person with respect to the redemption, repayment or other repurchase of any Disqualified Stock or, with respect to any Subsidiary of such Person, the liquidation preference with respect to, any Preferred Equity Interests (but excluding, in each case, any accrued dividends) as well as the guarantee of items that would be included within this definition.

"Indebtedness to Cash Flow Ratio" means, with respect to any Person, the ratio of: (a) the Indebtedness of such Person and its Subsidiaries (or, if such Person is HSS, of HSS and its Restricted Subsidiaries) as of the end of the most recently ended fiscal quarter, plus the amount of any Indebtedness incurred subsequent to the end of such fiscal quarter; to (b) such Person's Consolidated Cash Flow for the most recently ended four full fiscal quarters for which internal financial statements are available immediately preceding the date on which such event for which such calculation is being made shall occur (the *"Measurement Period"*); *provided, however*, that if such Person or any of its Subsidiaries (or, if such Person is the Issuer, any of its Restricted Subsidiaries) consummates an acquisition, merger or other business combination or an Asset Sale or other disposition of assets subsequent to the commencement of the Measurement Period for which the calculation of the Indebtedness to Cash Flow Ratio is made, then the Indebtedness to Cash Flow Ratio shall be calculated giving pro forma effect to such transaction(s) as if the same had occurred at the beginning of the applicable period.

"*Investment Grade*" means, with respect to a security, that such security is rated at least BBB- or higher by S&P or Baa3 or higher by Moody's (or, in the event of a change in ratings systems, the equivalent of such ratings by S&P or Moody's), or the equivalent rating of another nationally recognized statistical rating organization.

"*Investments*" means, with respect to any Person, all investments by such Person in other Persons (including Affiliates) in the forms of loans (including guarantees), advances or capital contributions (excluding commission, travel and similar advances to officers and employees made in the ordinary course of business), purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities and all other items that are or would be classified as investments on a balance sheet prepared in accordance with GAAP.

"Issue Date" means July 27, 2016.

"*Lien*" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statute) of any jurisdiction).

"*Marketable Securities*" means: (a) Government Securities; (b) any certificate of deposit maturing not more than 365 days after the date of acquisition issued by, or time deposit of, an Eligible Institution; (c) commercial paper or corporate securities maturing not more than 18 months after the date of acquisition issued by a corporation (other than an Affiliate of us) with an Investment Grade rating, at the time as of which any investment therein is made, issued or offered by an Eligible Institution; (d) any bankers" acceptances or money market deposit accounts issued or offered by an Eligible Institution; and (e) any fund investing exclusively in investments of the types described in clauses (a) through (d) above.

"*Maximum Secured Amount*" means 4.00 times the Trailing Cash Flow Amount, or, if greater and following a Suspension Event, 15% of our Consolidated Net Tangible Assets.

"Merger Agreement" means that certain Agreement and Plan of Merger, dated as of February 13, 2011, by and among EchoStar Satellite Services L.L.C., Broadband Acquisition Corporation, EchoStar Corporation and Hughes Communications, Inc.

"Moody's" means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation.

"*Net Income*" means, with respect to any Person, the net income (loss) of such Person, determined in accordance with GAAP, excluding, however, any gain (but not loss), together with any related provision for taxes on such gain (but not loss), realized in connection with any Asset Sale (including, without limitation, dispositions pursuant to sale and leaseback transactions), and excluding any extraordinary gain (but not loss), together with any related provision for taxes on such extraordinary gain (but not loss) relating to recovery of insurance proceeds on satellites, together with any related provision for taxes on such extraordinary gain (but not loss).

"Net Insurance Proceeds" means the insurance proceeds (excluding liability insurance proceeds payable to the Collateral Agent for any loss, liability or expense incurred by it and excluding the proceeds of business interruption insurance) or condemnation awards actually received by the Issuer or any Restricted Subsidiary as a result of the Destruction or Taking of all or any portion of any satellite forming part of the Collateral, net of:

(1) reasonable out-of-pocket expenses and fees relating to such Destruction (including, without limitation, expenses of attorneys and insurance adjusters);

(2) repayment of Indebtedness that is secured by the property or assets that are the subject of such Destruction pursuant to a Lien that is permitted by the Secured Indenture to be prior to any Lien securing the Secured Notes;

(3) provision for all income or other taxes measured by or resulting from such Destruction;

(4) provision for payments to Persons who own an interest in the satellite (including any transponder thereon) in accordance with the terms of the agreement(s) governing the ownership of such Person (other than provision for payments to insurance carriers required to be made based on projected future revenues expected to be generated from such satellite in the good faith determination of us); and

(5) deduction of appropriate amounts to be provided by us or a Restricted Subsidiary as a reserve, in accordance with GAAP, against any liabilities associated with the satellite that was the subject of the Destruction.

"*Net Proceeds*" means the aggregate cash proceeds received by us or any of our Restricted Subsidiaries, as the case may be, in respect of any Asset Sale, net of the direct costs relating to such Asset Sale (including, without limitation, legal, accounting and investment banking fees, and sales commissions) and any relocation expenses incurred as a result thereof, taxes paid or payable

as a result thereof (after taking into account any available tax credits or deductions and any tax sharing arrangements), amounts required to be applied to the repayment of Indebtedness secured by a Lien on the asset or assets that are the subject of such Asset Sale and any reserve for adjustment in respect of the sale price of such asset or assets. Net Proceeds shall exclude any non-cash proceeds received from any Asset Sale, but shall include such proceeds when and as converted by us or any Restricted Subsidiary to cash.

"Non-Recourse Indebtedness" of any Person means Indebtedness of such Person that: (i) is not guaranteed by any other Person (except a Wholly Owned Subsidiary of the referent Person); (ii) is not recourse to and does not obligate any other Person (except a Wholly Owned Subsidiary of the referent Person) in any way; (iii) does not subject any property or assets of any other Person (except a Wholly Owned Subsidiary of the referent Person), directly or indirectly, contingently or otherwise, to the satisfaction thereof; and (iv) is not required by GAAP to be reflected on the financial statements of any other Person (other than a Subsidiary of the referent Person) prepared in accordance with GAAP.

"Pari Passu Indebtedness" means Indebtedness of the Issuer or a Guarantor that is pari passu in right of payment (and not expressly subordinated) to the Secured Notes or, in the case of a Guarantor, that is pari passu in right of payment (and not expressly subordinated) to its Guarantee.

"*Permitted Business*" means any business conducted or proposed to be conducted by the Issuer (including through its Subsidiaries and joint ventures) on the Issue Date, any business activity that is a reasonable extension, development or expansion thereof or ancillary, incidental, similar, complementary or reasonably related thereto, and any business conducted or proposed to be conducted after the Issue Date as approved by the Board of Directors in good faith.

"Permitted Investments" means: (a) Investments in us or in a Restricted Subsidiary; (b) Investments in Cash Equivalents and Marketable Securities; and (c) Investments by us or any of our Subsidiaries in a Person if, as a result of such Investment: (i) such Person becomes a Restricted Subsidiary, or (ii) such Person is merged, consolidated or amalgamated with or into, or transfers or conveys substantially all of its assets to, or is liquidated into, us or a Restricted Subsidiary; *provided* that if at any time a Restricted Subsidiary shall cease to be a Subsidiary of us, we shall be deemed to have made a Restricted Investment in the amount of its remaining investment, if any, in such former Subsidiary.

"Permitted Liens" means:

- (a) Liens securing the Old Secured Notes and the Secured Notes issued on the Issue Date and Liens securing any guarantee thereof;
- (b) Liens securing the Deferred Payments;

(c) Liens (whether or not securing Indebtedness); provided that such Liens under this clause (c) together with Liens under clause (a) of "Permitted Liens" shall not secure Indebtedness in an amount exceeding the Maximum Secured Amount at the time that such Lien is incurred;

(d) Liens securing Indebtedness permitted under clause (7) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; provided that such Indebtedness was permitted to be incurred by the terms of the Secured Indenture and such Liens do not extend to any assets of us or our Restricted Subsidiaries other than the assets so acquired;

(e) Liens securing Indebtedness the proceeds of which are used to develop, construct, launch or insure any satellites; provided that such Indebtedness was permitted to be incurred by the terms of the Secured Indenture and such Liens do not extend to any assets of us or our Restricted Subsidiaries other than such satellites being developed, constructed, launched or insured, and to the related licenses, permits and construction, launch and TT&C contracts;

(f) Liens on orbital slots, licenses and other assets and rights of us; provided that such orbital slots, licenses and other assets and rights relate solely to the satellites referred to in clause (e) of this definition;

(g) Liens on property of a Person existing at the time such Person is merged into or consolidated with us or any of our Restricted Subsidiaries; provided that such Liens were not incurred in connection with, or in contemplation of, such merger or consolidation, other than in the ordinary course of business;

(h) Liens on property of an Unrestricted Subsidiary at the time that it is designated as a Restricted Subsidiary pursuant to the definition of "Unrestricted Subsidiary;" provided that such Liens were not incurred in connection with, or in contemplation of, such designation;

(i) Liens on property existing at the time of acquisition thereof by us or any Restricted Subsidiary; provided that such Liens were not incurred in connection with, or in contemplation of, such acquisition and do not extend to any assets of us or any of our Restricted Subsidiaries other than the property so acquired;

(j) Liens to secure the performance of statutory obligations, bid, surety or appeal bonds or performance bonds, or landlords', carriers', warehousemen's, mechanics', suppliers', materialmen's or other like Liens, in any case incurred in the ordinary course of business and with respect to amounts not yet delinquent or being contested in good faith by appropriate process of law, if a reserve or other appropriate provision, if any, as is required by GAAP shall have been made therefor;

(k) Liens existing on the Issue Date, including Liens securing the 2011 Secured Notes and Liens securing any guarantee thereof;

(1) Liens for taxes, assessments or governmental charges or claims that are not yet delinquent or that are being contested in good faith by appropriate proceedings promptly instituted and diligently concluded; provided that any reserve or other appropriate provision as shall be required in conformity with GAAP shall have been made therefor;

(m) Liens incurred by us or any of our Restricted Subsidiaries with respect to obligations that do not exceed \$50.0 million in principal amount in the aggregate at any one time outstanding;

(n) Liens securing Indebtedness permitted under clause (10) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; provided that such Liens shall not extend to assets other than the assets that previously secured such Indebtedness being refinanced;

(o) Liens securing Indebtedness permitted under clause (12) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness";

(q) Liens securing Indebtedness permitted under clause (15) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; provided that such Liens do not extend to any assets of us or our Restricted Subsidiaries other than the assets so acquired;

(r) Liens securing Indebtedness permitted under clause (16) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; provided that such Liens do not extend to any assets of us or our Restricted Subsidiaries other than the assets so acquired;

(s) survey exceptions, encumbrances, Liens, restrictions, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real properties or Liens incidental to the conduct of the business of such Person or to the ownership of its properties which were not incurred in connection with Indebtedness and which do not in the aggregate materially impair their use in the operation of the business of such Person;

(t) leases and subleases of real property granted to others in the ordinary course of business that do not (i) materially interfere with the ordinary conduct of the business of us or our Restricted Subsidiaries or (ii) secure any Indebtedness;

(u) Liens arising from Uniform Commercial Code financing statement filings regarding operating leases entered into by us and our Restricted Subsidiaries in the ordinary course of business;

(v) Liens on equipment of us or any Restricted Subsidiary granted in the ordinary course of business to our customers at the site at which such equipment is located;

(w) Liens in favor of customers on satellites or portions thereof (including insurance proceeds relating thereto) or the satellite construction or acquisition agreement relating thereto;

(x) grants of software and other licenses in the ordinary course of business;

(y) Liens securing insurance premiums financing arrangements, provided that such Liens are limited to the applicable unearned insurance premiums;

(z) extensions, renewals or refundings of any Liens referred to in clauses (a) through (y) above; provided that (i) any such extension, renewal or refunding does not extend to any assets or secure any Indebtedness not securing or secured by the Liens being extended, renewed or refinanced and (ii) any extension, renewal or refunding of a Lien originally incurred pursuant to clause (c) above shall not secure Indebtedness in an amount greater than the Maximum Secured Amount at the time of such extension, renewal or refunding; and

(aa) Liens on Escrowed Proceeds for the benefit of the related holders of debt securities or other Indebtedness (or the underwriters or arrangers thereof) or on cash set aside at the time of the Incurrence of any Indebtedness or government securities purchased with such cash, in either case to the extent such cash or government securities prefund the payment of interest on such Indebtedness and are held in an escrow account or similar arrangement to be applied for such purpose.

"*Permitted Refinancing*" has the meaning given in clause (10)(C) of the second paragraph of the covenant described under "Certain Covenants— Limitation on Incurrence of Indebtedness."

"*Person*" means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company, government or any agency or political subdivision thereof or any other entity.

"*Preferred Equity Interest*," in any Person, means an Equity Interest of any class or classes (however designated) which is preferred as to the payment of dividends or distributions, or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution of such Person, over Equity Interests of any other class in such Person.

"Principal" means Charles W. Ergen.

"Purchase Money Indebtedness" means (i) Indebtedness of us or any Guarantor incurred (within 365 days of such purchase) to finance the purchase of any assets (including the purchase of Equity Interests of Persons that are not our Affiliates or Guarantors) to the extent the amount of Indebtedness thereunder does not exceed 100% of the purchase cost of such assets; and (ii) Indebtedness of us or any Guarantor which refinances Indebtedness referred to in clause (i) of this definition; provided that such refinancing satisfies clause (i).

"Rating Agency" or "Rating Agencies" means

(a) S&P;

(b) Moody's; or

(c) if S&P or Moody's or both shall not make a rating of the Secured Notes publicly available, a nationally recognized securities rating agency or agencies, as the case may be, selected by the Issuer, which shall be substituted for S&P or Moody's or both, as the case may be.

"Receivables Trust" means a trust organized solely for the purpose of securitizing the accounts receivable held by the Accounts Receivable Subsidiary that:

(a) shall not engage in any business other than (i) the purchase of accounts receivable or participation interests therein from the Accounts Receivable Subsidiary and the servicing thereof, (ii) the issuance of and distribution of payments with respect to the securities permitted to be issued under clause (b) below and (iii) other activities incidental to the foregoing;

(b) shall not at any time incur Indebtedness or issue any securities, except (i) certificates representing undivided interests in the trust issued to the Accounts Receivable Subsidiary and (ii) debt securities issued in an arm's length transaction for consideration solely in the form of cash and Cash Equivalents, all of which (net of any issuance fees and expenses) shall promptly be paid to the Accounts Receivable Subsidiary; and

(c) shall distribute to the Accounts Receivable Subsidiary as a distribution on the Accounts Receivable Subsidiary's beneficial interest in the trust no less frequently than once every six months all available cash and Cash Equivalents held by it, to the extent not required for reasonable operating expenses or reserves therefor or to service any securities issued pursuant to clause (b) above that are not held by the Accounts Receivable Subsidiary.

"Refinancing Indebtedness" has the meaning given in clause (10) of the second paragraph of the covenant described under "Certain Covenants— Limitation on Incurrence of Indebtedness."

"Related Party" means, with respect to the Principal, (a) the spouse and each immediate family member of the Principal, (b) each trust, corporation, partnership or other entity of which the Principal, the Principal's spouse and/or immediate family members beneficially holds an 80% or more controlling interest and (c) all trusts, including grantor retained annuity trusts, established by the Principal for the benefit of his family.

"*Replacement Assets*" means, on any date, property or assets (including Capital Stock of an entity owning such property or assets), of a nature or type that are used in any Permitted Business.

"Replacement Satellite Vendor Indebtedness" means Indebtedness of the Issuer or a Restricted Subsidiary provided by a satellite or satellite launch vendor, insurer or insurance agent or Affiliate thereof for the (i) construction, launch or insurance of all or part of one or more replacement satellites or satellite launches for such satellites, where "replacement satellite" means a satellite that is to be used: (x) as a replacement for any of the satellites owned, leased or under construction by the Issuer or a Restricted Subsidiary on the Issue Date, or (y) for continuation or expansion of the satellite service of the Issuer or a Restricted Subsidiary as a replacement for, or supplement to, a satellite that is retired or relocated (due to a deterioration in operating useful life) within the existing service area or reasonably determined by the Issuer or a Restricted Subsidiary to no longer meet the requirements for such service or as a supplement to one or more existing satellites to provide additional capacity or (ii) the replacement of a spare satellite that has been launched or that is no longer capable of being launched or suitable for launch. Replacement Satellite Vendor Indebtedness includes any Refinancing Indebtedness thereof.

"Restricted Investment" means an Investment other than Permitted Investments.

"*Restricted Subsidiary*" or "*Restricted Subsidiaries*" means any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by us or one or more Subsidiaries of us or a combination thereof, other than Unrestricted Subsidiaries.

"S&P" means Standard & Poor's Ratings Services, a division of The McGraw Hill Companies, Inc.

"SEC" means the U.S. Securities and Exchange Commission.

"Securities Act" means the U.S. Securities Act of 1933, as amended.

"Security Documents" means, collectively:

(1) the Security Agreement dated as of June 8, 2011 (as amended, restated, modified, supplemented, extended or replaced from time to time), among the Issuer, the Guarantors and the Collateral Agent, and a joinder to the Security Agreement dated as of the Issue Date, among the Trustee, the Collateral Agent and the Issuer;

(2) any mortgages after the Issue Date (as amended, restated, modified, supplemented, extended or replaced from time to time), among the Issuer or the applicable Guarantor and the Collateral Agent; and

(3) all other security agreements, pledge agreements, mortgages, deeds of trust, deeds to secure debt, pledges, collateral assignments and other agreements or instruments evidencing or creating any security interest or Lien in favor of the Collateral Agent for its benefit and the benefit of the Trustee and the holders in any or all of the Collateral.

"Significant Subsidiary" means any Subsidiary that would be a "significant subsidiary" as defined in Article 1, Rule 1-02 of Regulation S-X promulgated pursuant to the Securities Act, as such regulation is in effect on the Issue Date.

"Subsidiary" or "Subsidiaries" means, with respect to any Person, any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of such Person or a combination thereof.

"Taking" means any taking of the Collateral or any portion thereof, in or by condemnation or other eminent domain proceedings pursuant to any law, general or special, or by reason of the temporary requisition of the use of the Collateral or any portion thereof, by any Governmental Authority, civil or military.

"Trailing Cash Flow Amount" means our Consolidated Cash Flow during the most recent four fiscal quarters for which financial statements are available; provided that if we or any of our Restricted Subsidiaries consummates a merger, acquisition or other business combination or an Asset Sale or other disposition of assets subsequent to the commencement of such period but prior to or contemporaneously with the event for which the calculation of Trailing Cash Flow Amount is made, then Trailing Cash Flow Amount shall be calculated giving pro forma effect to such material acquisition or Asset Sale or other disposition of assets, as if the same had occurred at the beginning of the applicable period.

"*TT&C*" means telemetry, tracking and control.

"Unrestricted Subsidiary" or "Unrestricted Subsidiaries" means any Subsidiary of us designated as an Unrestricted Subsidiary after the Issue Date in a resolution of our Board of Directors:

(a) no portion of the Indebtedness or any other obligation (contingent or otherwise) of which, immediately after such designation: (i) is guaranteed by us or any other Subsidiary of us (other than another Unrestricted Subsidiary); (ii) is recourse to or obligates us or any other Subsidiary of us (other than another Unrestricted Subsidiary); (ii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (ii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary); (iii) so recourse to any other Subsidiary of us (other than another Unrestricted Subsidiary), directly, contingently or otherwise, to satisfaction thereof;

(b) with which neither we nor any other Subsidiary of us (other than another Unrestricted Subsidiary) has any contract, agreement, arrangement, understanding or is subject to an obligation of any kind, written or oral, other than on terms no less favorable to us or such other Subsidiary than those that might be obtained at the time from Persons who are not our Affiliates; and

(c) with which neither we nor any other Subsidiary of us (other than another Unrestricted Subsidiary) has any obligation: (i) to subscribe for additional shares of Capital Stock or other equity interests therein; or (ii) to maintain or preserve such Subsidiary's financial condition or to cause such Subsidiary to achieve certain levels of operating results.

If at any time after the Issue Date we designate an additional Subsidiary as an Unrestricted Subsidiary, we will be deemed to have made a Restricted Investment in an amount equal to the fair market value (as determined in good faith by our Board of Directors evidenced by a resolution of our Board of Directors and set forth in an officers' certificate delivered to the Trustee no later than ten business days following a request from the Trustee, which certificate shall cover the six months preceding the date of the request) of such Subsidiary and to have incurred all Indebtedness of such Unrestricted Subsidiary. An Unrestricted Subsidiary may be designated as a Restricted Subsidiary if, at the time of such designation after giving pro forma effect thereto, no Default or Event of Default shall have occurred or be continuing.

"Weighted Average Life to Maturity" means, when applied to any Indebtedness at any date, the number of years obtained by dividing (a) the then outstanding principal amount of such Indebtedness into (b) the total of the product obtained by multiplying (i) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect thereof, by (ii) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment.

"Wholly Owned Restricted Subsidiary" means a Wholly Owned Subsidiary of the Issuer that is a Restricted Subsidiary.

"Wholly Owned Subsidiary" means, with respect to any Person, any Subsidiary all of the outstanding voting stock (other than directors' qualifying shares) of which is owned by such Person, directly or indirectly.

DESCRIPTION OF THE UNSECURED NOTES

The Unsecured Notes will be issued under an indenture (as supplemented to date, the "Unsecured Indenture"), dated as of July 27, 2016 among Hughes Satellite Systems Corporation (the "Company"), the Guarantors and U.S. Bank National Association, as Trustee. The rights of the holders of the Unsecured Notes are governed solely by the Unsecured Indenture and our obligations under the Unsecured Indenture are solely for the benefit of the holders of the Old Unsecured Notes and the Unsecured Notes. The terms of the Unsecured Notes will be substantially identical to the terms of the Old Unsecured Notes. However, the Unsecured Notes will not be subject to transfer restrictions or registration rights unless held by certain broker-dealers, our affiliates or certain other Persons. We refer to our outstanding 5.250% Senior Secured Notes, the "Old Notes"), the new 5.250% Senior Notes due 2026 as the "Old Unsecured Notes" (together with the Old Secured Notes, the "Unsecured Notes" (together with the Old Secured Notes, the "Unsecured Notes" (together with the Secured Notes due 2026 issued in this offer as the "Secured Notes" and the new 6.625% Senior Notes due 2026 issued in this offer as the "Unsecured Notes" and "Unsecured Notes" shall be deemed to have been issued on the Issue Date for all purposes under the Unsecured Indenture.

The following description is a summary of the material provisions of the Unsecured Indenture. It does not restate the Unsecured Indenture in its entirety. We urge you to read the Unsecured Indenture and the Unsecured Notes because they, and not this description, define your rights as a holder of the Unsecured Notes. Copies of the Unsecured Indenture and the Unsecured Notes are available to you upon request.

You can find the definitions of some of the capitalized terms used in this section under the subheading "Certain Definitions." In this section of the prospectus:

- the terms "HSS," the "Company," the "Issuer," "we," "us," "our" or similar terms refer only to Hughes Satellite Systems Corporation and not to any
 of our subsidiaries;
- references to "Guarantors" shall mean our direct and indirect Wholly Owned Restricted Subsidiaries that guarantee the Unsecured Notes; and
- references to "Parent" mean HSS' parent, EchoStar Corporation, together with each Subsidiary of Parent that beneficially owns a majority of the total voting power of HSS' Equity Interests, but only so long as such other entity remains a Subsidiary of Parent; provided that if EchoStar Corporation no longer beneficially owns a majority of the total voting power of HSS' Equity Interests, references to "Parent" mean any person or entity that directly beneficially owns a majority of the total voting power of HSS' Equity Interests, together with any future Subsidiary of such person or entity for so long as such future Subsidiary remains such and beneficially owns a majority of the total voting power of HSS' Equity Interests.

The terms of the Unsecured Notes include those stated in the Unsecured Indenture and those made part of the Unsecured Indenture by reference to the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"). The Unsecured Notes are subject to all such terms, and holders of Unsecured Notes should refer to the Unsecured Indenture and the Trust Indenture Act for a statement thereof.

Brief Description of the Unsecured Notes

The Unsecured Notes

The Unsecured Notes will be:

- general unsecured obligations of the Issuer;
- effectively junior to the Issuer's obligations that are secured to the extent of the value of the collateral securing such obligations;
- senior in right of payment to all existing and future obligations of the Issuer that are expressly subordinated to the Unsecured Notes;
- structurally junior to any existing and future obligations of any non-Guarantor Subsidiaries; and
- fully and unconditionally guaranteed, on a joint and several basis, by each Guarantor (which are the same guarantors as under the 2011 Secured Notes and the 2011 Unsecured Notes).

The Unsecured Notes will be issued in fully registered form only, without coupons, in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. Any Old Unsecured Notes that remain outstanding after the completion of this exchange offer, together with the Unsecured Notes issued in connection with this exchange offer, will be treated as a single class of securities for all purposes under the Unsecured Indenture, and have terms substantially identical to the terms of the Unsecured Notes, including, without limitation, with respect to waivers, amendments, redemptions, "Change of Control Offer" and "Certain Covenants —Asset Sales," each as discussed under their respective subheadings below.

The Guarantees

The Unsecured Notes will be guaranteed by the Guarantors. The Guarantee of each Guarantor will be:

- a general unsecured obligation of such Guarantor;
- effectively junior to such Guarantor's obligations that are secured to the extent of the value of the collateral securing such obligations; and
- senior in right of payment to all existing and future obligations of such Guarantor that are expressly subordinated to the Unsecured Notes.

In addition, the Unsecured Indenture permits us and the Guarantors to incur additional Indebtedness, including secured and unsecured Indebtedness that ranks equally with the Unsecured Notes. Any secured Indebtedness will, as to the collateral securing such Indebtedness, be effectively senior to the Unsecured Notes or the Guarantees, as the case may be, to the extent of the value of such collateral.

The Guarantors consist of all of the existing guarantors of the 2011 Notes.

Principal, Maturity and Interest

The Unsecured Notes will be issued in an aggregate principal amount of up to \$750,000,000. Additional notes ("Additional Unsecured Notes") may be issued under the Unsecured Indenture from time to time, subject to the limitations set forth under (x) "Certain Covenants — Limitation on Incurrence of Indebtedness" without regard to clause (1) under the second paragraph thereof and (y) clause (c) of the definition of "Permitted Liens." Any Additional Unsecured Notes will be part of the same series as the Unsecured Notes offered hereby and will vote on all matters with the Unsecured Notes offered hereby. The Unsecured Notes will mature on August 1, 2026.

Interest on the Unsecured Notes will accrue at a rate of 6.625% per annum. Interest on the Unsecured Notes will be payable semiannually in arrears in cash on February 1 and August 1 of each year, commencing August 1, 2017 or if any such day is not a business day on the next succeeding business day, to holders of record on the immediately preceding January 15 and July 15, respectively. Interest on the Unsecured Notes will accrue from the most recent date to which interest has been paid or, if no interest has been paid, from the date of issuance. Interest on the Unsecured Notes will be computed on the basis of a 360-day year of twelve 30-day months.

The Unsecured Notes are payable both as to principal and interest at our office or agency maintained for such purpose or, at our option, payment of interest may be made by check mailed to the holders of the Unsecured Notes at their respective addresses set forth in the register of holders of Unsecured Notes. Until otherwise designated by us, our office or agency will be the office of the Trustee maintained for such purpose.

Guarantees

Each Guarantor will jointly and severally guarantee the Issuer's obligations under the Unsecured Notes. The obligations of each Guarantor under its Guarantee for the Unsecured Notes will be limited as necessary to prevent such Guarantee from constituting a fraudulent conveyance or fraudulent transfer under applicable law. See "Risk Factors — Risks Related to the Notes and the Exchange Offer — The guarantees of the Notes by our subsidiaries may be subject to challenge." Each Guarantor that makes a payment or distribution under a Guarantee will be entitled to a *pro rata* contribution from each other Guarantor based on the net assets of such Guarantor and each other Guarantor.

Each Guarantor may consolidate with or merge into or sell its assets to us or another Guarantor that is a Restricted Subsidiary, or with or to other Persons upon the terms and conditions set forth in the Unsecured Indenture. A Guarantor may not sell or otherwise dispose of all or substantially all of its assets, or consolidate with or merge with or into another Person (whether or not such Guarantor is the surviving Person), unless certain conditions are met. See "Certain Covenants — Merger, Consolidation, or Sale of Assets."



A Guarantee of a Guarantor will be deemed automatically discharged and released in accordance with the terms of the Unsecured Indenture:

(1) in connection with any direct or indirect sale, conveyance or other disposition of all of the capital stock or all or substantially all of the assets of that Guarantor (including by way of merger or consolidation), if such sale or disposition is made in compliance with the applicable provisions of the Unsecured Indenture (see "Certain Covenants — Asset Sales");

(2) if such Guarantor is dissolved or liquidated in accordance with the provisions of the Unsecured Indenture;

(3) if we designate any such Guarantor as an Unrestricted Subsidiary in compliance with the terms of the Unsecured Indenture; and

(4) the Issuer's exercise of its legal defeasance option or covenant defeasance option as described under "Legal Defeasance and Covenant Defeasance" or if the Issuer's obligations under the Unsecured Indenture are discharged in accordance with the terms of the Unsecured Indenture.

In addition to the release provisions above, following such time when a Guarantor is no longer guaranteeing the 2011 Notes or the Secured Notes, a Guarantee of a Guarantor will also be deemed automatically discharged and released in accordance with the terms of the Unsecured Indenture, upon the consent of the holders of at least a majority in principal amount of the Unsecured Notes then outstanding under the Unsecured Indenture. In addition, upon the Issuer's election, by written notice to the Trustee, a Guarantee of a Guarantor that is an Immaterial Subsidiary may be deemed automatically discharged and released in accordance with the terms of the Unsecured Indenture.

Optional Redemption

Except as stated below, the Unsecured Notes are not redeemable at our option prior to their stated maturity.

The Unsecured Notes will be redeemable, at our option, at any time in whole, or from time to time in part, upon not less than 30 and not more than 60 days' notice, at a price equal to 100% of the principal amount of the Unsecured Notes plus accrued and unpaid interest, if any, to (but excluding) the redemption date plus a make-whole premium. Holders of record on the relevant record date have the right to receive interest due on an interest payment date that is on or prior to the redemption date. The redemption price will never be less than 100% of the principal amount of the Unsecured Notes being redeemed plus accrued interest to the redemption date.

The amount of the make-whole premium on any Unsecured Note, or portion of an Unsecured Note, to be redeemed will be equal to the greater of (a) 1.00% of the principal amount of such Unsecured Note or such portion of an Unsecured Note being redeemed and (b) the excess, if any, of:

(1) the sum of the present values, calculated as of the redemption date, of: (i) each interest payment that, but for the redemption, would have been payable on the Unsecured Note, or portion of an Unsecured Note, being redeemed on each interest payment date occurring after the redemption date, excluding any accrued interest for the period prior to the redemption date, plus (ii) the principal amount that, but for the redemption, would have been payable on the maturity date of the Unsecured Note, or portion of an Unsecured Note, being redeemed;

over

(2) the principal amount of the Unsecured Note, or portion of an Unsecured Note, being redeemed.

The present values of interest and principal payments referred to in clause (1) above will be determined in accordance with generally accepted principles of financial analysis. The present values will be calculated by discounting the amount of each payment of interest or principal from the date that each such payment would have been payable, but for the redemption, to the redemption date at a discount rate equal to the Treasury Yield, as defined below, plus 50 basis points.

We will appoint an independent investment banking institution of national standing to calculate the make-whole premium; provided that if we fail to appoint an institution at least 45 days prior to the date set for redemption or if the institution that we appoint is unwilling or unable to make such calculation, such calculation will be made by Deutsche Bank Securities Inc., or, if such firm fails to make such calculation, by an independent investment banking institution of national standing appointed by the Trustee (it being understood that the Trustee's agreement to appoint such an institution is a matter of courtesy and accommodation only and the Trustee shall not be liable to any Person as a result).

For purposes of determining the make-whole premium, "Treasury Yield" refers to an annual rate of interest equal to the weekly average yield to maturity of United States Treasury Notes that have a constant maturity that corresponds to the remaining term to maturity of the Unsecured Notes being redeemed, calculated to the nearest one-twelfth of a year, which we call the remaining term. The Treasury Yield will be determined as of the third business day immediately preceding the applicable redemption date.

The weekly average yields of United States Treasury Notes will be determined by reference to the most recent statistical release published by the Federal Reserve Bank of New York and designated "H.15(519) Selected Interest Rates" or any successor release, which we call the H.15 Statistical Release. If the H.15 Statistical Release sets forth a weekly average yield for United States Treasury Notes having a constant maturity that is the same as the remaining term, then the Treasury Yield will be equal to such weekly average yield. In all other cases, the Treasury Yield will be calculated by interpolation, on a straight-line basis, between the weekly average yields on the United States Treasury Notes that have a constant maturity closest to and greater than the remaining term and the United States Treasury Notes that have a constant maturity closest to and greater than the remaining term and the United States Treasury Notes to and less than the remaining term, in each case as set forth in the H.15 Statistical Release. Any weekly average yields as calculated by interpolation will be rounded to the nearest 0.01%, with any figure of 0.005% or more being rounded upward. If weekly average yields for United States Treasury Notes are not available in the H.15 Statistical Release or otherwise, then the Treasury Yield will be calculated by interpolation of comparable rates selected by the independent investment banking institution.

Redemption with the Proceeds of Certain Capital Contributions or Equity Offerings

Notwithstanding the foregoing, at any time prior to August 1, 2019 we may redeem up to 35% of the aggregate principal amount of the Old Unsecured Notes and the Unsecured Notes outstanding at a redemption price equal to 106.625% of the principal amount thereof, together with accrued and unpaid interest to (but excluding) such redemption date, with the net cash proceeds of any capital contributions or one or more public or private sales (including sales to Parent, regardless of whether Parent obtained such funds from an offering of Equity Interests or Indebtedness of Parent or otherwise, and *provided* that such funds are contributed to us) of Equity Interests (other than Disqualified Stock) of us (other than proceeds from a sale to any of our Subsidiaries or any employee benefit plan in which we or any of our Subsidiaries participates); *provided* that:

- At least \$487.5 million aggregate principal amount of Old Unsecured Notes and Unsecured Notes (such amount representing at least 65% in
 aggregate of the principal amount of the Old Unsecured Notes that were initially issued) remain outstanding immediately after the occurrence of
 such redemption; and
- the sale of such Equity Interests is made in compliance with the terms of the Unsecured Indenture.

Selection and Notice

If less than all of the Unsecured Notes are to be redeemed at any time, the selection of Unsecured Notes for redemption will be made by the Trustee in compliance with the requirements of the principal national securities exchange, if any, on which the Unsecured Notes are listed or, if the Unsecured Notes are not so listed, on a *pro rata* basis, by lot or by such other method as the Trustee deems fair and appropriate in accordance with DTC procedures, *provided* that no Unsecured Notes with a principal amount of \$2,000 or less shall be redeemed in part. Notice of redemption shall be mailed by first-class mail at least 30 but not more than 60 days before the redemption date to each holder of Unsecured Notes to be redeemed at its registered address. If any Note is to be redeemed in part only, the notice of redemption that relates to such Note shall state the portion of the principal amount thereof to be redeemed. A new Note in principal amount equal to the unredeemed portion thereof will be issued in the name of the holder thereof upon cancellation of the original Note. On and after the redemption date, if we do not default in the payment of the redemption price, interest will cease to accrue on Unsecured Notes or portions thereof called for redemption.

Change of Control Offer

Upon the occurrence of a Change of Control, we will be required to make an offer (a "Change of Control Offer") to each holder of Unsecured Notes to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of such holder's Unsecured Notes at a purchase price equal to 101% of the aggregate principal amount thereof, together with accrued and unpaid interest thereon to (but excluding) the date of repurchase (the "Change of Control Payment"). Within 30 days following any Change of Control, we shall mail a notice to each holder stating:

(1) that the Change of Control Offer is being made pursuant to the covenant entitled "Change of Control Offer";

(2) the purchase price and the purchase date, which shall be no earlier than 30 days nor later than 60 days after the date such notice is mailed (the "Change of Control Payment Date");



(3) that any Unsecured Notes not tendered will continue to accrue interest in accordance with the terms of the Unsecured Indenture;

(4) that, unless we default in the payment of the Change of Control Payment, all Unsecured Notes accepted for payment pursuant to the Change of Control Offer shall cease to accrue interest after the Change of Control Payment Date;

(5) that holders will be entitled to withdraw their election if the paying agent receives, not later than the close of business on the second business day preceding the Change of Control Payment Date, a facsimile transmission or letter setting forth the name of the holder, the principal amount of Unsecured Notes delivered for purchase, and a statement that such holder is withdrawing his election to have such Unsecured Notes purchased;

(6) that holders whose Unsecured Notes are being purchased only in part will be issued new Unsecured Notes equal in principal amount to the unpurchased portion of the Unsecured Notes surrendered, which unpurchased portion must be equal to \$2,000 or an integral multiple of \$1,000 in excess thereof; and

(7) any other information material to such holder's decision to tender Unsecured Notes.

We will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent such laws and regulations are applicable in connection with the repurchase of the Unsecured Notes required in the event of a Change of Control. We may not be able to repurchase all of the Unsecured Notes tendered upon a Change of Control. If we fail to repurchase all of the Unsecured Notes tendered for purchase upon a Change of Control, such failure will constitute an Event of Default. In addition, the terms of other indebtedness to which we may be subject may prohibit us from purchasing the Unsecured Notes or offering to purchase the Unsecured Notes, and a Change of Control Offer or a Change of Control Payment could trigger a default or event of default under the terms of such indebtedness. If we were unable to obtain the consent of the holders of any such other indebtedness to make a Change of Control Offer or make the Change of Control Payment or to repay such indebtedness, a Default or Event of Default may occur. See the subheading, "Events of Default."

Except as described above with respect to a Change of Control, the Unsecured Indenture does not contain any provisions that would permit the holders of any of the Unsecured Notes to require that we repurchase or redeem any Unsecured Notes in the event of a takeover, recapitalization or similar transaction.

Certain Covenants

Limitation on Restricted Payments. The Unsecured Indenture provides that neither we nor any of our Restricted Subsidiaries may, directly or indirectly:

(a) declare or pay any dividend or make any distribution on account of any of our Equity Interests other than dividends or distributions payable in Equity Interests (other than Disgualified Stock) of us;

(b) purchase, redeem or otherwise acquire or retire for value any Equity Interests of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of its or our respective Subsidiaries or Affiliates, other than any such Equity Interests owned by us or by any Wholly Owned Restricted Subsidiary;

(c) purchase, redeem, defease or otherwise acquire or retire for value any Indebtedness that is expressly subordinated in right of payment to the Unsecured Notes issued under the Unsecured Indenture or the Guarantees thereof, except (i) in accordance with the scheduled mandatory redemption, sinking fund or repayment provisions set forth in the original documentation governing such Indebtedness and (ii) the purchase, repurchase or other acquisition of subordinated Indebtedness with a stated maturity earlier than the maturity of the Unsecured Notes issued under the Unsecured Indenture or the Guarantees thereof purchased in anticipation of satisfying a payment of principal at the stated maturity thereof, within one year of such stated maturity;

- (d) declare or pay any dividend or make any distribution on account of any Equity Interests of any Restricted Subsidiary, other than:
 - (i) to us or any Wholly Owned Restricted Subsidiary; or

(ii) to all holders of any class or series of Equity Interests of such Restricted Subsidiary on a pro rata basis; provided that in the case of this clause (ii), such dividends or distributions may not be in the form of Indebtedness or Disqualified Stock; or

(e) make any Restricted Investment;

(all such prohibited payments and other actions set forth in clauses (a) through (e) being collectively referred to as "*Restricted Payments*"), unless, at the time of such Restricted Payment:

(i) no Default or Event of Default shall have occurred and be continuing or would occur as a consequence thereof;

(ii) after giving effect to such Restricted Payment and the incurrence of any Indebtedness the net proceeds of which are used to finance such Restricted Payment, our Indebtedness to Cash Flow Ratio would not have exceeded 6.00 to 1.00; and

(iii) such Restricted Payment, together with the aggregate of all other Restricted Payments made by us after June 1, 2011, is less than the sum of:

(A) the difference of:

(x) our cumulative Consolidated Cash Flow determined at the time of such Restricted Payment (or, in case such Consolidated Cash Flow shall be a deficit, minus 100% of such deficit); *minus*

(y) 1.4 times our Consolidated Interest Expense,

each as determined for the period (taken as one accounting period) from June 1, 2011 to the end of our most recently ended fiscal quarter for which internal financial statements are available at the time of such Restricted Payment; *plus*

(B) an amount equal to 100% of the aggregate net cash proceeds (other than the net cash proceeds received from EchoStar Corporation or any of its subsidiaries that are used to consummate the 2011 Transactions) and, in the case of proceeds consisting of assets used in or constituting a business permitted under the covenant described under "Limitations on Activities of the Issuer," 100% of the fair market value of the aggregate net proceeds other than cash received by us, either from capital contributions from Parent, or from the issue or sale (including an issue or sale to Parent which is contributed to us) of Equity Interests (other than Disqualified Stock) of us (other than Equity Interests sold to any of our Subsidiaries), since June 1, 2011; *plus*

(C) if any Unrestricted Subsidiary is designated by us as a Restricted Subsidiary, an amount equal to the fair market value of the net Investment by us or a Restricted Subsidiary in such Subsidiary at the time of such designation; provided, however, that the foregoing sum shall not exceed the amount of the Investments made by us or any Restricted Subsidiary in any such Unrestricted Subsidiary since June 1, 2011; *plus*

(D) 100% of any cash dividends and other cash distributions received by us and our Wholly Owned Restricted Subsidiaries from an Unrestricted Subsidiary since June 1, 2011 to the extent not included in our cumulative Consolidated Cash Flow; *plus*

(E) to the extent not included in clauses (A) through (D) above, an amount equal to the net reduction in Investments of us and our Restricted Subsidiaries since June 1, 2011 resulting from payments in cash of interest on Indebtedness, dividends, or repayment of loans or advances, or other transfers of property, in each case, to us or to a Wholly Owned Restricted Subsidiary or from the net cash proceeds from the sale, conveyance or other disposition of any such Investment; provided, however, that the foregoing sum shall not exceed, with respect to any Person in whom such Investment was made, the amount of Investments previously made by us or any Restricted Subsidiary in such Person which were included in computations made pursuant to this clause (iii).

The foregoing provisions will not prohibit the following (provided that with respect to clauses (2), (3), (4), (5), (6), (7), (8), (14), (20) and (23) below, no Default or Event of Default shall have occurred and be continuing):

(1) the payment of any dividend or distribution within 60 days after the date of declaration thereof, if at such date of declaration such payment would have complied with the provisions of the Unsecured Indenture;

(2) the redemption, repurchase, retirement or other acquisition of any of our Equity Interests or subordinated Indebtedness of us or any Guarantor in exchange for, or out of the net proceeds of the substantially concurrent capital contribution from Parent or from the substantially concurrent issue or sale (including to Parent) of Equity Interests (other than Disqualified Stock) of us (other than Equity Interests issued or sold to any Subsidiary of us);

(3) Investments in an aggregate amount not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets plus, to the extent not included in Consolidated Cash Flow, an amount equal to the net reduction in such Investments resulting from payments in cash of interest on Indebtedness, dividends or repayment of loans or advances, or other transfers of property, in each case, to us or to a Wholly Owned Restricted Subsidiary or from the net cash proceeds from the sale, conveyance or other disposition of any such Investment; *provided, however*, that the foregoing sum shall not exceed, with respect to any Person in whom such Investment was made, the amount of Investments previously made by us or any Restricted Subsidiary in such Person pursuant to this clause (3);

(4) cash dividends or distributions to the extent required for the purchase, redemption, repurchase or other acquisition or retirement for value of employee stock options to purchase Capital Stock of Parent or Issuer, or Capital Stock of Parent or Issuer issued pursuant to any management equity plan, stock option plan or other management or employee benefit plan or agreement, in an aggregate amount not to exceed \$25.0 million in any calendar year;

(5) a Permitted Refinancing;

(6) Investments in an amount equal to 100% of the aggregate net proceeds (whether or not in cash) received by us or any Wholly Owned Restricted Subsidiary from capital contributions from Parent (other than the net cash proceeds received by EchoStar Corporation or any of its subsidiaries that are used to consummate the 2011 Transactions) or from the issue and sale (including a sale to Parent) of Equity Interests (other than Disqualified Stock) of us (other than Equity Interests issued or sold to a Subsidiary of Parent), on or after June 8, 2011; plus, to the extent not included in Consolidated Cash Flow, an amount equal to the net reduction in such Investments resulting from payments in cash of interest on Indebtedness, dividends, or repayment of loans or advances, or other transfers of property, in each case, to us or to a Wholly Owned Restricted Subsidiary or from the net cash proceeds from the sale, conveyance, or other disposition of any such Investment; *provided, however*, that the foregoing amount shall not exceed, with respect to any Person in whom such Investment was made, the amount of Investments previously made by us or any Restricted Subsidiary in such Person pursuant to this clause (6) in each case; provided that such Investments are in businesses of the type described under "Limitations on Activities of the Issuer";

(7) Investments in businesses strategically related to businesses described in "Limitations on Activities of the Issuer" in an aggregate amount not to exceed \$400.0 million outstanding at any time;

(8) Investments made as a result of the receipt of non-cash proceeds from Asset Sales made in compliance with the covenants described under "Asset Sales" or any disposition not constituting an Asset Sale and Investments entered into in connection with an acquisition of assets used in or constituting a business permitted under the covenant described under "Limitations on Activities of the Issuer," as a result of "earn-outs" or other deferred payments or similar obligations;

(9) any Investment existing on the Issue Date and any Investments made pursuant to binding commitments in effect on the Issue Date;

(10) any Investment acquired by us or any Restricted Subsidiary (a) in exchange for any other Investment or accounts receivable held by us or any Restricted Subsidiary in connection with or as a result of a bankruptcy, workout, reorganization or recapitalization of the issuer of such other Investment or accounts receivable or (b) as a result of a foreclosure by us or any Restricted Subsidiary with respect to any secured Investment or other transfer of title with respect to any secured Investment in default;

(11) Hedging Obligations permitted under "Limitation on Incurrence of Indebtedness";

(12) Investments consisting of the licensing or contribution of intellectual property pursuant to joint marketing arrangements with other Persons;

(13) Investments consisting of purchases and acquisitions of inventory, supplies, materials and equipment or purchases of contract rights or licenses or leases of intellectual property in each case in the ordinary course of business;

(14) additional Investments in joint ventures of us or any of our Restricted Subsidiaries existing on the Issue Date in an aggregate amount not to exceed \$50.0 million outstanding at any one time;

(15) Investments of a Restricted Subsidiary acquired after the Issue Date or of an entity merged into, amalgamated with, or consolidated with a Restricted Subsidiary in a transaction that is not prohibited by the covenant described under "Merger, Consolidation, or Sale of Assets" after the Issue Date to the extent such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisitions, merger, amalgamation or consolidation;

(16) any Investment in the Old Secured Notes, the Secured Notes, the Old Unsecured Notes, the Unsecured Notes or any of the 2011 Notes;

(17) the redemption, repurchase, defeasance or other acquisition or retirement for value of subordinated Indebtedness, including premium, if any, and accrued and unpaid interest, with the proceeds of, or in exchange for: (a) the proceeds of a capital contribution or a substantially concurrent offering of, shares of Capital Stock of the Issuer (or options, warrants or other rights to acquire such Capital Stock), or (b) Indebtedness that is at least as subordinated in right of payment to the Unsecured Notes, including premium, if any, and accrued and unpaid interest, as the Indebtedness being redeemed, repurchased, defeased, acquired or retired and with a final maturity equal to or greater than, and a Weighted Average Life to Maturity, respectively of the Indebtedness being redeemed, repurchased, defeased, acquired or retired;

(18) repurchases of Equity Interests deemed to occur upon (a) the exercise of stock options, warrants or convertible securities issued as compensation if such Equity Interests represent a portion of the exercise price thereof and (b) the withholding of a portion of the Equity Interests granted or awarded to an employee to pay taxes associated therewith (or a dividend or distribution to finance such a deemed repurchase by Parent);

(19) amounts paid by us to Parent or any other Person with which we are included in a consolidated tax return equal to the amount of federal, state and local income taxes payable in respect of the income of the Issuer and its Subsidiaries, including without limitation, any payments made in accordance with tax allocation agreements between the Issuer and its Affiliates in effect from time to time;

(20) the making of a Restricted Payment so long as after giving effect to any such Restricted Payment the aggregate amount of such Restricted Payments made pursuant to this clause (20) shall not exceed \$150.0 million;

(21) amounts paid to any direct or indirect parent company in amounts required for any direct or indirect parent company to pay customary salaries, bonuses and other benefits of any direct or indirect parent company, to the extent such salaries, bonuses and other benefits are attributable to the ownership or operation of the Issuer and the Restricted Subsidiaries;

(22) the making of any payments to fund the 2011 Transactions and the fees and expenses related thereto; and

(23) the making of a Restricted Payment so long as after giving effect to any such Restricted Payment the Indebtedness to Cash Flow Ratio would not be greater than 2.50 to 1.00.

Restricted Payments made pursuant to clauses (1), (2), (6) or (17) (but only to the extent that net proceeds received by us as set forth in such clause (2), (6) or (17) were included in the computations made in clause (iii)(B) of the first paragraph of this covenant) or (23) shall be included as Restricted Payments in any computation made pursuant to clause (iii) of the first paragraph of this covenant.

Restricted Payments made pursuant to clauses (3), (4), (5), (6), (17) (but only to the extent that net proceeds received by us as set forth in such clause (6) or (17) were not included in the computations made in clause (iii)(B) of the first paragraph of this covenant), (7), (8), (9), (10), (11), (12), (13), (14), (15), (16), (18), (19), (20), (21) and (22) shall not be included as Restricted Payments in any computation made pursuant to clause (iii) of the first paragraph of this covenant.

If we or any Restricted Subsidiary makes an Investment that was included in computations made pursuant to this covenant and the Person in which such Investment was made subsequently becomes a Restricted Subsidiary that is a Guarantor, to the extent such Investment resulted in a reduction in the amounts calculated under clause (iii) of the first paragraph of or under any other provision of this covenant, then such amount shall be increased by the amount of such reduction.

Limitation on Incurrence of Indebtedness. The Unsecured Indenture provides that we shall not, and shall not permit any of our Restricted Subsidiaries to, directly or indirectly, create, incur, issue, assume, guarantee or otherwise become directly or indirectly liable with respect to (collectively, "incur") any Indebtedness (including Acquired Debt); *provided, however*, that, notwithstanding the foregoing, the Issuer and any Guarantor may incur Indebtedness (including Acquired Debt), if, after giving effect to the incurrence of such Indebtedness and the application of the net proceeds thereof on a pro forma basis (including in the case of an acquisition, merger or other business combination giving pro forma effect to such transaction), our Indebtedness to Cash Flow Ratio would not have exceeded 6.00 to 1.00.

The foregoing limitation does not apply to any of the following incurrences of Indebtedness:

- (1) Indebtedness represented by the Old Unsecured Notes or the Unsecured Notes issued on the Issue Date and the Guarantees thereof;
- (2) the incurrence by us or any Restricted Subsidiary of Deferred Payments and letters of credit with respect thereto;

(3) Indebtedness of us or any Restricted Subsidiary in an aggregate principal amount not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets at any one time outstanding;

(4) Indebtedness between and among us and any Restricted Subsidiary;

(5) Acquired Debt of a Person, incurred prior to the date upon which such Person was acquired by us or any Restricted Subsidiary (excluding Indebtedness incurred by such entity other than in the ordinary course of its business in connection with, or in contemplation of, such entity being so acquired) *provided* that at the time of such transaction after giving pro forma effect thereto as if such transaction had occurred at the beginning of the applicable four-quarter period, either

(a) we would be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Indebtedness to Cash Flow Ratio test set forth in the covenant described under "Limitation on Incurrence of Indebtedness," above, or

- (b) our Indebtedness to Cash Flow Ratio is equal to or less than immediately prior to such transaction;
- (6) Existing Indebtedness;

(7) (a) In an aggregate principal amount not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets at any one time outstanding the incurrence of Purchase Money Indebtedness and Capital Lease Obligations by us or any Restricted Subsidiary in an amount not to exceed the cost of construction, lease, acquisition or improvement of assets used in any business permitted under the covenant described under "Limitations on Activities of the Issuer," as well as any launch costs and insurance premiums related to such assets and (b) Indebtedness of us or any Restricted Subsidiary under Capital Lease Obligations with respect to AMC-15, AMC-16, Nimiq 5, QuetzSat-1, EchoStar 105/SES-11, EUTELSAT 65 West A and Telesat T19V (63 West) and no more than one additional satellite and any replacement satellite for any of the foregoing satellites at any time, as well as any launch costs and insurance premiums related to such assets;

(8) The incurrence by us or any of the Restricted Subsidiaries of Hedging Obligations that are incurred in the ordinary course of business and not for speculative purposes, including without limitation Hedging Obligations covering the principal amount of Indebtedness entered into in order to protect us or any of our Restricted Subsidiaries from fluctuation in interest rates on Indebtedness;

(9) Indebtedness of us or any of our Restricted Subsidiaries in respect of performance bid and appeal bonds or completion guarantees or letters of credit of us or any Restricted Subsidiary or surety bonds provided by us or any Restricted Subsidiary incurred in the ordinary course of business and on ordinary business terms in connection with the businesses permitted under the covenant described under "Limitations on Activities of the Issuer";

(10) the incurrence by us or any Restricted Subsidiary of Indebtedness issued in exchange for, or the proceeds of which are used to extend, refinance, renew, replace, substitute or refund in whole or in part Indebtedness referred to in the first paragraph of this covenant or in clauses (1), (2), (5), (6) or (7) above, this clause (10) or clause (17) ("Refinancing Indebtedness"); *provided, however*, that:

(A) the principal amount of such Refinancing Indebtedness shall not exceed the principal amount and accrued interest of the Indebtedness so exchanged, extended, refinanced, replaced, substituted or refunded and any premiums payable and reasonable fees, expenses, commissions and costs in connection therewith;

(B) the Refinancing Indebtedness shall have a final maturity equal to or later than, and a Weighted Average Life to Maturity equal to or greater than, the final maturity and Weighted Average Life to Maturity, respectively, of the Indebtedness being exchanged, extended, refinanced, renewed, replaced, substituted or refunded; and

(C) the Refinancing Indebtedness shall be subordinated in right of payment to the Old Unsecured Notes and the Unsecured Notes issued under the Unsecured Indenture and the Guarantees thereof, if at all, on terms at least as favorable to the holders of the Old Unsecured Notes and the Unsecured Notes issued under the Unsecured Indenture as those contained in the documentation governing the Indebtedness being extended, refinanced, renewed, replaced, substituted or refunded (a "Permitted Refinancing");

(11) the guarantee by us or any Restricted Subsidiary of Indebtedness of us or a Restricted Subsidiary that was permitted to be incurred by another provision of this covenant;

(12) Indebtedness incurred by us or any Restricted Subsidiary under a revolving credit facility, and any extension, amendment or amendment and restatement thereof, not to exceed \$100.0 million;

(13) Indebtedness of the Issuer or any Restricted Subsidiary owed to (including obligations in respect of letters of credit for the benefit of) any Person in connection with workers' compensation, health, disability or other employee benefits or property, casualty or liability insurance provided by such Person to us or such Restricted Subsidiary pursuant to reimbursement or indemnification obligations to such Person, in each case incurred in the ordinary course of business and consistent with industry practices;

(14) Indebtedness arising from agreements of us or a Restricted Subsidiary providing for indemnification, adjustment of purchase price or similar obligations, in each case incurred in connection with the disposition of any business, assets or a Subsidiary of us in accordance with the terms of the Unsecured Indenture, other than guarantees of Indebtedness incurred by any Person acquiring all or any portion of such business, assets or Subsidiary for the purpose of financing such acquisition;

(15) Indebtedness of us or any Restricted Subsidiary pursuant to the Equipment Financing Agreements;

(16) Replacement Satellite Vendor Indebtedness in an aggregate principal amount outstanding at any one time not to exceed the greater of \$150.0 million and 3.75% of Consolidated Net Tangible Assets; and

(17) Indebtedness represented by the \$750,000,000 aggregate principal amount of Old Secured Notes issued on the Issue Date and the guarantees thereof.

For purposes of determining compliance with this covenant, if an item of Indebtedness meets the criteria of more than one of the categories described in clauses (1) through (17) above or is permitted to be incurred pursuant to the first paragraph of this covenant and also meets the criteria of one or more of the categories described in clauses (1) through (17) above, we shall, in our sole discretion, classify such item of Indebtedness in any manner that complies with this covenant and may from time to time reclassify such item of Indebtedness in any manner in which such item could be incurred at the time of such reclassification. Accrual of interest and the accretion of accreted value will not be deemed to be an incurrence of Indebtedness for purposes of this covenant.

Asset Sales. The Unsecured Indenture provides that the Issuer will not, and will not permit any Restricted Subsidiary to, cause or make an Asset Sale, unless:

(1) the Issuer or such Restricted Subsidiary, as the case may be, receives consideration at the time of such Asset Sale at least equal to the fair market value (as determined in good faith by the Issuer) of the assets sold or otherwise disposed of; and

(2) at least 75% of the consideration therefor received by us or such Restricted Subsidiary, as the case may be, is in the form of cash, Cash Equivalents, Marketable Securities or Replacement Assets and/or any asset which is promptly (and in no event later than 365 days after the date of transfer to the Issuer or Restricted Subsidiary) converted into cash, provided that to the extent that such conversion is at a price that is less than the fair market value (as determined in good faith by the Issuer) of such asset at the time of the Asset Sale in which such asset was acquired, the Issuer or Restricted Subsidiary, as the case may be, shall be deemed to have made a Restricted Payment in the amount by which such fair market value exceeds the cash received upon conversion or a combination of the foregoing; provided that the following shall be deemed to be cash for the purposes of this clause (2): (x) Designated Non-Cash Consideration received by the Issuer or any Restricted Subsidiary in such Asset Sale, if such Designated Non-Cash Consideration, taken together with all other Designated Non-Cash Consideration received pursuant to this clause (x), does not exceed the greater of \$75.0 million or 2.50% of Consolidated Net Tangible Assets at the time of the receipt of such Designated Non-Cash Consideration (with the fair market value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value) and (y) the amount of any liabilities of us or any Restricted Subsidiary that are assumed by or on behalf of the transferee in connection with an Asset Sale (and from which we or such Restricted Subsidiary are unconditionally released); provided further that in the case of an Asset Sale involving software or intellectual property, consideration comprising undertakings to pay cash or Cash Equivalents or Marketable Securities over time or at future dates, whether such payments are fixed, contingent or otherwise, shall be deemed to be cash provided that, when received, such cash, Cash Equivalents or Marketable Securities shall be included in determining Net Proceeds from such Asset Sale for purposes of the Unsecured Indenture;

Clause (2) above shall not apply to any Asset Sale:

(x) where assets not essential to our and our Restricted Subsidiaries' business are contributed to a joint venture between us or one of our Restricted Subsidiaries and a third party that is not an Affiliate of Parent or any of its Subsidiaries, *provided* that following the sale, lease, conveyance or other disposition we or one of our Wholly Owned Restricted Subsidiaries owns 50% or more of the voting and equity interest in such joint venture or has the right to appoint 50% or more of the board of directors or governing body of such joint venture; or

(y) to the extent the consideration therefor received by us or any of our Restricted Subsidiaries would constitute Indebtedness or Equity Interests of a Person that is not an Affiliate of Parent, us or one of their respective Subsidiaries, *provided* that the acquisition of such Indebtedness or Equity Interests is permitted under the provisions of the covenant described under "Limitation on Restricted Payments".

Within 365 days after the Issuer's or a Restricted Subsidiary's receipt of the Net Proceeds of any Asset Sale covered by this clause (a), the Issuer or such Restricted Subsidiary, at its option, may apply the Net Proceeds from such Asset Sale:

(1) to make one or more offers to the holders of the Old Unsecured Notes and the Unsecured Notes to purchase Unsecured Notes pursuant to and subject to the conditions contained in the Unsecured Indenture (each, an "Asset Sale Offer"); provided, however, that to the extent the Issuer or a Restricted Subsidiary is required under the terms of Indebtedness of the Issuer or such Restricted Subsidiary which is not expressly subordinated to the Old Unsecured Notes and the Unsecured Notes to make an offer to purchase such other Indebtedness with any proceeds which constitute Net Proceeds under the Unsecured Indenture, the Issuer or such Restricted Subsidiary may make a pro rata offer to the holders of all other parity Indebtedness (including the Secured Notes and the 2011 Notes) with such proceeds and if the aggregate principal amount of the Old Unsecured Notes and the Unsecured Notes and the Unsecured Notes and the applicable agent or the Issuer shall select the other parity Indebtedness to be purchased on a pro rata basis or in accordance with the applicable DTC procedures based on the accreted value or principal amount of Old Unsecured Notes or other Indebtedness tendered;

(2) to an investment in (a) any one or more businesses; *provided* that such investment in any business is in the form of the acquisition of Capital Stock such that it constitutes a Restricted Subsidiary, (b) capital expenditures or (c) acquisitions of other assets, in each of (a), (b) and (c), used or useful in a Permitted Business;

(3) to an investment in (a) any one or more businesses; *provided* that such investment in any business is in the form of the acquisition of Capital Stock such that it constitutes a Restricted Subsidiary, (b) properties or (c) other

assets that, in each of (a), (b) and (c), replace the businesses, properties and assets that are the subject of such Asset Sale; or

(4) to permanently reduce Indebtedness of a Restricted Subsidiary that is not a Guarantor, other than Indebtedness owed to the Issuer, a Guarantor or another Restricted Subsidiary or to permanently reduce secured Indebtedness of the Issuer or a Restricted Subsidiary of the Issuer; or

(5) to the extent the Issuer is required under the terms of any of the 2011 Unsecured Notes, make an offer to the holders of any such 2011 Unsecured Notes to purchase such Indebtedness.

Pending the final application of any Net Proceeds from Asset Sales in accordance with clauses (1) through (4) above, the Issuer and their Restricted Subsidiaries may temporarily reduce Indebtedness or otherwise apply such Net Proceeds in any manner not prohibited by the Unsecured Indenture. Any binding commitment to apply Net Proceeds to invest in accordance with clauses (2) or (3) above shall be treated as a permitted application of Net Proceeds so long as the Issuer or such Restricted Subsidiary enters into such commitment with the good faith expectation that such Net Proceeds will be applied to satisfy such commitment within 365 days of such commitment; provided that if such commitment is later canceled or terminated for any reason such Net Proceeds shall constitute "Excess Proceeds" (as defined below). Any Net Proceeds from the Asset Sales covered by this clause (a) that are not invested or applied as provided and within the time period set forth in the first sentence of the immediately preceding paragraph will be deemed to constitute "Excess Proceeds." When the aggregate amount of Excess Proceeds exceeds \$50.0 million, the Issuer shall make an Asset Sale Offer to all holders of the Old Unsecured Notes and the Unsecured Notes to purchase the maximum principal amount of the Old Unsecured Notes and the Unsecured Notes that are \$2,000 or an integral multiple of \$1,000 in excess thereof that may be purchased out of the Excess Proceeds at an offer price in cash in an amount equal to 100% of the principal amount thereof, plus accrued and unpaid interest, if any, to the date fixed for the closing of such offer, in accordance with the procedures set forth in the Unsecured Indenture. The Issuer will commence an Asset Sale Offer with respect to Excess Proceeds within ten business days after the date that Excess Proceeds exceeds \$50.0 million by mailing the notice required pursuant to the terms of the Unsecured Indenture, with a copy to the Trustee. Notwithstanding the foregoing, to the extent the Issuer or a Restricted Subsidiary is required under the terms of Indebtedness of the Issuer or such Restricted Subsidiary which is not expressly subordinated to the Old Unsecured Notes and the Unsecured Notes to make an offer to purchase such other Indebtedness with any proceeds which constitute Net Proceeds or Excess Proceeds under the Unsecured Indenture, the Issuer or such Restricted Subsidiary may make a pro rata offer to the holders of all other parity Indebtedness (including the Old Secured Notes, the Secured Notes and the 2011 Notes) with such proceeds and if the aggregate principal amount of the Old Unsecured Notes, the Unsecured Notes and other parity Indebtedness surrendered by holders thereof exceeds the amount of such Net Proceeds, the Trustee shall select the Old Unsecured Notes and the Unsecured Notes and the applicable agent or the Issuer shall select the other parity Indebtedness to be purchased on a pro rata basis or in accordance with the applicable DTC procedures based on the accreted value or principal amount of the Old Unsecured Notes, the Unsecured Notes or other Indebtedness tendered. To the extent that the aggregate amount of Old Unsecured Notes and the Unsecured Notes (and any other Indebtedness) tendered pursuant to an Asset Sale Offer is less than the Excess Proceeds, the Issuer may use any remaining Excess Proceeds ("Unutilized Excess Proceeds") for any purpose not prohibited by the terms of the Unsecured Indenture. Upon completion of any such Asset Sale Offer, the amount of Excess Proceeds shall be reset at zero.

Limitations on Liens. The Unsecured Indenture provides that we shall not, and shall not permit any Restricted Subsidiary to, directly or indirectly, create, incur, assume or suffer to exist any Lien on any asset now owned or hereafter acquired, or on any income or profits therefrom or assign or convey any right to receive income therefrom, except Permitted Liens.

Limitations on Activities of the Issuer. The Issuer will not, and will not permit any Restricted Subsidiary to, engage in any business other than Permitted Businesses and other activities that, taken as a whole, are immaterial to the Issuer and its Restricted Subsidiaries.

Additional Guarantors. If after the Issue Date the Issuer or any Restricted Subsidiary of the Issuer acquires or creates another Restricted Subsidiary and such Restricted Subsidiary is a Domestic Subsidiary (other than an Immaterial Subsidiary), that newly acquired or created Restricted Subsidiary must, unless prohibited by law from guaranteeing the Unsecured Notes, become a Guarantor and execute a supplemental indenture satisfactory to the Trustee and deliver an opinion of counsel to the Trustee within 30 days of the date on which it was acquired or created.

Limitation on Dividend and Other Payment Restrictions Affecting Subsidiaries. The Unsecured Indenture provides that we shall not, and shall not permit any Restricted Subsidiary of us to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any encumbrance or restriction on the ability of any Restricted Subsidiary to:

(a) pay dividends or make any other distribution to us or any of our Restricted Subsidiaries on its Capital Stock or with respect to any other interest or participation in, or measured by, its profits, or pay any Indebtedness owed to us or any of our Subsidiaries;

- (b) make loans or advances to us or any of our Subsidiaries; or
- (c) transfer any of its properties or assets to us or any of our Subsidiaries;

except for such encumbrances or restrictions existing under or by reasons of:

- (i) Existing Indebtedness and existing agreements as in effect on the Issue Date;
- (ii) applicable law or regulation;

(iii) any instrument governing Acquired Debt as in effect at the time of acquisition (except to the extent such Indebtedness was incurred in connection with, or in contemplation of, such acquisition), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired; provided that the Consolidated Cash Flow of such Person shall not be taken into account in determining whether such acquisition was permitted by the terms of the Unsecured Indenture; except to the extent that dividends or other distributions are permitted notwithstanding such encumbrance or restriction and could have been distributed;

(iv) by reason of customary non-assignment provisions in leases entered into in the ordinary course of business and consistent with past practices;

(v) Refinancing Indebtedness (as defined in "Limitation on Incurrence of Indebtedness"); *provided* that the restrictions contained in the agreements governing such Refinancing Indebtedness are no more restrictive than those contained in the agreements governing the Indebtedness being refinanced;

(vi) the Unsecured Indenture or any of the Old Unsecured Notes or the Unsecured Notes, or the Secured Indenture or any of the Old Secured Notes or the Secured Notes;

(vii) Permitted Liens; or

(viii) any agreement for the sale of any Subsidiary or its assets that restricts distributions by that Subsidiary pending its sale; provided that during the entire period in which such encumbrance or restriction is effective, such sale (together with any other sales pending) would be permitted under the terms of the Unsecured Indenture.

Accounts Receivable Subsidiary. The Unsecured Indenture provides that we:

(a) may, and may permit any of our Subsidiaries to, notwithstanding the provisions of the covenant entitled "Limitation on Restricted Payments," make Investments in an Accounts Receivable Subsidiary:

- (i) the proceeds of which are applied within five business days of the making thereof solely to finance:
 - (A) the purchase of accounts receivable of us and our Subsidiaries; or

(B) payments required in connection with the termination of all then existing arrangements relating to the sale of accounts receivable or participation interests therein by an Accounts Receivable Subsidiary (*provided* that the Accounts Receivable Subsidiary shall receive cash, Cash Equivalents and accounts receivable having an aggregate fair market value not less than the amount of such payments in exchange therefor); and

(ii) in the form of Accounts Receivable Subsidiary Notes to the extent permitted by clause (b) below;

(b) shall not, and shall not permit any of our Subsidiaries to sell accounts receivable to an Accounts Receivable Subsidiary except for consideration in an amount not less than that which would be obtained in an arm's length transaction and solely in the form of cash or Cash Equivalents; *provided* that an Accounts Receivable

Subsidiary may pay the purchase price for any such accounts receivable in the form of Accounts Receivable Subsidiary Notes so long as, after giving effect to the issuance of any such Accounts Receivable Subsidiary Notes, the aggregate principal amount of all Accounts Receivable Subsidiary Notes outstanding shall not exceed 20% of the aggregate purchase price paid for all outstanding accounts receivable purchased by an Accounts Receivable Subsidiary since the Issue Date (and not written off or required to be written off in accordance with the normal business practice of an Accounts Receivable Subsidiary);

(c) shall not permit an Accounts Receivable Subsidiary to sell any accounts receivable purchased from us or our Subsidiaries or participation interests therein to any other Person except on an arm's length basis and solely for consideration in the form of cash or Cash Equivalents or certificates representing undivided interests of a Receivables Trust; *provided* an Accounts Receivable Subsidiary may not sell such certificates to any other Person except on an arm's length basis and solely for consideration in the form of cash or Cash Equivalents;

(d) shall not, and shall not permit any of its Subsidiaries to, enter into any guarantee, subject any of our or their respective properties or assets (other than the accounts receivable sold by them to an Accounts Receivable Subsidiary) to the satisfaction of any liability or obligation or otherwise incur any liability or obligation (contingent or otherwise), in each case, on behalf of an Accounts Receivable Subsidiary or in connection with any sale of accounts receivable or participation interests therein by or to an Accounts Receivable Subsidiary, other than obligations relating to breaches of representations, warranties, covenants and other agreements of us or any of our Subsidiaries with respect to the accounts receivable sold by us or any of our Subsidiaries to an Accounts Receivable Subsidiary or with respect to the servicing thereof; *provided* that neither we nor any of our Subsidiaries shall at any time guarantee or be otherwise liable for the collectibility of accounts receivable sold by them;

(e) shall not permit an Accounts Receivable Subsidiary to engage in any business or transaction other than the purchase and sale of accounts receivable or participation interests therein of us and our Subsidiaries and activities incidental thereto;

(f) shall not permit an Accounts Receivable Subsidiary to incur any Indebtedness other than the Accounts Receivable Subsidiary Notes, Indebtedness owed to us and Non-Recourse Indebtedness; *provided* that the aggregate principal amount of all such Indebtedness of an Accounts Receivable Subsidiary shall not exceed the book value of its total assets as determined in accordance with GAAP;

(g) shall cause any Accounts Receivable Subsidiary to remit to us or a Restricted Subsidiary of us on a monthly basis as a distribution all available cash and Cash Equivalents not held in a collection account pledged to acquirors of accounts receivable or participation interests therein, to the extent not applied to:

(i) pay interest or principal on the Accounts Receivable Subsidiary Notes or any Indebtedness of such Accounts Receivable Subsidiary owed to us;

(ii) pay or maintain reserves for reasonable operating expenses of such Accounts Receivable Subsidiary or to satisfy reasonable minimum operating capital requirements or;

(iii) to finance the purchase of additional accounts receivable of us and our Subsidiaries; and

(h) shall not, and shall not permit any of its Subsidiaries to, sell accounts receivable to, or enter into any other transaction with or for the benefit of, an Accounts Receivable Subsidiary:

(i) if such Accounts Receivable Subsidiary pursuant to or within the meaning of any bankruptcy law:

- (A) commences a voluntary case;
- (B) consents to the entry of an order for relief against it in an involuntary case;
- (C) consents to the appointment of a custodian of it or for all or substantially all of its property;
- (D) makes a general assignment for the benefit of its creditors; or
- (E) generally is not paying its debts as they become due; or

(ii) if a court of competent jurisdiction enters an order or decree under any bankruptcy law that:

(A) is for relief against such Accounts Receivable Subsidiary in an involuntary case;

(B) appoints a custodian of such Accounts Receivable Subsidiary or for all or substantially all of the property of such Accounts Receivable Subsidiary; or

(C) orders the liquidation of such Accounts Receivable Subsidiary, and, with respect to this clause (ii), the order or decree remains unstayed and in effect for 60 consecutive days.

Merger, Consolidation, or Sale of Assets. The Unsecured Indenture provides that we shall not consolidate or merge with or into (whether or not we are the surviving entity), or sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of our properties or assets in one or more related transactions to, another Person unless:

(a) we are the surviving Person or the Person formed by or surviving any such consolidation or merger (if other than us) or to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made is a corporation organized or existing under the laws of the United States, any state thereof or the District of Columbia;

(b) the Person formed by or surviving any such consolidation or merger (if other than us) or the Person to which such sale, assignment, transfer, lease, conveyance or other disposition will have been made assumes all the obligations of us under the Unsecured Indenture and the Old Unsecured Notes and the Unsecured Notes issued under the Unsecured Indenture pursuant to a supplemental indenture to the Unsecured Indenture in form reasonably satisfactory to the Trustee;

(c) immediately after such transaction, no Default or Event of Default exists; and

(d) we or the Person formed by or surviving any such consolidation or merger (if other than us) or to which such sale, assignment, transfer, lease, conveyance or other disposition will have been made would, at the time of such transaction after giving pro forma effect thereto as if such transaction had occurred at the beginning of the applicable four-quarter period, be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Indebtedness to Cash Flow Ratio test set forth in the covenant described under "Limitation on Incurrence of Indebtedness," above.

Notwithstanding the foregoing, we may merge with another Person if:

(a) we are the surviving Person;

(b) the consideration issued or paid by us in such merger consists solely of our Equity Interests (other than Disqualified Stock) or Equity Interests of Parent; and

(c) immediately after giving effect to such merger (determined on a pro forma basis), our Indebtedness to Cash Flow Ratio either (i) does not exceed 6.00 to 1.00 or (ii) does not exceed our Indebtedness to Cash Flow Ratio immediately prior to such merger.

The Unsecured Indenture provides that each Guarantor of the Old Unsecured Notes and the Unsecured Notes issued thereunder (other than any Guarantor whose Guarantee is to be released in accordance with the terms of such Guarantee and the Unsecured Indenture) will not, and we will not cause or permit any Guarantor to, consolidate or merge with or into (whether or not such Guarantor is the surviving entity), or sell, assign, transfer, lease, convey, or otherwise dispose of all or substantially all of its properties or assets in one or more related transactions to, any Person other than to us or a Guarantor unless:

(a) the Guarantor is the surviving Person or the Person formed by or surviving any such consolidation or merger (if other than the Guarantor) or to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made is a corporation organized or existing under the laws of the United States, any state thereof or the District of Columbia;

(b) the Person formed by or surviving any such consolidation or merger (if other than the Guarantor) or the Person to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made assumes all the obligations of the Guarantor under the Unsecured Indenture and the Old Unsecured Notes and the Unsecured Notes issued under the Unsecured Indenture, pursuant to a supplemental indenture to the Unsecured Indenture in form reasonably satisfactory to the Trustee; and

(c) immediately after such transaction, no Default or Event of Default exists.

Transactions with Affiliates. The Unsecured Indenture provides that we shall not and shall not permit any Restricted Subsidiary to, sell, lease, transfer or otherwise dispose of any of our or their properties or assets to, or purchase any property or assets from, or enter into any contract, agreement, understanding, loan, advance or Guarantee with, or for the benefit of, any Affiliate (including any Unrestricted Subsidiary) (each of the foregoing, an "Affiliate Transaction"), unless:

(a) such Affiliate Transaction is on terms that are no less favorable to us or our Restricted Subsidiaries than those that would have been obtained in a comparable transaction by us or such Subsidiaries with an unrelated Person; and

(b) if such Affiliate Transaction involves aggregate payments in excess of \$100.0 million, such Affiliate Transaction has either (i) been approved by a majority of the disinterested members of the Issuer's Board of Directors or EchoStar Corporation's (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS' board of directors) board of directors and by the Issuer's Board of Directors or a committee thereof or (ii) if there are no disinterested members of the Issuer's Board of Directors or EchoStar Corporation's board of directors (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS' board of directors), the Issuer or such Restricted Subsidiary has obtained the favorable opinion of an independent expert as to the fairness of such Affiliate Transaction to the Issuer or the relevant Restricted Subsidiary, as the case may be, from a financial point of view, and we deliver to the Trustee no later than ten business days following a request from the Trustee a resolution of the Issuer's Board of Directors set forth in an officers' certificate certifying that such Affiliate Transaction has been so approved and complies with clause (a) above;

provided, however, that

(i) the payment of reasonable fees, compensation or employee benefit arrangements to, and any indemnity provided for the benefit of, directors, officers, consultants or employees of Parent and its Subsidiaries;

(ii) transactions between or among us and our Wholly Owned Subsidiaries (other than Unrestricted Subsidiaries);

(iii) any issuance of securities, or other payments, awards or grants in cash, securities or otherwise pursuant to, or the funding of employment arrangements, stock options and stock ownership plans approved by our Board of Directors;

(iv) transactions in the ordinary course of business, including loans, expense allowances, reimbursements or extensions of credit (including indemnity arrangements) between the Issuer or any of its Restricted Subsidiaries on the one hand, and any employee of the Issuer or any of its Restricted Subsidiaries, on the other hand;

(v) the granting and performance of registration rights for shares of Capital Stock of the Issuer under a written registration rights agreement approved by a majority of the members of our Board of Directors that are disinterested with respect to these transactions;

(vi) transactions with Affiliates solely in their capacity as holders of Indebtedness or Capital Stock of the Issuer or any of its Subsidiaries, so long as a significant amount of Indebtedness or Capital Stock of the same class is also held by Persons that are not Affiliates of the Issuer and these Affiliates are treated no more favorably than holders of the Indebtedness or the Capital Stock generally;

(vii) (x) Restricted Payments that are permitted by the provisions of the covenant described under the caption "Limitation on Restricted Payments" and (y) Permitted Investments;

(viii) any transactions pursuant to agreements in effect on the Issue Date and any modifications, extensions or renewals thereof that are no less favorable to the Issuer or the applicable Restricted Subsidiary than such agreement as in effect on the Issue Date;

(ix) any transactions under which Parent or any of its controlled Affiliates (other than the Issuer and its controlled Affiliates) leases to or from the Issuer or any of its Restricted Subsidiaries any satellite or any satellite capacity;

(x) the provision of services to Parent and its Affiliates by the Issuer or any of its Restricted Subsidiaries, or the receipt of services from Parent and its Affiliates by the Issuer or any of its Restricted Subsidiaries, so long as no cash or other assets are transferred by the Issuer or its Restricted Subsidiaries, or by Parent and its Affiliates, in connection with such transactions (other than up to \$50.0 million in cash in any fiscal year and other than nonmaterial assets used in the operations of the business in the ordinary course pursuant to the agreement governing the provision of the services), and so long as such transaction or agreement is determined by a majority of the members of the Issuer's Board of Directors to be fair to the Issuer and its Restricted Subsidiaries when taken together with all other such transactions and agreements entered into with Parent and its Affiliates;

(xi) the disposition of assets of the Issuer and the Restricted Subsidiaries in exchange for assets of Parent and its Affiliates so long as (i) the value to the Issuer in its business of the assets it receives is determined by a majority of the members of Issuer's Board of Directors to be substantially equivalent or greater than the value to Issuer in its business of the assets disposed of and (ii) the assets acquired by the Issuer and its Restricted Subsidiaries constitute properties and capital assets (including Capital Stock of an entity owning such property or assets) to be used by the Issuer or any of its Restricted Subsidiaries in a business permitted as described under "Limitations on Activities of the Issuer";

(xii) sales of Equity Interests (other than Disqualified Stock) to Affiliates of the Issuer;

(xiii) any transactions between us or any of our Restricted Subsidiaries and any Affiliate of us the Equity Interests of which Affiliate are owned solely by us or one of our Restricted Subsidiaries, on the one hand, and by Persons who are not Affiliates of us or Restricted Subsidiaries of us, on the other hand;

(xiv) transactions with EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS), DISH Network Corporation or any of their respective controlled Affiliates that have been approved by (a) a majority of the members of the audit committee of the EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) board of directors or a special committee of the EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) board of directors or a special committee of the direct parent of HSS) board of directors consisting solely of members of the EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) board of directors who are not officers or employees of DISH Network Corporation or any of its controlled Affiliates (in the case of a transaction with DISH Network Corporation or any of its controlled Affiliates (in the case of a transaction with EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) or any of its controlled Affiliates (in the case of a transaction with EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation no longer beneficially owns a majority of the voting power of the HSS Equity Interests, the then direct parent of HSS) or any of its controlled Affiliates (in the case of a transaction with EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation (or if EchoStar Corporation (or if EchoSta

(xv) the 2011 Transactions and the payment of fees and expenses related thereto;

(xvi) overhead and other ordinary-course allocations of costs and services on a reasonable basis so long as such arrangements are comparable to arrangements made on an arm's length basis;

(xvii) allocations of tax liabilities and other tax-related items among the Issuer and its Affiliates based principally upon the financial income, taxable income, credits and other amounts directly related to the respective parties, to the extent that the share of such liabilities and other items allocable to the Issuer and its Restricted Subsidiaries shall not exceed the amount that such Persons would have been responsible for as a direct taxpayer;

(xviii) arrangements or agreements regarding the use of intellectual property between the Issuer and its Subsidiaries, on the one hand, and Parent and its Affiliates, on the other hand;

(xix) arrangements or agreements entered into in the ordinary course of business providing for the acquisition or provision of goods and services; and

(xx) amendments, modifications, renewals or replacements from time to time of any of the contracts, arrangements, services or other matters referred to or contemplated by any of the foregoing items; provided that any such amendments, modifications, renewals or replacements shall not be on terms materially less advantageous to the Issuer and its Restricted Subsidiaries;

shall, in each case, not be deemed Affiliate Transactions.

Reports. Whether or not required by the SEC, so long as any Old Unsecured Notes or Unsecured Notes are outstanding, the Issuer will furnish to the holders of Old Unsecured Notes or Unsecured Notes, as applicable, or file electronically with the SEC through the SEC's Electronic Data Gathering, Analysis and Retrieval System (or any successor system), within the time periods that would be applicable to the Issuer if it were subject to Section 13(a) or 15(d) of the Exchange Act as a non-accelerated filer:

(1) all quarterly and annual financial information that would be required to be contained in a filing with the SEC on Forms 10-Q and 10-K if the Issuer were required to file these Forms (taking into account, if applicable, the Issuer's status as a subsidiary of an SEC-reporting company), including a "Management's Discussion and Analysis of Financial Condition and Results of Operations" and, with respect to the annual information only, a report on the annual financial statements by the Issuer's certified independent accountants (it being understood that no report on the Issuer's internal control over financial reporting will be required); and

(2) all current reports that would be required to be filed with the SEC on Form 8-K if the Issuer were required to file these reports (taking into account, if applicable, the Issuer's status as a subsidiary of an SEC-reporting company).

In addition, whether or not required by the SEC, the Issuer will file a copy of all of the information and reports referred to in clauses (1) and (2) above with the SEC for public availability within the time periods specified in the SEC's rules and regulations for a non-accelerated filer required to file reports under Section 13(a) or 15(d) of the Exchange Act (unless the SEC will not accept the filing) and make the information available to prospective investors upon request. The Issuer agrees that it will not take any action (including, following the consummation of this exchange offer, terminating its registration under Section 15(d) of the Exchange Act) for the purpose of causing the SEC not to accept such filings. The Issuer and the Guarantors have agreed that, for so long as any Old Unsecured Notes or Unsecured Notes remain outstanding, the Issuer will furnish to the holders and to prospective investors, upon their request, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

Payments for Consent. The Unsecured Indenture provides that we shall not, and shall not permit any of our Subsidiaries to, directly or indirectly, pay or cause to be paid any consideration, whether by way of interest, fee or otherwise, to any holder of a Note for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the Unsecured Indenture or the Unsecured Notes unless such consideration is offered to be paid or agreed to be paid to all holders of the Old Unsecured Notes and the Unsecured Notes that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or agreement.

Investment Grade Rating. The Unsecured Indenture provides that if, on any date following the Issue Date, (i) the Old Unsecured Notes and the Unsecured Notes receive an Investment Grade rating from both Rating Agencies and (ii) no Default or Event of Default has occurred and is continuing (a "Suspension *Event*") then, beginning on that date, the provisions of the Unsecured Indenture summarized under the following captions will not be applicable:

- (1) "Certain Covenants Limitation on Restricted Payments";
- (2) "Certain Covenants Limitation on Incurrence of Indebtedness";
- (3) "Certain Covenants Asset Sales";
- (4) "Certain Covenants Limitations on Activities of the Issuer";
- (5) "Certain Covenants Limitation on Dividend and Other Payment Restrictions Affecting Subsidiaries";
- (6) "Certain Covenants Accounts Receivable Subsidiary";
- (7) clauses (d)(i) and (ii) of the first paragraph under "Certain Covenants Merger, Consolidation, or Sale of Assets"; and
- (8) "Certain Covenants Transactions with Affiliates"

(collectively, the "Suspension Covenants").

During any Suspension Period, the Issuer may not designate any of its Restricted Subsidiaries as Unrestricted Subsidiaries pursuant to the first sentence of the definition of "Unrestricted Subsidiary."

In the event that the Issuer and its Restricted Subsidiaries are not subject to the Suspension Covenants for any period of time as a result of the foregoing, and on any subsequent date (the "*Reversion Date*") the condition set forth in clause (i) of the first paragraph of this section is no longer satisfied, then the Issuer and its Restricted Subsidiaries will thereafter again be subject to the Suspension Covenants with respect to future events. The period of time between the date of the Suspension Event and the Reversion Date is referred to in this description as the "*Suspension Period*."

On each Reversion Date, all Indebtedness incurred during the Suspension Period prior to such Reversion Date will be deemed to be Indebtedness permitted to be incurred under clause (6) of the second paragraph of the covenant described under "Limitation on Incurrence of Indebtedness." For purposes of calculating the amount available to be made as Restricted Payments under clause (iii) of the first paragraph of the covenant described under "Limitation on Restricted Payments," calculations under such covenant shall be made as though such covenant had been in effect during the entire period of time after the Issue Date (including the Suspension Period). Restricted Payments made during the Suspension Period not otherwise permitted pursuant to the second paragraph of the covenant described under "Limitation on Restricted Payments" will reduce the amount available to be made as Restricted Payments under clause (iii) of the first paragraph of the covenant described under "Limitation on Restricted Payments."

There can be no assurance that the Old Unsecured Notes or Unsecured Notes will ever achieve or maintain a rating of Investment Grade from any Rating Agency.

Upon a Suspension Event, the amount of Excess Proceeds for purposes of "Asset Sales" shall be set at zero.

Events of Default

The Unsecured Indenture provides that each of the following shall constitute an Event of Default:

(a) default for 30 days in the payment when due of interest on the Old Unsecured Notes and the Unsecured Notes;

(b) default in payment when due of principal of the Old Unsecured Notes and the Unsecured Notes at maturity, upon repurchase, redemption or otherwise;

(c) failure to comply with the provisions described under "Change of Control Offer," "Certain Covenants — Transactions with Affiliates" or "Certain Covenants — Asset Sales," in each case continued for 30 days;

(d) default under the provisions described under "Certain Covenants — Limitation on Restricted Payments" or "Certain Covenants — Limitation on Incurrence of Indebtedness" which default remains uncured for 30 days, or the breach of any representation or warranty, or the making of any untrue statement, in any certificate delivered by us pursuant to the Unsecured Indenture;

(e) failure by us for 60 days after notice from the Trustee or the holders of at least 25% in principal amount then outstanding of the Old Unsecured Notes and the Unsecured Notes issued under the Unsecured Indenture to comply with any of our other agreements in the Unsecured Indenture or the Old Unsecured Notes and the Unsecured Notes;

(f) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by us or any of our Restricted Subsidiaries (or the payment of which is guaranteed by us or any of our Restricted Subsidiaries), which default is caused by a failure to pay when due principal or interest on such Indebtedness within the grace period provided in such Indebtedness (a "Payment Default"), and the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default, aggregates \$100.0 million or more;

(g) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by us or any of our Restricted Subsidiaries (or the payment of which is guaranteed by us or any of our Restricted Subsidiaries), which default results in the acceleration of such Indebtedness prior to its express maturity and the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default or

the maturity of which has been so accelerated, aggregates \$100.0 million or more; *provided* that any acceleration (other than an acceleration which is the result of a Payment Default under clause (f) above) of Indebtedness under the outstanding Deferred Payments in aggregate principal amount not to exceed \$100.0 million shall be deemed not to constitute an acceleration pursuant to this clause (g);

(h) failure by us or any of our Restricted Subsidiaries to pay final judgments (other than any judgment as to which a reputable insurance company has accepted full liability) aggregating in excess of \$100.0 million, which judgments are not stayed within 60 days after their entry;

(i) EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries pursuant to or within the meaning of any Bankruptcy Law: (i) commences a voluntary case; (ii) consents to the entry of an order for relief against it in an involuntary case; (iii) consents to the appointment of a custodian of it or for all or substantially all of its property; or (iv) makes a general assignment for the benefit of creditors;

(j) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that: (i) is for relief against EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries in an involuntary case; (ii) appoints a custodian of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries or for all or substantially all of the property of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary, us or any of our Significant Subsidiary, us or any of our Significant Subsidiaries or for all or substantially all of the property of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of the Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of the Equity Interests of such subsidiary), us or any of our Significant Subsidiaries; or (iii) orders the liquidation of EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation, any Wholly Owned Subsidiary of EchoStar Corporation that beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of HSS' Equity Interests (but only so long as EchoStar Corporation beneficially owns 100% of HSS'

(k) any Guarantee of the Old Unsecured Notes or the Unsecured Notes shall be held in a judicial proceeding to be unenforceable or invalid or shall cease for any reason to be in full force and effect, or any Guarantor of the Old Unsecured Notes or the Unsecured Notes, or any Person acting on behalf of any Guarantor, shall deny or disaffirm its obligations under its Guarantee of the Old Unsecured Notes or the Unsecured Notes.

If any Event of Default occurs and is continuing, the Trustee or the holders of at least 25% in principal amount then outstanding of the Old Unsecured Notes and the Unsecured Notes may declare all of the Old Unsecured Notes and the Unsecured Notes to be due and payable immediately (plus, in the case of an Event of Default that is the result of an action by us or any of our Subsidiaries intended to avoid restrictions on or premiums related to redemptions of the Old Unsecured Notes and the Unsecured Notes contained in the Unsecured Indenture or the Old Unsecured Notes and the Unsecured Notes, an amount of premium that would have been applicable pursuant to the Old Unsecured Notes and the Unsecured Notes or as set forth in the Unsecured Indenture). Notwithstanding the foregoing, in the case of an Event of Default arising from the events of bankruptcy or insolvency with respect to us or any Guarantor of the Old Unsecured Notes and the Unsecured Notes described in (i) above, all outstanding Old Unsecured Notes may not enforce the Unsecured Indenture or the Old Unsecured Notes and the Unsecured Notes except as provided in the Unsecured Indenture. Subject to certain limitations, holders of a majority in principal amount of the then outstanding Old Unsecured Notes and Unsecured Notes may direct the Trustee in its exercise of any trust or power. The Trustee may withhold from holders of the Old Unsecured Notes notice of any continuing Default or Event of Default (except a Default or Event of Default relating to the payment of principal or interest) if it determines that withholding notice is in such holders' interest.

The holders of a majority in aggregate principal amount then outstanding of the Old Unsecured Notes and the Unsecured Notes, by written notice to the Trustee, may on behalf of the holders of all of the Old Unsecured Notes and the Unsecured Notes waive any existing Default or Event of Default and its consequences under the Unsecured Indenture, except a continuing Default or Event of Default in the payment of interest or premium on, or principal of, the Old Unsecured Notes and the Unsecured Notes and the Unsecured Notes and the Unsecured Notes.

We are required to deliver to the Trustee, in its capacity as trustee of the Unsecured Indenture, annually a statement regarding compliance with the Unsecured Indenture, and we are required upon becoming aware of any Default or Event of Default thereunder to deliver to the Trustee a statement specifying such Default or Event of Default.

All powers of the Trustee under the Unsecured Indenture, in its capacity as trustee of the Unsecured Indenture, will be subject to applicable provisions of the Communications Laws, including without limitation, the requirements of prior approval for *de facto* or *de jure* transfer of control or assignment of Title III licenses.

No Personal Liability of Directors, Owners, Employees, Incorporator and Stockholders

No director, officer, employee, incorporator or stockholder of us or any of our Affiliates, as such, shall have any liability for any obligations of us or any of our Affiliates under the Unsecured Notes, the Guarantees or the Unsecured Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of Unsecured Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Unsecured Notes. Such waiver may not be effective to waive liabilities under the federal securities laws and it is the view of the SEC that such a waiver is against public policy.

Legal Defeasance and Covenant Defeasance

The Unsecured Indenture provides that with respect to the Old Unsecured Notes and the Unsecured Notes, we may, at our option and at any time, elect to have all obligations discharged with respect to the Old Unsecured Notes and the Unsecured Notes ("Legal Defeasance"). Such Legal Defeasance means that we will be deemed to have paid and discharged the entire indebtedness represented by the Old Unsecured Notes and the Unsecured Notes, except for:

(a) the rights of holders of outstanding Old Unsecured Notes and Unsecured Notes to receive payments in respect of the principal of, premium, if any, and interest on the Old Unsecured Notes and the Unsecured Notes when such payments are due, or on the redemption date, as the case may be;

(b) our obligations with respect to the Old Unsecured Notes and the Unsecured Notes concerning issuing temporary Old Unsecured Notes and Unsecured Notes, registration of Old Unsecured Notes and Unsecured Notes, mutilated, destroyed, lost or stolen Old Unsecured Notes and Unsecured Notes and the maintenance of an office or agency for payment and money for security payments held in trust;

- (c) the rights, powers, trust, duties and immunities of the Trustee, and our obligations in connection therewith; and
- (d) the Legal Defeasance provisions of the Unsecured Indenture.

In addition, the Unsecured Indenture provides that we may, at our option and at any time, elect to have all obligations released with respect to certain covenants that are described in the Unsecured Indenture ("Covenant Defeasance") and thereafter any omission to comply with such obligations shall not constitute a Default or Event of Default. If Covenant Defeasance occurs, certain events (not including non-payment, bankruptcy, receivership, rehabilitation and insolvency events) described under "Events of Default" will no longer constitute an Event of Default with respect to the Old Unsecured Notes and the Unsecured Notes.

In order to exercise either Legal Defeasance or Covenant Defeasance, the Unsecured Indenture provides that:

(i) we must irrevocably deposit with the Trustee, in trust, for the benefit of the holders of the Old Unsecured Notes and the Unsecured Notes, cash in United States dollars, non-callable United States government obligations, or a combination thereof, in such amounts as will be sufficient, in the opinion of a nationally recognized firm of independent public accountants selected by us, to pay the principal of, premium, if any, and interest on the outstanding Old Unsecured Notes and Unsecured Notes on the stated maturity or on the applicable optional redemption date, as the case may be;

(ii) in the case of Legal Defeasance, we shall have delivered to the Trustee an opinion of counsel in the United States reasonably acceptable to the Trustee confirming that

- (A) we have received from, or there has been published by, the IRS a ruling or
- (B) since the Issue Date, there has been a change in the applicable federal income tax law.

In each case to the effect that, and based thereon such opinion of counsel shall confirm that, the holders of the Old Unsecured Notes and the Unsecured Notes will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance, and will be subject to federal income tax in the same amount, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(iii) in the case of Covenant Defeasance, we shall have delivered to the Trustee an opinion of counsel reasonably acceptable to such Trustee confirming that the holders of the Old Unsecured Notes and the Unsecured Notes will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(iv) no Default or Event of Default shall have occurred and be continuing on the date of such deposit or insofar as Events of Default from bankruptcy or insolvency events are concerned, at any time in the period ending on the 91st day after the date of deposit;

(v) such Legal Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, the Unsecured Indenture or any other material agreement or instrument to which we or any of our Subsidiaries is a party or by which we or any of our Subsidiaries is bound;

(vi) we shall have delivered to the Trustee an officers' certificate stating that the deposit was not made by us with the intent of preferring the holders of the Old Unsecured Notes and the Unsecured Notes over any of our other creditors or with the intent of defeating, hindering, delaying or defrauding any of our other creditors or others; and

(vii) we shall have delivered to the Trustee an officers' certificate stating that all conditions precedent provided for or relating to the Legal Defeasance or the Covenant Defeasance relating to the Old Unsecured Notes and the Unsecured Notes have been complied with.

Amendment, Supplement and Waiver

Except as provided in the next paragraph, the Unsecured Indenture and the Old Unsecured Notes and the Unsecured Notes may be amended or supplemented with the consent of the holders of at least a majority in principal amount of the Old Unsecured Notes and Unsecured Notes then outstanding under the Unsecured Indenture that are affected by such amendment or supplement (including consents obtained in connection with a tender offer or exchange offer for the Old Unsecured Notes and the Unsecured Notes), and any existing default or compliance with any provision of the Unsecured Indenture or the Old Unsecured Notes and the Unsecured Notes may be waived with the consent of the holders of a majority in principal amount of the Old Unsecured Notes and Unsecured Notes may be waived with the consent of the holders of a majority in principal amount of the Old Unsecured Notes and Unsecured Notes then outstanding that are affected by such amendment or supplement (including consents obtained in connection with a tender offer or exchange offer or exchange offer for the Old Unsecured Notes then outstanding that are affected by such amendment or supplement (including consents obtained in connection with a tender offer or exchange offer for the Old Unsecured Notes and the Unsecured Notes and the Unsecured Notes).

Without the consent of each holder affected, however, an amendment or waiver may not (with respect to any Old Unsecured Note or Unsecured Note held by a non-consenting holder):

(a) reduce the aggregate principal amount of Old Unsecured Notes and Unsecured Notes whose holders must consent to an amendment, supplement or waiver;

(b) reduce the principal of or change the fixed maturity of any Old Unsecured Note or Unsecured Note or alter the provisions with respect to the redemption of such Old Unsecured Note or Unsecured Note;

(c) reduce the rate of or change the time for payment of interest on any Old Unsecured Note or Unsecured Note;

(d) waive a Default or Event of Default in the payment of principal of or premium, if any, or interest on the Old Unsecured Notes or Unsecured Notes (except a rescission of acceleration of the Unsecured Notes by the holders of at least a majority in aggregate principal amount of the Old Unsecured Notes and the Unsecured Notes and a waiver of the payment default that resulted from such acceleration);

(e) make any Old Unsecured Note or Unsecured Note payable in money other than that stated in such Note;

(f) make any change in the provisions of the Unsecured Indenture relating to waivers of past Defaults or the rights of holders of Old Unsecured Notes and Unsecured Notes issued under the Unsecured Indenture to receive payments of principal of or interest on the Old Unsecured Notes and the Unsecured Notes;

(g) waive a redemption payment or mandatory redemption with respect to any Old Unsecured Note or Unsecured Note; or

(h) make any change in the foregoing amendment and waiver provisions.

In addition, without the consent of holders of at least 66 2/3% of the principal amount of the Old Unsecured Notes and the Unsecured Notes then outstanding, an amendment or a waiver may not make any change to the covenants in the Unsecured Indenture entitled "Asset Sales" and "Change of Control Offer" (including, in each case, the related definitions) as such covenants apply to the Old Unsecured Notes and the Unsecured Notes.

Notwithstanding the foregoing, without the consent of any holder of the Old Unsecured Notes or the Unsecured Notes, we, the Guarantors and the Trustee may amend or supplement the Unsecured Indenture or the Old Unsecured Notes and the Unsecured Notes or the Guarantees thereof to cure any ambiguity, defect or inconsistency or to conform the Unsecured Indenture to this Description of the Unsecured Notes as evidenced by an officer's certificate, to provide for uncertificated Old Unsecured Notes and Unsecured Notes or Guarantees in addition to or in place of certificated Old Unsecured Notes and Unsecured Notes or Guarantees, to provide for the assumption of the obligations of us or any Guarantor to holders of the Old Unsecured Notes and the Unsecured Notes in the case of a merger or consolidation, to add Guarantees, to release Guarantees when permitted or required by the Unsecured Indenture, to make any change that would provide any additional rights or benefits to the holders of the Old Unsecured Notes and the Unsecured Indenture of any such holder, or to comply with requirements of the SEC in order to effect or maintain the qualification of the Unsecured Indenture under the Trust Indenture Act.

Concerning the Trustee

The Unsecured Indenture contains certain limitations on the rights of the Trustee, if the Trustee becomes a creditor of us or our Subsidiaries, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions with us and our Subsidiaries; however, if the Trustee acquires any conflicting interest, it must eliminate such conflict within 90 days, apply to the SEC for permission to continue as Trustee or resign.

With respect to the Unsecured Notes, the holders of a majority in principal amount of the then outstanding Old Unsecured Notes and Unsecured Notes will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee, subject to certain exceptions. The Unsecured Indenture provides that in case an Event of Default shall occur thereunder (which shall not be cured), the Trustee will be required, in the exercise of its power, to use the degree of care of a prudent person in the conduct of his or her own affairs. The Trustee will not be relieved from liabilities for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(i) this sentence shall not limit the preceding sentence of this paragraph;

(ii) the Trustee shall not be liable for any error of judgment made in good faith, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts; and

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to the first sentence of this paragraph.

Subject to such provisions, the Trustee will be under no obligation to exercise any of its rights or powers under the Unsecured Indenture at the request of any holder of Unsecured Notes issued under the Unsecured Indenture, unless such holder shall have offered to the Trustee security and indemnity satisfactory to it against any loss, liability or expense.

Certain Definitions

Set forth below are certain defined terms used in the Unsecured Indenture. Reference is made to the Unsecured Indenture for a full disclosure of all such terms, as well as any other capitalized terms used herein for which no definition is provided.

"2011 Notes Indentures" means the 2011 Secured Notes Indenture and the 2011 Unsecured Notes Indenture.

"2011 Notes" means the 2011 Secured Notes and the 2011 Unsecured Notes.

"2011 Secured Notes" means the \$1,100,000,000 aggregate principal original issue amount of 6 ½% Senior Secured Notes due 2019.

"2011 Secured Notes Indenture" means the indenture dated as of June 1, 2011, among the Company, the guarantors party thereto and Wells Fargo Bank, N.A., as trustee and collateral agent, as the same may be amended, modified or supplemented from time to time, with respect to the 2011 Secured Notes.



"2011 Transactions" means the Acquisition, the repayment of certain existing indebtedness of Hughes Communications, Inc. and its subsidiaries in connection with the Acquisition, the offering of the 2011 Notes and other transactions contemplated by the Merger Agreement.

"2011 Unsecured Notes" means the \$900,000,000 aggregate principal original issue amount of 7 5/8% Senior Unsecured Notes due 2021.

"2011 Unsecured Notes Indenture" means the indenture dated as of June 1, 2011, among the Company, the guarantors party thereto and Wells Fargo Bank, N.A., as trustee, as the same may be amended, modified or supplemented from time to time, with respect to the 2011 Unsecured Notes.

"Accounts Receivable Subsidiary" means one Unrestricted Subsidiary of us specifically designated as an Accounts Receivable Subsidiary for the purpose of financing our accounts receivable; *provided* that any such designation shall not be deemed to prohibit us from financing accounts receivable through any other entity, including, without limitation, any other Unrestricted Subsidiary.

"Accounts Receivable Subsidiary Notes" means the notes to be issued by the Accounts Receivable Subsidiary for the purchase of accounts receivable.

"Acquired Debt" means, with respect to any specified Person, Indebtedness of any other Person existing at the time such other Person merges with or into or becomes a Subsidiary of such specified Person, or Indebtedness incurred by such specified Person in connection with the acquisition of assets, including Indebtedness incurred in connection with, or in contemplation of, such other Person merging with or into or becoming a Subsidiary of such specified Person or the acquisition of such assets, as the case may be.

"Acquisition" means the acquisition by the Issuer, through Broadband Acquisition Corporation, a Delaware corporation and a wholly-owned subsidiary of the Issuer, of all of the outstanding capital stock of Hughes Communications, Inc., a Delaware corporation, pursuant to the Merger Agreement.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control" (including, with correlative meanings, the terms "controlling," "controlled by" and "under common control with"), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; *provided, however*, that no individual, other than a director of Parent or us or an officer of Parent or us with a policy making function, shall be deemed an Affiliate of us or any of our Subsidiaries solely by reason of such individual's employment, position or responsibilities by or with respect to Parent, us or any of their or our respective Subsidiaries.

"Asset Sale" means:

(1) the sale, conveyance, transfer or other disposition, whether in a single transaction or a series of related transactions, of property or assets (including by way of a sale and leaseback) of the Issuer, a Guarantor or any Restricted Subsidiary (each referred to in this definition as a "disposition"), or

(2) the issuance or sale of Equity Interests of any Restricted Subsidiary (other than directors' qualifying shares or shares required by applicable law to be held by a Person other than the Issuer or a Restricted Subsidiary), whether in a single transaction or a series of related transactions (other than preferred stock of Restricted Subsidiaries issued in compliance with the covenant described under "Certain Covenants— Limitation on Incurrence of Indebtedness")

in each case in clause (1) and (2), other than:

(a) a disposition of Cash Equivalents or obsolete, damaged or worn out equipment or the sale or lease of equipment, inventory or accounts receivable in the ordinary course of business and dispositions of property no longer used or useful in the conduct of the business of the Issuer and its Restricted Subsidiaries;

(b) dispositions to the Issuer or any Wholly Owned Restricted Subsidiary by the Issuer or any Restricted Subsidiary;

(c) the disposition of all or substantially all of the assets of the Issuer in a manner permitted pursuant to the provisions described above under "Certain Covenants—Merger, Consolidation, or Sale of Assets" or any disposition that constitutes a Change of Control pursuant to the Unsecured Indenture;

(d) the making of any Restricted Payment or Permitted Investment that is permitted to be made, and is made, under the covenant described above under "Certain Covenants—Limitation on Restricted Payments" or the granting of a Lien permitted by the covenant contained under "Certain Covenants— Limitations on Liens";

(e) any disposition of assets or issuance or sale of Equity Interests of any Restricted Subsidiary in any transaction or series of transactions with an aggregate fair market value of less than \$25.0 million;

(f) to the extent allowable under Section 1031 of the Internal Revenue Code of 1986, any exchange of like property (excluding any boot thereon) for use in a Permitted Business;

(g) the lease, assignment or sublease of any real or personal property in the ordinary course of business;

(h) licenses or sub-licenses of intellectual property in the ordinary course of business;

(i) any financing transaction with respect to property built or acquired by the Issuer or any Restricted Subsidiary after the Issue Date, including, without limitation, sale leasebacks and asset securitizations permitted by the Unsecured Indenture;

(j) any issuance or sale of Equity Interests in, or Indebtedness or other securities of, an Unrestricted Subsidiary, including in connection with any merger or consolidation;

(k) dispositions of accounts receivable in connection with the compromise, settlement or collection thereof in the ordinary course of business or in bankruptcy or similar proceedings;

(l) any disposition of property or assets or the issuance of securities by a Restricted Subsidiary to us or by us or a Restricted Subsidiary to a Restricted Subsidiary or us;

(m) an exchange of assets for assets (including a combination of assets and Cash Equivalents) related to a similar business of comparable or greater market value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors;

(n) any sale of assets pursuant to the Equipment Financing Agreements;

(o) any swap of owned or leased satellite transponder capacity for other satellite transponder capacity of comparable or greater value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors;

(p) any swap of assets in exchange for services in the ordinary course of business of comparable or greater value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors;

(q) sales or other dispositions of satellites for a consideration of comparable or greater value or usefulness to the business of us and the Restricted Subsidiaries as a whole, as determined in good faith by senior management or the Board of Directors, and sales or other dispositions of satellites in connection with the end of their life;

- (r) sales or other dispositions of rights to construct or launch satellites;
- (s) a disposition, including by way of lease, of any satellite capacity;
- (t) termination of hedging or similar arrangements; and
- (u) any disposition of property or assets the net proceeds from which are re-invested in any Permitted Investment.



"Bankruptcy Law" means title 11, U.S. Code or any similar federal or state law for the relief of debtors.

"Board of Directors" means the Board of Directors of the Issuer.

"*Capital Lease Obligation*" means, as to any Person, the obligations of such Person under a lease that are required to be classified and accounted for as capital lease obligations under GAAP and, for purposes of this definition, the amount of such obligations at the time any determination thereof is to be made shall be the amount of the liability in respect of a capital lease that would at such time be so required to be capitalized on a balance sheet in accordance with GAAP.

"*Capital Stock*" means any and all shares, interests, participations, rights or other equivalents, however designated, of corporate stock or partnership or membership interests, whether common or preferred.

"*Cash Equivalents*" means: (a) United States dollars, pounds sterling, euros, national currency of any participating member state in the European Union or, in the case of any non-U.S. Subsidiary that is a Restricted Subsidiary, such local currencies held by it from time to time in the ordinary course of business; (b) securities issued or directly and fully guaranteed or insured by the United States government or any country that is a member of the European Union or any agency or instrumentality thereof having maturities of not more than two years from the date of acquisition; (c) certificates of deposit and eurodollar time deposits with maturities of one year or less from the date of acquisition, bankers' acceptances with maturities not exceeding one year and overnight bank deposits, in each case with any domestic commercial bank having capital and surplus in excess of \$500 million; (d) repurchase obligations with a term of not more than 30 days for underlying securities of the types described in clauses (b) and (c) entered into with any financial institution meeting the qualifications specified in clause (c) above; (e) commercial paper rated P-2, A-2 or better or the equivalent thereof by Moody's or S&P, respectively, and in each case maturing within twelve months after the date of acquisition; (f) money market funds offered by any domestic commercial or investment bank having capital and surplus in excess of \$500 million at least 95% of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (e) of this definition; and (g) securities representing an interest or interests in AAA rated money market funds registered under the Investment Company Act of 1940.

"*Change of Control*" means: any transaction or series of transactions the result of which is that any Person (other than the Principal or a Related Party) individually owns more than 50% of the total voting power of the then-ultimate parent company of HSS.

"Communications Laws" means the federal Communications Act of 1934, as amended, and all relevant rules, regulations and published policies of the FCC.

"Consolidated Cash Flow" means, with respect to any Person for any period, the Consolidated Net Income of such Person for such period, <u>plus</u>, to the extent deducted in computing Consolidated Net Income: (a) provision for taxes based on income, profits or capital, including state franchise and similar taxes and tax distributions made to holders of Capital Stock of such Person; (b) Consolidated Interest Expense; (c) depreciation and amortization (including amortization of goodwill and other intangibles) of such Person for such period; (d) the amount of any restructuring charges or expenses (which, for the avoidance of doubt, shall include retention, severance, systems establishment costs or excess pension charges); (e) any extraordinary loss and any net loss realized in connection with any Asset Sale; and (f) Consolidated Non-cash Charges, in each case, on a consolidated basis determined in accordance with GAAP <u>minus</u> non-cash items increasing Consolidated Net Income for such period (excluding any items which represent the reversal of any accrual of, or cash reserve for, anticipated cash charges in any prior period and any items for which cash was received in any prior period); provided that Consolidated Cash Flow shall not include interest income derived from the net proceeds of the offering of the Secured Notes and the Old Secured Notes.

"Consolidated Interest Expense" means, with respect to any Person for any period, consolidated interest expense of such Person for such period, whether paid or accrued, including amortization of original issue discount and deferred financing costs, non-cash interest payments and the interest component of Capital Lease Obligations, on a consolidated basis determined in accordance with GAAP; *provided*, however, that with respect to the calculation of the consolidated interest expense of us, the interest expense of Unrestricted Subsidiaries shall be excluded.

"Consolidated Net Income" means, with respect to any Person for any period, the aggregate of the Net Income of such Person and its Subsidiaries or, if such Person is HSS, of HSS and its Restricted Subsidiaries for such period, on a consolidated basis, determined in accordance with GAAP; *provided*, *however*, that: (a) the Net Income of any Person that is not a Subsidiary or that is accounted for by the equity method of accounting shall be included only to the extent of the amount of dividends or distributions paid in cash to the referent Person, in the case of a gain, or to the extent of any contributions or other payments by the referent Person, in the case of a loss; (b) the Net Income of any Person that is a Subsidiary that is not a Wholly Owned Subsidiary shall be included only to the extent of the amount of dividends or distributions paid in cash to the referent Person; (c) the Net Income of any Subsidiary of such Person shall be excluded to the extent that the declaration or payment of dividends

or similar distributions is not at the time permitted by operation of the terms of its charter or bylaws or any other agreement, instrument, judgment, decree, order, statute, rule or government regulation to which it is subject; (d) the cumulative effect of a change in accounting principles shall be excluded; (e) any net after-tax extraordinary or nonrecurring or unusual gains or losses (less all fees and expenses relating thereto), or income or expense or charge (including, without limitation, any severance, relocation or other restructuring costs, fees and expenses) and fees, expenses or charges related to any offering of equity interests of such Person, Investment, acquisition or Indebtedness permitted to be incurred by the Unsecured Indenture (in each case, whether or not successful), including any such fees, expenses or charges related to the 2011 Transactions, in each case, shall be excluded; (f) any increase in amortization or depreciation or any one-time non-cash charges resulting from purchase accounting in connection with the Acquisition and any acquisition that is consummated after June 1, 2011 shall be excluded; (g) any net after-tax income or loss from discontinued operations and any net after-tax gains or losses on disposal of discontinued operations shall be excluded; (h) any net after-tax gains or losses (less all fees and expenses or charges relating thereto) attributable to the early extinguishment of Indebtedness shall be excluded; (i) any non-cash impairment charge or asset write-off resulting from the application of Statement of Financial Accounting Standards No. 142 and 144, and the amortization of intangibles arising pursuant to Statement of Financial Accounting Standards No. 141, shall be excluded; (j) any non-cash expenses realized or resulting from employee benefit plans or post-employment benefit plans, grants of stock appreciation or similar rights, stock options or other rights to officers, directors and employees of such Person or any of its Restricted Subsidiaries shall be excluded; (k) any one-time non-cash compensation charges shall be excluded; (l) non-cash gains, losses, income and expenses resulting from fair value accounting required by Statement of Financial Accounting Standards No. 133 and related interpretations shall be excluded; and (m) the effects of purchase accounting as a result of the Acquisition and any acquisition that is consummated after June 1, 2011 shall be excluded.

"Consolidated Net Tangible Assets" means, with respect to any Person, the aggregate amount of assets of such Person (less applicable reserves and other properly deductible items) after deducting therefrom (to the extent otherwise included therein) (a) all current liabilities and (b) all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangibles, all as set forth on the books and records of such Person and its consolidated Subsidiaries as of the end of the most recently ended fiscal quarter and computed in accordance with GAAP.

"Consolidated Non-cash Charges" means, with respect to any Person for any period, the aggregate depreciation, amortization, impairment, non-cash compensation, non-cash rent and other non-cash expenses of such Person and its Restricted Subsidiaries for such period on a consolidated basis and otherwise determined in accordance with GAAP, but excluding (i) any such charge which consists of or requires an accrual of, or cash reserve for, anticipated cash charges for any future period and (ii) the non-cash impact of recording the change in fair value of any embedded derivatives under Statement of Financial Accounting Standards No. 133 and related interpretations as a result of the terms of any agreement or instrument to which such Consolidated Non-cash Charges relate.

"Default" means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

"Deferred Payments" means Indebtedness owed to satellite construction or launch contractors incurred after the Issue Date in connection with the construction or launch of one or more satellites of the Issuer or the Issuer's Restricted Subsidiaries used by the Issuer and/or them in the businesses described in the covenant "Limitations on Activities of the Issuer" in an aggregate principal amount not to exceed \$50.0 million at any one time outstanding.

"Designated Non-Cash Consideration" means the fair market value of non-cash consideration received by the Issuer or one of its Restricted Subsidiaries in connection with an Asset Sale that is so designated as "Designated Non-Cash Consideration" pursuant to an officer's certificate, setting forth the basis of such valuation, less the amount of cash or Cash Equivalents received in connection with a subsequent sale of such Designated Non-Cash Consideration.

"Disqualified Stock" means any Capital Stock which, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option of the holder thereof, in whole or in part, on or prior to the date on which the Unsecured Notes mature; *provided, however*, that any such Capital Stock may require the issuer of such Capital Stock to make an offer to purchase such Capital Stock upon the occurrence of certain events if the terms of such Capital Stock provide that such an offer may not be satisfied and the purchase of such Capital Stock may not be consummated until the 91st day after the Unsecured Notes have been paid in full.

"Domestic Subsidiary" means, with respect to any Person, any Restricted Subsidiary of such Person other than a Foreign Subsidiary.

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"Eligible Institution" means a commercial banking institution that has combined capital and surplus of not less than \$500 million or its equivalent in foreign currency, whose debt is rated Investment Grade at the time as of which any investment or rollover therein is made.

"Equipment Financing Agreements" means (A) any and all agreements entered into by us or our Restricted Subsidiaries providing for the lease of equipment to enterprise customers, (B) any and all assignment agreements entered into by us and our Restricted Subsidiaries in the ordinary course of business as contemplated by clause (A) of this definition, in each case, as the same may be refinanced, amended, modified, restated, renewed, supplemented or replaced, and (C) any agreements between us or any of our Restricted Subsidiaries and any third-party relating generally to the subject matter of the agreements set forth in clause (A) of this definition.

"*Equity Interests*" means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

"Exchange Act" means the U.S. Securities Exchange Act of 1934, as amended.

"*Existing Indebtedness*" means the Old Unsecured Notes, the Unsecured Notes, the Old Secured Notes, the Secured Notes and any other Indebtedness of us and our Subsidiaries in existence on the Issue Date, until such amounts are repaid.

"FCC" means the Federal Communications Commission or any successor agency thereto.

"FCC Licenses" means broadcasting and other licenses, authorizations, waivers and permits which are issued from time to time by the FCC.

"Foreign Subsidiary" means, with respect to any Person, any Subsidiary of such Person that is not organized or existing under the laws of the United States, any state thereof or the District of Columbia, and any Subsidiary of such Subsidiary.

"*GAAP*" means United States generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as may be approved by a significant segment of the accounting profession of the United States, which are applicable as of the Issue Date; *provided* that, for purposes of complying with the obligations under the covenant "Reports", such reports shall utilize GAAP as then in effect.

"Government Securities" means direct obligations of, or obligations guaranteed by, the United States of America for the payment of which guarantee or obligations the full faith and credit of the United States of America is pledged.

"Governmental Authority" shall mean any Federal, state, provincial, local, foreign or other governmental, quasi-governmental or administrative (including self-regulatory) body, instrumentality, department, agency, authority, board, bureau, commission, office of any nature whatsoever or other subdivision thereof, or any court, tribunal, administrative hearing body, arbitration panel or other similar dispute-resolving body, whether now or hereafter in existence.

"*guarantee*" means a guarantee (other than by endorsement of negotiable instruments for collection in the ordinary course of business), direct or indirect, in any manner (including, without limitation, letters of credit and reimbursement agreements in respect thereof), of all or any part of any Indebtedness.

"Guarantee" means a guarantee by a Guarantor of the Unsecured Notes.

"Guarantor" means any entity that executes a Guarantee of the obligations of HSS under the Old Unsecured Notes or the Unsecured Notes, and their respective successors and assigns.

"Hedging Obligations" means, with respect to any Person, the obligations of such Person pursuant to any arrangement with any other Person, whereby, directly or indirectly, such Person is entitled to receive from time to time periodic payments calculated by applying either floating or a fixed rate of interest on a stated notional amount in exchange for periodic payments made by such other Person calculated by applying a fixed or a floating rate of interest on the same notional amount and shall include, without limitation, interest rate swaps, caps, floors, collars and similar agreements designed to protect such Person against fluctuations in interest rates.

"Immaterial Subsidiary" means any one or more Subsidiaries of the Issuer that have less than \$5.0 million in total assets in the aggregate.

"Indebtedness" means, with respect to any Person, any indebtedness of such Person, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof) or representing the balance deferred and unpaid of the purchase price of any property (including pursuant to capital leases) or representing any Hedging Obligations, except any such balance that constitutes an accrued expense or trade payable, if and to the extent any of the foregoing (other than Hedging Obligations) would appear as a liability upon a balance sheet of such Person prepared in accordance with GAAP, and also includes, to the extent not otherwise included, the amount of all obligations of such Person with respect to the redemption, repayment or other repurchase of any Disqualified Stock or, with respect to any Subsidiary of such Person, the liquidation preference with respect to, any Preferred Equity Interests (but excluding, in each case, any accrued dividends) as well as the guarantee of items that would be included within this definition.

"Indebtedness to Cash Flow Ratio" means, with respect to any Person, the ratio of: (a) the Indebtedness of such Person and its Subsidiaries (or, if such Person is HSS, of HSS and its Restricted Subsidiaries) as of the end of the most recently ended fiscal quarter, plus the amount of any Indebtedness incurred subsequent to the end of such fiscal quarter; to (b) such Person's Consolidated Cash Flow for the most recently ended four full fiscal quarters for which internal financial statements are available immediately preceding the date on which such event for which such calculation is being made shall occur (the *"Measurement Period"*); *provided, however*, that if such Person or any of its Subsidiaries (or, if such Person is the Issuer, any of its Restricted Subsidiaries) consummates an acquisition, merger or other business combination or an Asset Sale or other disposition of assets subsequent to the commencement of the Measurement Period for which the calculation of the Indebtedness to Cash Flow Ratio is made, then the Indebtedness to Cash Flow Ratio shall be calculated giving pro forma effect to such transaction(s) as if the same had occurred at the beginning of the applicable period.

"*Investment Grade*" means, with respect to a security, that such security is rated at least BBB- or higher by S&P or Baa3 or higher by Moody's (or, in the event of a change in ratings systems, the equivalent of such ratings by S&P or Moody's), or the equivalent rating of another nationally recognized statistical rating organization.

"*Investments*" means, with respect to any Person, all investments by such Person in other Persons (including Affiliates) in the forms of loans (including guarantees), advances or capital contributions (excluding commission, travel and similar advances to officers and employees made in the ordinary course of business), purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities and all other items that are or would be classified as investments on a balance sheet prepared in accordance with GAAP.

"Issue Date" means July 27, 2016.

"*Lien*" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statute) of any jurisdiction).

"*Marketable Securities*" means: (a) Government Securities; (b) any certificate of deposit maturing not more than 365 days after the date of acquisition issued by, or time deposit of, an Eligible Institution; (c) commercial paper or corporate securities maturing not more than 18 months after the date of acquisition issued by a corporation (other than an Affiliate of us) with an Investment Grade rating, at the time as of which any investment therein is made, issued or offered by an Eligible Institution; (d) any bankers" acceptances or money market deposit accounts issued or offered by an Eligible Institution; and (e) any fund investing exclusively in investments of the types described in clauses (a) through (d) above.

"*Maximum Secured Amount*" means 4.00 times the Trailing Cash Flow Amount, or, if greater and following a Suspension Event, 15% of our Consolidated Net Tangible Assets.

"Merger Agreement" means that certain Agreement and Plan of Merger, dated as of February 13, 2011, by and among EchoStar Satellite Services L.L.C., Broadband Acquisition Corporation, EchoStar Corporation and Hughes Communications, Inc.

"Moody's" means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation.

"*Net Income*" means, with respect to any Person, the net income (loss) of such Person, determined in accordance with GAAP, excluding, however, any gain (but not loss), together with any related provision for taxes on such gain (but not loss), realized in connection with any Asset Sale (including, without limitation, dispositions pursuant to sale and leaseback transactions), and excluding any extraordinary gain (but not loss), together with any related provision for taxes on such extraordinary gain (but not loss).

not loss) and excluding any unusual gain (but not loss) relating to recovery of insurance proceeds on satellites, together with any related provision for taxes on such extraordinary gain (but not loss).

"*Net Proceeds*" means the aggregate cash proceeds received by us or any of our Restricted Subsidiaries, as the case may be, in respect of any Asset Sale, net of the direct costs relating to such Asset Sale (including, without limitation, legal, accounting and investment banking fees, and sales commissions) and any relocation expenses incurred as a result thereof, taxes paid or payable as a result thereof (after taking into account any available tax credits or deductions and any tax sharing arrangements), amounts required to be applied to the repayment of Indebtedness secured by a Lien on the asset or assets that are the subject of such Asset Sale and any reserve for adjustment in respect of the sale price of such asset or assets. Net Proceeds shall exclude any non-cash proceeds received from any Asset Sale, but shall include such proceeds when and as converted by us or any Restricted Subsidiary to cash.

"Non-Recourse Indebtedness" of any Person means Indebtedness of such Person that: (i) is not guaranteed by any other Person (except a Wholly Owned Subsidiary of the referent Person); (ii) is not recourse to and does not obligate any other Person (except a Wholly Owned Subsidiary of the referent Person) in any way; (iii) does not subject any property or assets of any other Person (except a Wholly Owned Subsidiary of the referent Person), directly or indirectly, contingently or otherwise, to the satisfaction thereof; and (iv) is not required by GAAP to be reflected on the financial statements of any other Person (other than a Subsidiary of the referent Person) prepared in accordance with GAAP.

"Pari Passu Indebtedness" means Indebtedness of the Issuer or a Guarantor that is pari passu in right of payment (and not expressly subordinated) to the Unsecured Notes or, in the case of a Guarantor, that is pari passu in right of payment (and not expressly subordinated) to its Guarantee.

"*Permitted Business*" means any business conducted or proposed to be conducted by the Issuer (including through its Subsidiaries and joint ventures) on the Issue Date, any business activity that is a reasonable extension, development or expansion thereof or ancillary, incidental, similar, complementary or reasonably related thereto, and any business conducted or proposed to be conducted after the Issue Date as approved by the Board of Directors in good faith.

"Permitted Investments" means: (a) Investments in us or in a Restricted Subsidiary; (b) Investments in Cash Equivalents and Marketable Securities; and (c) Investments by us or any of our Subsidiaries in a Person if, as a result of such Investment: (i) such Person becomes a Restricted Subsidiary, or (ii) such Person is merged, consolidated or amalgamated with or into, or transfers or conveys substantially all of its assets to, or is liquidated into, us or a Restricted Subsidiary; *provided* that if at any time a Restricted Subsidiary shall cease to be a Subsidiary of us, we shall be deemed to have made a Restricted Investment in the amount of its remaining investment, if any, in such former Subsidiary.

"Permitted Liens" means:

- (a) Liens securing the Old Secured Notes and the Secured Notes issued on the Issue Date and Liens securing any guarantee thereof;
- (b) Liens securing the Deferred Payments;

(c) Liens (whether or not securing Indebtedness); provided that such Liens under this clause (c) together with Liens under clause (a) of "Permitted Liens" shall not secure Indebtedness in an amount exceeding the Maximum Secured Amount at the time that such Lien is incurred;

(d) Liens securing Indebtedness permitted under clause (7) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; *provided* that such Indebtedness was permitted to be incurred by the terms of the Unsecured Indenture and such Liens do not extend to any assets of us or our Restricted Subsidiaries other than the assets so acquired;

(e) Liens securing Indebtedness the proceeds of which are used to develop, construct, launch or insure any satellites; *provided* that such Indebtedness was permitted to be incurred by the terms of the Unsecured Indenture and such Liens do not extend to any assets of us or our Restricted Subsidiaries other than such satellites being developed, constructed, launched or insured, and to the related licenses, permits and construction, launch and TT&C contracts;

(f) Liens on orbital slots, licenses and other assets and rights of us; *provided* that such orbital slots, licenses and other assets and rights relate solely to the satellites referred to in clause (e) of this definition;

(g) Liens on property of a Person existing at the time such Person is merged into or consolidated with us or any of our Restricted Subsidiaries; *provided* that such Liens were not incurred in connection with, or in contemplation of, such merger or consolidation, other than in the ordinary course of business;

(h) Liens on property of an Unrestricted Subsidiary at the time that it is designated as a Restricted Subsidiary pursuant to the definition of "Unrestricted Subsidiary;" provided that such Liens were not incurred in connection with, or in contemplation of, such designation;

(i) Liens on property existing at the time of acquisition thereof by us or any Restricted Subsidiary; *provided* that such Liens were not incurred in connection with, or in contemplation of, such acquisition and do not extend to any assets of us or any of our Restricted Subsidiaries other than the property so acquired;

(j) Liens to secure the performance of statutory obligations, bid, surety or appeal bonds or performance bonds, or landlords', carriers', warehousemen's, mechanics', suppliers', materialmen's or other like Liens, in any case incurred in the ordinary course of business and with respect to amounts not yet delinquent or being contested in good faith by appropriate process of law, if a reserve or other appropriate provision, if any, as is required by GAAP shall have been made therefor;

(k) Liens existing on the Issue Date, including Liens securing the 2011 Secured Notes and Liens securing any guarantee thereof;

(1) Liens for taxes, assessments or governmental charges or claims that are not yet delinquent or that are being contested in good faith by appropriate proceedings promptly instituted and diligently concluded; *provided* that any reserve or other appropriate provision as shall be required in conformity with GAAP shall have been made therefor;

(m) Liens incurred by us or any of our Restricted Subsidiaries with respect to obligations that do not exceed \$50.0 million in principal amount in the aggregate at any one time outstanding;

(n) Liens securing Indebtedness permitted under clause (10) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; *provided* that such Liens shall not extend to assets other than the assets that previously secured such Indebtedness being refinanced;

(o) Liens securing Indebtedness permitted under clause (12) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness";

(p) Liens securing Indebtedness permitted under clause (15) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; *provided* that such Liens do not extend to any assets of us or our Restricted Subsidiaries other than the assets so acquired;

(q) Liens securing Indebtedness permitted under clause (16) of the second paragraph of the covenant described under "Certain Covenants — Limitation on Incurrence of Indebtedness"; *provided* that such Liens do not extend to any assets of us or our Restricted Subsidiaries other than the assets so acquired;

(r) survey exceptions, encumbrances, Liens, restrictions, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real properties or Liens incidental to the conduct of the business of such Person or to the ownership of its properties which were not incurred in connection with Indebtedness and which do not in the aggregate materially impair their use in the operation of the business of such Person;

(s) leases and subleases of real property granted to others in the ordinary course of business that do not (i) materially interfere with the ordinary conduct of the business of us or our Restricted Subsidiaries or (ii) secure any Indebtedness;

(t) Liens arising from Uniform Commercial Code financing statement filings regarding operating leases entered into by us and our Restricted Subsidiaries in the ordinary course of business;

(u) Liens on equipment of us or any Restricted Subsidiary granted in the ordinary course of business to our customers at the site at which such equipment is located;

(v) Liens in favor of customers on satellites or portions thereof (including insurance proceeds relating thereto) or the satellite construction or acquisition agreement relating thereto;

(w) grants of software and other licenses in the ordinary course of business;

(x) Liens securing insurance premiums financing arrangements, provided that such Liens are limited to the applicable unearned insurance premiums;

(y) Liens not provided for in clauses (a) through (x) above, securing Indebtedness incurred in compliance with the terms of the Unsecured Indenture; *provided* that the Old Unsecured Notes and Unsecured Notes are secured by the assets subject to such Liens on an equal and ratable basis or on the basis prior to such Liens; *provided further* that to the extent that such Lien secures Indebtedness that is subordinated to the Unsecured Notes and Old Unsecured Notes, such Lien shall be subordinated to and be later in priority than the Unsecured Notes and Old Unsecured Notes on the same basis;

(z) extensions, renewals or refundings of any Liens referred to in clauses (a) through (y) above; provided that (i) any such extension, renewal or refunding does not extend to any assets or secure any Indebtedness not securing or secured by the Liens being extended, renewed or refinanced and (ii) any extension, renewal or refunding of a Lien originally incurred pursuant to clause (c) above shall not secure Indebtedness in an amount greater than the Maximum Secured Amount at the time of such extension, renewal or refunding; and

(aa) Liens on Escrowed Proceeds for the benefit of the related holders of debt securities or other Indebtedness (or the underwriters or arrangers thereof) or on cash set aside at the time of the Incurrence of any Indebtedness or government securities purchased with such cash, in either case to the extent such cash or government securities prefund the payment of interest on such Indebtedness and are held in an escrow account or similar arrangement to be applied for such purpose.

"*Permitted Refinancing*" has the meaning given in clause (10)(C) of the second paragraph of the covenant described under "Certain Covenants— Limitation on Incurrence of Indebtedness."

"*Person*" means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company, government or any agency or political subdivision thereof or any other entity.

"Preferred Equity Interest," in any Person, means an Equity Interest of any class or classes (however designated) which is preferred as to the payment of dividends or distributions, or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution of such Person, over Equity Interests of any other class in such Person.

"Principal" means Charles W. Ergen.

"Purchase Money Indebtedness" means (i) Indebtedness of us or any Guarantor incurred (within 365 days of such purchase) to finance the purchase of any assets (including the purchase of Equity Interests of Persons that are not our Affiliates or Guarantors) to the extent the amount of Indebtedness thereunder does not exceed 100% of the purchase cost of such assets; and (ii) Indebtedness of us or any Guarantor which refinances Indebtedness referred to in clause (i) of this definition; provided that such refinancing satisfies clause (i).

"Rating Agency" or "Rating Agencies" means:

(a) S&P;

(b) Moody's; or

(c) if S&P or Moody's or both shall not make a rating of the Unsecured Notes publicly available, a nationally recognized securities rating agency or agencies, as the case may be, selected by the Issuer, which shall be substituted for S&P or Moody's or both, as the case may be.

"Receivables Trust" means a trust organized solely for the purpose of securitizing the accounts receivable held by the Accounts Receivable Subsidiary that:

(a) shall not engage in any business other than (i) the purchase of accounts receivable or participation interests therein from the Accounts Receivable Subsidiary and the servicing thereof, (ii) the issuance of and

distribution of payments with respect to the securities permitted to be issued under clause (b) below and (iii) other activities incidental to the foregoing;

(b) shall not at any time incur Indebtedness or issue any securities, except (i) certificates representing undivided interests in the trust issued to the Accounts Receivable Subsidiary and (ii) debt securities issued in an arm's length transaction for consideration solely in the form of cash and Cash Equivalents, all of which (net of any issuance fees and expenses) shall promptly be paid to the Accounts Receivable Subsidiary; and

(c) shall distribute to the Accounts Receivable Subsidiary as a distribution on the Accounts Receivable Subsidiary's beneficial interest in the trust no less frequently than once every six months all available cash and Cash Equivalents held by it, to the extent not required for reasonable operating expenses or reserves therefor or to service any securities issued pursuant to clause (b) above that are not held by the Accounts Receivable Subsidiary.

"*Refinancing Indebtedness*" has the meaning given in clause (10) of the second paragraph of the covenant described under "Certain Covenants— Limitation on Incurrence of Indebtedness."

"*Related Party*" means, with respect to the Principal, (a) the spouse and each immediate family member of the Principal, (b) each trust, corporation, partnership or other entity of which the Principal, the Principal's spouse and/or immediate family members beneficially holds an 80% or more controlling interest and (c) all trusts, including grantor retained annuity trusts, established by the Principal for the benefit of his family.

"*Replacement Assets*" means, on any date, property or assets (including Capital Stock of an entity owning such property or assets), of a nature or type that are used in any Permitted Business.

"Replacement Satellite Vendor Indebtedness" means Indebtedness of the Issuer or a Restricted Subsidiary provided by a satellite or satellite launch vendor, insurer or insurance agent or Affiliate thereof for the (i) construction, launch or insurance of all or part of one or more replacement satellites or satellite launches for such satellites, where "replacement satellite" means a satellite that is to be used: (x) as a replacement for any of the satellites owned, leased or under construction by the Issuer or a Restricted Subsidiary on the Issue Date, or (y) for continuation or expansion of the satellite service of the Issuer or a Restricted Subsidiary as a replacement for, or supplement to, a satellite that is retired or relocated (due to a deterioration in operating useful life) within the existing service area or reasonably determined by the Issuer or a Restricted Subsidiary to no longer meet the requirements for such service or as a supplement to one or more existing satellites to provide additional capacity or (ii) the replacement of a spare satellite that has been launched or that is no longer capable of being launched or suitable for launch. Replacement Satellite Vendor Indebtedness includes any Refinancing Indebtedness thereof.

"Restricted Investment" means an Investment other than Permitted Investments.

"*Restricted Subsidiary*" or "*Restricted Subsidiaries*" means any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by us or one or more Subsidiaries of us or a combination thereof, other than Unrestricted Subsidiaries.

"S&P" means Standard & Poor's Ratings Services, a division of The McGraw Hill Companies, Inc.

"SEC" means the U.S. Securities and Exchange Commission.

"Securities Act" means the U.S. Securities Act of 1933, as amended.

"Significant Subsidiary" means any Subsidiary that would be a "significant subsidiary" as defined in Article 1, Rule 1-02 of Regulation S-X promulgated pursuant to the Securities Act, as such regulation is in effect on the Issue Date.

"Subsidiary" or "Subsidiaries" means, with respect to any Person, any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of such Person or a combination thereof.

"Trailing Cash Flow Amount" means our Consolidated Cash Flow during the most recent four fiscal quarters for which financial statements are available; provided that if we or any of our Restricted Subsidiaries consummates a merger, acquisition or other business combination or an Asset Sale or other disposition of assets subsequent to the commencement of such period but prior to or contemporaneously with the event for which the calculation of Trailing Cash Flow Amount is made, then Trailing

Cash Flow Amount shall be calculated giving pro forma effect to such material acquisition or Asset Sale or other disposition of assets, as if the same had occurred at the beginning of the applicable period.

"*TT&C*" means telemetry, tracking and control.

"Unrestricted Subsidiary" or "Unrestricted Subsidiaries" means any Subsidiary of us designated as an Unrestricted Subsidiary after the Issue Date in a resolution of our Board of Directors:

(a) no portion of the Indebtedness or any other obligation (contingent or otherwise) of which, immediately after such designation: (i) is guaranteed by us or any other Subsidiary of us (other than another Unrestricted Subsidiary); (ii) is recourse to or obligates us or any other Subsidiary of us (other than another Unrestricted Subsidiary); (ii) subjects any property or asset of us or any other Subsidiary of us (other than another Unrestricted Subsidiary), directly or indirectly, contingently or otherwise, to satisfaction thereof;

(b) with which neither we nor any other Subsidiary of us (other than another Unrestricted Subsidiary) has any contract, agreement, arrangement, understanding or is subject to an obligation of any kind, written or oral, other than on terms no less favorable to us or such other Subsidiary than those that might be obtained at the time from Persons who are not our Affiliates; and

(c) with which neither we nor any other Subsidiary of us (other than another Unrestricted Subsidiary) has any obligation: (i) to subscribe for additional shares of Capital Stock or other equity interests therein; or (ii) to maintain or preserve such Subsidiary's financial condition or to cause such Subsidiary to achieve certain levels of operating results.

If at any time after the Issue Date we designate an additional Subsidiary as an Unrestricted Subsidiary, we will be deemed to have made a Restricted Investment in an amount equal to the fair market value (as determined in good faith by our Board of Directors evidenced by a resolution of our Board of Directors and set forth in an officers' certificate delivered to the Trustee no later than ten business days following a request from the Trustee, which certificate shall cover the six months preceding the date of the request) of such Subsidiary and to have incurred all Indebtedness of such Unrestricted Subsidiary. An Unrestricted Subsidiary may be designated as a Restricted Subsidiary if, at the time of such designation after giving pro forma effect thereto, no Default or Event of Default shall have occurred or be continuing.

"Weighted Average Life to Maturity" means, when applied to any Indebtedness at any date, the number of years obtained by dividing (a) the then outstanding principal amount of such Indebtedness into (b) the total of the product obtained by multiplying (i) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect thereof, by (ii) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment.

"Wholly Owned Restricted Subsidiary" means a Wholly Owned Subsidiary of the Issuer that is a Restricted Subsidiary.

"Wholly Owned Subsidiary" means, with respect to any Person, any Subsidiary all of the outstanding voting stock (other than directors' qualifying shares) of which is owned by such Person, directly or indirectly.

REGISTRATION RIGHTS

We are making the exchange offer to comply with our obligations under the registration rights agreement to register the exchange of the Notes for the Old Notes. In the registration rights agreement, we also agreed under certain circumstances, described below, to file a shelf registration statement to register the resale of certain Old Notes and Notes. The following summary of the registration rights that are provided in the registration rights agreement is not complete. You should refer to the registration rights agreement and the indentures governing the Notes for a full description of the registration rights that apply to the Notes.

We and the initial purchaser of the Old Notes entered into the registration rights agreement on July 27, 2016. In the registration rights agreement, we agreed to file the exchange offer registration statement relating to the Notes with the SEC and use our reasonable best efforts to have it then declared effective by July 27, 2017. We also agreed to use our reasonable best efforts to cause that exchange offer registration statement to be effective continuously, to keep the exchange offer open for a period of not less than 20 business days and cause the exchange offer to be consummated no later than August 28, 2017. Pursuant to the exchange offer, certain holders of Old Notes that constitute transfer restricted securities are allowed to exchange their transfer restricted securities for registered Notes.

If (i) we determine, after consultation with counsel, either (x) that an exchange offer is not permitted by applicable law or SEC policy or (y) that an exchange offer is not effective to make Notes freely tradable to the extent contemplated by the registration rights agreement under applicable law or SEC policy or (ii) any holder of the Old Notes that are transfer restricted securities notifies us prior to the consummation of such exchange offer that (a) it is prohibited by law or policy of the SEC from participating in the exchange offer; (b) it may not resell the Notes acquired by it in the exchange offer to the public without delivering a prospectus, and the prospectus contained in the exchange offer registration statement is not appropriate or available for such resales by it, other than by reason of such holder being an affiliate of the Company; or (c) it is a broker-dealer and holds Old Notes acquired directly from us or any of our affiliates, we will file with the SEC a shelf registration statement to register for public resale the transfer restricted securities held by any such holder who provides us with certain information for inclusion in the shelf registration statement.

For purposes of the registration rights agreement, "transfer restricted securities" means each Old Note until the earliest on the date of which (i) such Old Note is exchanged in the exchange offer and is entitled to be resold to the public by the holder thereof without complying with the prospectus delivery requirements of the Securities Act, (ii) such Old Note has been effectively registered under the Securities Act and disposed of in accordance with the shelf registration statement, or (iii) such Old Note is distributed to the public by a broker-dealer pursuant to the "Plan of Distribution" contemplated by this registration statement (including delivery of the prospectus contained therein).

The registration rights agreement provides that the following events will constitute a "registration default":

- if the exchange offer registration statement is not declared effective by the SEC on or prior to July 27, 2017;
- if the exchange offer is not consummated on or before August 28, 2017;
- if obligated to file the shelf registration statement and we fail to file the shelf registration statement with the SEC on or prior to the 90th day after such filing obligation arises (such 90th day, the "Filing Deadline");
- if obligated to file a shelf registration statement and the shelf registration statement is not declared effective on or prior to the 365th day after the Filing Deadline; or
- except in certain circumstances, if the exchange offer registration statement or the shelf registration statement, as the case may be, is declared effective but thereafter (and before July 27, 2018) ceases to be effective or useable in connection with resales of the transfer restricted securities, for such time of non-effectiveness or non-usability.

If there is a registration default, then we will pay to each holder of transfer restricted securities affected thereby additional interest in an amount equal to \$0.05 per week per \$1,000 in principal amount of transfer restricted securities held by such holder for each week or portion thereof that the registration default continues for the first 90-day period immediately following the occurrence of that registration default. The amount of the additional interest shall increase by an additional \$0.05 per week per \$1,000 in principal amount of transfer restricted securities with respect to each subsequent 90-day period until all registration defaults have been cured or until the transfer restricted securities become freely tradable without registration under the Securities Act, up to a maximum amount of additional interest of \$0.25 per week per \$1,000 in principal amount of transfer restricted securities. We shall not be required to pay additional interest for more than one of these registration defaults at any given time. Following the cure of all of these registration defaults, the accrual of additional interest will cease.

We will pay all accrued additional interest to holders entitled thereto by wire transfer to the accounts specified by them or by mailing checks to their registered address if no such accounts have been specified.

Holders of the Old Notes are required to make certain representations to us, as described elsewhere in this prospectus, in order to participate in the exchange offer and are required to deliver information to be used in connection with the shelf registration statement and to provide comments on the shelf registration statement within the time periods set forth in the registration rights agreement in order to have their Old Notes included in the shelf registration statement and benefit from the provisions regarding additional interest set forth above.

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

THE DISCUSSION OF THE UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS OF THE EXCHANGE OFFER BELOW IS BASED ON CURRENTLY EXISTING PROVISIONS OF THE UNITED STATES INTERNAL REVENUE CODE OF 1986, AS AMENDED (THE "CODE"), THE APPLICABLE TREASURY REGULATIONS PROMULGATED AND PROPOSED UNDER THE CODE, JUDICIAL DECISIONS, AND ADMINISTRATIVE INTERPRETATIONS, ALL OF WHICH ARE SUBJECT TO CHANGE, POSSIBLY ON A RETROACTIVE BASIS. BECAUSE INDIVIDUAL CIRCUMSTANCES MAY DIFFER EACH HOLDER IS STRONGLY URGED TO CONSULT ITS TAX ADVISOR WITH RESPECT TO ITS PARTICULAR TAX SITUATION AND THE PARTICULAR TAX EFFECTS OF ANY STATE, LOCAL, FOREIGN OR OTHER TAX LAWS AND POSSIBLE CHANGES IN THE TAX LAWS.

If a holder exchanges an Old Note for a Note in the exchange offer, the exchange should not be a taxable transaction for United States federal income tax purposes. Accordingly, holders should not recognize any gain or loss when they receive the Notes, and should be required to continue to include interest on the Notes in gross income. Further, the Notes should have the same issue price as the Old Notes immediately before the exchange, and a holder's adjusted tax basis and holding period in a Note should be equal to the adjusted tax basis and holding period that the holder had in the corresponding Old Note immediately before the exchange.

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BENEFIT PLAN INVESTOR CONSIDERATIONS

A fiduciary of a pension, profit-sharing or other employee benefit plan subject to the U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA") (each, a "Plan"), should consider the fiduciary standards of ERISA in the context of the Plan's particular circumstances before authorizing an investment in the Notes. Among other factors, the fiduciary should consider whether the investment would satisfy the prudence and diversification requirements of ERISA and would be consistent with the documents and instruments governing the Plan, and whether the investment would involve a prohibited transaction under ERISA or the U.S. Internal Revenue Code (the "Code").

Section 406 of ERISA and Section 4975 of the Code prohibit Plans, as well as individual retirement accounts, Keogh plans and any other plans that are subject to Section 4975 of the Code (also "Plans"), from engaging in certain transactions involving "plan assets" with persons who are "parties in interest" under ERISA or "disqualified persons" under the Code with respect to the Plan. A violation of these prohibited transaction rules may result in excise tax or other liabilities under ERISA or the Code for those persons, unless exemptive relief is available under an applicable statutory, regulatory or administrative exemption. Employee benefit plans that are governmental plans (as defined in Section 3(32) of ERISA), certain church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) ("Non-ERISA Arrangements") are not subject to the requirements of Section 406 of ERISA or Section 4975 of the Code but may be subject to similar provisions under applicable federal, state, local, non-U.S. or other laws ("Similar Laws").

The acquisition and holding of the Notes by a Plan or any entity whose underlying assets include "plan assets" by reason of any Plan's investment in the entity (a "Plan Asset Entity") with respect to which we, the Exchange Agent or any of their respective affiliates is or becomes a party in interest or disqualified person may result in a prohibited transaction under ERISA or Section 4975 of the Code, unless the Notes are acquired and held pursuant to an applicable exemption. The U.S. Department of Labor has issued five prohibited transaction class exemptions, or "PTCEs", that may provide exemptive relief if required for direct or indirect prohibited transactions that may arise from the purchase or holding of the Notes. These exemptions are PTCE 84-14 (for certain transactions determined by independent qualified professional asset managers), PTCE 90-1 (for certain transactions involving insurance company pooled separate accounts), PTCE 91-38 (for certain transactions involving bank collective investment funds), PTCE 95-60 (for transactions involving certain insurance company general accounts), and PTCE 96-23 (for transactions managed by in-house asset managers). In addition, ERISA Section 408(b)(17) and Section 4975(d)(20) of the Code provide an exemption for the purchase and sale of the Notes, provided that neither the issuer of the Notes nor any of its affiliates have or exercise any discretionary authority or control or render any investment advice with respect to the assets of any Plan involved in the transaction, and provided further that the Plan pays no more and receives no less than "adequate consideration" in connection with the transaction (the "service provider exemption"). There can be no assurance that all of the conditions of any such exemptions will be satisfied.

Any purchaser or holder of the Notes or any interest therein will be deemed to have represented by its purchase and holding of the Notes or any interest therein that it either (1) is not a Plan, a Plan Asset Entity or a Non-ERISA Arrangement and is not purchasing the Notes on behalf of or with the assets of any Plan, a Plan Asset Entity or Non-ERISA Arrangement or (2) the purchase and holding of the Notes will not constitute a non-exempt prohibited transaction under ERISA or the Code or a similar violation under any applicable Similar Laws.

Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions, it is important that fiduciaries or other persons considering purchasing the Notes on behalf of or with the assets of any Plan, a Plan Asset Entity or Non-ERISA Arrangement consult with their counsel regarding the availability of exemptive relief under any of the PTCEs listed above, the service provider exemption or the potential consequences of any purchase or holding under Similar Laws, as applicable. Purchasers of the Notes have exclusive responsibility for ensuring that their purchase and holding of the Notes do not violate the fiduciary or prohibited transaction rules of ERISA or the Code or any similar provisions of Similar Laws. The sale of any Notes to a Plan, Plan Asset Entity or Non-ERISA Arrangement is in no respect a representation by us or any of our affiliates or representatives that such an investment meets all relevant legal requirements with respect to investments by any such Plans, Plan Asset Entities or Non-ERISA Arrangements generally or any particular Plan, Asset Entity or Non-ERISA Arrangement or that such investment is appropriate for such Plans, Plan Asset Entities or Non-ERISA Arrangements generally or any particular Plan, Plan Asset Entity or Non-ERISA Arrangement.

BOOK-ENTRY, DELIVERY AND FORM

We will issue the Notes sold in the form of one or more global Notes. The global Notes will be deposited with, or on behalf of, the clearing agency registered under the Exchange Act that is designated to act as depositary for the Notes and registered in the name of the depositary or its nominee. The DTC will be the initial depositary.

Investors may hold their interests in a global Note directly through DTC if they are DTC participants, or indirectly through organizations that are DTC participants.

Except as set forth below, the global Notes may be transferred, in whole or in part, only to another nominee of DTC or to a successor of DTC or its nominee.

Depositary Procedures

DTC has advised us that DTC is:

- a limited-purpose trust company organized under the laws of the State of New York;
- a member of the Federal Reserve System;
- a "clearing corporation" within the meaning of the New York Uniform Commercial Code; and
- a "clearing agency" registered pursuant to the provisions of Section 17A of the Exchange Act.

DTC was created to hold securities of its participants and to facilitate the clearance and settlement of securities transactions among its participants in securities through electronic book-entry changes in accounts of the participants, thereby eliminating the need for physical movement of securities certificates. DTC's participants include:

- securities brokers and dealers;
- banks;
- trust companies;
- clearing corporations; and
- certain other organizations.

Access to DTC's book-entry system is also available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, whether directly or indirectly.

We expect that pursuant to the procedures established by DTC (i) upon the issuance of the global Notes, DTC will credit, on its book-entry registration and transfer system, the respective principal amount of the individual beneficial interests represented by the global Notes to the accounts of participants, and (ii) ownership of beneficial interests in the global Notes will be shown on, and the transfer of those ownership interests will be effected only through, records maintained by DTC (with respect to participants' interests) and the participants (with respect to the owners of beneficial interests in the global Notes other than participants). The accounts to be credited will be designated by the initial purchasers of the beneficial interests. Ownership of beneficial interests in global Notes is limited to participants or persons that may hold interests through participants.

So long as DTC or its nominee is the registered holder and owner of the global Notes, DTC or its nominee, as the case may be, will be considered the sole legal owner of the Notes represented by the global Notes for all purposes under the respective Indentures and the Notes issued thereunder. Except as set forth below, owners of beneficial interests in the global Notes will not be entitled to receive definitive notes and will not be considered to be the owners or holders of any notes under the global Notes. We understand that under existing industry practice, in the event an owner of a beneficial interest in a global exchange note desires to take any action that DTC, as the holder of the global Notes, is entitled to take, DTC would authorize the participants to take the action, and that participants would authorize beneficial owners owning through the participants to take the action or would otherwise act upon the instructions of beneficial owners of an interest in global Notes will be able to transfer the interest except in accordance with DTC's applicable procedures, in addition to those provided for under the Indenture.

We will make payments of the principal of, and interest on, the Notes represented by the global Notes registered in the name of and held by DTC or its nominee to DTC or its nominee, as the case may be, as the registered owner and holder of the global Notes.

We expect that DTC or its nominee, upon receipt of any payment of principal or interest in respect of the global Notes, will credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the principal amount of the global Notes as shown on the records of DTC or its nominee. We also expect that payments by participants and indirect participants to owners of beneficial interests in the global Notes held through such participants will be governed by standing instructions and customary practices, as is now the case with securities held for accounts of customers registered in the names of nominees for these customers. The payments, however, will be the responsibility of the participants and indirect participants, and neither we, the trustee nor any paying agent will have any responsibility or liability for:

- any aspect of the records relating to, or payments made on account of, beneficial ownership interest in the global Notes;
- maintaining, supervising or reviewing any records relating to the beneficial ownership interests;
- any other aspect of the relationship between DTC and its participants; or
- the relationship between the participants and indirect participants and the owners of beneficial interests in global Notes.

Unless and until it is exchanged in whole or in part for definitive notes, global Notes may not be transferred except as a whole by DTC to a nominee of DTC or by a nominee of DTC to DTC or another nominee of DTC.

Participants in DTC will effect transfers with other participants in the ordinary way in accordance with DTC rules and will settle transfers in same-day funds. Participants in Euroclear and Clearstream Banking will effect transfers with other participants in the ordinary way in accordance with the rules and operating procedures of Euroclear and Clearstream Banking, as applicable. If a holder requires physical delivery of a definitive note for any reason, including to sell notes to persons in jurisdictions which require physical delivery or to pledge notes, the holder must transfer its interest in the global Notes in accordance with the normal procedures of DTC and the procedures set forth in the Indenture.

We expect that DTC will take any action permitted to be taken by a holder of notes (including the presentation of notes for exchange as described below) only at the direction of one or more participants to whose accounts at the DTC interests in the global Notes are credited and only in respect of the portion of the aggregate principal amount of the Notes as to which the participant or participants has or have given direction. However, if there is an event of default under the Notes, DTC will exchange the global Notes for definitive notes, which it will distribute to its participants. These definitive notes are subject to certain restrictions on registration of transfers and will bear appropriate legends restricting their transfer. Although we expect that DTC will agree to the foregoing procedures in order to facilitate transfers of interests in global Notes among participants of DTC, DTC is under no obligation to perform or continue to perform these procedures, and these procedures may be discontinued at any time. Neither we nor the trustee have any responsibility for the performance by DTC or its participants or indirect participants of their obligations under the rules and procedures governing its operations.

If DTC is at any time unwilling or unable to continue as a depositary for the global Notes or ceases to be a clearing agency registered under the Exchange Act and we do not appoint a successor depositary within 90 days, we will issue definitive notes in exchange for the global Notes. The definitive notes will be subject to certain restrictions on registration of transfers and will bear appropriate legends concerning these restrictions.

The information in this section concerning DTC and its book-entry systems has been obtained from sources that we believe are reliable, but we take no responsibility for the accuracy thereof.

PLAN OF DISTRIBUTION

Based on interpretations by the Staff set forth in no-action letters issued to third parties, including "Exxon Capital Holdings Corporation," available May 13, 1988, "Morgan Stanley & Co. Incorporated," available June 5, 1991, "Mary Kay Cosmetics, Inc.," available June 5, 1991, and "Warnaco, Inc.," available October 11, 1991, we believe that Notes issued in exchange for the Old Notes may be offered for resale, resold and otherwise transferred by holders so long as such holder is not (i) our affiliate, (ii) a broker-dealer who acquired Old Notes directly from us or our affiliate or (iii) a broker-dealer who acquired Old Notes as a result of market-making or other trading activities. Offers, sales and transfers may be made without compliance with the registration and prospectus delivery provisions of the Securities Act, provided that such Notes are acquired in the ordinary course of such holders' business, and such holders are not engaged in, and do not intend to engage in, and have no arrangement or understanding with any person to participate in, a distribution of such Notes and that participating broker-dealers receiving Notes in the exchange offer will be subject to a prospectus delivery requirement with respect to resales of such Notes. To date, the staff of the SEC has taken the position that participating broker-dealers may fulfill their prospectus delivery requirements with respect to transactions involving an exchange of securities such as the exchange pursuant to the exchange offer (other than a resale of an unsold allotment from the sale of the Old Notes to the initial purchasers) with the prospectus contained in the registration statement relating to the exchange offer. Pursuant to the registration rights agreement, we have agreed to permit participating broker-dealers and other persons, if any, subject to similar prospectus delivery requirements to use this prospectus in connection with the resale of such Notes. We have agreed that, for a period of six months after the consummation of the exchange offer (or such shorter period as will terminate when all Notes received in exchange for such Old Notes acquired by any broker-dealer as a result of market-making activities or other trading activities have been resold by such broker-dealer), we will make this prospectus and any amendment or supplement to this prospectus available to any broker-dealer for use in connection with any such resale. Each holder of the Old Notes who wishes to exchange its Old Notes for Notes in the exchange offer will be required to make certain representations to us as set forth in "The Exchange Offer." In addition, each holder who is a broker-dealer and who receives Notes for its own account in exchange for the Old Notes that were acquired by it as a result of market-making activities or other trading activities will be required to acknowledge that it will deliver a prospectus in connection with any resale by it of such Notes.

We will not receive any proceeds from any sale of Notes by broker-dealers. Notes received by brokers-dealers for their own account pursuant to the exchange offer may be sold from time to time in one or more transactions in the over-the-counter market, in negotiated transactions, through the writing of options on the Notes or a combination of such methods of resale, at market prices prevailing at the time of resale, at prices related to such prevailing market prices or at negotiated prices. Any such resale may be made directly to purchasers or to or through brokers or dealers who may receive compensation in the form of commissions or concessions from any such broker-dealer and/or the purchasers of any such Notes. Any broker-dealer that resells Notes that were received by it for its own account pursuant to the exchange offer and any broker or dealer that participates in a distribution of such Notes may be deemed to be an "underwriter" within the meaning of the Securities Act and any profit on any such resale of Notes and any commissions or concessions received by any such persons may be deemed to be underwriting compensation under the Securities Act. The letter of transmittal for the exchange offer states that by acknowledging that it will deliver and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act.

We will indemnify holders of the Notes (including any broker-dealers) against certain liabilities, including liabilities under the Securities Act, as set forth in the registration rights agreement.

Following consummation of the exchange offer, we may, in our sole discretion, commence one or more additional exchange offers to holders of Old Notes who did not exchange their Old Notes for Notes in the exchange offer, on terms that may differ from those contained in the registration statement. This prospectus, as it may be amended or supplemented from time to time, may be used by us in connection with any such additional exchange offers. Such additional exchange offers may take place from time to time until all outstanding Old Notes have been exchanged for Notes pursuant to the terms and conditions of the registration statement.

VALIDITY OF THE NOTES

The validity of the Notes offered hereby will be passed upon on our behalf by Sullivan & Cromwell LLP, Palo Alto, California. Brownstein Hyatt Farber Schreck, LLP, Denver, Colorado, will pass upon certain matters of Colorado law.

EXPERTS

The consolidated financial statements of HSS as of December 31, 2016 and 2015, and for each of the years in the three-year period ended December 31, 2016, have been included in this prospectus in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

We may "incorporate by reference" in this prospectus information filed with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus and information that we file later with the SEC will automatically update and supersede previously filed information, including information contained in this document.

We incorporate by reference the documents listed below (File No. 333-179121) (other than, in each case, information that is deemed not to have been filed in accordance with SEC rules) and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act until we complete this offering (other than, in each case, information that is deemed not to have been filed in accordance with SEC rules):

- our Annual Report on Form 10-K for the year ended December 31, 2016; and
- our Current Reports on Form 8-K filed on January 31, February 8 and March 6, 2017.

You can obtain any of the documents incorporated by reference in this prospectus from the SEC through the SEC's website at <u>http://www.sec.gov</u>. You may also request free copies of any of these filings by writing or calling us at our principal offices, which are located at the following address:

Hughes Satellite Systems Corporation 100 Inverness Terrace East Englewood, Colorado 80112 Attention: General Counsel Telephone: (303) 706-4000

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders Hughes Satellite Systems Corporation:

We have audited the accompanying consolidated balance sheets of Hughes Satellite Systems Corporation and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive income (loss), changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016. In connection with our audits of the consolidated financial statements, we also have audited the financial statement schedule II listed in Item 15. These consolidated financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and the financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Hughes Satellite Systems Corporation and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

/s/ KPMG LLP

Denver, Colorado February 24, 2017

HUGHES SATELLITE SYSTEMS CORPORATION

CONSOLIDATED BALANCE SHEETS (In thousands, except share amounts)

		As of Decem		ber 31,	
		2016		2015	
Assets					
Current Assets:					
Cash and cash equivalents	\$	2,070,964	\$	382,990	
Marketable investment securities, at fair value		187,923		253,343	
Trade accounts receivable, net of allowance for doubtful accounts of \$12,752 and \$11,447, respectively		182,512		139,510	
Trade accounts receivable - DISH Network, net of allowance for doubtful accounts of zero		19,323		21,258	
Inventory		62,638		48,797	
Prepaids and deposits		34,505		38,222	
Advances to affiliates, net		110,452		47,387	
Other current assets		11,809		13,273	
Total current assets		2,680,126		944,780	
Noncurrent Assets:					
Restricted cash and cash equivalents		11,820		20,140	
Property and equipment, net of accumulated depreciation of \$2,503,187 and \$2,138,642, respectively		2,294,726		2,265,402	
Regulatory authorizations		471,658		471,658	
Goodwill		504,173		504,173	
Other intangible assets, net					
Investments in unconsolidated entities		80,734		115,420	
Other noncurrent assets, net		42,560		41,481	
Total noncurrent assets		295,737	. . <u> </u>	208,225	
Total assets	-	3,701,408		3,626,499	
Liabilities and Shareholders' Equity	\$	6,381,534	\$	4,571,279	
Current Liabilities:					
Trade accounts payable	\$	106,416	\$	97,667	
Current portion of long-term debt and capital lease obligations		32,984		30,284	
Advances from affiliates, net		598		3,773	
Deferred revenue and prepayments		59,989		57,493	
Accrued interest		46,255		8,310	
Accrued compensation		33,457		31,932	
Accrued expenses and other		80,612		83,501	
Total current liabilities		360,311		312,960	
Noncurrent Liabilities:					
Long-term debt and capital lease obligations, net of unamortized debt issuance costs		3,622,463		2,154,988	
Deferred tax liabilities, net		528,462		452,350	
Advances from affiliates		31,968		25,283	
Other noncurrent liabilities		83,307		84,058	
Total noncurrent liabilities		4,266,200		2,716,679	
Total liabilities		4,626,511	· · · · · · ·	3,029,639	
Commitments and Contingencies (Note 13)		.,		-,,	
Shareholders' Equity:					
Preferred Stock, \$0.001 par value; 1,000,000 shares authorized:					
Hughes Retail Preferred Tracking Stock, \$0.001 par value; 300 shares authorized, 81.128 shares issued and outstanding at each of December 31, 2016 and 2015		_		_	
Common stock, \$0.01 par value; 1,000,000 shares authorized, 1,000 shares issued and outstanding at each of December 31, 2016 and 2015		_		_	
Additional paid-in capital		1,516,199		1,417,748	
Accumulated other comprehensive loss		(60,719)		(54,116	
Accumulated earnings		286,713		166,698	
Total HSS shareholders' equity		1,742,193		1,530,330	
Noncontrolling interests		12,830		11,310	
Total shareholders' equity		1,755,023		1,541,640	
Total liabilities and shareholders' equity	\$	6,381,534	\$	4,571,279	

The accompanying notes are an integral part of these consolidated financial statements.

HUGHES SATELLITE SYSTEMS CORPORATION CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

(In thousands)

	For the Years Ended December 31,					er 31,
		2016		2015		2014
Revenue:						
Services and other revenue - DISH Network	\$	449,547	\$	518,853	\$	487,985
Services and other revenue - other		1,103,127		1,095,249		1,077,101
Equipment revenue - DISH Network		8,840		10,752		31,943
Equipment revenue - other		238,279		212,278		210,948
Total revenue		1,799,793		1,837,132		1,807,977
Costs and Expenses:						
Cost of sales - services and other (exclusive of depreciation and amortization)		517,957		525,471		535,918
Cost of sales - equipment (exclusive of depreciation and amortization)		204,753		195,537		209,022
Selling, general and administrative expenses		281,048		276,616		264,610
Research and development expenses		31,170		26,377		20,192
Depreciation and amortization		414,133		430,127		452,138
Total costs and expenses		1,449,061		1,454,128		1,481,880
Operating income		350,732		383,004		326,097
Other Income (Expense):						
Interest income		12,598		4,416		3,234
Interest expense, net of amounts capitalized		(187,198)		(169,150)		(191,258)
Loss from partial redemption of debt				(5,044)		_
Gains (losses) on marketable investment securities, net		6,995		(6,463)		(32)
Other-than-temporary impairment loss on available-for-sale securities		_		(6,139)		_
Equity in earnings of unconsolidated affiliate		9,444		8,502		5,121
Other, net		2,909		2,222		(485)
Total other expense, net		(155,252)		(171,656)		(183,420)
Income before income taxes		195,480		211,348		142,677
Income tax provision, net		(73,759)		(72,364)		(40,095)
Net income		121,721		138,984		102,582
Less: Net income attributable to noncontrolling interests		1,706		1,617		1,389
Net income attributable to HSS	\$	120,015	\$	137,367	\$	101,193
Comprehensive Income:						
Net income	\$	121,721	\$	138,984	\$	102,582
Other comprehensive income (loss), net of tax:						
Foreign currency translation adjustments		(5,377)		(25,012)		(8,789)
Unrealized gains (losses) on available-for-sale securities and other		1,584		(4,202)		(4,182)
Recognition of other-than-temporary loss on available-for-sale securities in net income		_		6,139		_
Recognition of realized (gains) losses on available-for-sale securities in net income		(2,996)		(15)		32
Total other comprehensive loss, net of tax		(6,789)		(23,090)		(12,939)
Comprehensive income		114,932		115,894		89,643
Less: Comprehensive income attributable to noncontrolling interests		1,520		1,297		1,152
Comprehensive income attributable to HSS	\$	113,412	\$	114,597	\$	88,491
Comprehensive income autobalable to 1100	¥	110,112	4	11,007	4	00,101

The accompanying notes are an integral part of these consolidated financial statements.

HUGHES SATELLITE SYSTEMS CORPORATION CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(In thousands)

	Additional Paid-In Capital	Accumulated Other Comprehensive Loss		Accumulated Income/ (Deficit)	Noncontrolling Interests	Total
Balance, January 1, 2014	\$ 1,106,463	\$ (18,64	44) \$	(71,862)	\$ 8,861	\$ 1,024,818
Stock-based compensation	3,152	-	_	—	—	3,152
Issuance of Hughes Retail Preferred Tracking Stock (Note 3)	252,990	-		—	_	252,990
Other	(1,006)	-		—	—	(1,006)
Net income	—	-		101,193	1,389	102,582
Foreign currency translation adjustment	—	(8,5	52)	—	(237)	(8,789)
Unrealized losses on available-for-sale securities, net and other	_	(4,1	50)	_	_	(4,150)
Balance, December 31, 2014	1,361,599	(31,34	46)	29,331	10,013	1,369,597
Stock-based compensation	5,204	-	_	_		5,204
Transfer of EchoStar XXI launch service contract from EchoStar to HNS	52,250	-		_	_	52,250
Other	(1,305)	-	_	—	—	(1,305)
Net income	_	-	_	137,367	1,617	138,984
Foreign currency translation adjustment	_	(24,69	9 2)	—	(320)	(25,012)
Unrealized gains and other-than-temporary impairment loss on available-for-sale securities, net and other	_	1,92	22	_	_	1,922
Balance, December 31, 2015	1,417,748	(54,1	16)	166,698	11,310	1,541,640
Stock-based compensation	4,822	-	_	_		4,822
Transfer of EchoStar XXIII launch service contract from EchoStar to HNS	70,300		_	_	_	70,300
Contributions to fund EchoStar XXI launch service contract from EchoStar to HNS	23,750	-	_	_	_	23,750
Other	(421)	-	_	—	—	(421)
Net income	—	-	_	120,015	1,706	121,721
Foreign currency translation adjustment	—	(5,19	9 1)	—	(186)	(5,377)
Unrealized losses on available-for-sale securities, net and other	_	(1,4	12)	_	_	(1,412)
Balance, December 31, 2016	\$ 1,516,199	\$ (60,7	19) \$	286,713	\$ 12,830	\$ 1,755,023

The accompanying notes are an integral part of these consolidated financial statements.

HUGHES SATELLITE SYSTEMS CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

Cash Flows from Operating Activities:		2016	2015		2011
					2014
Net income					
	\$	121,721	\$ 138,984	\$	102,582
Adjustments to reconcile net income to net cash flows from operating activities:					
Depreciation and amortization		414,133	430,127		452,138
Amortization of debt issuance costs		6,551	6,042		5,813
Loss from partial redemption of debt		—	5,044		_
Losses (gains) and impairment on marketable investment securities, net		(6,995)	12,602		32
Equity in earnings of unconsolidated affiliate		(9,444)	(8,502)		(5,121
Stock-based compensation		4,822	5,204		3,152
Deferred tax provision		70,901	68,011		33,492
Dividends received from unconsolidated entity		10,000	_		2,400
Proceeds from sale of trading securities		7,140	380		17,053
Changes in current assets and current liabilities, net:					
Trade accounts receivable, net		(39,092)	(20,873)		(20,061
Advances to and from affiliates, net		(67,579)	(67,940)		8,057
Trade accounts receivable - DISH Network		1,935	(2,009)		48,842
Inventory		(13,221)	1,941		4,883
Other current assets		298	(9,894)		(4,061
Trade accounts payable		9,429	2,598		610
Accrued expenses and other		30,603	7,181		12,624
Changes in noncurrent assets and noncurrent liabilities, net		14,233	8,038		(8,543
Other, net		10,436			(320
Net cash flows from operating activities		565,871	 (1,444)		
Cash Flows from Investing Activities:		505,671	 575,490		653,572
Purchases of marketable investment securities		(200 520)	(200.024)		(=00.04.4
Sales and maturities of marketable investment securities		(396,730)	(208,821)		(509,814
Expenditures for property and equipment		452,446	355,202		234,970
Changes in restricted cash and cash equivalents		(381,287)	(386,714)		(247,341
		8,320	(2,488)		(2,538
Payment for EchoStar XXI launch services		(23,750)	(11,875)		_
Expenditures for externally marketed software Other. net		(23,252)	(22,327)		(22,955
		(1,636)	 (10)		(35
Net cash flows from investing activities		(365,889)	 (277,033)		(547,713
Cash Flows from Financing Activities:					
Proceeds from issuance of long-term debt		1,500,000	_		
Payments of debt issuance costs		(7,097)	—		_
Repayment of 6 1/2% Senior Secured Notes Due 2019 and related premium		—	(113,300)		_
Repayment of debt and capital lease obligations		(31,669)	(39,441)		(59,835
Net proceeds from issuance of Hughes Retail Preferred Tracking Stock (Note 3)		_	_		10,601
Advances from affiliates		6,982	20,002		_
Capital contribution from EchoStar		23,750	_		
Other, net		(4,157)	(5,154)		107
Net cash flows from financing activities		1,487,809	 (137,893)		(49,127
Effect of exchange rates on cash and cash equivalents		183	 (3,131)		5,116
Net increase in cash and cash equivalents		1,687,974	157,433		61,848
Cash and cash equivalents, beginning of period		382,990	225,557		163,709
Cash and cash equivalents, end of period	\$	2,070,964	\$ 382,990	\$	225,557
Supplemental Disclosure of Cash Flow Information:					
Cash paid for interest (including capitalized interest)	\$	172,029	\$ 178,363	\$	186,503
Capitalized interest	\$	30,202	\$ 15,852	\$	2,168
•		4,796	\$ 4,783	\$	8,577
Cash paid for income taxes	\$	4,750			
-	\$\$	1,130	\$ 673	\$	1,535
Cash paid for income taxes				\$ \$	1,535 4,377

Net noncash assets received in connection with Tracking Stock Transaction (Note 3)	\$	—	\$	_	\$	375,287	
Transfer of launch contracts from EchoStar to HNS	\$	70,300	\$	52,250	\$		
The accompanying meter an an integral ment of these same lideted financial statements							

The accompanying notes are an integral part of these consolidated financial statements.

Note 1. Organization and Business Activities

Principal Business

Hughes Satellite Systems Corporation (which, together with its subsidiaries, is referred to as "HSS," the "Company," "we," "us" and/or "our") is a holding company and a subsidiary of EchoStar Corporation ("EchoStar"). We are a global provider of satellite service operations, video delivery solutions, broadband satellite technologies and broadband services for home and small office customers. We deliver innovative network technologies, managed services, and various communications solutions for enterprise and government customers.

On January 31, 2017, our parent company EchoStar Corporation ("EchoStar") and certain subsidiaries of EchoStar, including certain subsidiaries of the Company, entered into a Share Exchange Agreement (the "Share Exchange Agreement") with DISH Network Corporation and certain of its subsidiaries. The Share Exchange Agreement provides, among other things, that EchoStar and its subsidiaries will receive all of the shares of the EchoStar Tracking Stock and HSS Tracking Stock in exchange for 100% of the equity interests of certain subsidiaries of EchoStar that will hold its EchoStar Technologies businesses (collectively, the "Share Exchange"). Following consummation of the Share Exchange, the HSS Tracking Stock will be retired and all agreements, arrangements and policy statements with respect to, and terms of, such tracking stock will terminate and be of no further effect.

Prior to consummation of the Share Exchange, EchoStar is required to complete steps necessary for the transferring assets and liabilities that are being assumed by DISH Network Corporation and its subsidiaries to be owned by the transferring entities and their respective subsidiaries. As part of these steps, subsidiaries of EchoStar that currently own EchoStar's business of providing online video delivery and satellite video delivery for broadcasters and pay-TV operators, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management and other services (the "Uplinking Businesses") and related assets and liabilities will be contributed to EB Corp in consideration for additional shares of the Company's common stock that will be issued to a subsidiary of EchoStar. Certain data center assets within the Uplinking Businesses will not be included in the Share Exchange and after consummation of the Share Exchange will continue to be owned by our subsidiaries and will be pledged as collateral to support our obligations under the Indentures (as defined below).

The Share Exchange is expected to be consummated three business days after the satisfaction or waiver of all of the closing conditions to the transaction (other than conditions that by their nature are to be satisfied at the closing, but subject to the satisfaction of those conditions at such time), but no earlier than February 28, 2017. The closing conditions to the transaction involving third parties or governmental approvals have been satisfied (other than those that by their nature are to be satisfied at the closing). While we currently expect the Share Exchange to be consummated on or about February 28, 2017, no assurance can be given that the Share Exchange will be consummated on the terms or within the time frame disclosed, or at all.

See Note 18 for further discussion of the Share Exchange transaction and Note 3 for more information regarding the tracking stock.

We currently operate in the following two business segments:

- *Hughes* which provides broadband satellite technologies and broadband services to home and small office customers and network technologies, managed services and communication solutions to domestic and international consumers and enterprise and government customers. The Hughes segment also provides managed services, hardware, and satellite services to large enterprises and government customers, and designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment provides satellite ground segment systems and terminals to mobile system operators.
- EchoStar Satellite Services ("ESS") which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite service operations and video delivery solutions on a full-time and occasional-use basis primarily to DISH Network Corporation and its subsidiaries ("DISH Network"), Dish Mexico, S. de R.L. de C.V. ("Dish Mexico"), a joint venture that EchoStar entered into in 2008, United States ("U.S.") government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. We also manage satellite operations for several satellites owned by third parties.

We were formed as a Colorado corporation in March 2011 to facilitate the acquisition (the "Hughes Acquisition") of Hughes Communications, Inc. and its subsidiaries ("Hughes Communications") and related financing transactions. In connection with



our formation, EchoStar contributed the assets and liabilities of its satellite services business, including the principal operating subsidiary of its satellite services business, EchoStar Satellite Services L.L.C., to us. In addition, as a result of the Satellite and Tracking Stock Transaction described in Note 3 below, DISH Network owns shares of our preferred tracking stock representing a 28.11% economic interest in the residential retail satellite broadband business of our Hughes segment. DISH Network also owns shares of preferred tracking stock issued by EchoStar Corporation, which together with our preferred tracking stock represents an aggregate 80.0% economic interest in the residential retail satellite broadband business of our Hughes segment. The tracking stock is an equity security and the rights of DISH Network, as the holder of the tracking stock, in our assets are subject to the claims of our creditors. In addition, a substantial majority of the voting power of the shares of EchoStar and DISH Network is owned beneficially by Charles W. Ergen, our Chairman, and by certain trusts established by Mr. Ergen for the benefit of his family.

Note 2. Summary of Significant Accounting Policies

Principles of Consolidation and Basis of Presentation

We consolidate all entities in which we have a controlling financial interest. We are deemed to have a controlling financial interest in variable interest entities where we are the primary beneficiary. We are deemed to have a controlling financial interest in other entities when we own more than 50 percent of the outstanding voting shares and other shareholders do not have substantive rights to participate in management. For entities we control but do not wholly own, we record a noncontrolling interest within shareholders' equity for the portion of the entity's equity attributed to the noncontrolling ownership interests. All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States ("GAAP") requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the balance sheets, the reported amounts of revenue and expense for each reporting period, and certain information disclosed in the notes to our consolidated financial statements. Estimates are used in accounting for, among other things, amortization periods for deferred subscriber acquisition costs, revenue recognition using the percentage-of-completion method, allowances for doubtful accounts, allowances for sales returns and rebates, warranty obligations, self-insurance obligations, deferred taxes and related valuation allowances, uncertain tax positions, loss contingencies, fair value of financial instruments, fair value of EchoStar's stock-based compensation awards, fair value of assets and liabilities acquired in business combinations, lease classifications, asset impairment testing, useful lives and methods for depreciation and amortization of long-lived assets, and certain royalty obligations. We base our estimates and assumptions on historical experience, observable market inputs and on various other factors that we believe to be relevant under the circumstances. Due to the inherent uncertainty involved in making estimates, actual results may differ from previously estimated amounts, and such differences may be material to our consolidated financial statements. Changing economic conditions may increase the inherent uncertainty in the estimates and assumptions indicated above. We review our estimates and assumptions periodically and the effects of revisions are reflected in the period they occur or prospectively if the revised estimate affects future periods.

Foreign Currency

The functional currency for certain of our foreign operations is determined to be the local currency. Accordingly, we translate assets and liabilities of these foreign entities from their local currencies to U.S. dollars using period-end exchange rates and translate income and expense accounts at monthly average rates. The resulting translation adjustments are recorded in other comprehensive income (loss) as "Foreign currency translation adjustments" in our consolidated statements of operations and comprehensive income (loss). We have not recorded deferred income taxes related to our foreign currency translation adjustments.

Gains and losses resulting from re-measurement of monetary assets and liabilities denominated in foreign currencies into the functional currency are recognized in "Other, net" in our consolidated statements of operations and comprehensive income (loss). We recognized net foreign currency transaction gains of \$0.1 million for the year ended December 31, 2016 and losses of \$3.6 million and \$1.6 million for the years ended December 31, 2015 and 2014, respectively.

Cash and Cash Equivalents

We consider all liquid investments purchased with an original maturity of 90 days or less to be cash equivalents. Cash equivalents as of December 31, 2016 and 2015 primarily consisted of money market funds, government bonds, corporate notes, and commercial paper. The amortized cost of these investments approximates their fair value.

Marketable Investment Securities

We classify our marketable investment securities as available for sale, except in uncommon instances where we have designated certain securities as trading securities. We report all marketable investment securities at fair value in our consolidated balance sheets. We recognize periodic changes in the fair value of trading securities and realized gains and losses on sale of available-for-sale securities in "Gains (losses) on marketable investment securities," a component of net income, in our consolidated statements of operations and comprehensive income (loss). For available-for-sale securities, we recognize periodic changes in the difference between fair value and amortized cost in other comprehensive income (loss). Realized gains and losses upon sale of available-for-sale securities are reclassified from other comprehensive income (loss) and recognized in net income on the trade date. We use the first-in, first-out ("FIFO") method to determine the cost basis on sales of marketable investment securities. Interest and dividend income from marketable investment securities is reported in "Interest income" and "Other, net," respectively, in our consolidated statements of operations and comprehensive income (loss). Dividend income is recognized on the ex-dividend date.

We evaluate our available-for-sale securities portfolio on a quarterly basis to determine whether declines in the fair value of these securities are other than temporary. Our evaluation consists of reviewing, among other things:

- the fair value of each security compared to its amortized cost;
- the length of time and the extent to which the fair value of a security has been lower than amortized cost;
- the historical volatility of the price of each security;
- any market and company-specific factors related to each security; and
- our intent and ability to hold the investment to recovery.

Where the fair value of a debt security has declined below its amortized cost, we consider the decline to be other than temporary if any of the following factors apply:

- we intend to sell the security,
- it is more likely than not that we will be required to sell the security before maturity or recovery, or
- we do not expect to recover the security's entire amortized cost basis, even if there is no intent to sell the security.

Declines in the fair value of available-for-sale securities that are determined to be other than temporary are reclassified from other comprehensive income (loss) and recognized in net income, thus establishing a new cost basis for the investment.

Investments in Unconsolidated Entities - Cost and Equity Method

We use the equity method to account for equity investments in entities that we do not control but have the ability to significantly influence the operating decisions of the investee. We use the cost method when we do not have the ability to significantly influence the operating decisions of the investee.

Generally, our equity investments accounted for using either the equity method or cost method are not publicly traded and it is not practicable to regularly estimate the fair value of such investments. We evaluate these equity investments on a quarterly basis to determine whether an event or changes in circumstances has occurred that may have a significant adverse effect on the fair value of the investment. As part of our evaluation, we review available information such as business plans and current financial statements of these companies for factors that may indicate an impairment of our investments. Such factors may include, but are not limited to, unprofitable operations, negative cash flow, material litigation, violations of debt covenants, bankruptcy and changes in business strategy. When we determine that an investment is impaired, and the impairment is other than temporary, we adjust the carrying amount of the investment to its estimated fair value and recognize the impairment loss in net income.

Generally, equity method investments are initially recorded at cost and subsequently adjusted for our proportionate share of the net earnings or loss of the investee, which is reported in "Equity in earnings of unconsolidated affiliate" in our consolidated statements of operations and comprehensive income (loss). The carrying amount of our investments may include a component of goodwill if the cost of our investment exceeds the fair value of the underlying identifiable assets and liabilities of the investee. Dividends received from equity method investees reduce the carrying amount of the investment. We defer, to the extent of our ownership interest in the investee, recognition of intra-entity profits on sales of equipment to the investee until the investee has charged the cost of the equipment to expense in a subsequent sale to a third party or through depreciation. In these circumstances, we report the gross amounts of revenue and cost of sales in the statement of operations and include the intra-entity profit eliminations within "Equity in earnings of unconsolidated affiliate."

Accounts Receivable

We estimate allowances for uncollectible accounts receivable based upon past collection experience and consideration of other relevant factors. Past experience may not be indicative of future collections and therefore additional adjustments could be recognized in the future to reflect differences between estimated and actual collections.

Inventory

Inventory is stated at the lower of cost, determined using the FIFO method, or net realizable value. Cost of inventory consists primarily of materials, direct labor and indirect overhead incurred in the procurement and manufacturing of our products. We use standard costing methodologies in determining the cost of certain of our finished goods and work-in-process inventories. We determine net realizable value using our best estimates of future use or recovery, considering the aging and composition of inventory balances, the effects of technological and/or design changes, forecasted future product demand based on firm or near-firm customer orders, and alternative means of disposition of excess or obsolete items. We recognize losses within operating income when we determine that the cost of inventory and commitments to purchase inventory exceed net realizable value.

Property and Equipment

Property and equipment is stated at cost, less accumulated depreciation. The cost of our satellites includes construction costs, including the present value of in-orbit incentives payable to the satellite manufacturer, launch costs, capitalized interest, and related insurance premiums. Depreciation is recorded on a straight-line basis over lives ranging from one to 30 years. Repair and maintenance costs are charged to expense when incurred. Costs of renewals and betterments are capitalized.

Impairment of Long-lived Assets

We review our long-lived assets for recoverability whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. The evaluation is performed at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. For assets held and used in operations, the asset is not recoverable if the carrying amount of the asset exceeds its undiscounted estimated future net cash flows. When an asset is not recoverable, we adjust the carrying amount of such asset to its estimated fair value and recognize the impairment loss in net income. Assets to be disposed of by sale are reported at the lower of the carrying amount or fair value less costs to sell.

Goodwill

Goodwill represents the excess of the cost of acquired businesses over the estimated fair value assigned to the identifiable assets acquired and liabilities assumed. We do not amortize goodwill, but test goodwill for impairment annually, or more frequently if circumstances indicate impairment may exist. Our goodwill as of December 31, 2016 and 2015 is assigned to reporting units of our Hughes segment. We test Hughes goodwill for impairment in the second fiscal quarter. There are two steps to the goodwill impairment test. Step one compares the fair value of a reporting unit with its carrying amount, including goodwill. We typically estimate fair value of the reporting units using discounted cash flow techniques, which includes significant assumptions about prospective financial information, terminal value and discount rates (Level 3 inputs). If the reporting unit's carrying amount exceeds its estimated fair value, it is necessary to perform the second step of the impairment test, which compares the implied fair value of reporting unit goodwill with the carrying amount of such goodwill to determine the amount of impairment loss. We may bypass the two-step goodwill impairment test if we determine, based on a qualitative assessment, that it is more likely than not that the fair value of a reporting unit exceeds its carrying amount including goodwill.

Regulatory Authorizations and Other Intangible Assets

At acquisition and periodically thereafter, we evaluate our intangible assets to determine whether their useful lives are finite or indefinite. We consider our intangible assets to have indefinite lives when no significant legal, regulatory, contractual, competitive, economic, or other factors limit the useful life.

Intangible assets that have finite lives are amortized over their estimated useful lives, ranging from approximately one to 20 years. When we expect to incur significant costs to renew or extend finite-lived intangible assets, we amortize the total initial and estimated renewal costs over the combined initial and expected renewal terms. In such instances, actual renewal costs are capitalized when they are incurred. We test intangible assets with finite lives for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable, as discussed above under "Impairment of Long-lived Assets."

We do not amortize our indefinite-lived intangible assets, but test those assets for impairment annually or more frequently if circumstances indicate that it is more likely than not that the asset may be impaired. Costs incurred to maintain or renew indefinite-lived intangible assets are expensed as incurred.

Our indefinite-lived intangible assets include Federal Communications Commission ("FCC") authorizations and certain other contractual or regulatory rights to use spectrum at specified orbital locations (collectively "Regulatory Authorizations"). We have determined that our FCC authorizations generally have indefinite useful lives due to the following:

- FCC authorizations are non-depleting assets;
- renewal satellite applications generally are authorized by the FCC subject to certain conditions, without substantial cost under a stable regulatory, legislative, and legal environment;
- expenditures required to maintain the authorization are not significant; and
- we intend to use these authorizations indefinitely.

Income Taxes

We are included in the consolidated federal income tax return of EchoStar. We recognize a provision or benefit for income taxes currently payable or receivable and for income tax amounts deferred to future periods based upon a separate return allocation method which results in income tax expense that approximates the expense that would result if we were a stand-alone entity. Deferred tax assets and liabilities are recorded for the estimated future tax effects of differences that exist between the financial reporting carrying amount and tax basis of assets and liabilities. Deferred tax assets are offset by valuation allowances when we determine it is more likely than not that such deferred tax assets will not be realized in the foreseeable future. We determine deferred tax assets and liabilities separately for each taxing jurisdiction and report the net amount for each jurisdiction as a noncurrent asset or liability in our consolidated balance sheets.

From time to time, we engage in transactions where the income tax consequences are uncertain. We recognize tax benefits when, in management's judgment, a tax filing position is more likely than not to be sustained if challenged by the tax authorities. For tax positions that meet the more-likely-than-not threshold, we may not recognize a portion of a tax benefit depending on management's assessment of how the tax position will ultimately be settled. Unrecognized tax benefits generally are netted against the deferred tax assets associated with our net operating loss carryforwards. We adjust our estimates periodically based on ongoing examinations by and settlements with various taxing authorities, as well as changes in tax laws, regulations and precedent. We classify interest and penalties, if any, associated with our unrecognized tax benefits as a component of income tax provision or benefit.

Fair Value Measurements

We determine fair value based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Market or observable inputs are the preferred source of values, followed by unobservable inputs or assumptions based on hypothetical transactions in the absence of market inputs. We utilize the highest level of inputs available according to the following hierarchy in determining fair value:



- Level 1, defined as observable inputs being quoted prices in active markets for identical assets;
- Level 2, defined as observable inputs other than quoted prices included in Level 1, including quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which significant inputs and significant value drivers are observable in active markets; and
- Level 3, defined as unobservable inputs for which little or no market data exists, consistent with characteristics of the asset or liability that would be considered by market participants in a transaction to purchase or sell the asset or liability.

Transfers between levels in the fair value hierarchy are considered to occur at the beginning of the quarterly accounting period. There were no transfers between levels for each of the years ended December 31, 2016 or 2015.

As of December 31, 2016 and 2015, the carrying amounts of our cash and cash equivalents, trade accounts receivable, net of allowance for doubtful accounts, accounts payable and accrued liabilities were equal to or approximated fair value due to their short-term nature or proximity to current market rates.

Fair values of our marketable investment securities are based on a variety of observable market inputs. For our investments in publicly traded equity securities and U.S. government securities, fair value ordinarily is determined based on a Level 1 measurement that reflects quoted prices for identical securities in active markets. Fair values of our investments in other marketable debt securities generally are based on Level 2 measurements, as the markets for such debt securities are less active. Trades of identical debt securities on or near the measurement date are considered a strong indication of fair value. Matrix pricing techniques that consider par value, coupon rate, credit quality, maturity and other relevant features also may be used to determine fair value of our investments in marketable debt securities.

Fair values for our 2019 Senior Secured Notes, 2021 Senior Unsecured Notes and 2026 Notes (see Note 10) are based on quoted market prices in less active markets and are categorized as Level 2 measurements. The fair values of our other debt are Level 2 measurements and are estimated to approximate their carrying amounts based on the proximity of their interest rates to current market rates. As of December 31, 2016 and 2015, the fair values of our in-orbit incentive obligations, based on measurements categorized within Level 2 of the fair value hierarchy, approximated their carrying amounts of \$74.1 million and \$79.3 million, respectively. We use fair value measurements from time to time in connection with asset impairment testing and the assignment of purchase consideration to assets and liabilities of acquired companies. Those fair value measurements typically include significant unobservable inputs and are categorized within Level 3 of the fair value hierarchy.

Revenue Recognition

Revenue from the sale of equipment and services generally is recognized when persuasive evidence of an arrangement exists, prices are fixed or determinable, collectibility is reasonably assured, and the goods have been delivered or services have been rendered. If any of these criteria are not met, revenue recognition is deferred until such time as all of the criteria are met. Revenue from equipment sales generally is recognized upon shipment to customers. Revenue from recurring services generally is recognized ratably over the service term. Upfront fees collected in connection with services to consumer subscribers in our Hughes segment are deferred and recognized as revenue over the estimated subscriber life. We may offer rebates to qualifying new consumer subscribers in our Hughes segment. We reduce related revenue at inception of the subscriber contract based on an estimate of the number of rebates that will be redeemed. Our estimates are based on historical experience and actual sales during the promotion. Services and other revenue includes revenue from leases of satellite capacity and equipment. We typically determine based on applicable criteria that our leasing arrangements are operating leases and recognize related revenue on a straight-line basis over the lease term.

In situations where customer offerings represent an arrangement for both services and equipment, revenue elements with standalone value to the customer are separated for revenue recognition purposes based on their selling prices if sold separately. We determine selling prices under a hierarchy that considers vendor-specific objective evidence ("VSOE"), third-party evidence and estimated selling prices. Typically, we derive VSOE from service renewal rates and optional equipment prices specified in customer contracts or we estimate prices based on the gross margin that we ordinarily realize in transactions with similarly situated customers.

In addition to equipment and service offerings, our Hughes segment also enters into contracts to design, develop, and deliver complex telecommunication networks to customers in its enterprise and mobile satellite systems markets. Those contracts require significant effort to develop and construct the network over an extended time period. Revenue from such contracts is recognized using the percentage-of-completion method. Depending on the nature of the arrangement, we measure progress toward contract completion using the cost-to-cost method or the units-of-delivery method. Under the cost-to-cost method, revenue reflects the ratio of costs incurred to estimated total costs at completion multiplied by the total estimated contract revenue. Under the units-of-delivery method, revenue and related costs are recognized as products are delivered based on the expected profit for the entire agreement. Profit margins on long-term contracts are based on estimates of revenue and costs at completion. We review and revise our estimates periodically and recognize related adjustments in the period in which the revisions are made. Estimated losses on contracts are recorded in the period in which they are identified.

We report revenue net of sales taxes imposed on our goods and services in our consolidated statements of operations and comprehensive income (loss). Since we primarily act as an agent for the governmental authorities, the amount charged to the customer is collected and remitted directly to the appropriate jurisdictional entity.

Debt Issuance Costs

Costs of issuing debt generally are deferred and amortized utilizing the effective interest method with amortization included in "Interest expense, net of amounts capitalized" in our consolidated statements of operations and comprehensive income (loss). We report unamortized debt issuance costs as a reduction of the related long-term debt in our consolidated balance sheets.

Cost of Sales — Services and Equipment

Cost of sales - services primarily consists of costs of digital broadcast operations, satellite capacity and services, hub infrastructure, customer care, wireline and wireless capacity, and direct labor costs associated with the services provided. Costs of sales - services generally are charged to expense as incurred. Cost of sales - equipment primarily consists of inventory costs, including freight and royalties. Cost of sales - equipment generally is recognized as products are delivered to customers and related revenue is recognized.

Research and Development

Costs incurred in research and development activities generally are expensed as incurred. A significant portion of our research and development costs are incurred in connection with the specific requirements of a customer's order. In such instances, the amounts for these customer funded development efforts are included in cost of sales.

Cost of sales includes research and development costs incurred in connection with customer's orders of approximately \$23.7 million, \$19.6 million and \$25.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. In addition, we incurred other research and development expenses of approximately \$31.2 million, \$26.4 million and \$20.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Subscriber Acquisition Costs

Subscriber Acquisition Costs ("SAC") consists of costs paid to third-party dealers and customer service representative commissions on new service activations and hardware upgrades and, in certain cases, the cost of hardware and installation services provided to non-wholesale consumer customers at the inception of service or hardware upgrade. SAC is deferred when a customer enters into a service agreement and is subsequently amortized over the service agreement term in proportion to when the related service revenue is recognized. We monitor the recoverability of deferred SAC and are entitled to an early termination fee if the subscriber cancels service prior to the end of the service agreement term. The recoverability of deferred SAC is reasonably assured through the monthly service fee charged to customers, our ability to recover the equipment, and/or our ability to charge an early termination fee. Deferred SAC is included in "Other noncurrent assets, net" in our consolidated balance sheets.

Capitalized Software Costs

Costs related to the procurement and development of software for internal-use and externally marketed software are capitalized and amortized using the straight-line method over the estimated useful life of the software, not in excess of five years. Capitalized costs of internal-use software are included in "Property and equipment, net" and capitalized costs of externally marketed software are included in "Other noncurrent assets, net" in our consolidated balance sheets. Externally marketed software generally is installed in the equipment we sell to customers. We conduct software program reviews for externally marketed capitalized software costs at least annually, or as events and circumstances warrant such a review, to determine if capitalized software development costs are recoverable and to ensure that costs associated with programs that are no longer generating revenue are expensed. As of December 31, 2016 and 2015, the net carrying amount of externally marketed software was \$76.3 million and \$62.8 million, respectively, of which \$50.1 million and \$32.6 million, respectively, is under development and not yet placed in service. We capitalized costs related to the development of externally marketed software of \$2.3 million, \$22.4 million and \$23.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. We recorded amortization expense relating to the development of externally marketed software of \$9.7 million, \$8.4 million and \$5.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. The weighted average useful life of our externally marketed software was approximately three years as of December 31, 2016.

Advertising Costs

Advertising costs are expensed as incurred and are included in "Selling, general and administrative expenses" in our consolidated statements of operations and comprehensive income (loss). We incurred advertising expense of \$43.9 million, \$44.2 million and \$45.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers ("ASU 2014-09"). It outlines a single comprehensive model, codified in Topic 606 of the FASB Accounting Standards Codification, for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the revenue model is that "an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." In August 2015, the FASB issued ASU No. 2015-14, which deferred the mandatory effective date of ASU 2014-09 by one year. As a result, public entities are required to adopt the new revenue standard in annual periods beginning after December 15, 2017 and in interim periods within those annual periods. The standard may be applied either retrospectively to prior periods or as a cumulative-effect adjustment as of the date of adoption. Early adoption is permitted, but not before annual periods beginning after December 15, 2016. In March 2016, the FASB issued ASU No. 2016-08, Principal versus Agent Considerations, which clarifies the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10, Identifying Performance Obligations and Licensing, which amends guidance on identifying performance obligations and accounting for licenses of intellectual property. In May 2016, the FASB issued ASU No. 2016-12, Narrow-Scope Improvements and Practical Expedients, which addresses collectibility, noncash consideration, completed contracts at transition, a practical expedient for contract modifications at transition, and an accounting policy election related to the presentation of sales taxes and other similar taxes collected from customers. In January 2017, the FASB issued ASU No. 2016-20, Technical Corrections to Topic 606, which clarifies, but does not fundamentally change, certain aspects of the new revenue standard. We have not selected the transition method that we will apply upon adoption. We continue to evaluate the impact of the new standard and available adoption methods on our consolidated financial statements. We are in the process of evaluating arrangements with customers and identifying differences in accounting between new and existing standards.

In February 2015, the FASB issued Accounting Standards Update No. 2015-02, Consolidation (Topic 810): Amendments to the Consolidation Analysis ("ASU 2015-02"). This standard amends the consolidation guidance for variable interest entities and general partners' investments in limited partnerships and similar entities. ASU 2015-02 was effective for annual periods beginning after December 15, 2015 and interim periods within those annual periods, and required either a retrospective or a modified retrospective approach as of the beginning of the fiscal year of adoption. We adopted ASU 2015-02 in the first quarter of 2016. The adoption of the standard did not impact our consolidated financial statements.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03, Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03"). This standard requires that debt issuance costs related to a recognized debt liability be presented in the

balance sheet as a direct deduction from the carrying amount of debt liability, consistent with debt discounts or premiums. ASU 2015-03 was effective for annual periods beginning after December 15, 2015 and interim periods within those annual periods, and required a retrospective approach to adoption. We adopted ASU 2015-03 in the first quarter of 2016. Upon adoption, we presented unamortized debt issuance cost previously reported in "Other noncurrent assets, net" with a carrying amount of \$31.3 million as of December 31, 2015, as a reduction of our "Long-term debt and capital lease obligations, net of unamortized debt issuance costs."

In January 2016, the FASB issued Accounting Standards Update No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities ("ASU 2016-01"). This update substantially revises standards for the recognition, measurement and presentation of financial instruments, including requiring all equity investments to be measured at fair value with changes in the fair value recognized through net income. It also amends certain disclosure requirements associated with the fair value of financial instruments. ASU 2016-01 is effective for annual periods beginning after December 15, 2017, including interim periods within those annual periods, with early adoption permitted for certain requirements. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases ("ASU 2016-02"). This standard requires lessees to recognize assets and liabilities for all leases with lease terms more than 12 months, including leases classified as operating leases. The standard also modifies the definition of a lease and the criteria for classifying leases as operating leases or financing leases. ASU 2016-02 is effective for annual periods beginning after December 15, 2018 and interim periods within those periods. Early adoption is permitted. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In June 2016, the FASB issued Accounting Standards Update No. 2016-13, Measurement of Credit Losses on Financial Instruments ("ASU 2016-13"), which introduces an approach based on expected losses to estimate credit losses on certain types of financial instruments. It also modifies the impairment model for available-for-sale debt securities and provides for a simplified accounting model for purchased financial assets with credit deterioration since their origination. ASU 2016-13 is effective for annual periods beginning after December 15, 2019 and interim periods within those periods. Early adoption is permitted. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In October 2016, the FASB issued Accounting Standards Update No. 2016-16, Intra-Entity Transfers of Assets Other Than Inventory ("ASU 2016-16"), which improves the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. ASU 2016-16 is effective for annual periods beginning after December 15, 2017 and interim periods within those periods. Early adoption is permitted. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In November 2016, the FASB issued Accounting Standards No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash ("ASU 2016-18"). This standard clarifies the guidance on the classification and presentation of restricted cash in the statement of cash flows, along with other cash-flow-related issues. ASU 2016-18 is effective for annual periods beginning after December 15, 2017 and interim periods within those periods. Early adoption is permitted, which must apply the guidance retrospectively to all periods presented. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In January 2017, the FASB issued Accounting Standards No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment ("ASU 2017-04"). The standard simplifies the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying amount, including goodwill, exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019 and to be applied on a prospective basis. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We will apply this new accounting standard in future periods if we determine that the carrying amount of any reporting units including goodwill exceeds fair value of the reporting unit.

Note 3. Hughes Retail Preferred Tracking Stock

On January 31, 2017, EchoStar and certain of its subsidiaries entered into the Share Exchange Agreement. The Share Exchange Agreement provides, among other things, that EchoStar and its subsidiaries will receive all of the shares of the EchoStar Tracking Stock (as defined below) and HSS Tracking Stock (as defined below) in exchange for 100% of the equity interests of certain subsidiaries of EchoStar that will hold its EchoStar Technologies businesses. Following consummation of the Share Exchange, the EchoStar Tracking Stock and HSS Tracking Stock will be retired and all agreements, arrangements and policy statements with respect to, and terms of, such tracking stock will terminate and be of no further effect. See Note 18 for further discussion of the Share Exchange.

Satellite and Tracking Stock Transaction

In February 2014, HSS and EchoStar entered into agreements with certain subsidiaries of DISH Network pursuant to which, effective March 1, 2014, (i) EchoStar issued shares of its newly authorized Hughes Retail Preferred Tracking Stock (the "EchoStar Tracking Stock") and HSS issued shares of its newly authorized Hughes Retail Preferred Tracking Stock (the "HSS Tracking Stock" and together with the EchoStar Tracking Stock, the "Tracking Stock") to DISH Network in exchange for five satellites (EchoStar I, EchoStar VII, EchoStar X, EchoStar XI, and EchoStar XIV), including the assumption of related in-orbit incentive obligations, and \$11.4 million in cash and (ii) DISH Network began receiving certain satellite services on these five satellites from us (the "Satellite and Tracking Stock Transaction"). Immediately upon receipt of net assets (consisting of two of the five satellites and related in-orbit incentive obligations) from DISH Network in exchange for EchoStar Tracking Stock, EchoStar transferred such net assets to us. The Tracking Stock tracks the economic performance of the residential retail satellite broadband business of our Hughes segment, including certain operations, assets and liabilities attributed to such business (collectively, the "Hughes Retail Group" or "HRG"). The Satellite and Tracking Stock Transaction was consistent with the long-term strategy of the Company to increase the scale of its satellite services business, which provides high-margin revenues, while continuing to benefit from the growth of the satellite broadband business. As a result of the additional satellites received in the Satellite and Tracking Stock Transaction, HSS increased short-term cash flow that it believes has better positioned it to achieve its strategic objectives.

HSS has adopted a policy statement (the "Policy Statement") setting forth management and allocation policies for purposes of attributing all of the business and operations of HSS to either the Hughes Retail Group or the "HSSC Group," which is defined as all other operations of HSS, including all existing and future businesses, other than the Hughes Retail Group. Among other things, the Policy Statement governs how assets, liabilities, revenue and expenses are attributed or allocated between HRG and the HSSC Group. Such attributions and allocations generally do not affect the amounts reported in our consolidated financial statements, except for the attribution of shareholders' equity and net income or loss between the holders of Tracking Stock and common stock. The Policy Statement also does not significantly affect the way that management assesses operating performance and allocates resources within our Hughes segment.

We provide unaudited attributed financial information for HRG and the HSSC Group in an exhibit to our periodic reports on Form 10-Q and Annual Report on Form 10-K. Set forth below is information about certain terms of the Tracking Stock and the initial recording of the Satellite and Tracking Stock Transaction in our consolidated financial statements, as well as the purpose and effect of the transaction on the Company.

Description of the Tracking Stock

Tracking stock is a type of capital stock that the issuing company intends to reflect or "track" the economic performance of a particular business component within the company, rather than reflect the economic performance of the company as a whole. The Tracking Stock is intended to track the economic performance of the Hughes Retail Group. The shares of the Tracking Stock issued to DISH Network represent an aggregate 80.0% economic interest in the Hughes Retail Group (the shares issued as HSS Tracking Stock represent a 28.11% economic interest in the Hughes Retail Group and the shares issued as EchoStar Tracking Stock represent a 51.89% economic interest in the Hughes Retail Group). In addition to the remaining 20.0% economic interest in the Hughes Retail Group, HSS retains all economic interest in the wholesale satellite broadband business and other businesses of HSS. The 80.0% economic interest was determined at the time of issuance based on the estimated fair value of the consideration received from DISH Network in exchange for the Tracking Stock, consisting of the five satellites and \$11.4 million in cash, relative to the estimated fair value of the Hughes Retail Group. The allocation of economic interest represented by the Tracking Stock of 51.89% issued as EchoStar Tracking Stock and 28.11% issued as HSS Tracking Stock reflected the relative assignment to HSS Tracking Stock and EchoStar Tracking Stock of the aggregate increase in equity

resulting from DISH Network's contribution of the satellites and cash. The tracking stock structure and the allocation of the tracking stock economic interest between EchoStar and HSS was advantageous to EchoStar from an economic and tax perspective by allowing the Company to increase cash flow by using the value of the Hughes Retail Group to purchase the satellites from DISH Network.

While DISH Network, as the holder of the Tracking Stock, holds an aggregate 80.0% economic interest in the Hughes Retail Group, the Hughes Retail Group is not a separate legal entity and therefore cannot own assets, issue securities or enter into legally binding agreements. Holders of the Tracking Stock have no direct claim to the assets of the Hughes Retail Group; rather, holders of the Tracking Stock are stockholders of its respective issuer (EchoStar or HSS) and are subject to all risks and liabilities of the issuer.

The HSS Tracking Stock is a series of HSS preferred stock consisting of 300 authorized shares with a par value of \$0.001 per share, of which 81.128 shares were issued to DISH Network on March 1, 2014. The EchoStar Tracking Stock is a series of EchoStar preferred stock consisting of 13,000,000 authorized shares with a par value of \$0.001 per share, of which 6,290,499 shares were issued to DISH Network on March 1, 2014. As of December 31, 2016, DISH Network held 6.3% and 7.5% of the aggregate number of outstanding shares of EchoStar and HSS capital stock, respectively.

Holders of shares of the Tracking Stock vote with holders of the outstanding shares of common stock of its respective issuer, as a single class, with respect to any and all matters presented to stockholders for their action or consideration. Each share of the Tracking Stock is entitled to one tenth (1/10th) of one vote. In the event of a liquidation of HSS, holders of shares of HSS common stock and HSS Tracking Stock are entitled to receive their respective proportionate interests in the net assets of HSS, if any, remaining for distribution upon liquidation, pro rata based upon the aggregate market value of outstanding shares of HSS common stock. Market values of HSS Tracking Stock are to be determined by an independent appraisal to the extent such shares are not then listed or quoted on any U.S. national or regional securities exchange or quotation system.

Should our board of directors, or the board of directors of EchoStar, make a future determination to pay a dividend on any shares of capital stock, the respective board of directors may, in its sole discretion, declare dividends only on shares of common stock, only on shares of the Tracking Stock or on shares of both the common stock and the Tracking Stock of the respective company. No dividend or other distribution may be paid on any shares of EchoStar Tracking Stock unless a dividend or distribution in an equivalent amount is paid on shares of HSS Tracking Stock and no dividend or other distribution may be paid on any shares of EchoStar Tracking Stock.

EchoStar and HSS may each, at its option, redeem all of the outstanding shares of its Tracking Stock in exchange for shares of common stock in an HRG Holding Company (as defined below), which EchoStar is required to establish pursuant to the Investor Rights Agreement discussed below.

Investor Rights Agreement

In connection with the Satellite and Tracking Stock Transaction, EchoStar, HSS and DISH Network entered into an agreement (the "Investor Rights Agreement") setting forth certain rights and obligations of the parties with respect to the Tracking Stock. Among other provisions, the Investor Rights Agreement provides: (i) certain information and consultation rights for DISH Network; (ii) certain transfer restrictions on the Tracking Stock and certain rights and obligations to offer and sell under certain circumstances (including a right of first offer in favor of EchoStar), an obligation to sell the Tracking Stock to us in connection with a change of control of DISH Network and a right to require us to repurchase the Tracking Stock in connection with a change of control of EchoStar, in each case subject to certain terms and conditions; (iii) certain protective covenants afforded to holders of the Tracking Stock; and (iv) a requirement for EchoStar to establish a holding company subsidiary (an "HRG Holding Company") that is directly or indirectly wholly owned by EchoStar and that will hold the Hughes Retail Group.

In addition, the Investor Rights Agreement provides that DISH Network may, at any time on or after September 1, 2016, require EchoStar to use its commercially reasonable efforts to register some or all of the outstanding shares of the Tracking Stock under the Securities Act of 1933, as amended, subject to certain terms and conditions (including our right, upon the receipt of a demand for registration, to offer to repurchase all of the Tracking Stock). In connection with any demand for registration, DISH Network may require any outstanding shares of the HSS Tracking Stock to be exchanged for shares of the EchoStar Tracking Stock with an equivalent economic interest in the Hughes Retail Group. In the event that a registration of shares of

Tracking Stock is effected, EchoStar is required to use its reasonable best efforts to amend the terms of the Tracking Stock so that the Tracking Stock will be convertible or exchangeable for shares of EchoStar Class A common stock with equivalent market value.

Initial Recording of the Satellite and Tracking Stock Transaction

HSS, EchoStar and DISH Network are entities under common control. In accordance with accounting principles that apply to transfers of assets between entities under common control, HSS recorded the net assets received from DISH Network in the Satellite and Tracking Stock Transaction (directly or indirectly through EchoStar) at their historical carrying amounts as reflected in DISH Network's consolidated financial statements as of February 28, 2014, the day prior to the effective date of the Satellite and Tracking Stock Transaction. DISH Network transferred the EchoStar I, EchoStar VII, and EchoStar X satellites to HSS and transferred the EchoStar XI and EchoStar XIV satellites to EchoStar. All of the net assets received by EchoStar as part of the Satellite and Tracking Stock Transaction were immediately transferred to HSS and are being used by our EchoStar Satellite Services segment. The historical carrying amounts of net assets transferred to HSS, inclusive of the net assets received by EchoStar at the date of transfer were as follows:

	Net Ass	Assets Transferred	
	(In	thousands)	
Cash	\$	11,404	
Property and equipment, net		432,080	
Current liabilities		(6,555)	
Noncurrent liabilities		(38,834)	
Transferred net assets	\$	398,095	

The transferred net assets increased HSS shareholders' equity by amounts that reflect the carrying amounts of net assets that would be distributed to holders of the Tracking Stock and common stock in a hypothetical liquidation, which would be in proportion to the relative market values (as defined in applicable agreements) of each class of stock. The amounts credited to equity were reduced by direct costs of the Tracking Stock issuance and deferred income tax liabilities arising from differences between the financial reporting carrying amounts and the tax bases of the transferred satellites. The net amounts credited to HSS' shareholders' equity (primarily additional paid-in capital) were as follows:

	Increase	(Decrease) in Equity
	(In thousands)
Transferred net assets	\$	398,095
Offering costs, net of tax		(609)
Deferred income taxes		(144,496)
Net increase in shareholders' equity	\$	252,990

Note 4. Other Comprehensive Income (Loss) and Related Tax Effects

We have not recognized any tax effects on foreign currency translation adjustments because they are not expected to result in future taxable income or deductions. We have not recognized any tax effects on unrealized gains or losses on available-for-sale securities because such gains or losses would affect the amount of existing capital loss carryforwards for which the related deferred tax asset has been fully offset by a valuation allowance.

Accumulated other comprehensive loss includes cumulative foreign currency translation losses of \$59.0 million, \$53.8 million and \$29.2 million as of December 31, 2016, 2015 and 2014, respectively.



Reclassifications out of accumulated other comprehensive loss for the years ended December 31, 2016, 2015 and 2014 were as follows:

Accumulated Other Comprehensive	Affected Line Item in our Consolidated	For the Years Ended December 31,							
Loss Components	Statements of Operations	2016		2015			2014		
				(II	n thousands)				
Recognition of realized gains (losses) on available- for-sale securities in net income (1)	Gains (losses) on marketable investment securities, net	\$	(2,996)	\$	(15)	\$	32		
Recognition of other-than-temporary impairment loss on available-for-sale securities in net income (2)	Other-than-temporary impairment loss on available-for-sale securities		_		6,139		_		
Total reclassifications, net of tax and noncontrolling interests		\$	(2,996)	\$	6,124	\$	32		

(1) When available-for-sale securities are sold, the related unrealized gains and losses that were previously recognized in other comprehensive income (loss) are reclassified and recognized as

"Gains (losses) on marketable investment securities, net" in our consolidated statements of operations and comprehensive income (loss).(2) We recorded other-than-temporary impairment losses on shares of certain common stock included in our strategic equity securities.

Note 5. Investment Securities

Our marketable investment securities and investments in unconsolidated entities consisted of the following:

	As of December 31,			
		2016		2015
		(In the	usands)
Marketable investment securities—current, at fair value:				
Corporate bonds	\$	164,619	\$	228,770
Strategic equity securities		10,309		18,297
Other		12,995		6,276
Total marketable investment securities—current		187,923		253,343
Investments in unconsolidated entities—noncurrent:				
Cost method		15,438		15,438
Equity method		27,122		26,043
Total investments in unconsolidated entities—noncurrent		42,560		41,481
Total marketable investment securities and investments in unconsolidated entities	\$	230,483	\$	294,824

Marketable Investment Securities

Our marketable investment securities portfolio consists of various debt and equity instruments, which generally are classified as available-for-sale or trading securities depending on our investment strategy for those securities. The value of our investment portfolio depends on the value of such securities and other instruments comprising the portfolio.

Corporate Bonds

Our corporate bond portfolio includes debt instruments issued by individual corporations, primarily in the industrial and financial services industries.

Strategic Equity Securities

Our strategic investment portfolio consists of investments in shares of common stock of public companies, which are highly speculative and have experienced and continue to experience volatility. We did not receive any dividend income for the years ended December 31, 2016, 2015 and 2014.



As of December 31, 2016 and 2015, our strategic equity securities included shares of common stock of one of our customers that we received in satisfaction of certain milestone payments that were required to be paid to us under an existing long-term contract. "Gains (losses) on marketable investment securities, net" for the years ended December 31, 2016 and 2015 included gains of \$0.6 million and losses of \$6.5 million, respectively, related to trading securities that we held as of December 31, 2016 and 2015, respectively. The fair values of our trading securities were \$7.2 million and \$10.3 million as of December 31, 2016 and 2015, respectively.

Other

Our other current marketable investment securities portfolio includes investments in various debt instruments, including U.S. government bonds and commercial paper.

Unrealized Gains (Losses) on Available-for-Sale Securities

The components of our available-for-sale securities are summarized in the table below.

	Amortized	Unrealized			Estimated
	Cost	 Gains		Losses	Fair Value
		(In tho	usands	5)	
As of December 31, 2016					
Debt securities:					
Corporate bonds	\$ 164,563	\$ 94	\$	(38)	\$ 164,619
Other	12,994	1			12,995
Equity securities - strategic	4,834	—		(1,724)	3,110
Total available-for-sale securities	\$ 182,391	\$ 95	\$	(1,762)	\$ 180,724
As of December 31, 2015		 			
Debt securities:					
Corporate bonds	\$ 229,004	\$ 2	\$	(236)	\$ 228,770
Other	6,279			(3)	6,276
Equity securities - strategic	8,037	_		(82)	7,955
Total available-for-sale securities	\$ 243,320	\$ 2	\$	(321)	\$ 243,001

As of December 31, 2016, restricted and non-restricted available-for-sale securities included debt securities of \$177.6 million with contractual maturities of one year or less and zero with contractual maturities greater than one year. We may realize proceeds from certain investments prior to their contractual maturity as a result of our ability to sell these securities prior to their contractual maturity.

Available-for-Sale Securities in a Loss Position

The following table reflects the length of time that our available-for-sale securities have been in an unrealized loss position. We do not intend to sell these securities before they recover or mature, and it is more likely than not that we will hold these securities until they recover or mature. We believe that changes in the estimated fair values of these securities are primarily related to temporary market conditions.

	As of December 31,								
	2016				2015				
		Fair Value		Unrealized Losses		Fair Value		Unrealized Losses	
	(In thousands)								
Less than 12 months	\$	62,473	\$	(1,760)	\$	148,629	\$	(268)	
12 months or more		1,571		(2)		67,751		(53)	
Total	\$	64,044	\$	(1,762)	\$	216,380	\$	(321)	

Sales of Available-for-Sale Securities

We recognized gains from the sales of our available-for-sale securities of \$3.0 million for the year ended December 31, 2016, and de minimis gains for each of the years ended December 31, 2015 and 2014. We recognized de minimis losses from the sales of our available-for-sale securities for each of the years ended December 31, 2015 and 2014.

Proceeds from sales of our available-for-sale securities totaled \$20.1 million, \$21.4 million and \$42.8 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Fair Value Measurements

Our current marketable investment securities are measured at fair value on a recurring basis as summarized in the table below. As of December 31, 2016 and 2015, we did not have investments that were categorized within Level 3 of the fair value hierarchy.

					As of Dec	emb	er 31,				
	 2016 201										
	 Total Level 1 Level 2						Total		Level 1		Level 2
					(In tho	usano	ls)				
Cash equivalents	\$ 1,991,949	\$	14,011	\$	1,977,938	\$	303,152	\$	213	\$	302,939
Debt securities:	 										
Corporate bonds	\$ 164,619	\$	_	\$	164,619	\$	228,770	\$	_	\$	228,770
Other	12,995			_		12,995 6,2				6,2	
Equity securities - strategic	10,309		10,309		—		18,297		18,297		—
Total marketable investment securities	\$ 187,923	\$	10,309	\$	177,614	\$	253,343	\$	18,297	\$	235,046

Investments in Unconsolidated Entities - Noncurrent

We have a few strategic investments in certain non-publicly traded equity securities that are accounted for using either the equity or the cost method of accounting. Our ability to realize value from our strategic investments in companies that are not publicly traded depends on the success of those companies' businesses and their ability to obtain sufficient capital to execute their business plans. Because private markets are not as liquid as public markets, there is also increased risk that we will not be able to sell these investments, or that when we desire to sell them we will not be able to obtain fair value for them.

We recorded cash distributions from one of these investments accounted for using the equity method of \$10.0 million, zero and \$2.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. These cash distributions were determined to be a return on investment and reported in cash flows from operating activities in our consolidated statements of cash flows.

Note 6. Trade Accounts Receivable

Our trade accounts receivable consisted of the following:

	As of De	cember 3	1,		
	 2016		2015		
	 (In thousands)				
Trade accounts receivable	\$ 159,094	\$	127,946		
Contracts in process, net	36,170		23,011		
Total trade accounts receivable	195,264		150,957		
Allowance for doubtful accounts	(12,752)		(11,447)		
Trade accounts receivable - DISH Network	19,323		21,258		
Total trade accounts receivable, net	\$ 201,835	\$	160,768		

As of December 31, 2016 and 2015, progress billings offset against contracts in process amounted to \$14.6 million and \$2.9 million, respectively.

Note 7. Inventory

Our inventory consisted of the following:

	As of December 31,						
	 2016	2015					
	 (In thousands)						
Finished goods	\$ 49,773	\$	39,642				
Raw materials	6,678		5,280				
Work in process	6,187		3,875				
Total inventory	\$ \$ 62,638 \$						

Note 8. Property and Equipment

Property and equipment consisted of the following:

	Depreciable Life	As of De	cember	31,
	(In Years)	2016		2015
		 (In the	ousands)	
Land	—	\$ 13,273	\$	12,055
Buildings and improvements	1 - 30	79,765		73,949
Furniture, fixtures, equipment and other	1 - 12	430,078		371,889
Customer rental equipment	2 - 4	689,579		588,430
Satellites - owned	2 - 15	2,381,120		2,381,120
Satellites acquired under capital leases	10 - 15	781,761		665,518
Construction in progress	—	422,337		311,083
Total property and equipment		 4,797,913		4,404,044
Accumulated depreciation		(2,503,187)		(2,138,642)
Property and equipment, net		\$ 2,294,726	\$	2,265,402

As of December 31, 2016 and 2015, accumulated depreciation included amounts for satellites acquired under capital leases of \$328.2 million and \$268.1 million, respectively.

Construction in progress consisted of the following:

	As of December 31,					
		2016		2015		
	(In thousands)					
Progress amounts for satellite construction, including prepayments under capital leases and launch services costs	\$	244,234	\$	187,253		
Satellite related equipment		152,683		104,566		
Other		25,420		19,264		
Construction in progress	\$	422,337	\$	311,083		

Construction in progress included the following owned and leased satellites under construction or undergoing in-orbit testing as of December 31, 2016.

Satellites	Segment	Expected Launch Date
EchoStar 105/SES-11	ESS	Second quarter of 2017
Telesat T19V ("63 West") (1)	Hughes	Second quarter of 2018

(1) We entered into a satellite services agreement for certain capacity on this satellite once launched, but are not party to the construction contract.

We recorded capitalized interest related to our satellites, satellite payloads and related ground facilities under construction of \$30.2 million, \$15.9 million and \$2.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Depreciation expense associated with our property and equipment consisted of the following:

	For the Years Ended December 31,							
	 2016		2015		2014			
	 (In thousands)							
Satellites	\$ 191,729	\$	197,469	\$	210,763			
Furniture, fixtures, equipment and other	58,535		70,962		50,492			
Customer rental equipment	114,568		105,725		116,685			
Buildings and improvements	4,194		5,111		5,357			
Total depreciation expense	\$ 369,026	\$	379,267	\$	383,297			

Satellites depreciation expense includes amortization of satellites under capital lease agreements of \$56.2 million, \$56.2 million and \$59.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Satellites

As of December 31, 2016, we utilized in support of our operations, 17 of our owned and leased satellites in geosynchronous orbit, approximately 22,300 miles above the equator. We depreciate our owned satellites on a straight-line basis over the estimated useful life of each satellite. Three of our satellites are accounted for as capital leases and are depreciated on a straight-line basis over their respective lease terms. We utilized one satellite that is accounted for as an operating lease and not included in property and equipment as of December 31, 2016.

Our operating satellite fleet consists of both owned and leased satellites detailed in the table below as of December 31, 2016.

			Nominal Degree Orbital Locations	Depreciable Life
Satellites	Segment	Launch Date	(West Longitude)	(In Years)
Owned:				
SPACEWAY 3 (1)	Hughes	August 2007	95	12
EchoStar XVII	Hughes	July 2012	107	15
EchoStar I (2)(3)(4)	ESS	December 1995	77	—
EchoStar III (4)	ESS	October 1997	61.5	12
EchoStar VI (4)	ESS	July 2000	96.2	12
EchoStar VII (2)(3)	ESS	February 2002	119	3
EchoStar VIII (2)(4)	ESS	August 2002	77	12
EchoStar IX (2)(4)	ESS	August 2003	121	12
EchoStar X (2)(3)	ESS	February 2006	110	7
EchoStar XI (2)(3)	ESS	July 2008	110	9
EchoStar XII (2)(4)(5)	ESS	July 2003	61.5	2
EchoStar XIV (2)(3)	ESS	March 2010	119	11
EchoStar XVI (2)	ESS	November 2012	61.5	15
Capital Leases:				
Nimiq 5 (2)	ESS	September 2009	72.7	15
QuetzSat-1 (2)	ESS	September 2011	77	10
Eutelsat 65 West A	Hughes	March 2016	65	15
Operating Lease:				
AMC-15	ESS	October 2004	105	_

(1) Depreciable life represents the remaining useful life as of June 8, 2011, the date EchoStar completed its acquisition of Hughes Communications, Inc. and its subsidiaries.

(2) See Note 16 for discussion of related party transactions with DISH Network.

(3) Depreciable life represents the remaining useful life as of March 1, 2014, the effective date of our receipt of the satellites from DISH Network as part of the Satellite and Tracking Stock Transaction (See Note 3).
 (4) Fully depreciated assets.

(5) Depreciable life represents the remaining useful life as of June 30, 2013, the date the EchoStar XII satellite was impaired.

Recent Developments

EchoStar XIX. The EchoStar XIX satellite was launched in December 2016 and we expect the satellite to be placed into service late in the first quarter of 2017. We expect the EchoStar XIX satellite to provide additional capacity for the Hughes broadband services to our customers in North America and added capacity in Mexico and certain Latin American countries and to add capability for aeronautical, enterprise and international broadband services. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

Eutelsat 65 West A. The Eutelsat 65 West A satellite was launched in March 2016 and our Hughes segment began to offer consumer broadband services in Brazil using our leased Ka-band payload on the satellite in July 2016.

EchoStar 105/SES-11. Due to anomalies experienced by our launch provider, the expected launch date of our EchoStar 105/SES-11 satellite has been delayed until the second quarter of 2017. Our Ku-band payload on the EchoStar 105/SES-11 satellite will replace our current capacity on the AMC-15 satellite.

AMC-15 and AMC-16. In August 2014, in connection with the execution of agreements related to the EchoStar 105/SES-11 satellite, we entered into amendments that extend the terms of our existing agreements with SES Americom Colorado, Inc. ("SES") for satellite services on the AMC-15 and AMC-16 satellites. As amended, the term of our agreement for satellite services on certain transponders on the AMC-15 satellite was extended from December 2014 through a certain period following the in-service date of the EchoStar 105/SES-11 satellite and is being accounted for as an operating lease. The amended agreement for the AMC-16 satellite services extended the term for the satellite's entire communications capacity, subject to

available power, for one year following expiration of the initial term in February 2015 and the agreement terminated according to its terms in February 2016.

As a result of anomalies that affected the operation of the AMC-15 and AMC-16 satellites, our monthly recurring payments were reduced under the related capital lease agreements during the year ending December 31, 2015. We have accounted for these lease modifications generally by reducing the carrying amounts of the satellite and related capital lease obligation by the present value of the payment reduction. In such instances where the carrying amount of the satellite had been reduced to zero as a result of accumulated depreciation or impairments, we have recognized the reductions in the capital lease obligations as gains in " Other, net" in our consolidated statements of operations and comprehensive income (loss). For the years ended December 31, 2015 and 2014, we recognized such gains of zero, \$4.5 million and zero, respectively.

Satellite Anomalies and Impairments

Our satellites may experience anomalies from time to time, some of which may have a significant adverse impact on their remaining useful lives, the commercial operation of the satellites or our operating results. We are not aware of any anomalies with respect to our owned or leased satellites that have had any such material adverse effect during the year ended December 31, 2016. There can be no assurance, however, that anomalies will not have any such adverse impacts in the future. In addition, there can be no assurance that we can recover critical transmission capacity in the event one or more of our in-orbit satellites were to fail.

We historically have not carried in-orbit insurance on our satellites because we assessed that the cost of insurance was uneconomical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures. Pursuant to the terms of the agreements governing certain portions of our indebtedness, we are required, subject to certain limitations on coverage, to maintain in-orbit insurance for our SPACEWAY 3, EchoStar XVI, and EchoStar XVII satellites. Based on economic analysis of the current insurance market we have elected to obtain, subject to certain limitations on coverage, launch and in-orbit insurance for SPACEWAY 3 and our interest in the EchoStar 105/SES-11 satellite. All other satellites, either in orbit or under construction, are not covered by launch or in-orbit insurance. We will continue to assess circumstances going forward and make insurance decisions on a case by case basis.

We evaluate our satellites for impairment and test for recoverability whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Certain of the anomalies previously disclosed, may be considered to represent a significant adverse change in the physical condition of a particular satellite. However, based on the redundancy designed within each satellite, certain of these anomalies are not necessarily considered to be significant events that would require a test of recoverability.

Note 9. Goodwill, Regulatory Authorizations and Other Intangible Assets

Goodwill

The excess of the cost of an acquired business over the fair values of net tangible and identifiable intangible assets at the time of the acquisition is recorded as goodwill. Goodwill is assigned to the reporting units within our operating segments and is subject to impairment testing annually, or more frequently when events or changes in circumstances indicate the fair value of a reporting unit is more likely than not less than its carrying amount.

As of December 31, 2016 and 2015, all of our goodwill was assigned to reporting units of our Hughes segment. We test this goodwill for impairment annually in the second quarter. Based on our qualitative assessment of impairment of reporting units' goodwill in the second quarter of 2016, we determined that it was not more likely than not that the fair values of the Hughes segment reporting units were less than the corresponding carrying amounts, including goodwill.

Regulatory Authorizations

Regulatory Authorizations consisted of FCC authorizations and other regulatory rights with indefinite useful lives totaling \$471.7 million as of December 31, 2016 and 2015.

Other Intangible Assets

Our other intangible assets, which are subject to amortization, consisted of the following:

	Weighted	As of December 31,										
	Average	 2016										
	Useful Life (in Years)	5		Carrying Amount		Cost	Accumulated Amortization			Carrying Amount		
						(In the	ousar	ıds)				
Customer relationships	8	\$ 270,300	\$	(214,544)	\$	55,756	\$	270,300	\$	(189,910)	\$	80,390
Contract-based	4	64,800		(64,800)				64,800		(64,800)		—
Technology-based	6	51,417		(47,848)		3,569		51,417		(39,281)		12,136
Trademark portfolio	20	29,700		(8,291)		21,409		29,700		(6,806)		22,894
Total other intangible assets		\$ 416,217	\$	(335,483)	\$	80,734	\$	416,217	\$	(300,797)	\$	115,420

Customer relationships are amortized predominantly in relation to the expected contribution of cash flow to the business over the life of the intangible asset. Other intangible assets are amortized on a straight-line basis over the periods the assets are expected to contribute to our cash flows. Intangible asset amortization expense, including amortization of externally marketed capitalized software, was \$45.1 million, \$50.9 million and \$68.8 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Future Amortization

As of December 31, 2016, our estimated future amortization of intangible assets was as follows:

		Amount
		(In thousands)
	For the Years Ending December 31,	
2017	\$	22,152
2018		14,631
2019		14,631
2020		10,981
2021		4,356
Thereafter		13,983
Total	\$	80,734

Note 10. Debt and Capital Lease Obligations

As of December 31, 2015, our debt primarily consisted of the 2019 Senior Secured Notes and the 2021 Senior Unsecured Notes, each as defined below, and our capital lease obligations. As of December 31, 2016, our debt also included the 2026 Senior Secured Notes and the 2026 Senior Unsecured Notes, each as defined below, which were issued in July 2016.

The following table summarizes the carrying amounts and fair values of our debt:

		As of December 31,									
			20	2016			2	015			
	Effective Interest Rate	Carrying Amount		Fair Value				Carrying Amount			Fair Value
					(In the	usan	ıds)				
Senior Secured Notes:											
6 1/2% Senior Secured Notes due 2019	6.959%	\$	990,000	\$	1,084,050	\$	990,000	\$	1,071,675		
5 1/4% Senior Secured Notes due 2026	5.316%		750,000	739,688			_				
Senior Unsecured Notes:											
7 5/8% Senior Unsecured Notes due 2021	8.062%		900,000		990,189		900,000		954,000		
6 5/8% Senior Unsecured Notes due 2026	6.685%		750,000	760,245		—					
Other			—		_		803		803		
Less: Unamortized debt issuance costs			(31,821)		—		(31,276)				
Subtotal			3,358,179	\$	3,574,172		1,859,527	\$	2,026,478		
Capital lease obligations			297,268				325,745				
Total debt and capital lease obligations			3,655,447				2,185,272				
Less: Current portion		(32,984)					(30,284)				
Long-term debt and capital lease obligations, net of unamortized debt issuance costs		\$	3,622,463	3,622,463			2,154,988				

The fair values of our debt are estimates categorized within Level 2 of the fair value hierarchy.

2019 Senior Secured Notes and 2021 Senior Unsecured Notes

On June 1, 2011, we issued \$1.10 billion aggregate principal amount of 6 1/2% Senior Secured Notes due 2019 (the "2019 Senior Secured Notes") at an issue price of 100.0%, pursuant to a Secured Indenture dated June 1, 2011, (as amended the "2011 Secured Indenture"). The 2019 Senior Secured Notes mature on June 15, 2019. Interest accrues at an annual rate of 6 1/2% and is payable semi-annually in cash, in arrears on June 15 and December 15 of each year. As of December 31, 2016 and 2015, the outstanding principal balance on the 2019 Senior Secured Notes was \$990.0 million.

On June 1, 2011, we also issued \$900.0 million aggregate principal amount of 7 5/8% Senior Unsecured Notes due 2021 (the "2021 Senior Unsecured Notes,") at an issue price of 100.0%, pursuant to an Unsecured Indenture dated June 1, 2011 (together with the "2011 Secured Indenture", the "2011 Indentures"). The 2021 Senior Unsecured Notes mature on June 15, 2021. Interest accrues at an annual rate of 7 5/8% and is payable semi-annually in cash, in arrears on June 15 and December 15 of each year. As of December 31, 2016 and 2015, the outstanding principal balance on the 2021 Senior Unsecured Notes was \$900.0 million.

On June 12, 2015, we redeemed \$110.0 million of the 2019 Senior Secured Notes at a redemption price equal to 103.0% of the principal amount plus accrued and unpaid interest. As a result, we recorded a \$5.0 million loss consisting of the \$3.3 million redemption premium and a \$1.7 million write-off of related unamortized debt issuance costs.

2026 Senior Secured Notes and 2026 Senior Unsecured Notes

On July 27, 2016, we issued \$750 million aggregate principal amount of 5 1/4% Senior Secured Notes due 2026 (the "2026 Senior Secured Notes" and, together with the 2019 Senior Secured Notes, the "Secured Notes") at an issue price of 100.0%, pursuant to an indenture dated July 27, 2016 (the "2016 Secured Indenture") and \$750 million aggregate principal amount of 6 5/8% Senior Unsecured Notes due 2026 (the "2026 Senior Unsecured Notes" and, together with the 2021 Senior Unsecured Notes, the "Unsecured Notes") at an issue price of 100.0%, pursuant to an indenture dated July 27, 2016 (together with the 2021 Senior Unsecured Notes, the "Unsecured Notes") at an issue price of 100.0%, pursuant to an indenture dated July 27, 2016 (together with the 2011 Indentures and the 2016 Secured Indenture, the "Indentures"). The 2019 Senior Secured Notes, the 2021 Senior Unsecured Notes, the 2026 Senior Secured Notes and the 2026 Senior Unsecured Notes are referred to collectively as the "Notes" and individually as a series of the Notes. The 2026 Senior Secured Notes and the 2026 Senior Unsecured Notes (collectively, the "2026 Notes") mature on August 1, 2026. Interest on the 2026 Senior Secured Notes accrues at an annual rate

of 5 1/4% and interest on the 2026 Senior Unsecured Notes accrues at an annual rate of 6 5/8%. Interest on the 2026 Notes is payable semi-annually in cash, in arrears on February 1 and August 1 of each year commencing February 1, 2017. As of December 31, 2016, the outstanding principal balance on each of the 2026 Senior Secured Notes and the 2026 Senior Unsecured Notes was \$750.0 million.

Additional Information Relating to the Notes

Each series of the Notes is redeemable, in whole or in part, at any time at a redemption price equal to 100.0% of the principal amount thereof plus a "makewhole" premium, as defined in the applicable Indenture, together with accrued and unpaid interest, if any, to the date of redemption. We may also redeem up to 10% of the outstanding 2026 Senior Secured Notes per year prior to August 1, 2020 at a redemption price equal to 103% of the principal amount thereof plus accrued and unpaid interest to the date of redemption. In addition, we may, at any time prior to August 1, 2019, with the net cash proceeds from certain equity offerings or capital contributions, redeem up to 35% of the 2026 Senior Secured Notes, at 105.250% of the principal amount, and up to 35% of the 2026 Senior Unsecured Notes, at a redemption price equal to 106.625% of the principal amount plus, in each case, accrued and unpaid interest on the 2026 Notes being redeemed to the date of redemption.

The Secured Notes are:

- our secured obligations;
- secured by security interests in substantially all of our and certain of our subsidiaries, existing and future tangible and intangible assets on a first
 priority basis, subject to certain exceptions;
- ranked equally and ratably as between the 2019 Senior Secured Notes and the 2026 Senior Secured Notes;
- effectively junior to our obligations that are secured by assets that are not part of the collateral that secures the respective Secured Notes, in each case, to the extent of the value of the collateral securing such obligations;
- effectively senior to our existing and future unsecured obligations to the extent of the value of the collateral securing the respective Secured Notes, after giving effect to permitted liens as provided in the Indenture governing the respective Secured Notes;
- senior in right of payment to all of our existing and future obligations that are expressly subordinated to the respective Secured Notes;
- structurally junior to any existing and future obligations of any of our subsidiaries that do not guarantee the respective Secured Notes; and
- unconditionally guaranteed, jointly and severally, on a general senior secured basis by certain of our subsidiaries, which guarantees rank equally with all of the guarantors' existing and future unsubordinated indebtedness and effectively senior to such guarantors' existing and future obligations to the extent of the value of the assets securing the respective Secured Notes.

The Unsecured Notes are:

- our unsecured senior obligations;
- ranked equally with all existing and future unsubordinated indebtedness (including as between the 2021 Senior Unsecured Notes and the 2026 Senior Unsecured Notes) and effectively junior to any secured indebtedness up to the value of the assets securing such indebtedness;
- effectively junior to our obligations that are secured to the extent of the value of the collateral securing such obligations;
- senior in right of payment to all of our existing and future obligations that are expressly subordinated to the respective Unsecured Notes;
- structurally junior to any existing and future obligations of any of our subsidiaries that do not guarantee the respective Unsecured Notes; and
- unconditionally guaranteed, jointly and severally, on a general senior secured basis by certain of our subsidiaries, which guarantees rank equally with all of the guarantors' existing and future unsubordinated indebtedness, and

effectively junior to any secured indebtedness of the guarantors up to the value of the assets securing such indebtedness.

Subject to certain exceptions, the Indentures contain restrictive covenants that, among other things, impose limitations on our ability and, in certain instances, the ability of certain of our subsidiaries to:

- incur additional debt;
- pay dividends or make distributions on our capital stock or repurchase our capital stock;
- make certain investments;
- create liens or enter into sale and leaseback transactions;
- enter into transactions with affiliates;
- merge or consolidate with another company;
- transfer and sell assets; and
- allow to exist certain restrictions on the ability of certain of our subsidiaries to pay dividends, make distributions, make other payments, or transfer assets to us or our subsidiaries.

In the event of a Change of Control, as defined in the respective Indentures, we would be required to make an offer to repurchase all or any part of a holder's Notes at a purchase price equal to 101.0% of the aggregate principal amount thereof, together with accrued and unpaid interest to the date of repurchase.

The Indentures provide for customary events of default for each series of the Notes, including, among other things, nonpayment, breach of the covenants in the applicable Indentures, payment defaults or acceleration of other indebtedness, a failure to pay certain judgments and certain events of bankruptcy, insolvency and reorganization. If any event of default occurs and is continuing with respect to any series of the Notes, the trustee or the holders of at least 25% in principal amount of the then outstanding Notes of such series may declare all the Notes of such series to be due and payable immediately, together with any accrued and unpaid interest.

Under the terms of a registration rights agreement, we have agreed to register under the Securities Act of 1933, as amended, notes having substantially identical terms as the 2026 Notes as part of an offer to exchange freely tradable exchange notes for the 2026 Notes that is required to be declared effective by July 27, 2017. In the event that the registration statement is not declared effective by July 27, 2017 and under certain other conditions (a "registration default"), we are required to pay each holder of the 2026 Notes additional interest up to \$0.25 per week per \$1,000 in principal amount of the 2026 Notes until the registration default is cured.

Debt Issuance Costs

As of January 1, 2016 we adopted ASU 2015-3 (see Note 2). As a result, we report unamortized debt issuance costs in "Long-term debt and capital lease obligations, net of unamortized debt issuance costs" in our consolidated balance sheets retrospectively. In connection with the issuance of the 2026 Notes, we incurred \$7.1 million of debt issuance costs. For the years ended December 31, 2016, 2015 and 2014, we amortized \$6.6 million, \$6.0 million and \$5.8 million of debt issuance costs, respectively, which are included in "Interest expense, net of amounts capitalized" in our consolidated statements of operations and comprehensive income (loss).

Capital Lease Obligations

Our capital lease obligations reflect the present value of future minimum lease payments under noncancelable lease agreements, primarily for certain of our satellites (see Note 8). These agreements require monthly recurring payments, which generally include principal, interest, an amount for use of the orbital location and estimated executory costs, such as insurance and maintenance. The monthly recurring payments generally are subject to reduction in the event of failures that reduce the satellite transponder capacity. Certain of these agreements provide for extension of the initial lease term at our option. The effective interest rates for our satellite capital lease obligations range from 9.1% to 11.2%, with a weighted average of 10.6% as of December 31, 2016.

Our capital lease obligations consist primarily of our payment obligations under agreements for the Nimiq 5 and QuetzSat-1 satellites, which have remaining noncancelable terms ending in September 2024 and November 2021, respectively. As discussed in Note 16, we have subleased transponders on these satellites to DISH Network.

Future minimum lease payments under our capital lease obligations, together with the present value of the net minimum lease payments as of December 31, 2016, are as follows:

		Amount
	(I	n thousands)
For the Years Ending December 31,	,	
2017	\$	88,709
2018		88,503
2019		88,221
2020		88,033
2021		83,995
Thereafter		174,240
Total minimum lease payments		611,701
Less: Amount representing lease of the orbital location and estimated executory costs (primarily insurance and maintenance) including profit thereon, included in total minimum lease payments		(188,216)
Net minimum lease payments		423,485
Less: Amount representing interest		(126,217)
Present value of net minimum lease payments		297,268
Less: Current portion		(32,984)
Long-term portion of capital lease obligations	\$	264,284

We received rental income from the sublease of our capital lease satellites of approximately \$132.4 million for each of the years ended December 31, 2016, 2015 and 2014. As of December 31, 2016, our future minimum sublease rental income was \$480.9 million relating to such satellites. The subleases have a remaining weighted average term of four years.

Note 11. Income Taxes

The components of income before income taxes are as follows:

	For the Years Ended December 31,							
	2016			2015		2014		
	(In thousands)							
Domestic	\$	202,905	\$	203,217	\$	132,081		
Foreign		(7,425)		8,131		10,596		
Income before income taxes	\$	195,480	\$	211,348	\$	142,677		

The components of the provision for income taxes are as follows:

	For the Years Ended December 31,					
	2016			2015		2014
			(1	In thousands)		
Current benefit (provision):						
Federal	\$	(223)	\$	(95)	\$	(989)
State		(62)		(27)		(151)
Foreign		(2,573)		(4,231)		(5,463)
Total current provision		(2,858)		(4,353)		(6,603)
Deferred benefit (provision):						
Federal		(67,035)		(70,052)		(38,575)
State		(8,693)		1,209		4,238
Foreign		4,827		832		845
Total deferred provision		(70,901)		(68,011)		(33,492)
Total income tax provision, net	\$	(73,759)	\$	(72,364)	\$	(40,095)

The actual tax provisions for the years ended December 31, 2016, 2015 and 2014 reconcile to the amounts computed by applying the statutory federal tax rate to income before income taxes as shown below:

	For the Years Ended December 31,						
	2016	2015	2014				
Statutory rate	35.0 %	35.0 %	35.0 %				
State income taxes, net of federal effect	4.5 %	(0.7)%	(2.9)%				
Permanent differences	0.6 %	0.8 %	0.6 %				
Tax credits	(1.5)%	(2.7)%	(5.5)%				
Valuation allowance	(1.1)%	2.0 %	0.7 %				
Other	0.2 %	(0.2)%	0.2 %				
Total effective tax rate	37.7 %	34.2 %	28.1 %				

The components of our deferred tax assets and liabilities are as follows:

	As of December 31,						
	2016	2015					
	(In tho	usands)					
Deferred tax assets:							
Net operating losses, credit and other carryforwards	\$ 153,807	\$	314,202				
Unrealized losses on investments, net	11,874		12,509				
Accrued expenses	31,036		29,487				
Stock-based compensation	1,606		1,032				
Other assets	7,445		5,118				
Total deferred tax assets	205,768		362,348				
Valuation allowance	(26,447)		(27,874)				
Deferred tax assets after valuation allowance	179,321		334,474				
Deferred tax liabilities:							
Depreciation and amortization	(697,314)		(781,370)				
Other liabilities	(1,319)		(1,638)				
Total deferred tax liabilities	 (698,633)		(783,008)				
Total net deferred tax liabilities	\$ (519,312)	\$	(448,534)				
Noncurrent portion of net deferred tax liabilities	\$ (519,312)	\$	(448,534)				
Total net deferred tax liabilities	\$ (519,312)	\$	(448,534)				

Deferred tax assets and liabilities reflect the effects of tax losses, credits, and the future income tax effects of temporary differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases and are measured using enacted tax rates that apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

We evaluate our deferred tax assets for realization and record a valuation allowance when we determine that it is more likely than not that the amounts will not be realized. Overall, our net deferred tax assets were offset by a valuation allowance of \$26.4 million and \$27.9 million as of December 31, 2016 and 2015, respectively. The change in the valuation allowance primarily relates to an increase in realized and unrealized gains that are capital in nature, partially offset by a decrease in the net operating loss carryforwards of certain foreign subsidiaries.

Tax benefits of net operating loss and tax credit carryforwards are evaluated on an ongoing basis, including a review of historical and projected future operating results, the eligible carryforward period, and other circumstances. As of December 31, 2016, we had net operating loss carryforwards of \$327.6 million, including \$68.4 million of foreign net operating loss carryforwards. A substantial portion of these net operating loss carryforwards will begin to expire in 2029. As of December 31, 2016, we have tax credit carryforwards of \$32.8 million and \$2.3 million for federal and state income tax purposes, respectively. If not utilized, the federal tax credit carryforwards will begin to expire in 2026 and the state tax credit carryforwards will begin to expire in 2018.

As of December 31, 2016, we had undistributed earnings attributable to foreign subsidiaries for which no provision for U.S. income taxes or foreign withholding taxes has been made because it is expected that such earnings will be reinvested outside the U.S. indefinitely. It is not practicable to determine the amount of the unrecognized deferred tax liability at this time.

Accounting for Uncertainty in Income Taxes

In addition to filing U.S. federal income tax returns with EchoStar, we file income tax returns in all states that impose an income tax. We also file income tax returns in the United Kingdom, Brazil, India and a number of other foreign jurisdictions. We generally are open to income tax examination in these foreign jurisdictions for taxable years beginning in 2003. As of December 31, 2016, we are currently being audited by the Indian tax authorities for fiscal years 2003 through 2012. We have no other on-going significant income tax examinations in process in our foreign jurisdictions.

A reconciliation of the beginning and ending amount of unrecognized income tax benefits is as follows:

	For the Years Ended December 31,							
Unrecognized tax benefit		2016				2014		
			(II	n thousands)				
Balance as of beginning of period	\$	3,508	\$	3,508	\$	3,632		
Additions based on tax positions related to the current year		388				_		
Additions based on tax positions related to prior years		3,161						
Reductions based on tax positions related to prior years		—				(81)		
Reductions based on tax settlements		—				(43)		
Balance as of end of period	\$	7,057	\$	3,508	\$	3,508		

As of December 31, 2016, we had \$7.1 million of unrecognized income tax benefits, all of which, if recognized, would affect our effective tax rate. As of December 31, 2015, we had \$3.5 million of unrecognized income tax benefits, all of which, if recognized, would affect our effective tax rate. We do not believe that the total amount of unrecognized income tax benefits will significantly increase or decrease within the next twelve months due to the lapse of statute of limitations or settlement with tax authorities.

For the years ended December 31, 2016, 2015 and 2014, our income tax provision included an insignificant amount of interest and penalties.

Estimates of our uncertain tax positions are made based upon prior experience and are updated in light of changes in facts and circumstances. However, due to the uncertain and complex application of tax regulations, it is possible that the ultimate resolution of audits may result in liabilities which could be materially different from these estimates. In such an event, we will record additional income tax provision or benefit in the period in which such resolution occurs.

Note 12. Employee Benefit Plans

Employee Stock Purchase Plan

EchoStar has an employee stock purchase plan (the "ESPP"), under which it is authorized to issue 2.5 million shares of EchoStar Class A common stock. As of December 31, 2016, EchoStar had 0.4 million shares of Class A common stock which remain available for issuance under this plan. Substantially all full-time employees who have been employed by us for at least one calendar quarter are eligible to participate in the ESPP. Employee stock purchases are made through payroll deductions. Under the terms of the ESPP, each employee's deductions are limited so that the maximum they may purchase under the ESPP is \$25,000 in fair value of Class A common stock per year. Stock purchases are made on the last business day of each calendar quarter at 85.0% of the closing price of the Class A common stock on that date. For the years ended December 31, 2016, 2015 and 2014, employee purchases of EchoStar Class A common stock through the ESPP totaled approximately 209,000 shares, 198,000 shares and 152,000 shares, respectively.

401(k) Employee Savings Plans

Under the EchoStar 401(k) Plan ("the Plan"), eligible employees are entitled to contribute up to 75.0% of their compensation subject to the maximum limit provided by the Internal Revenue Code of 1986, as amended (the "Code"). Eligible employees have the option to make after-tax contributions to the Plan so that they may contribute up to 75% of their compensation on a pre-tax and/or after-tax basis subject to the Code limits. All employee contributions to the Plan are immediately vested. EchoStar matches 50 cents on the dollar for the first 6.0% of each employee's salary contributions to the Plan for a total of 3.0% match on a pre-tax basis up to a maximum of \$7,500 annually. EchoStar's match is calculated each pay period there is an employee contribution. In addition, EchoStar may make an annual discretionary contribution to the 401 (k) plan to be made in cash or EchoStar's stock. Company contributions under the Plan vest at 20.0% per year and are 100.0% vested after an eligible employee has completed five years of employment. Forfeitures of unvested participant balances may be used to fund matching and discretionary contributions.

For the years ended December 31, 2016, 2015 and 2014, we recognized matching contributions, net of forfeitures, of \$4.4 million, \$4.0 million and \$3.3 million, respectively, and EchoStar made discretionary contributions of shares of its Class A common stock, net of forfeitures, with a fair value of \$5.6 million, \$5.2 million and \$5.0 million, respectively, to the Plan.

Note 13. Commitments and Contingencies

Commitments

The following table summarizes our contractual obligations at December 31, 2016:

	Payments Due in the Year Ending December 31,												
		Total		2017		2018		2019		2020	2021	5	Thereafter
							(Ir	n thousands)					
Long-term debt	\$	3,390,000	\$	—	\$	_	\$	990,000	\$	_	\$ 900,000	\$	1,500,000
Capital lease obligations		297,268		32,984		36,511		40,370		44,733	46,131		96,539
Interest on long-term debt and capital lease obligations		1,487,520		252,940		248,424		212,318		175,799	136,673		461,366
Satellite-related obligations		636,702		192,878		131,741		59,254		56,233	41,063		155,533
Operating lease obligations		65,017		26,775		8,773		6,950		6,685	6,007		9,827
Total	\$	5,876,507	\$	505,577	\$	425,449	\$	1,308,892	\$	283,450	\$ 1,129,874	\$	2,223,265

"Satellite-related obligations" primarily include payments pursuant to agreements for the construction of the EchoStar XIX, EchoStar XXI, EchoStar XXII, and EchoStar 105/SES-11 satellites, payments pursuant to launch services contracts and regulatory authorizations, executory costs for our capital lease satellites, costs under satellite service agreements and in-orbit incentives relating to certain satellites; as well as commitments for long-term satellite operating leases and satellite service arrangements. We incurred satellite-related expenses of \$144.2 million, \$116.5 million and \$127.4 million for the years ended December 31, 2016, 2015 and 2014, respectively.

The table above does not include amounts related to deferred tax liabilities, unrecognized tax positions and certain other amounts recorded in our noncurrent liabilities as the timing of any payments is uncertain. The table also excludes long-term deferred revenue and other long-term liabilities that do not require future cash payments.

In certain circumstances, the dates on which we are obligated to pay our contractual obligations could change.

Rent Expense

For the years ended December 31, 2016, 2015 and 2014, we recorded \$19.1 million, \$17.5 million and \$17.2 million, respectively, of operating lease expense relating to the leases of office space, equipment, and other facilities.

Contingencies

Patents and Intellectual Property

Many entities, including some of our competitors, have or may in the future obtain patents and other intellectual property rights that cover or affect products or services directly or indirectly related to those that we offer. We may not be aware of all patents and other intellectual property rights that our products and services may potentially infringe. Damages in patent infringement cases can be substantial, and in certain circumstances can be trebled. Further, we cannot estimate the extent to which we may be required in the future to obtain licenses with respect to intellectual property rights held by others and the availability and cost of any such licenses. Various parties have asserted patent and other intellectual property rights they claim, that these rights are not valid or that our products and services do not infringe on these rights. Further, we cannot be certain that these persons do not own the rights they claim, that these persons on commercially reasonable terms or, if we were unable to obtain such licenses, that we would be able to redesign our products and services to avoid infringement.

Separation Agreement

In 2008, DISH Network Corporation contributed its digital set-top box business and certain infrastructure and other assets, including certain of its satellites, uplink and satellite transmission assets, real estate, and other assets and related liabilities to EchoStar (the "Spin-off"). In connection with the Spin-off, EchoStar entered into a separation agreement with DISH Network that provides, among other things, for the division of certain liabilities, including certain designated liabilities for acts or omissions that occurred prior to the Spin-off. Certain specific provisions govern intellectual property related claims under which, generally, EchoStar will only be liable for its acts or omissions following the Spin-off and DISH Network's acts or omissions following the Spin-off.

Litigation

We are involved in a number of legal proceedings (including those described below) concerning matters arising in connection with the conduct of our business activities. Many of these proceedings are at preliminary stages and/or seek an indeterminate amount of damages. We regularly evaluate the status of the legal proceedings in which we are involved to assess whether a loss is probable or there is a reasonable possibility that a loss or an additional loss may have been incurred and to determine if accruals are appropriate. We record an accrual for litigation and other loss contingencies when we determine that a loss is probable and the amount of the loss can be reasonably estimated. If accruals are not appropriate, we further evaluate each legal proceeding to assess whether an estimate of possible loss or range of loss can be made. There can be no assurance that legal proceedings against us will be resolved in amounts that will not differ from the amounts of our recorded accruals. Legal fees and other costs of defending litigation are charged to expense as incurred.

For certain cases described below, management is unable to predict with any degree of certainty the outcome or provide a meaningful estimate of the possible loss or range of possible loss because, among other reasons, (i) the proceedings are in various stages; (ii) damages have not been sought or specified; (iii) damages are unsupported, indeterminate and/or exaggerated in management's opinion; (iv) there is uncertainty as to the outcome of pending appeals or motions; (v) there are significant factual issues to be resolved; and/or (vi) there are novel legal issues or unsettled legal theories to be presented or a large number of parties are involved (as with many patent-related cases). For these cases, however, management does not believe, based on currently available information, that the outcomes of these proceedings will have a material adverse effect on our financial condition, operating results or cash flows for any particular period, depending, in part, upon the operating results for such period.

We intend to vigorously defend the proceedings against us. In the event that a court ultimately rules against us, we may be subject to adverse consequences, including, without limitation, substantial damages, which may include treble damages, fines, penalties, compensatory damages and/or other equitable or injunctive relief that could require us to materially modify our business operations or certain products or services that we offer to our consumers. In addition, adverse decisions against DISH Network in the proceedings described below could decrease the number of products and components we sell to DISH Network, which could have a material adverse effect on our business operations and our financial condition, results of operations and cash flows.

California Institute of Technology

On October 1, 2013, the California Institute of Technology ("Caltech") filed suit against two of our subsidiaries, Hughes Communications, Inc. and Hughes Network Systems, LLC ("HNS"), as well as against DISH Network, DISH Network L.L.C., and dishNET Satellite Broadband L.L.C., in the United States District Court for the Central District of California alleging infringement of United States Patent Nos. 7,116,710; 7,421,032; 7,916,781; and 8,284,833, each of which is entitled "Serial Concatenation of Interleaved Convolutional Codes forming Turbo-Like Codes." Caltech asserted that encoding data as specified by the DVB-S2 standard infringes each of the asserted patents. In the operative Amended Complaint, served on March 6, 2014, Caltech claimed that certain of our Hughes segment's satellite broadband products and services infringed the asserted patents by implementing the DVB-S2 standard. On February 17, 2015, Caltech filed a second complaint in the same district against the same defendants alleging that HNS' Gen4 HT1000 and HT1100 products infringed the same patents asserted in the first case. On May 25, 2016, we, the DISH Network defendants and Caltech entered into a settlement agreement pursuant to which the Court dismissed with prejudice all of the claims in these actions on May 31, 2016.

Elbit

On January 23, 2015, Elbit Systems Land and C4I LTD and Elbit Systems of America Ltd. (together referred to as "Elbit") filed a complaint against our subsidiary HNS, as well as against Black Elk Energy Offshore Operations, LLC, Bluetide Communications, Inc. and Helm Hotels Group, in the United States District Court for the Eastern District of Texas, alleging infringement of United States Patent Nos. 6,240,073 (the "073 patent") and 7,245,874 ("874 patent"). The 073 patent is entitled "Reverse Link for a Satellite Communication Network" and the 874 patent is entitled "Infrastructure for Telephony Network." Elbit alleges that the 073 patent is infringed by broadband satellite systems that practice the Internet Protocol Over Satellite standard. Elbit alleges that the 874 patent is infringed by the manufacture and sale of broadband satellite systems that provide cellular backhaul service via connections to E1 or T1 interfaces at cellular backhaul base stations. On April 2, 2015, Elbit filed an amended complaint removing Helm Hotels Group as a defendant, but making similar allegations against a new defendant, Country Home Investments, Inc. On November 3 and 4, 2015, and January 22, 2016, the defendants filed petitions before the United States Patent and Trademark Office challenging the validity of the patents in suit, which the Patent and Trademark Office subsequently declined to institute. On April 13, 2016, the defendants answered Elbit's complaint. Trial is scheduled to commence on July 31, 2017.

Realtime Data LLC

On May 8, 2015, Realtime Data LLC ("Realtime") filed suit against EchoStar Corporation and our subsidiary HNS in the United States District Court for the Eastern District of Texas alleging infringement of United States Patent Nos. 7,378,992, entitled "Content Independent Data Compression Method and System"; 7,415,530, entitled "System and Methods for Accelerated Data Storage and Retrieval"; and 8,643,513, entitled "Data Compression System and Methods." On September 14, 2015, Realtime amended its complaint, additionally alleging infringement of United States Patent No. 9,116,908, entitled "System and Methods for Accelerated Data Storage and Retrieval." Realtime generally alleges that the asserted patents are infringed by certain HNS data compression products and services. Over April 29, 2016 and May 5, 2016, the defendants filed petitions before the United States Patent and Trademark Office challenging the validity of the asserted patents. The United States Patent and Trademark Office has instituted proceedings on each of those petitions, but the litigation has not been stayed. On February 14, 2017, Realtime filed a second suit against EchoStar Corporation and our subsidiary HNS in the same District Court, alleging infringement of four additional United States Patents, Nos. 7,358,867, entitled "Content Independent Data Compression Method and System;" 8,502,707, entitled "Data Compression Systems and Methods;" 8,717,204, entitled "Methods for Encoding and Decoding Data;" and 9,054,728, entitled "Data Compression System and Methods." The cases have been consolidated and no trial date has been set. Realtime is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein.

TQ Beta LLC

On June 30, 2014, TQ Beta LLC ("TQ Beta") filed suit against DISH Network, DISH DBS Corporation, DISH Network L.L.C., as well as HSS, EchoStar Corporation, EchoStar Technologies, L.L.C, and Sling Media, Inc., a subsidiary of EchoStar, in the United States District Court for the District of Delaware, alleging infringement of United States Patent No. 7,203,456 (the "456 patent"), which is entitled "Method and Apparatus for Time and Space Domain Shifting of Broadcast Signals." TQ Beta alleges that the Hopper, Hopper with Sling, ViP 722 and ViP 722k DVR devices, as well as the DISH Anywhere service and DISH Anywhere mobile application, infringe the 456 patent, but has not specified the amount of damages that it seeks. TQ Beta is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein. During August 2015, EchoStar Corporation and DISH Network L.L.C. filed petitions before the United States Patent and Trademark Office challenging the validity of certain claims of the 456 patent, and in February 2016, the United States Patent and Trademark Office agreed to institute proceedings on our petitions. On February 25, 2016, the case was stayed pending resolution of these proceedings before the United States Patent and Trademark Office, and the Court vacated all pending court dates and deadlines. On January 30, 2017, the United States Patent and Trademark Office issued its final written decisions on our petitions, invalidating all claims of the 456 patent that were asserted in the litigation, which decisions may be appealed by TQ Beta.

Two-Way Media Ltd.

On February 17, 2016, Two-Way Media Ltd. ("TWM") filed a complaint against EchoStar Corporation and its subsidiaries, EchoStar Technologies L.L.C., EchoStar Satellite Services L.L.C., and Sling Media, Inc., as well as against DISH Network

Corporation, DISH DBS Corporation, DISH Network L.L.C., DISH Network Service L.L.C., Sling TV Holding L.L.C., Sling TV L.L.C., and Sling TV Purchasing L.L.C. TWM brought the suit in the United States District Court for the District of Colorado, alleging infringement of United States Patent Nos. 5,778,187; 5,983,005; 6,434,622; and 7,266,686, each entitled "Multicasting Method and Apparatus"; and 9,124,607, entitled "Methods and Systems for Playing Media." TWM alleged that the Sling TV, Sling International, DISH Anywhere, and DISHWorld services, as well as the Slingbox units and DISH DVRs incorporating Slingbox technology, infringed the asserted patents. TWM is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein. Effective December 8, 2016, we, DISH Network Corporation and TWM entered into a settlement agreement pursuant to which the Court dismissed with prejudice all claims in the action on December 15, 2016.

Other

In addition to the above actions, we are subject to various other legal proceedings and claims, which arise in the ordinary course of our business. As part of our ongoing operations, the Company is subject to various inspections, audits, inquiries, investigations and similar actions by third parties, as well as by governmental/regulatory authorities responsible for enforcing the laws and regulations to which the Company may be subject. Further, under the federal False Claims Act, private parties have the right to bring qui tam, or "whistleblower," suits against companies that submit false claims for payments to, or improperly retain overpayments from, the federal government. Some states have adopted similar state whistleblower and false claims provisions. In addition, the Company from time to time receives inquiries from federal, state and foreign agencies regarding compliance with various laws and regulations.

In our opinion, the amount of ultimate liability with respect to any of these actions is unlikely to materially affect our financial position, results of operations or cash flows, though the resolutions and outcomes, individually or in the aggregate, could be material to our financial position, operating results or cash flows for any particular period, depending, in part, upon the operating results for such period.

The Company indemnifies its directors, officers and employees for certain liabilities that might arise from the performance of their responsibilities for the Company. Additionally, in the normal course of its business, the Company enters into contracts pursuant to which the Company may make a variety of representations and warranties and indemnify the counterparty for certain losses. The Company's possible exposure under these arrangements cannot be reasonably estimated as this involves the resolution of claims made, or future claims that may be made, against the Company or its officers, directors or employees, the outcomes of which are unknown and not currently predictable or estimable.

Note 14. Segment Reporting

Operating segments are business components of an enterprise for which separate financial information is available and regularly evaluated by the chief operating decision maker ("CODM"), who for HSS, is the Company's Chief Executive Officer. Under this definition, we operate in two primary business segments, Hughes and EchoStar Satellite Services as described in Note 1 of these consolidated financial statements.

The primary measure of segment profitability that is reported regularly to our CODM is earnings before interest, taxes, depreciation and amortization, or EBITDA. Our segment operating results do not include real estate and other activities, costs incurred in certain satellite development programs and other business development activities, expenses of various corporate departments and our centralized treasury operations, including income from our investment portfolio and interest expense on our debt. These activities are accounted for in the "All Other and Eliminations" column in the table below. Total assets by segment have not been reported herein because the information is not provided to our CODM on a regular basis. The Hughes Retail Group is included in our Hughes segment and our CODM reviews separate HRG financial information only to the extent such information is included in our periodic filings with the SEC. Therefore, we do not consider HRG to be a separate operating segment.

Transactions between segments were not significant for the years ended December 31, 2016, 2015 and 2014.

The following table presents revenue, capital expenditures, and EBITDA for each of our operating segments:

	 Hughes	EchoStar Satellite Services		All Other and Eliminations	Consolidated Total
		(In tho	usan	ds)	
For the Year Ended December 31, 2016					
Net revenue:					
External revenue	\$ 1,389,152	\$ 406,970	\$	3,671	\$ 1,799,793
Intersegment revenue	\$ 3,209	\$ 690	\$	(3,899)	\$
Total revenue	\$ 1,392,361	\$ 407,660	\$	(228)	\$ 1,799,793
Capital expenditures	\$ 322,362	\$ 58,925	\$		\$ 381,287
EBITDA	\$ 427,802	\$ 339,496	\$	15,209	\$ 782,507
For the Year Ended December 31, 2015					
Net revenue:					
External revenue	\$ 1,344,945	\$ 489,842	\$	2,345	\$ 1,837,132
Intersegment revenue	\$ 2,395	\$ 749	\$	(3,144)	\$ —
Total revenue	\$ 1,347,340	\$ 490,591	\$	(799)	\$ 1,837,132
Capital expenditures	\$ 285,499	\$ 101,215	\$		\$ 386,714
EBITDA	\$ 396,684	\$ 412,607	\$	(4,699)	\$ 804,592
For the Year Ended December 31, 2014					
Net revenue:					
External revenue	\$ 1,325,887	\$ 481,579	\$	511	\$ 1,807,977
Intersegment revenue	\$ 1,831	\$ 2,876	\$	(4,707)	\$ _
Total revenue	\$ 1,327,718	\$ 484,455	\$	(4,196)	\$ 1,807,977
Capital expenditures	\$ 218,607	\$ 28,734	\$		\$ 247,341
EBITDA	\$ 356,871	\$ 419,442	\$	5,137	\$ 781,450

The following table reconciles total consolidated EBITDA to reported "Income before income taxes" in our consolidated statements of operations and comprehensive income (loss):

		For the Years Ended December 31,							
	2016			2015		2014			
EBITDA	\$	782,507	\$	804,592	\$	781,450			
Interest income and expense, net		(174,600)		(164,734)		(188,024)			
Depreciation and amortization		(414,133)		(430,127)		(452,138)			
Net income attributable to noncontrolling interests		1,706		1,617		1,389			
Income before income taxes	\$	195,480	\$	211,348	\$	142,677			

Geographic Information and Transactions with Major Customers

Geographic Information. Revenue is attributed to geographic regions based upon the location where the goods and services are provided. North America revenue includes transactions with North America customers. All other revenue includes transactions with customers in Asia, Africa, Australia, Europe, South America, and the Middle East. The following table summarizes total long-lived assets and revenue attributed to the North America and other foreign locations.

	As of December 31,						
Long-lived assets:	 2016						
	(In thousands)						
North America:							
United States	\$ 3,111,452	\$	3,266,471				
Canada and Mexico	16,630		1,076				
All other	223,209		89,106				
Total long-lived assets	\$ 3,351,291	\$	3,356,653				

	For the Years Ended December 31,							
Revenue:	 2016		2015	2014				
	(In thousands)							
North America:								
United States	\$ 1,469,666	\$	1,516,627	\$	1,470,481			
Canada and Mexico	86,236		67,648		80,264			
All other	243,891		252,857		257,232			
Total revenue	\$ 1,799,793	\$	1,837,132	\$	1,807,977			

Transactions with Major Customers. For the years ended December 31, 2016, 2015 and 2014, our revenue included sales to one major customer. The following table summarizes sales to this customer and its percentage of total revenue.

2014	
112,692	
407,236	
519,928	
1,288,049	
1,807,977	
28.8%	
71.2%	

Note 15. Quarterly Financial Data (Unaudited)

Our quarterly results of operations are summarized as follows:

	For the Three Months Ended							
	 March 31		June 30	9	September 30		December 31	
			(In tho	usan	ds)			
Year ended December 31, 2016								
Total revenue	\$ 429,126	\$	440,718	\$	457,266	\$	472,683	
Operating income	\$ 81,225	\$	87,546	\$	91,400	\$	90,561	
Net income	\$ 34,030	\$	37,999	\$	28,089	\$	21,603	
Net income attributable to HSS	\$ 33,919	\$	37,688	\$	27,565	\$	20,843	
Year ended December 31, 2015								
Total revenue	\$ 450,234	\$	459,476	\$	464,031	\$	463,391	
Operating income	\$ 90,992	\$	98,984	\$	99,357	\$	93,671	
Net income	\$ 29,376	\$	27,473	\$	37,232	\$	44,903	
Net income attributable to HSS	\$ 29,007	\$	27,045	\$	37,023	\$	44,292	

Note 16. Related Party Transactions

EchoStar

We and EchoStar have agreed that we shall have the right, but not the obligation, to receive from EchoStar certain corporate services, including among other things: treasury, tax, accounting and reporting, risk management, legal, internal audit, human resources, and information technology. These services are provided at cost. We may terminate a particular service we receive from EchoStar for any reason upon at least 30 days' notice. We recorded expenses for services received from EchoStar of \$16.7 million, \$16.5 million and \$13.2 million for the years ended December 31, 2016, 2015 and 2014, respectively. In addition, we occupy certain office space in buildings owned or leased by EchoStar and pay a portion of the taxes, insurance, utilities and maintenance of the premises in accordance with the percentage of the space we occupy.

We participate in certain of EchoStar's shared services arrangements for its subsidiaries in the ordinary course of business, including arrangements for payroll, accounts payable and cash management. From time to time in connection with the processing of transactions under these arrangements, we may pay or receive amounts attributable to other domestic subsidiaries of EchoStar. We report net payments on behalf of other subsidiaries in "Advances to affiliates, net" within current assets and we report net receipts on behalf of other subsidiaries in "Advances from affiliates, net" within current liabilities in our consolidated balance sheets. No repayment schedule for these net advances has been determined.

EchoStar and certain of its subsidiaries have provided cash advances to certain of our foreign subsidiaries to fund certain expenditures pursuant to loan agreements that mature in 2018 and 2022. Advances under these agreements bear interest at annual rates ranging from one to three percent, subject to periodic adjustment based on the one-year U.S. LIBOR rate. We report amounts payable under these agreements in "Advances from affiliates" within noncurrent liabilities in our consolidated balance sheets.

EchoStar XXI and EchoStar XXIII Launch Facilitation and Operational Control Agreements. As part of applying for our launch licenses for EchoStar XXI and XXIII through the UK Space Agency, our subsidiary, Hughes Network Systems, Ltd. ("HNS Ltd.") and a subsidiary of EchoStar, EchoStar Operating L.L.C. ("EOC"), entered into agreements in June 2015 and March 2016 to transfer to HNS Ltd., EOC's launch service contracts for the EchoStar XXI and EchoStar XXIII satellites, respectively, and to grant HNS Ltd. certain rights to control the in-orbit operations of these satellites. EOC retained ownership of the satellites. In March 2016, we recorded a \$70.3 million addition to "Other noncurrent assets, net" and a corresponding increase in "Additional paid-in capital" in our condensed consolidated balance sheet to reflect EOC's cumulative payments under the EchoStar XXIII launch service contract prior to the transfer date. EOC also contracted to make future payments to HNS Ltd. for amounts that HNS Ltd. is required to pay under both launch service contracts. In March and November 2016, HNS Ltd. received a total of \$23.8 million in cash from EOC to fund required payments under the EchoStar XXII launch service

contract. We recorded the cash receipts as increases in "Additional paid-in capital." HNS Ltd.'s future payments under the launch service contracts are included in our disclosure of satellite-related obligations in Note 13.

Share Exchange Agreement. Prior to consummation of the Share Exchange, EchoStar is required to complete steps necessary for the transferring assets and liabilities that are being assumed by the DISH Parties to be owned by the transferring entities and their respective subsidiaries. As part of these steps, subsidiaries of EchoStar that currently own the Uplinking Businesses and related assets and liabilities will be contributed to our subsidiary EB Corp in consideration for additional shares of the Company's common stock that will be issued to a subsidiary of EchoStar. Certain data center assets within the Uplinking Businesses will not be included in the Share Exchange and after consummation of the Share Exchange will continue to be owned by our subsidiaries and will be pledged as collateral to support our obligations under the Indentures.

DISH Network

Following the Spin-off, EchoStar and DISH Network have operated as separate publicly-traded companies. However, pursuant to the Satellite and Tracking Stock Transaction, described in Note 3 and below, DISH Network owns Hughes Retail Preferred Tracking Stock representing an aggregate 80.0% economic interest in the residential retail satellite broadband business of our Hughes segment. The tracking stock is an equity security and the rights of DISH Network, as the holder of the tracking stock, in our assets are subject to the claims of our creditors. In addition, a substantial majority of the voting power of the shares of EchoStar and DISH Network is owned beneficially by Charles W. Ergen, our Chairman, and by certain trusts established by Mr. Ergen for the benefit of his family.

In connection with and following the Spin-off, EchoStar and DISH Network have entered into certain agreements pursuant to which we and EchoStar obtain certain products, services and rights from DISH Network; DISH Network obtains certain products, services and rights from us and EchoStar; and we and DISH Network have indemnified each other against certain liabilities arising from our respective businesses. We and/or EchoStar also may enter into additional agreements with DISH Network in the future. Generally, the amounts DISH Network pays for products and services provided under the agreements are based on our cost plus a fixed margin (unless noted differently below), which varies depending on the nature of the products and services provided.

The following is a summary of the terms of our principal agreements with DISH Network that may have an impact on our financial condition and results of operations.

Following the Share Exchange, we also expect that we will enter into agreements for new transactions with DISH Network, including agreements pursuant to which we obtain certain products, services and rights from DISH Network and DISH Network obtains certain products, services and rights from us.

Services and other revenue — DISH Network

Satellite Services Provided to DISH Network. Since the Spin-off, we have entered into certain satellite service agreements pursuant to which DISH Network receives satellite services on certain satellites owned or leased by us. The fees for the services provided under these satellite service agreements depend, among other things, upon the orbital location of the applicable satellite, the number of transponders that are providing services on the applicable satellite, and the length of the service arrangements. The terms of each service arrangement is set forth below:

EchoStar I, EchoStar XI, EchoStar X, EchoStar XI and EchoStar XIV. As part of the Satellite and Tracking Stock Transaction discussed in Note 3, in March 2014, we began providing certain satellite services to DISH Network on the EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. The term of each satellite services agreement generally terminates upon the earlier of: (i) the end of life of the satellite; (ii) the date the satellite fails; or (iii) a certain date, which depends upon, among other things, the estimated useful life of the satellite. DISH Network generally has the option to renew each satellite service agreement on a year-to-year basis through the end of the respective satellite's life. There can be no assurance that any options to renew such agreements will be exercised. DISH Network elected not to renew the satellite services agreement relative to the EchoStar I satellite. The agreement for the EchoStar I satellite expired pursuant to its terms effective November 2015. In December 2016, DISH Network renewed the satellite services agreement relative to the EchoStar VII satellite for one year to June 2018.

EchoStar VIII. In May 2013, DISH Network began receiving satellite services from us on the EchoStar VIII satellite as an in-orbit spare. Effective March 2014, this satellite services arrangement converted to a month-to-month service agreement with both parties having the right to terminate upon 30 days' notice. The agreement terminated in accordance with its terms effective November 2015.

EchoStar IX. Effective January 2008, DISH Network began receiving satellite services from us on the EchoStar IX satellite. Subject to availability, DISH Network generally has the right to continue to receive satellite services from us on the EchoStar IX satellite on a month-to-month basis.

EchoStar XII. DISH Network receives satellite services from us on the EchoStar XII satellite. The term of the satellite services agreement terminates upon the earlier of: (i) the end of life of the satellite; (ii) the date the satellite fails or the date the transponder(s) on which the service was being provided under the agreement fails; or (iii) September 2017. DISH Network generally has the option to renew the agreement on a year-to-year basis through the end of the satellite's life. There can be no assurance that any options to renew this agreement will be exercised.

EchoStar XVI. In December 2009, we entered into an initial ten-year transponder service agreement with DISH Network, pursuant to which DISH Network has received satellite services from us on the EchoStar XVI satellite since January 2013. Effective December 2012, we and DISH Network amended the transponder service agreement to, among other things, change the initial term to generally expire upon the earlier of: (i) the end-of-life or replacement of the satellite; (ii) the date the satellite fails; (iii) the date the transponder(s) on which service is being provided under the agreement fails; or (iv) four years following the actual service commencement date. In July 2016, we and DISH Network further amended the transponder service agreement to, among other things, extend the initial term by one additional year and to reduce the term of the first renewal option by one year. Prior to expiration of the initial term, we, upon certain conditions, and DISH Network have the option to renew for an additional five-year period. If either we or DISH Network exercise our respective five-year renewal options, DISH Network has the option to renew for an additional five-year period prior to expiration of the then-current term. There can be no assurance that any option to renew this agreement will be exercised. In the event that we or DISH Network does not exercise the first five-year renewal option or DISH Network does not exercise the Second five-year renewal option, DISH Network has the option to purchase the EchoStar XVI satellite for a certain price. If DISH Network does not elect to purchase the EchoStar XVI satellite at that time, we may sell the EchoStar XVI satellite to a third party and DISH Network is required to pay us a certain amount in the event we are not able to sell the EchoStar XVI satellite for more than a certain amount.

Nimiq 5 Agreement. In September 2009, we entered into a fifteen-year satellite service agreement with Telesat Canada ("Telesat") to receive service on all 32 DBS transponders on the Nimiq 5 satellite at the 72.7 degree west longitude orbital location (the "Telesat Transponder Agreement"). In September 2009, we also entered into a satellite service agreement (the "DISH Nimiq 5 Agreement") with DISH Network, pursuant to which DISH Network receives satellite services from us on all 32 of the DBS transponders covered by the Telesat Transponder Agreement.

Under the terms of the DISH Nimiq 5 Agreement, DISH Network makes certain monthly payments to us that commenced in September 2009, when the Nimiq 5 satellite was placed into service, and continue through the service term. Unless earlier terminated under the terms and conditions of the DISH Nimiq 5 Agreement, the service term will expire ten years following the date the Nimiq 5 satellite was placed into service. Upon expiration of the initial term, DISH Network has the option to renew the DISH Nimiq 5 Agreement on a year-to-year basis through the end of life of the Nimiq 5 satellite. Upon in-orbit failure or end of life of the Nimiq 5 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no assurance that any options to renew the DISH Nimiq 5 Agreement will be exercised or that DISH Network will exercise its option to receive service on a replacement satellite.

QuetzSat-1 Agreement. In November 2008, we entered into a ten-year satellite service agreement with SES Latin America, which provides, among other things, for the provision by SES Latin America to us of service on 32 DBS transponders on the QuetzSat-1 satellite. Concurrently, in 2008, we entered into a transponder service agreement with DISH Network, pursuant to which DISH Network receives satellite services on 24 of the DBS transponders on the QuetzSat-1 satellite. The QuetzSat-1 satellite was launched in September 2011 and was placed into service in November 2011 at the 67.1 degree west longitude orbital location. In February 2013, EchoStar and DISH Network entered into an agreement pursuant to which we receive certain satellite services from DISH Network on five DBS transponders on the QuetzSat-1 satellite. In January 2013, the QuetzSat-1 satellite was moved to the 77 degree west longitude orbital location and DISH Network commenced commercial operations at such location in February 2013.

Under the terms of our contractual arrangements with DISH Network, we began to provide service to DISH Network on the QuetzSat-1 satellite in February 2013 and will continue to provide service through the remainder of the service term. Unless extended or earlier terminated under the terms and conditions of our agreement with DISH Network for the QuetzSat-1 satellite, the initial service term will expire in November 2021. Upon expiration of the initial service term, DISH Network has the option to renew the agreement for the QuetzSat-1 satellite on a year-to-year basis through the end of life of the QuetzSat-1 satellite. Upon an in-orbit failure or end of life of the QuetzSat-1 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no assurance that any options to renew this agreement will be exercised or that DISH Network will exercise its option to receive service on a replacement satellite.

103 Degree Orbital Location/SES-3. In May 2012, we entered into a spectrum development agreement (the "103 Spectrum Development Agreement") with Ciel Satellite Holdings Inc. ("Ciel") to develop certain spectrum rights at the 103 degree west longitude orbital location (the "103 Spectrum Rights"). In June 2013, we and DISH Network entered into a spectrum development agreement (the "DISH 103 Spectrum Development Agreement") pursuant to which DISH Network may use and develop the 103 Spectrum Rights. Unless earlier terminated under the terms and conditions of the DISH 103 Spectrum Development Agreement, the term generally will continue for the duration of the 103 Spectrum Rights.

In connection with the 103 Spectrum Development Agreement, in May 2012, we also entered into a ten-year service agreement with Ciel pursuant to which we receive certain satellite services from Ciel on the SES-3 satellite at the 103 degree orbital location. In June 2013, we and DISH Network entered into an agreement pursuant to which DISH Network receives certain satellite services from us on the SES-3 satellite (the "DISH 103 Service Agreement"). Under the terms of the DISH 103 Service Agreement, DISH Network makes certain monthly payments to us through the service term. Unless earlier terminated under the terms and conditions of the DISH 103 Service Agreement, the initial service term will expire on the earlier of: (i) the date the SES-3 satellite fails; (ii) the date the transponder(s) on which service was being provided under the agreement fails; or (iii) June 2023. Upon inorbit failure or end of life of the SES-3 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite.

Satellite and Tracking Stock Transaction. In February 2014, we entered into agreements with DISH Network to implement a transaction pursuant to which, among other things: (i) in March 2014, EchoStar and HSS issued shares of the Tracking Stock to DISH Network in exchange for five satellites owned by DISH Network (EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV) (including assumption of related in-orbit incentive obligations) and approximately \$11.4 million in cash; and (ii) in March 2014, DISH Network began receiving certain satellite services on these five satellites from us. See Note 3 for further information.

TT&C Agreement. Effective January 2012, we entered into a telemetry, tracking and control ("TT&C") agreement pursuant to which we provide TT&C services to DISH Network for a period ending in December 2016 (the "2012 TT&C Agreement"). In November 2016, we and DISH Network amended the 2012 TT&C Agreement to extend the term for one year through December 2017. The 2012 TT&C Agreement replaced the TT&C agreement we entered into with DISH Network in connection with the Spin-off. The fees for services provided under the 2012 TT&C Agreement are calculated at either: (i) a fixed fee or (ii) cost plus a fixed margin, which will vary depending on the nature of the services provided. DISH Network is able to terminate the 2012 TT&C Agreement for any reason upon 60 days' notice.

In connection with the Satellite and Tracking Stock Transaction, in February 2014, we amended the TT&C Agreement to cease the provision of TT&C services to DISH Network for the EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. Effective March 2014, we provide TT&C services for the D-1 and EchoStar XV satellites; however, for the period that we received satellite services on the EchoStar XV satellite from DISH Network, we waived the fees for the TT&C services on the EchoStar XV satellite. Effective August 2016, we provide TT&C services to DISH Network for the EchoStar XV satellite.

TerreStar Agreement. In March 2012, DISH Network completed its acquisition of substantially all the assets of TerreStar Networks Inc. ("TerreStar"). Prior to DISH Network's acquisition of substantially all the assets of TerreStar and our completion of the Hughes Acquisition, TerreStar and HNS entered into various agreements pursuant to which our Hughes segment provides, among other things, warranty, operations and maintenance and hosting services for TerreStar's ground-based



communications equipment. TerreStar generally has the right to continue to receive warranty services from us for one of our products on a month-to-month basis. The provision of warranty services for our other product will continue until March 2018 and will automatically renew in March 2018 for an additional one-year period, unless terminated by TerreStar upon at least 60 days' written notice to us prior to the end of the term. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by TerreStar or us upon at least 90 days' written notice prior to the end of the term. The provision of hosting services will continue until May 2022 and will not renew beyond May 2022 unless the parties enter into a new agreement or amend the existing agreement. In addition, TerreStar generally may terminate such services for convenience subject to providing us with prior notice and/or payment of termination charges.

Hughes Broadband Distribution Agreement. Effective October 2012, HNS and dishNET Satellite Broadband L.L.C. ("dishNET"), a wholly-owned subsidiary of DISH Network, entered into a distribution agreement (the "Distribution Agreement") pursuant to which dishNET has the right, but not the obligation, to market, sell and distribute the Hughes satellite internet service (the "Hughes service"). dishNET pays HNS a monthly per subscriber wholesale service fee for the Hughes service based upon a subscriber's service level and based upon certain volume subscription thresholds. The Distribution Agreement also provides that dishNET has the right, but not the obligation, to purchase certain broadband equipment from us to support the sale of the Hughes service. The Distribution Agreement had an initial term of five years with automatic renewal for successive one year terms unless terminated by either party with a written notice at least 180 days before the expiration of the then-current term. In February 2014, HNS and dishNET entered into an amendment to the Distribution Agreement, the parties will continue to provide the Hughes service to the then-current dishNET subscribers pursuant to the terms and conditions of the Distribution Agreement.

DBSD North America Agreement. In March 2012, DISH Network completed its acquisition of 100% of the equity of reorganized DBSD North America, Inc. ("DBSD North America"). Prior to DISH Network's acquisition of DBSD North America and our completion of the Hughes Acquisition, DBSD North America and HNS entered into various agreements pursuant to which our Hughes segment provides, among other things, warranty, operations and maintenance and hosting services of DBSD North America's gateway and ground-based communications equipment. DBSD North America generally has the right to continue to receive warranty services from us on a month-to-month basis until February 2019. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by DBSD North America upon at least 120 days' written notice to us prior to the end of the term. The provision of hosting services will continue until February 2022 and will automatically renew for an additional five-year period until February 2027 unless terminated by DBSD North America upon at least 180 days' written notice to us prior to the end of the term. In addition, DBSD North America generally may terminate such services for convenience, subject to providing us with prior notice and/or payment of termination charges.

RUS Implementation Agreement. In September 2010, DISH Broadband L.L.C. ("DISH Broadband"), DISH Network's indirect, wholly-owned subsidiary, was selected by the Rural Utilities Service ("RUS") of the United States Department of Agriculture to receive up to approximately \$14.1 million in broadband stimulus grant funds (the "Grant Funds"). Effective November 2011, HNS and DISH Broadband entered into a RUS Implementation Agreement (the "RUS Agreement") pursuant to which HNS provided certain portions of the equipment and broadband service used to implement DISH Broadband's RUS program. While the RUS Agreement expired in June 2013 when the Grant Funds were exhausted, HNS is required to continue providing services to DISH Broadband's customers activated prior to the expiration of the RUS Agreement in accordance with the terms and conditions of the RUS Agreement.

General and administrative expenses — DISH Network

Professional Services Agreement. In connection with the Spin-off, EchoStar entered into various agreements with DISH Network including the Transition Services Agreement, Satellite Procurement Agreement and Services Agreement, which all expired in January 2010 and were replaced by a Professional Services Agreement. In January 2010, EchoStar and DISH Network agreed that EchoStar shall continue to have the right, but not the obligation, to receive the following services from DISH Network, among others, certain of which were previously provided under the Transition Services Agreement: information technology, travel and event coordination, internal audit, legal, accounting and tax, benefits administration, program acquisition services and other support services. Additionally, EchoStar and DISH Network agreed that DISH Network would continue to have the right, but not the obligation, to engage us to manage the process of procuring new satellite capacity for DISH Network (previously provided under the Satellite Procurement Agreement), receive logistics, procurement and quality assurance services

from EchoStar (previously provided under the Services Agreement) and other support services. A portion of these costs and expenses have been allocated to us in the manner described above under the caption "EchoStar." The Professional Services Agreement automatically renewed in January 2017 for an additional one-year period until January 2018 and renews automatically for successive one-year periods thereafter, unless terminated earlier by either party upon at least 60 days' notice. However, either party may terminate the Professional Services Agreement in part with respect to any particular service it receives for any reason upon at least 30 days' notice.

Other agreements — DISH Network

Share Exchange Agreement. On January 31, 2017, EchoStar and certain of its subsidiaries entered into the Share Exchange Agreement with DISH Network Corporation and certain of its subsidiaries which provides, among other things, that EchoStar and its subsidiaries will receive all of the shares of the EchoStar Tracking Stock and HSS Tracking Stock in exchange for 100% of the equity interests of certain EchoStar subsidiaries that will hold the EchoStar Technologies businesses (collectively, the "Share Exchange"). Following consummation of the Share Exchange, the EchoStar Tracking Stock and HSS Tracking Stock will be retired and all agreements, arrangements and policy statements with respect to, and terms of, such tracking stock will terminate and be of no further effect. The Share Exchange has been structured in a manner to be a tax-free exchange for each of EchoStar and DISH Network. We and DISH Network will, at the closing of the Share Exchange, enter into certain customary agreements pursuant to which we will obtain certain products, services and rights from USH Network and DISH Network will obtain certain products, services and rights from us. See Note 18 for further information.

Tax Sharing Agreement. As a subsidiary of EchoStar, we are an indirect party to EchoStar's tax sharing agreement with DISH Network that was entered into in connection with the Spin-off. This agreement governs EchoStar and DISH Network's respective rights, responsibilities and obligations after the Spin-off with respect to taxes for the periods ending on or before the Spin-off. Generally, all pre-Spin-off taxes, including any taxes that are incurred as a result of restructuring activities undertaken to implement the Spin-off, are borne by DISH Network, and DISH Network will indemnify EchoStar for such taxes. However, DISH Network is not liable for and will not indemnify EchoStar for any taxes that are incurred as a result of the Spin-off or certain related transactions failing to qualify as tax-free distributions pursuant to any provision of Section 355 or Section 361 of the Internal Revenue Code of 1986, as amended, because of: (i) a direct or indirect acquisition of any of EchoStar's stock, stock options or assets; (ii) any action that EchoStar takes or fails to take; or (iii) any action that EchoStar takes that is inconsistent with the information and representations furnished to the IRS in connection with the request for the private letter ruling, or to counsel in connection with any opinion being delivered by counsel with respect to the Spin-off or certain related transactions. In such case, EchoStar will be solely liable for, and will indemnify DISH Network for, any resulting taxes, as well as any losses, claims and expenses. The tax sharing agreement will only terminate after the later of the full period of all applicable statutes of limitations, including extensions, or once all rights and obligations are fully effectuated or performed.

In light of the tax sharing agreement, among other things, and in connection with EchoStar's consolidated federal income tax returns for certain tax years prior to and for the year of the Spin-off, in September 2013, EchoStar and DISH Network agreed upon a supplemental allocation of the tax benefits arising from certain tax items resolved in the course of the IRS's examination of EchoStar's consolidated tax returns. As a result, DISH Network agreed to pay EchoStar an aggregate amount of \$93.1 million that includes the federal tax benefit they received as a result of our operations.

Caltech. On October 1, 2013, Caltech filed complaints against two of our subsidiaries, Hughes Communications, Inc. and HNS, as well as against DISH Network, DISH Network L.L.C., and dishNET Satellite Broadband L.L.C., in the United States District Court for the Central District of California alleging infringement of United States Patent Nos. 7,116,710; 7,421,032; 7,916,781; and 8,284,833, each of which is entitled "Serial Concatenation of Interleaved Convolutional Codes forming Turbo-Like Codes." Caltech asserted that encoding data as specified by the DVB-S2 standard infringes each of the asserted patents. Caltech claimed that certain of our Hughes segment's satellite broadband products and services, infringe the asserted patents by implementing the DVB-S2 standard. Pursuant to a settlement agreement among us, DISH Network and Caltech, in May 2016, Caltech dismissed with prejudice all of its claims in these actions. See Note 13 of these consolidated financial statements for further information.

Other Agreements

Hughes Systique Corporation ("Hughes Systique")

We contract with Hughes Systique for software development services. In 2008, Hughes Communications loaned \$1.5 million to Hughes Systique pursuant to a term loan facility. The initial interest rate on the loans was 6%, payable annually, and the accrued and unpaid interest was added to the principal amount in certain circumstances. The loans were convertible into shares of Hughes Systique upon non-payment or an event of default. In May 2014, we amended the term loan facility to increase the interest rate from 6% to 8%, payable annually, to reflect then-current market conditions and extend the maturity date of the loans to May 1, 2015, and in April 2015, we extended the maturity date of the loans to May 1, 2016 on the same terms. In 2015, Hughes Systique repaid \$1.5 million of the outstanding principal of the loan facility. In February 2016, Hughes Systique repaid \$0.3 million of the outstanding principal of the loan facility. In April 2016, Hughes Systique repaid in full the remaining \$0.3 million outstanding principal and interest of the loan facility. As of December 31, 2016, the principal amount outstanding of the loan facility was zero. In addition to our 43.9% ownership in Hughes Systique, Mr. Pradman Kaul, the President of Hughes Communications and a member of EchoStar's board of directors, and his brother, who is the CEO and President of Hughes Systique, in the aggregate, own approximately 25.8%, on an undiluted basis, of Hughes Systique's outstanding shares as of December 31, 2016. Furthermore, Mr. Pradman Kaul serves on the board of directors of Hughes Systique. Hughes Systique is a variable interest entity and we are considered the primary beneficiary of Hughes Systique due to, among other factors, our ability to direct the activities that most significantly impact the economic performance of Hughes Systique. As a result, we consolidate Hughes Systique's financial statements in our consolidated financial statements.

Dish Mexico

EchoStar owns 49.0% of an entity that provides direct-to-home satellite services in Mexico known as Dish Mexico, and we provide certain satellite services to Dish Mexico. We recognized satellite services revenue from Dish Mexico of approximately \$23.3 million for each of the years ended December 31, 2016, 2015 and 2014. As of December 31, 2016 and 2015, we had trade accounts receivable from Dish Mexico of approximately \$10.7 million and \$10.6 million, respectively.

Deluxe/EchoStar LLC

We own 50.0% of Deluxe/EchoStar LLC ("Deluxe"), a joint venture that we entered into in 2010 to build an advanced digital cinema satellite distribution network targeting delivery to digitally equipped theaters in the U.S. and Canada. We account for our investment in Deluxe using the equity method. We recognized revenue from Deluxe for transponder services and the sale of broadband equipment of approximately \$3.0 million, \$2.7 million and \$3.3 million for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016 and 2015, we had trade accounts receivable from Deluxe of approximately \$0.7 million and \$0.1 million, respectively.

AsiaSat

We contract with AsiaSat Telecommunications Inc. ("AsiaSat") for the use of transponder capacity on one of AsiaSat's satellites. We incurred expenses of approximately \$1.45 million payable to AsiaSat under this agreement for the year ended December 31, 2016. In 2016, Mr. William David Wade, a member of EchoStar's board of directors, served as the Chief Executive Officer of AsiaSat and Mr. Wade is currently serving as a senior advisor to the CEO of AsiaSat through March 2017.

Note 17. Supplemental Guarantor and Non-Guarantor Financial Information

Certain of our wholly-owned subsidiaries (together, the "Guarantor Subsidiaries") have fully and unconditionally guaranteed, on a joint and several basis, the obligations of our 2019 Senior Secured Notes and 2021 Senior Unsecured Notes, which were issued on June 1, 2011, and our 2026 Notes, which were issued on July 27, 2016. See Note 10 for further information on the 2019 Senior Secured Notes, the 2021 Senior Unsecured Notes and the 2026 Notes.

In lieu of separate financial statements of the Guarantor Subsidiaries, condensed consolidating financial information prepared in accordance with Rule 3-10(f) of Regulation S-X is presented below, including the condensed balance sheet information, the condensed statement of operations and comprehensive income (loss) information and the condensed statement of cash flows information of HSS, the Guarantor Subsidiaries on a combined basis and the non-guarantor subsidiaries of HSS on a combined basis and the eliminations necessary to arrive at the corresponding information of HSS on a consolidated basis.

The indentures governing the 2019 Senior Secured Notes, the 2021 Senior Unsecured Notes and the 2026 Notes contain restrictive covenants that, among other things, impose limitations on our ability and the ability of certain of our subsidiaries to pay dividends or make distributions, incur additional debt, make certain investments, create liens or enter into sale and leaseback transactions, merge or consolidate with another company, transfer and sell assets, enter into transactions with affiliates or allow to exist certain restrictions on the ability of certain of our subsidiaries to pay dividends, make distributions, make other payments, or transfer assets to us.

The condensed consolidating financial information presented below should be read in conjunction with our consolidated financial statements and notes thereto included herein.

Consolidating Balance Sheet as of December 31, 2016 (In thousands)

	HSS		Guarantor Subsidiaries	Non-Guarantor Subsidiaries		Eliminations		Total
Assets		_						
Cash and cash equivalents	\$ 1,991,949	\$	53,905	\$	25,110	\$	—	\$ 2,070,964
Marketable investment securities, at fair value	177,614		10,309		—		—	187,923
Trade accounts receivable, net	—		138,861		43,651		—	182,512
Trade accounts receivable - DISH Network, net	—		19,323		—		—	19,323
Inventory	—		45,623		17,015		—	62,638
Advances to affiliates, net	10		999,340		4,968		(893,866)	110,452
Other current assets	48		19,183		27,083		—	46,314
Total current assets	 2,169,621		1,286,544		117,827		(893,866)	2,680,126
Restricted cash and cash equivalents	11,097				723			11,820
Property and equipment, net	—		2,061,831		232,895			2,294,726
Regulatory authorizations	_		471,658					471,658
Goodwill	—		504,173					504,173
Other intangible assets, net	_		80,734					80,734
Investments in unconsolidated entities	_		42,560		_			42,560
Investment in subsidiaries	3,721,688		314,643				(4,036,331)	_
Advances to affiliates	700		60,761		_		(61,461)	_
Other noncurrent assets, net	92,727		142,091		153,646		(92,727)	295,737
Total assets	\$ 5,995,833	\$	4,964,995	\$	505,091	\$	(5,084,385)	\$ 6,381,534
Liabilities and Shareholders' Equity (Deficit)		_						
Trade accounts payable	\$ 	\$	94,095	\$	12,321	\$	—	\$ 106,416
Current portion of long-term debt and capital lease obligations	_		32,177		807		_	32,984
Advances from affiliates, net	850,807		12,228		31,429		(893,866)	598
Accrued expenses and other	44,654		136,921		38,738		_	220,313
Total current liabilities	 895,461		275,421		83,295		(893,866)	 360,311
Long-term debt and capital lease obligations, net of unamortized debt issuance costs	3,358,179		262,883		1,401		_	3,622,463
Deferred tax liabilities, net	_		621,061		128		(92,727)	528,462
Advances from affiliates	_		_		93,429		(61,461)	31,968
Other non-current liabilities	_		80,532		2,775		_	83,307
Total HSS shareholders' equity (deficit)	1,742,193		3,725,098		311,233		(4,036,331)	1,742,193
Noncontrolling interests	_		_		12,830		_	12,830
Total liabilities and shareholders' equity (deficit)	\$ 5,995,833	\$	4,964,995	\$	505,091	\$	(5,084,385)	\$ 6,381,534

Consolidating Balance Sheet as of December 31, 2015 (In thousands)

	HSS		Guarantor Subsidiaries		Non-Guarantor Subsidiaries		Eliminations	Total
Assets								
Cash and cash equivalents	\$ 300,634	\$	55,767	\$	26,589	\$		\$ 382,990
Marketable investment securities, at fair value	238,249		15,094		—			253,343
Trade accounts receivable, net	—		101,923		37,587			139,510
Trade accounts receivable - DISH Network, net	—		21,258		—		_	21,258
Inventory	—		39,948		8,849		_	48,797
Advances to affiliates, net	10		807,341		6,244		(766,208)	47,387
Other current assets	40		24,565		26,890		_	51,495
Total current assets	 538,933		1,065,896		106,159		(766,208)	 944,780
Restricted cash and cash equivalents	11,985		7,500		655			20,140
Property and equipment, net	—		2,181,495		83,907			2,265,402
Regulatory authorizations	_		471,658		_		_	471,658
Goodwill	—		504,173					504,173
Other intangible assets, net	_		115,420				_	115,420
Investments in unconsolidated entities	—		41,481					41,481
Investment in subsidiaries	3,350,914		166,739		_		(3,517,653)	_
Advances to affiliates	700		678		_		(1,378)	_
Other noncurrent assets, net	254,486		135,970		72,255		(254,486)	208,225
Total assets	\$ 4,157,018	\$	4,691,010	\$	262,976	\$	(4,539,725)	\$ 4,571,279
Liabilities and Shareholders' Equity (Deficit)				-		_	,	
Trade accounts payable	\$ _	\$	86,496	\$	11,171	\$	_	\$ 97,667
Current portion of long-term debt and capital lease obligations	_		28,829		1,455		_	30,284
Advances from affiliates, net	739,810		5,307		24,863		(766,207)	3,773
Accrued expenses and other	28,154		130,532		22,550		_	181,236
Total current liabilities	 767,964		251,164		60,039		(766,207)	 312,960
Long-term debt and capital lease obligations, net of unamortized debt issuance costs	1,858,724		295,060		1,204		_	2,154,988
Deferred tax liabilities, net	_		706,837		_		(254,487)	452,350
Advances from affiliates	_				26,661		(1,378)	25,283
Other non-current liabilities	_		84,006		52		_	84,058
Total HSS shareholders' equity (deficit)	1,530,330		3,353,943		163,710		(3,517,653)	1,530,330
Noncontrolling interests	, .,				11,310			11,310
Total liabilities and shareholders' equity (deficit)	\$ 4,157,018	\$	4,691,010	\$		\$	(4,539,725)	\$ 4,571,279

Consolidating Statement of Operations and Comprehensive Income (Loss) For the Year Ended December 31, 2016

(In thousands)

	HSS		Guarantor Subsidiaries		Non-Guarantor Subsidiaries		Eliminations		Total
Revenue:			_						
Services and other revenue - DISH Network	\$	_	\$	449,547	\$	_	\$	_	\$ 449,547
Services and other revenue - other		_		992,480		133,508		(22,861)	1,103,127
Equipment revenue - DISH Network		_		8,840		_		_	8,840
Equipment revenue - other		_		256,361		24,859		(42,941)	238,279
Total revenue			_	1,707,228		158,367		(65,802)	 1,799,793
Costs and Expenses:			_						
Costs of sales - services and other (exclusive of depreciation and amortization)				438,837		101,288		(22,168)	517,957
Cost of sales - equipment (exclusive of depreciation and amortization)		_		225,787		19,512		(40,546)	204,753
Selling, general and administrative expenses		_		246,399		37,737		(3,088)	281,048
Research and development expenses		_		31,170		—		—	31,170
Depreciation and amortization		_		401,688		12,445		—	414,133
Total costs and expenses		_	_	1,343,881		170,982		(65,802)	 1,449,061
Operating income		_		363,347		(12,615)		—	350,732
Other Income (Expense):									
Interest income		10,826		199		1,649		(76)	12,598
Interest expense, net of amounts capitalized		(177,625)		(14,538)		4,889		76	(187,198)
Gains (losses) on marketable investment securities, net		—		6,995		—		—	6,995
Equity in earnings of unconsolidated affiliate		—		9,444		—		—	9,444
Equity in earnings (losses) of subsidiaries, net		218,125		(4,906)		—		(213,219)	—
Other, net		9,749		(6,956)		116		_	 2,909
Total other income (expense), net		61,075		(9,762)		6,654		(213,219)	(155,252)
Income (loss) before income taxes		61,075		353,585		(5,961)		(213,219)	195,480
Income tax benefit (provision), net		58,940	_	(135,081)		2,382		_	(73,759)
Net income (loss)		120,015		218,504		(3,579)		(213,219)	121,721
Less: Net income attributable to noncontrolling interests				<u> </u>		1,706			 1,706
Net income (loss) attributable to HSS	\$	120,015	\$	218,504	\$	(5,285)	\$	(213,219)	\$ 120,015
Comprehensive Income (Loss):									
Net income (loss)	\$	120,015	\$	218,504	\$	(3,579)	\$	(213,219)	\$ 121,721
Other comprehensive income (loss), net of tax:									
Foreign currency translation adjustments		_				(5,377)			(5,377)
Unrealized (gains) losses on available-for-sale securities and other		3,290		(1,642)		(64)		—	1,584
Recognition of realized gains on available-for-sale securities included in net income (loss)		(2,996)		_		_		_	(2,996)
Equity in other comprehensive income (loss) of subsidiaries, net		(6,897)		(5,255)				12,152	_
Total other comprehensive income (loss), net of tax		(6,603)		(6,897)		(5,441)		12,152	(6,789)
Comprehensive income (loss)		113,412		211,607		(9,020)		(201,067)	114,932
Less: Comprehensive income attributable to noncontrolling interests		_				1,520		_	1,520
Comprehensive income (loss) attributable to HSS	\$	113,412	\$	211,607	\$	(10,540)	\$	(201,067)	\$ 113,412

Consolidating Statement of Operations and Comprehensive Income (Loss) For the Year Ended December 31, 2015

(In thousands)

	HSS		Guarantor Subsidiaries		-Guarantor bsidiaries	E	liminations	Total
Revenue:							,	
Services and other revenue - DISH Network	\$ _	\$	518,734	\$	119	\$	—	\$ 518,853
Services and other revenue - other	—		976,507		140,619		(21,877)	1,095,249
Equipment revenue - DISH Network	_		10,752				—	10,752
Equipment revenue - other	—		200,605		30,678		(19,005)	212,278
Total revenue	 _		1,706,598		171,416		(40,882)	 1,837,132
Costs and Expenses:								
Costs of sales - services and other (exclusive of depreciation and amortization)	_		447,106		99,513		(21,148)	525,471
Cost of sales - equipment (exclusive of depreciation and amortization)	_		190,200		22,581		(17,244)	195,537
Selling, general and administrative expenses	_		245,725		33,381		(2,490)	276,616
Research and development expenses	—		26,377				—	26,377
Depreciation and amortization	_		423,923		6,204		—	430,127
Total costs and expenses	 _		1,333,331	-	161,679	-	(40,882)	 1,454,128
Operating income	 		373,267		9,737			 383,004
Other Income (Expense):								
Interest income	3,339		171		1,013		(107)	4,416
Interest expense, net of amounts capitalized	(142,215)		(29,093)		2,051		107	(169,150)
Loss from partial redemption of debt	(5,044)				_		_	(5,044)
Other-than-temporary impairment loss on available-for-sale securities	(6,139)		_				—	(6,139)
Gains (losses) on marketable investment securities, net	15		(6,478)				—	(6,463)
Equity in earnings of unconsolidated affiliate	—		8,502		—		—	8,502
Equity in earnings (losses) of subsidiaries, net	239,199		4,705				(243,904)	_
Other, net	(5,468)		11,054		(3,364)		—	2,222
Total other income (expense), net	 83,687	_	(11,139)		(300)		(243,904)	 (171,656)
Income (loss) before income taxes	 83,687		362,128		9,437		(243,904)	 211,348
Income tax benefit (provision), net	53,680		(122,564)		(3,480)		_	(72,364)
Net income (loss)	 137,367		239,564	-	5,957	-	(243,904)	 138,984
Less: Net income attributable to noncontrolling interests	_		_		1,617		_	1,617
Net income (loss) attributable to HSS	\$ 137,367	\$	239,564	\$	4,340	\$	(243,904)	\$ 137,367
Comprehensive Income (Loss):	 	_						
Net income (loss)	\$ 137,367	\$	239,564	\$	5,957	\$	(243,904)	\$ 138,984
Other comprehensive income (loss), net of tax:								
Foreign currency translation adjustments	_		_		(25,012)		_	(25,012)
Unrealized gains (losses) on available-for-sale securities and other	(2,478)		(1,800)		76		_	(4,202)
Recognition of other-than-temporary loss on available-for-sale securities in net income (loss)	6,139		_		_		_	6,139
Recognition of realized gains on available-for-sale securities included in net income (loss)	(15)				_		_	(15)
Equity in other comprehensive income (loss) of subsidiaries, net	(26,416)		(24,616)				51,032	_
Total other comprehensive income (loss), net of tax	(22,770)		(26,416)		(24,936)		51,032	 (23,090)
Comprehensive income (loss)	 114,597		213,148		(18,979)		(192,872)	 115,894
Less: Comprehensive income attributable to noncontrolling interests	_		_		1,297		_	1,297
Comprehensive income (loss) attributable to HSS	\$ 114,597	\$	213,148	\$	(20,276)	\$	(192,872)	\$ 114,597

Consolidating Statement of Operations and Comprehensive Income (Loss) For the Year Ended December 31, 2014

		HSS		Guarantor Subsidiaries		Non-Guarantor Subsidiaries		Eliminations		Total
Revenue:										
Services and other revenue - DISH Network	\$	—	\$	487,286	1	\$ 699	\$		\$	487,985
Services and other revenue - other				938,382		162,400		(23,681)		1,077,101
Equipment revenue - DISH Network		—		31,943		—				31,943
Equipment revenue - other		_		196,921		31,907		(17,880)		210,948
Total revenue				1,654,532		195,006		(41,561)		1,807,977
Costs and Expenses:										
Costs of sales - services and other (exclusive of depreciation and amortization)		_		441,777		117,822		(23,681)		535,918
Cost of sales - equipment (exclusive of depreciation and amortization)		_		201,890		23,331		(16,199)		209,022
Selling, general and administrative expenses		_		233,392		32,899		(1,681)		264,610
Research and development expenses		_		20,192		_				20,192
Depreciation and amortization				443,946		8,192				452,138
Total costs and expenses				1,341,197		182,244		(41,561)		1,481,880
Operating income		_		313,335	-	12,762			-	326,097
Other Income (Expense):			_				_			
Interest income		197,610		344		1,454		(196,174)		3,234
Interest expense, net of amounts capitalized		(145,938)		(240,057)		(1,437)		196,174		(191,258)
Gains (losses) on marketable investment securities, net		25		(57)						(32)
Equity in earnings of unconsolidated affiliate				5,121		_				5,121
Equity in earnings (losses) of subsidiaries, net		68,212		5,779		_		(73,991)		_
Other, net		—		822		(1,307)				(485)
Total other income (expense), net		119,909		(228,048)		(1,290)		(73,991)		(183,420)
Income (loss) before income taxes		119,909		85,287		11,472		(73,991)		142,677
Income tax provision, net		(18,716)		(16,705)		(4,674)				(40,095)
Net income (loss)		101,193		68,582		6,798		(73,991)		102,582
Less: Net income attributable to noncontrolling interests				—		1,389				1,389
Net income (loss) attributable to HSS	\$	101,193	\$	68,582	:	\$ 5,409	\$	(73,991)	\$	101,193
Comprehensive Income (Loss):					: =		-			
Net income (loss)	\$	101,193	\$	68,582		\$ 6,798	\$	(73,991)	\$	102,582
Other comprehensive income (loss), net of tax:			-				-			,
Foreign currency translation adjustments		_				(8,789)				(8,789)
Unrealized losses on available-for-sale securities and other		(4,150)				(32)				(4,182)
Recognition of realized losses on available-for-sale securities included in net income (loss)		32		_				_		32
Equity in other comprehensive income (loss) of subsidiaries, net		(8,584)		(8,584)		_		17,168		_
Total other comprehensive income (loss), net of tax		(12,702)	_	(8,584)		(8,821)	_	17,168		(12,939)
Comprehensive income (loss)		88,491		59,998		(2,023)	_	(56,823)		89,643
Less: Comprehensive income attributable to noncontrolling interests		_		_		1,152				1,152
Comprehensive income (loss) attributable to HSS	\$	88,491	\$	59,998		\$ (3,175)	\$	(56,823)	\$	88,491
	_		-				-		-	

Consolidating Statement of Cash Flows for the Year Ended December 31, 2016

(In	thousands)
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	HSS	Guarantor Subsidiaries		Non-Guarantor Subsidiaries	Eliminations	Total
Cash Flows from Operating Activities:	 					
Net income (loss)	\$ 120,015	\$	218,504	\$ (3,579)	\$ (213,219)	\$ 121,721
Adjustments to reconcile net income (loss) to net cash flows from operating activities	 78,875		127,462	24,594	213,219	 444,150
Net cash flows from operating activities	198,890	_	345,966	21,015		565,871
Cash Flows from Investing Activities:						
Purchases of marketable investment securities	(396,730)		—	—	—	(396,730)
Sales and maturities of marketable investment securities	452,446		_	_	_	452,446
Expenditures for property and equipment	—		(292,427)	(88,860)	_	(381,287)
Changes in restricted cash and cash equivalents	888		7,500	(68)		8,320
Investment in subsidiary	(80,846)		(84,871)	_	165,717	_
Payment for EchoStar XXI launch services	—		—	(23,750)		(23,750)
Expenditures for externally marketed software	—		(23,252)	_	_	(23,252)
Other, net	—		(1,296)	—	(340)	(1,636)
Net cash flows from investing activities	 (24,242)		(394,346)	(112,678)	165,377	(365,889)
Cash Flows from Financing Activities:						
Proceeds from issuance of long-term debt	1,500,000					1,500,000
Payments of debt issuance costs	(7,097)		—			(7,097)
Proceeds from capital contribution from parent	—		80,846	84,871	(165,717)	_
Capital contribution from EchoStar	23,750		—			23,750
Repayment of debt and capital lease obligations	—		(28,829)	(2,840)	—	(31,669)
Advances from affiliates	—			6,982	—	6,982
Other, net	14		(5,499)	988	340	(4,157)
Net cash flows from financing activities	 1,516,667		46,518	90,001	(165,377)	 1,487,809
Effect of exchange rates on cash and cash equivalents	 _			183		183
Net increase (decrease) in cash and cash equivalents	1,691,315		(1,862)	(1,479)	_	1,687,974
Cash and cash equivalents, at beginning of year	300,634		55,767	26,589		382,990
Cash and cash equivalents, at end of year	\$ 1,991,949	\$	53,905	\$ 25,110	\$	\$ 2,070,964

Consolidating Statement of Cash Flows for the Year Ended December 31, 2015

(In t	housands)
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	HSS		Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash Flows from Operating Activities:						
Net income (loss)	\$ 137,367	\$	\$ 239,564	\$ 5,957	\$ (243,904)	\$ 138,984
Adjustments to reconcile net income (loss) to net cash flows from operating activities	32,816		156,301	3,485	243,904	436,506
Net cash flows from operating activities	170,183		395,865	9,442		575,490
Cash Flows from Investing Activities:						
Purchases of marketable investment securities	(208,821)	—	—	—	(208,821)
Sales and maturities of marketable investment securities	355,202		_	_	_	355,202
Expenditures for property and equipment	—		(325,405)	(61,309)	—	(386,714)
Changes in restricted cash and cash equivalents	(2,432)	—	(56)	—	(2,488)
Investment in subsidiary	(43,000)	(48,043)	—	91,043	—
Payment for EchoStar XXI launch services	—			(11,875)	—	(11,875)
Expenditures for externally marketed software			(22,327)	—	—	(22,327)
Other, net	—		1,490	—	(1,500)	(10)
Net cash flows from investing activities	100,949		(394,285)	(73,240)	89,543	(277,033)
Cash Flows from Financing Activities:						
Proceeds from capital contribution from parent			43,000	48,043	(91,043)	—
Repayment of 6 1/2% Senior Secured Notes Due 2019 and related premium	(113,300)	_	_	_	(113,300)
Repayment of debt and capital lease obligations			(33,478)	(5,963)	—	(39,441)
Advances from affiliates	_		—	20,002	—	20,002
Other, net	40		(6,927)	233	1,500	(5,154)
Net cash flows from financing activities	(113,260)	2,595	62,315	(89,543)	(137,893)
Effect of exchange rates on cash and cash equivalents			_	(3,131)		(3,131)
Net increase (decrease) in cash and cash equivalents	157,872		4,175	(4,614)	_	157,433
Cash and cash equivalents, at beginning of year	142,762		51,592	31,203		225,557
Cash and cash equivalents, at end of year	\$ 300,634	9	\$ 55,767	\$ 26,589	\$	\$ 382,990

Consolidating Statement of Cash Flows for the Year Ended December 31, 2014

(In	thousands)
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	HSS		Guarantor Subsidiaries	Non-Guarantor Subsidiaries		Eliminations		Total
Cash Flows from Operating Activities:								
Net income (loss)	\$ 101,193	\$	68,582	\$ 6,798		\$ (73,991)	\$	102,582
Adjustments to reconcile net income (loss) to net cash flows from operating activities	 221,288		240,466	15,245		73,991		550,990
Net cash flows from operating activities	322,481		309,048	22,043		_		653,572
Cash Flows from Investing Activities:	 							
Purchases of marketable investment securities	(509,814)		—			—		(509,814)
Sales and maturities of marketable investment securities	234,970		_	_		_		234,970
Purchases of property and equipment	—		(220,664)	(26,677)	_		(247,341)
Changes in restricted cash and cash equivalents	(2,549)			11		_		(2,538)
Expenditures for externally marketed software	—		(22,955)			_		(22,955)
Other, net	(10,601)		(35)	—		10,601		(35)
Net cash flows from investing activities	(287,994)		(243,654)	(26,666)	10,601		(547,713)
Cash Flows from Financing Activities:	 							
Hughes Retail Preferred Tracking Stock (Note 3)	10,601		10,601			(10,601)		10,601
Repayment of long-term debt and capital lease obligations	_		(53,467)	(6,368)	_		(59,835)
Contributions from parent	—					_		—
Other	—		(5,276)	5,383		—		107
Net cash flows from financing activities	 10,601		(48,142)	(985)	(10,601)		(49,127)
Effect of exchange rates on cash and cash equivalents	 _			5,116		_		5,116
Net increase (decrease) in cash and cash equivalents	 45,088		17,252	(492)			61,848
Cash and cash equivalents, at beginning of year	97,674		34,340	31,695		_		163,709
Cash and cash equivalents, at end of year	\$ 142,762	\$	51,592	\$ 31,203		\$ —	\$	225,557

Note 18. Subsequent Events

Contribution of EchoStar XIX Satellite

On February 1, 2017, EchoStar contributed the EchoStar XIX satellite to us and we assumed EchoStar's rights and obligations under a related contract with the satellite manufacturer. The EchoStar XIX satellite was launched in December 2016 and was undergoing in-orbit testing on the contribution date. Our Hughes segment will utilize the EchoStar XIX satellite to provide additional capacity for the Hughes broadband services to our customers in North America and added capacity in Mexico and certain Latin American countries and to add capability for aeronautical, enterprise and international broadband services. On the contribution date, we recorded a net increase in Additional paid-in capital to reflect EchoStar's carrying amount of the satellite, less related deferred tax liabilities. Pursuant to the contract with the satellite manufacturer, we are obligated to make annual in-orbit incentive payments.

Share Exchange

On January 31, 2017, our parent company EchoStar and certain of its subsidiaries, including certain subsidiaries of HSS, entered into the Share Exchange Agreement with DISH Network Corporation and certain of its subsidiaries ("DISH Parties").

Pursuant to the Share Exchange Agreement, among other things, one of our subsidiaries will receive all of the shares of HSS Tracking Stock in exchange for 100% of the equity interests of certain subsidiaries which will hold a portion of the EchoStar Technologies business segment. Following the closing of the Share Exchange, the HSS Tracking Stock will be retired and all agreements, arrangements and policy statements with respect to the HSS Tracking Stock will terminate and be of no further effect. The Share Exchange has been structured in a manner to be a tax-free exchange for each of EchoStar and DISH and their respective subsidiaries.

Prior to consummation of the Share Exchange, EchoStar is required to complete steps necessary for the transferring assets and liabilities that are being assumed by the DISH Parties to be owned by the transferring entities and their respective subsidiaries. As part of these steps, subsidiaries of EchoStar that currently own the Uplinking Businesses and related assets and liabilities will be contributed to EB Corp in consideration for additional shares of the Company's common stock that will be issued to a subsidiary of EchoStar. Certain data center assets within the Uplinking Businesses will not be included in the Share Exchange and after consummation of the Share Exchange will continue to be owned by our subsidiaries and will be pledged as collateral to support our obligations under the Indentures.

The Share Exchange is expected to be consummated three business days after the satisfaction or waiver of all of the closing conditions to the transaction (other than conditions that by their nature are to be satisfied at the closing, but subject to the satisfaction of those conditions at such time), but no earlier than February 28, 2017. The Share Exchange Agreement provides for customary termination rights of the parties, including the right of either party to terminate the Share Exchange Agreement if the Share Exchange has not closed by March 31, 2017. The closing conditions to the transaction involving third parties or governmental approvals have been satisfied (other than those that by their nature are to be satisfied at the closing). While we currently expect the Share Exchange to be consummated on or about February 28, 2017, no assurance can be given that the Share Exchange will be consummated on the terms or within the time frame disclosed, or at all.

HUGHES SATELLITE SYSTEMS CORPORATION SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS

Our valuation and qualifying accounts as of December 31, 2016, 2015 and 2014 were as follows:

Allowance for doubtful accounts	Balance at eginning of Year	Charged to Costs and Expenses		Deductions	Balance at End of Year
		(In the	ousan	ds)	
For the years ended:					
December 31, 2016	\$ 11,447	\$ 14,384	\$	(13,079) \$	5 12,752
December 31, 2015	\$ 11,950	\$ 6,637	\$	(7,140) \$	5 11,447
December 31, 2014	\$ 10,736	\$ 7,337	\$	(6,123) \$	5 11,950

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Hughes Satellite Systems Corporation

Offer to Exchange up to \$750,000,000 aggregate principal amount of new 5.250% Senior Secured Notes due 2026 and up to \$750,000,000 aggregate principal amount of new 6.625% Senior Notes due 2026, which have been registered under the Securities Act of 1933, for any and all of its outstanding 5.250% Senior Notes due 2026 and 6.625% Senior Notes due 2026

PROSPECTUS

, 2017

All tendered Old Notes, executed letters of transmittal and other related documents should be directed to the exchange agent at the numbers and address below. Requests for assistance and for additional copies of the prospectus, the letter of transmittal and other related documents should also be directed to the exchange agent.

The exchange agent for the exchange offer is:

U.S. BANK NATIONAL ASSOCIATION

By Facsimile: (651) 466-7372 Attention: Specialized Finance For Information or Confirmation by telephone: (800) 934-6802 By hand, overnight delivery or mail (registered or certified mail recommended): U.S. Bank National Association 60 Livingston Avenue St. Paul, Minnesota 55107

DC_LAN01:342352.5

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 20. INDEMNIFICATION OF DIRECTORS AND OFFICERS

The following subparagraphs briefly describe indemnification provisions for directors, officers and controlling persons of the Registrants against liability, including liability under the Securities Act.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrants pursuant to the foregoing provisions, each of the Registrants has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable.

Colorado Corporations

If so provided in the articles of incorporation of a Colorado corporation, such Colorado corporation may eliminate or limit the personal liability of a director to the corporation or to its shareholders for monetary damages for breach of fiduciary duty as a director; except that, in accordance with Section 7-108-402 of the Colorado Business Corporation Act (the "Colorado Corporation Act"), such provision shall not eliminate or limit the liability of a director to the corporation or to its shareholders for monetary damages for: (i) any breach of the director's duty of loyalty to the corporation or to its shareholders; (ii) acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law; (iii) acts specified in Section 7-108-403 of the Colorado Corporation Act with respect to unlawful distributions; or (iv) any transaction from which the director derived an improper personal benefit. In addition, no such provision shall eliminate or limit the liability of a director to the corporation or to its shareholders for a director to the corporation or to its shareholders for a director to the corporation or to its shareholders of unlawful distributions; or (iv) any transaction from which the director derived an improper personal benefit. In addition, no such provision shall eliminate or limit the liability of a director to the corporation or to its shareholders for monetary damages for any act or omission occurring prior to the date when such provision becomes effective.

HSS and EchoStar Satellite Operating Corporation (the "Colorado Corporate Registrants") are corporations organized under the laws of the State of Colorado.

In accordance with the Colorado Corporations Act and the provisions of the Articles of Incorporation of HSS, HSS has limited the liability of its directors to the maximum extent permitted under applicable law.

Under the Colorado Corporation Act, each person who is or was a director or officer of the Colorado Corporate Registrant will be indemnified by a Colorado Corporate Registrant as a matter of right summarized as follows:

- a) Under the Colorado Act, a person who is wholly successful on the merits in defense of a suit or proceeding brought against him by reason of the fact that he is a director of the Colorado Corporate Registrant shall be indemnified against reasonable expenses (including attorneys' fees) in connection with such suit or proceeding;
- b) Except as provided in subparagraph (c) below, a director may be indemnified under such law against both (1) reasonable expenses (including attorneys' fees), and (2) judgments, penalties, fines and amounts paid in settlement, if he acted in good faith and reasonably believed, in the case of conduct in his official capacity as a director, that his conduct was in the Colorado Corporate Registrant's best interests, or in all other cases that his conduct was not opposed to the best interests of the Colorado Corporate Registrant, and with respect to any criminal action, he had no reasonable cause to believe his conduct was unlawful, but the Colorado Corporate Registrant may not indemnify the director if the director is found liable to the Colorado Corporate Registrant in connection with a suit or proceeding by or in the right of the corporation or is found liable on the basis that personal benefit was improperly received by the director in connection with any suit or proceeding charging improper personal benefit to the director;
- c) In connection with a suit or proceeding by or in the right of the Colorado Corporate Registrant, indemnification is limited to reasonable expenses incurred in connection with the suit or proceeding; and
- d) Officers of the Colorado Corporate Registrant will be indemnified to the same extent as directors as described in (a), (b) and (c).

The provisions of the Articles of Incorporation of HSS generally provide that such company shall indemnify, to the maximum extent permitted under the Colorado Corporation Act, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal by reason of the fact that he is or was a director, officer, employee, fiduciary or agent of such company, or is or was serving at the request of such company as a director, officer, employee, fiduciary or agent of another

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corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding.

The provisions of the Bylaws of EchoStar Satellite Operating Corporation generally provide for the same indemnification rights as set forth in the Colorado Corporation Act and as summarized above.

Colorado Limited Liability Companies

Section 7-80-407 of the Colorado Limited Liability Company Act (the "Colorado LLC Act") empowers a Colorado limited liability company to reimburse a person who is or was a member or manager for payments made, and indemnify a person who is or was a member or manager for liabilities incurred by the person, in the ordinary course of the business of the limited liability company or for the preservation of its business or property, if such payments were made or liabilities incurred without violation of the person's duties to the limited liability company.

Each of EchoStar Satellite Services L.L.C., EchoStar Orbital L.L.C., EchoStar Government Services L.L.C., EchoStar XI Holding L.L.C. EchoStar XIV Holding L.L.C. and Cheyenne Data Center LLC (the "Colorado LLC Registrants") is a limited liability company organized under the laws of the State of Colorado.

The provisions of the Articles of Organization of Cheyenne Data Center L.L.C. generally provide that such company shall indemnify, to the maximum extent permitted under applicable law, any person, and the estate and personal representative of any such person, against all liability and expense incurred by reason of the fact that such person is or was a manager, officer, employee or fiduciary of the company or, while serving as manager, officer, employee or fiduciary of the company, such person is or was serving at the request of the company as a manager, director, officer, partner, trustee, employee, fiduciary or agent of, or in any similar managerial fiduciary position of, another domestic or foreign entity or other individual or entity or of an employee benefit plan.

Delaware Corporations

Section 145(a) of the Delaware General Corporation Law (the "DGCL") provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful.

Section 145(b) of the DGCL provides that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the court shall deem proper.

Further subsections of DGCL Section 145 provide that:

- a) To the extent a present or former director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145 or in the defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith;
- b) Any indemnification under subsections (a) and (b) of Section 145 shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or



agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in those sections;

- c) The indemnification and advancement of expenses provided for pursuant to Section 145 shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise; and
- d) The corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under Section 145.

Under Section 102(b)(7) of the DGCL, a corporation may relieve its directors from personal liability to such corporation or its stockholders for monetary damages for any breach of their fiduciary duty as directors except (i) for a breach of the duty of loyalty, (ii) for failure to act in good faith, (iii) for intentional misconduct or knowing violation of law, (iv) for willful or negligent violations of certain provisions in the DGCL imposing certain requirements with respect to stock repurchases, redemptions and dividends, or (v) for any transactions from which the director derived an improper personal benefit.

EchoStar 77 Corporation (the "EchoStar Delaware Corporate Registrant") and each of Hughes Communications, Inc., HNS Finance Corp., Hughes Network Systems International Service Company, HNS-India VSAT, Inc. and HNS-Shanghai, Inc. (the "Hughes Delaware Corporate Registrants" and, together with the EchoStar Delaware Corporate Registrant, the "Delaware Corporate Registrants") are corporations organized under the laws of the State of Delaware.

Section 145 of the DGCL makes provision for the indemnification of officers and directors in terms sufficiently broad to indemnify officers and directors of each Delaware Corporate Registrant under certain circumstances from liabilities (including reimbursement for expenses incurred) arising under the Act.

Under the DGCL and the provisions of the Articles of Incorporation and Bylaws of the EchoStar Delaware Corporate Registrant, each person who is or was a director or officer of the EchoStar Delaware Corporate Registrant will be indemnified by the EchoStar Delaware Corporate Registrant to the fullest extent permitted under the DGCL. As used with respect to EchoStar Delaware Corporate Registrant, the term "proceeding" means any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative and whether formal or informal. The EchoStar Delaware Corporate Registrant will indemnify a person made party to a proceeding because the person is or was a director against liability incurred in the proceeding if the person conducted himself in good faith and the person reasonably believed: in the case of conduct in an official capacity with the EchoStar Delaware Corporate Registrant's best interests; and in all other cases, that his conduct was at least not opposed to the EchoStar Delaware Corporate Registrant will indemnify directors against both reasonable expenses (including attorneys' fees), and judgments, penalties, fines and amounts paid in settlement. The EchoStar Delaware Corporate Registrant may not indemnify a director in connection with a proceeding in which the director was adjudged liable to the EchoStar Delaware Corporate Registrant or in connection with any other proceeding that the director derived an improper personal benefit, whether or not involving action in an official capacity, in which proceeding the director was adjudged liable to the same extent as a director in connection with a poficial capacity with the derived an improper personal benefit. The EchoStar Delaware Corporate Registrant may indemnify and advance expenses to an officer to the same extent as a director.

Under the DGCL and the provisions of the Certificate of Incorporation and Bylaws of Hughes Communications, Inc., Hughes Communications, Inc. will indemnify its directors and officers to the fullest extent authorized or permitted by applicable law, and such right to indemnification shall continue as to a person who has ceased to be a director or officer of Hughes Communications, Inc. and shall inure to the benefit of his heirs, executors and personal and legal representatives; provided, however, that, except for proceedings to enforce rights to indemnification, Hughes Communications, Inc. shall not be obligated to indemnify any director or officer (or his heirs, executors or personal or legal representatives) in connection with a proceeding (or part thereof) initiated by such person unless such proceeding (or part thereof) was authorized or consented to by the board of directors. Hughes Communications, Inc. will indemnify and advance expenses to its directors and officers, both as to action in their official capacity and as to action in another capacity while holding such office. Hughes Communications, Inc. may also, by action of the board of directors, provide rights to indemnification and to the advancement of expenses to employees and agents of Hughes Communications, Inc. similar to those conferred to directors and officers of Hughes Communications, Inc.

Under the DGCL and the provisions of the Certificate of Incorporation and Bylaws of HNS Finance Corp., HNS Finance Corp. will indemnify a director for breach of fiduciary duty as a director to the fullest extent permitted by the DGCL. HNS Finance Corp. will also indemnify to the fullest extent permitted by the DGCL any person involved in any proceeding by reason of the fact that he was or is a director, officer, employee or agent of HNS Finance Corp. However, such person must have acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of HNS Finance Corp. and, with respect to a criminal action, had no reason to believe that his conduct was unlawful. HNS Finance Corp. must advance expenses incurred by each indemnitee upon delivery to HNS Finance Corp. of an undertaking by or on behalf of such indemnitee, to repay all amounts advanced if it is ultimately determined by final judicial decision that such indemnitee is not entitled to be indemnified for such expenses.

Under the DGCL and the provisions of the Bylaws of Hughes Network Systems International Service Company ("HNSISC"), HNSISC will indemnify and advance expenses to every director, officer and employee (and such person's heirs, executors and administrators) in the manner and to the fullest extent permitted by law against any and all judgments, fines, amounts paid in settlement and reasonable expenses, including attorneys' fees, incurred by such person in connection with any claim, action, suit or proceeding, whether civil, criminal, administrative or investigative by reason of the fact that such person is or was a director, officer or employee of HNSISC or is or was serving at the request of HNSISC as a director, officer, employee, fiduciary or member of any other corporation, partnership, joint venture, trust, enterprise or organization. The board of directors of HNSISC may, to the fullest extent permitted by law, authorize an appropriate officer to purchase and maintain insurance to indemnify HNSISC for any obligation which it incurs as a result of the indemnification of directors, officers, or employees and to indemnify directors, officers and employees in instances in which they may not otherwise be indemnified.

Under the DGCL and the provisions of the Bylaws of HNS-India VSAT, Inc., HNS-India VSAT, Inc. will indemnify and advance expenses to any person involved in any proceeding by reason of the fact that he was or is a director, officer, or agent of HNS-India VSAT, Inc. HNS-India VSAT, Inc. is not required to indemnify a person in connection with a proceeding initiated by such person if the proceeding was not authorized by the board of directors of HNS-India VSAT, Inc. With respect to employees, the HNS-India VSAT, Inc. may advance expenses in the manner described above. The ultimate determination as to whether an employee is entitled to indemnification will be made by the board of directors or by a committee of the board of directors. The board of directors of HNS-India VSAT, Inc. may, to the fullest extent permitted by applicable law, authorize an appropriate officer to purchase and maintain at the corporation's expense insurance to indemnify HNS-India VSAT, Inc. for any obligation which it incurs as a result of the indemnification of directors, officers and employees against liability in instances in which they may not otherwise be indemnified.

Under the DGCL and the provisions of the Certificate of Incorporation of HNS-Shanghai, Inc., no director will be personally liable for monetary damages for breach of fiduciary duty except for breach of the duty of loyalty, for acts or omissions not in good faith or which involve intentional misconduct or knowing violation of the law, under section 174 of the DGCL, or for any transaction from which the director derived an improper personal benefit. The Bylaws of HNS-Shanghai, Inc. provide that HNS-Shanghai, Inc. will indemnify any person involved in any proceeding by reason of the fact that he was a director, officer, employee, or agent of HNS-Shanghai, Inc. if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of HNS-Shanghai, Inc. or, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. HNS-Shanghai, Inc. will also indemnify any person involved in a proceeding by or in the right of HNS-Shanghai, Inc. to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the HNS-Shanghai, Inc. The board of directors may authorize HNS-Shanghai, Inc. to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent against any liability asserted and incurred by him in any such capacity.

Delaware Limited Liability Companies

Section 108 of the Delaware Limited Liability Company Act (the "Delaware LLC Act") provides that subject to such standards and restrictions, if any, as are set forth in its limited liability company agreement, a limited liability company may, and shall have the power to, indemnify and hold harmless any member or manager or other person from and against any and all claims and demands whatsoever.

Hughes Network Systems, LLC, HNS Real Estate, LLC and HNS License Sub, LLC are limited liability companies organized under the laws of the State of Delaware.

The Second Amended and Restated Limited Liability Company Agreement of Hughes Network Systems, LLC (the "Hughes Network Systems, LLC Agreement") provides that Hughes Network Systems, LLC may indemnify its members, members of the board of managers, officers or affiliates to the maximum extent permitted by the Delaware LLC Act unless the loss or

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damage for which indemnification is sought is for acts or omissions involving intentional misconduct or a knowing violation of law, or for any transaction from which the person received any improper personal benefit. The Hughes Network Systems, LLC Agreement also provides that expenses incurred in connection with an action or proceeding for which indemnification is sought may be paid by Hughes Network Systems, LLC in advance of the final disposition of such action upon receipt of an undertaking by such manager, officer, employee or other agent to repay such amount if it is ultimately determined that such person is not entitled to be indemnified by Hughes Network Systems, LLC.

The Amended and Restated Limited Liability Company Agreement of HNS Real Estate, LLC provides that HNS Real Estate, LLC may, to the fullest extent permitted by the Delaware LLC Act, indemnify any person or entity who was or is a party, or is threatened to be made a party, to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal, by reason of the fact that it is or was a member of HNS Real Estate, LLC, or who is or was serving as a director, officer, partner, manager, member, trustee, employee or agent of HNS Real Estate, LLC or another corporation, partnership, limited liability company, joint venture, trust, employee benefit plan or other enterprise, whether for profit or not at the request of HNS Real Estate, LLC, against expenses (including attorney's fees), judgments, settlements, penalties and fines (including excise taxes assessed with respect to employee benefit plans) actually or reasonably incurred in accordance with such action, suit or proceeding.

HNS License Sub, LLC is subject to the provisions of the Delaware LLC Act.

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ITEM 21. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits

EXHIBIT NO. DESCRIPTION

Agreement and Plan of Merger between EchoStar Corporation, EchoStar Satellite Services L.L.C., Broadband Acquisition Corporation and Hughes 2.1* Communications, Inc., filed February 15, 2011, Commission File No. 1-33040).**** Articles of Incorporation of EH Holding Corporation (currently known as Hughes Satellite Systems Corporation), dated as of March 16, 2011 (incorporated by reference to Exhibit 3.1(a) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 3.1(a)* (Registration No. 333-179121)). 3.1(b)* Articles of Amendment of EH Holding Corporation (currently known as Hughes Satellite Systems Corporation), dated as of October 26, 2011 (incorporated by reference to Exhibit 3.1(b) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). Articles of Amendment of Hughes Satellite Systems Corporation, dated as of December 30, 2013 (incorporated by reference to Exhibit 3.1(c) to the 3.1(c)* Annual Report on Form 10-K of Hughes Satellite Systems Corporation for the year ended December 31, 2013 (Commission File No. 333-179121)). 3.1(d)* Articles of Amendment of Hughes Satellite Systems Corporation, dated as of January 21, 2014 (incorporated by reference to Exhibit 3.1(d) to the Annual Report on Form 10-K of Hughes Satellite Systems Corporation for the year ended December 31, 2013 (Commission File No. 333-179121)). Articles of Amendment of Hughes Satellite Systems Corporation, dated as of February 28, 2014 (incorporated by reference to Exhibit 3.1(a) to the 3.1(e)* Quarterly Report on Form 10-Q of Hughes Satellite Systems Corporation for the quarter ended March 31, 2014 (Commission File No. 333-179121)). Articles of Amendment of Hughes Satellite Systems Corporation, dated as of March 1, 2017 (incorporated by reference to Exhibit 32 to the Current Report on Form 8-K of Hughes Satellite Systems Corporation filed March 6, 2017 (Commission File No. 333-179121)). 3.1(f)* 3.2* Bylaws of EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) (incorporated by reference to Exhibit 3.2 to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). Certificate of Incorporation of EchoStar Leasing Corporation (EchoStar 77), dated as of March 14, 2008 (incorporated by reference to Exhibit 3.3(a) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.3(a)* Certificate of Amendment of EchoStar Leasing Corporation (EchoStar 77), dated as of November 21, 2008 (incorporated by reference to Exhibit 3.3(b) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.3(b)* Bylaws of EchoStar Leasing Corporation (EchoStar 77) (incorporated by reference to Exhibit 3.4 to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.4* Articles of Incorporation of EchoStar FSS Corporation (EchoStar Satellite Services L.L.C.), dated as of June 14, 2006 (incorporated by reference to Exhibit 3.5(a) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.5(a)* 3.5(b)* Articles of Amendment of EchoStar FSS Corporation (EchoStar Satellite Services L.L.C.), dated as of July 23, 2009 (incorporated by reference to Exhibit 3.5(b) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). Statement of Conversion of EchoStar Satellite Services Corporation (EchoStar Satellite Services L.L.C.), dated as of July 23, 2009 (incorporated by 3.5(c)* reference to Exhibit 3.5(c) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). Articles of Organization of EchoStar Satellite Services L.L.C., dated as of July 23, 2009 (incorporated by reference to Exhibit 3.5(d) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.5(d)* Operating Agreement of EchoStar Satellite Services L.L.C., dated July 23, 2009 (incorporated by reference to exhibit 3.4 to the registration statement on form S-4 filed by Hughes Satellite Systems Corporation on January 20, 2012) (incorporated by reference to Exhibit 3.5(e) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.5(e)* 3.6(a)^H Articles of Organization of EchoStar Orbital L.L.C., dated as of March 15, 2010. Operating Agreement of EchoStar Orbital L.L.C., dated March 15, 2010 (incorporated by reference to Exhibit 3.6(b) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.6(b)* 3.7(a)^H Articles of Organization of EchoStar Broadband I L.L.C. (EchoStar Government Services L.L.C.), dated as of August 5, 2009. Articles of Amendment of EchoStar Broadband I L.L.C. (EchoStar Government Services L.L.C.), dated as of July 16, 2010 (incorporated by reference to 3.7(b)* Exhibit 3.7(b) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). Operating Agreement of EchoStar Broadband I L.L.C. (EchoStar Government Services L.L.C.), dated August 5, 2009 (incorporated by reference to 3.7(c)*) to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration , No. 333-179121)). Articles of Incorporation of EchoStar Satellite Operating Corporation, dated as of September 29, 2008 (incorporated by reference to Exhibit 3.8 to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.8*

EXHIBIT NO. DESCRIPTION 3.9* Bylaws of EchoStar Satellite Operating Corporation (incorporated by reference to Exhibit 3.9 to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). Certificate of Incorporation of Hughes Communications, Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of Hughes 3.10* Communications, Inc. filed June 9, 2011 (File No. 001-33040)). 3.11* Amended and Restated By-Laws of Hughes Communications, Inc. (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K of Hughes Communications, Inc. filed June 9, 2011 (File No. 001-33040)). Certificate of Formation of Hughes Network Systems, LLC filed in the State of Delaware on November 12, 2004 (incorporated by reference to Exhibit 3.12* 3.1 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)) Second Amended and Restated Limited Liability Company Agreement of Hughes Network Systems, LLC, dated February 28, 2006 (incorporated by reference to Exhibit 3.2 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-3.13* 138009)) Certificate of Incorporation of HNS Finance Corp. filed in the State of Delaware on March 27, 2006 (incorporated by reference to Exhibit 3.3 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.14* 3.15* By-laws of HNS Finance Corp. (incorporated by reference to Exhibit 3.4 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.16* Certificate of Incorporation of Hughes Network Systems International Service Company filed in the State of Delaware on April 27, 1990, including all amendments thereto and as last amended on June 12, 1990 (incorporated by reference to Exhibit 3.5 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.17* By-laws of Hughes Network Systems International Service Company (incorporated by reference to Exhibit 3.6 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). Certificate of Formation of HNS Real Estate, LLC filed in the State of Delaware on April 19, 2005 (incorporated by reference to Exhibit 3.7 to the 3.18* Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.19* Amended and Restated Limited Liability Company Agreement of HNS Real Estate, LLC, dated April 22, 2005 (incorporated by reference to Exhibit 3.8 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)) Certificate of Incorporation of HNS-India VSAT, Inc. filed in the State of Delaware on November 15, 1991 (incorporated by reference to Exhibit 3.9 to 3.20* the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.21* By-laws of HNS-India VSAT, Inc. (incorporated by reference to Exhibit 3.10 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.22* Certificate of Incorporation of HNS-Shanghai, Inc. filed in the State of Delaware on October 9, 1990, including all amendments thereto and as last amended on May 23, 1994 (incorporated by reference to Exhibit 3.11 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)). 3.23* By-laws of HNS-Shanghai, Inc. (incorporated by reference to Exhibit 3.12 to the Registration Statement on Form S-4 of Hughes Network Systems, Inc. filed October 16, 2006 (Registration No. 333-138009)) 3.24* Certificate of Formation of HNS License Sub, LLC filed in the State of Delaware on December 22, 2004 (incorporated by reference to Exhibit 3.30 to the registration statement on Form S-4 of Hughes Satellite Systems Corporation filed January 20, 2012 (Registration No. 333-179121)). 3.25(a)^н Articles of Organization of EchoStar XI Holding L.L.C., dated as of August 13, 2009. 3.25(b)^H Operating Agreement of EchoStar XI Holding L.L.C., dated August 13, 2009 3.25(c)^H Amendment to Operating Agreement of EchoStar XI Holding L.L.C., dated as of March 1, 2014. 3.26(a)^H Articles of Organization of EchoStar XIV Holding L.L.C., dated as of June 3, 2010. 3.26(b)^H Operating Agreement of EchoStar XIV Holding L.L.C., dated June 3, 2010. Amendment to Operating Agreement of EchoStar XIV Holding L.L.C., dated as of March 1, 2014. 3.26(c)^H 3.27(a)^H Articles of Organization of Cheyenne Data Center L.L.C., dated as of March 1, 2017. 3.27(b)^н Operating Agreement of Cheyenne Data Center L.L.C., dated as of March 1, 2017. Indenture relating to the EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) 6½% Senior Secured Notes due 2019, dated as of June 1, 2011, by and among EH Holding Corporation, the guarantors listed on the signature page thereto, and Wells Fargo Bank, National Association, as collateral agent and trustee (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of EchoStar Corporation filed 4.1* June 2, 2011 (Commission File No. 001-33807)). Indenture relating to the EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) 75% Senior Notes due 2021, dated as of 4.2* June 1, 2011, by and among EH Holding Corporation (currently known as finglets statistic systems corporation) / wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of EchoStar Corporation filed June 2, 2011 (Commission File No. 001-33807)). 4.3* Supplemental Indenture relating to the EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) 6½% Senior Secured Notes due 2019, dated as of June 8, 2011, by and among EH Holding Corporation, the guarantors listed on the signature page thereto, and Wells Fargo Bank, National Association, as collateral agent and trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of EchoStar Corporation filed June 9, 2011 (Commission File No. 001-33807)). 4.4*

4.4* Supplemental Indenture relating to the EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) 7%% Senior Notes due 2021, dated as of June 8, 2011, by and among EH Holding Corporation, the guarantors listed on the signature page thereto, and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K of EchoStar Corporation filed June 9, 2011 (Commission File No. 001-33807)).

EXHIBIT NO. DESCRIPTION

- 4.5* Registration Rights Agreement, dated as of June 1, 2011, among EH Holding Corporation (currently known as Hughes Satellite Systems Corporation), the guarantors listed on the signature page thereto and Deutsche Bank Securities Inc. (incorporated by reference to Exhibit 4.3 to EchoStar Corporation's Current Report on Form 8-K, filed June 2, 2011, Commission File No. 001-33807).
- Security Agreement, dated as of June 8, 2011, among EH Holding Corporation (currently known as Hughes Satellite Systems Corporation), the guarantors listed on the signature pages thereto, and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.6* 4.1 to the Current Report on Form 8-K of EchoStar Corporation filed June 9, 2011 (Commission File No. 001-33807)).
- Second Supplemental Indenture, dated as of March 28, 2014, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantors listed on the signature pages thereto, and Wells Fargo Bank, National Association, as collateral agent and trustee (incorporated by reference to 4.7* Exhibit 4.1 to the Quarterly Report on Form 10-Q of EchoStar Corporation for the quarter ended March 31, 2014 (Commission File No. 001-33807)).
- Second Supplemental Indenture, dated as of March 28, 2014, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantors listed on the signature pages thereto, and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Quarterly Report on Form 10-Q of EchoStar Corporation for the quarter ended March 31, 2014 (Commission File No. 001-33807)). 4.8*
- Joinder Agreement, dated as of March 28, 2014, to the Security Agreement dated as of June 8, 2011, by and among EchoStar XI Holding L.L.C., EchoStar XIV Holding L.L.C., and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.3 to the Quarterly Report on Form 10-Q of EchoStar Corporation for the quarter ended March 31, 2014 (Commission File No. 001-33807)). 4.9*
- Form of Note for 6½% Senior Secured Notes due 2019 (included as part of Exhibit 4.1) 4.10*
- 4.11* Form of Note for 75% Senior Notes due 2021 (included as part of Exhibit 4.2).
- Indenture relating to Hughes Satellite Systems Corporation's 5.250% Senior Secured Notes due 2026, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the Guarantors, U.S. Bank National Association, as trustee, and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.1 to the current report on Form 8-K of Hughes Satellite Systems Corporation filed July 27, 2016 (Commission 4.12* File No. 333-179121)).
- Indenture relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the Guarantors and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the current report on Form 8-K 4.13* of Hughes Satellite Systems Corporation filed July 27, 2016 (Commission File No. 333-179121)).
- Registration Rights Agreement, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the Guarantors and Deutsche Bank Securities Inc. (incorporated by reference to Exhibit 4.3 to the current report on Form 8-K of Hughes Satellite Systems Corporation filed July 27, 2016 4.14* (Commission File No. 333-179121)).
- Additional Secured Party Joinder, dated as of July 27, 2016, among U.S. Bank National Association, as trustee, Wells Fargo Bank, National Association, as collateral agent and Hughes Satellite Systems Corporation (incorporated by reference to Exhibit 4.4 to the current report on Form 8-K of Hughes Satellite Systems Corporation filed July 27, 2016 (Commission File No. 333-179121)). 4.15*
- 4.16* Form of Note for 5.250% Senior Secured Notes due 2026 (included as part of Exhibit 4.12).
- 4.17* Form of Note for 6.625% Senior Notes due 2026 (included as part of Exhibit 4.13).
- 4.18^H Joinder Agreement, dated as of March 23, 2017, to the Security Agreement dated as of June 8, 2011, by and between Cheyenne Data Center L.L.C. and Wells Fargo Bank, National Association, as collateral agent.
- 4.19^H Supplemental Indenture, dated March 23, 2017, relating to Hughes Satellite Systems Corporation's 5.250% Senior Secured Notes due 2026, among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto, U.S. Bank National Association, as trustee, and Wells Fargo Bank, National Association, as collateral agent.
- 4.20^H Supplemental Indenture, dated as of March 23, 2017, relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and U.S. Bank National Association, as trustee.
- 4.21^H Supplemental Indenture, dated March 23, 2017, relating to Hughes Satellite Systems Corporation's 6½% Senior Secured Notes due 2019, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and Wells Fargo Bank, National Association, as collateral agent and trustee.
- 4.22^H Supplemental Indenture, dated March 23, 2017, relating to Hughes Satellite Systems Corporation's 7%% Senior Notes due 2021, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and Wells Fargo Bank, National Association, as trustee.
- 5.1^H Opinion of Sullivan & Cromwell LLP regarding the legality of the securities being registered.
- 5.2^H Opinion of Brownstein Hyatt Farber Schreck, LLP.
- Form of Tax Sharing Agreement between EchoStar Corporation and DISH Network Corporation (incorporated by reference to Exhibit 10.2 to 10.1* Amendment No. 1 of EchoStar Corporation's Form 10, filed December 12, 2007, Commission File No. 001-33807).
- Satellite Service Agreement, dated as of March 21, 2003, between SES Americom, Inc., DISH Network L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of DISH Network Corporation for the quarter ended March 31, 2003, 10.2* filed May 6, 2003, Commission File No.000-26176).***
- Amendment No. 1 to Satellite Service Agreement dated July 10, 2003 between SES Americom Inc., DISH Network L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of DISH Network Corporation for the quarter ended 10.3* September 30, 2003, filed November 10, 2003, Commission File No. 000-26176). ***
- 10.4* Amendment No. 3 to Satellite Service Agreement, dated February 19, 2004, between SES Americom, Inc., DISH Network L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q of DISH Network Corporation for the quarter ended March 31, 2004, filed May 6, 2004, Commission File No. 000-26176).***

EXHIBIT NO.	DESCRIPTION
10.5*	Amendment No. 4 to Satellite Service Agreement, dated October 21, 2004, between SES Americom, Inc., DISH Network L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.23 to the Annual Report on Form 10-K of DISH Network Corporation for the year ended December 31, 2004, filed March 16, 2005, Commission File No. 000-26176).***
10.6*	Amendment No. 5 to Satellite Service Agreement, dated November 19, 2004, between SES Americom, Inc., DISH Network L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.25 to the Annual Report on Form 10-K of DISH Network Corporation for the year ended December 31, 2004, filed March 16, 2005, Commission File No. 000-26176).***
10.7*	Amendment No. 6 to Satellite Service Agreement, dated December 20, 2004, between SES Americom, Inc., DISH Network L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.26 to the Annual Report on Form 10-K of DISH Network Corporation for the year ended December 31, 2004, filed March 16, 2005 Commission File No. 000-26176).***
10.8*	Form of EchoStar Corporation 2008 Class B CEO Stock Option Plan (incorporated by reference to Exhibit 10.25 to Amendment No. 1 of EchoStar Corporation's Form 10 filed December 12, 2007, Commission File No. 001-33807).**
10.9*	Form of Satellite Capacity Agreement between EchoStar Corporation and DISH Network L.L.C. (incorporated by reference from Exhibit 10.28 to Amendment No. 2 to EchoStar Corporation's Form 10, filed December 26, 2007, Commission File No. 001-33807).
10.10*	QuetzSat-1 Satellite Service Agreement, dated November 24, 2008, between SES Latin America S.A. and EchoStar 77 Corporation, a direct wholly- owned subsidiary of EchoStar Corporation (incorporated by reference to Exhibit 10.24 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, filed March 1, 2010, Commission File No. 001-33807).***
10.11*	QuetzSat-1 Satellite Service Agreement, dated November 24, 2008, between EchoStar 77 Corporation, a direct wholly-owned subsidiary of EchoStar Corporation, and DISH Network L.L.C. (incorporated by reference to Exhibit 10.25 to EchoStar Corporation's Annual Report on Form 10-K of EchoStar Corporation for the year ended December 31, 2009, filed March 1, 2010, Commission File No. 001-33807).***
10.12*	Amended and Restated EchoStar Corporation 2008 Employee Stock Purchase Plan (incorporated by reference to EchoStar Corporation's Definitive Proxy Statement on Form 14 filed March 31, 2009, Commission File No. 001-33807).**
10.13*	Amended and Restated EchoStar Corporation 2008 Stock Incentive Plan (the "2008 Stock Incentive Plan") (incorporated by reference to EchoStar Corporation's Definitive Proxy Statement on Form 14, filed September 18, 2014, Commission File No. 001-33807).**
10.14*	NIMIQ 5 Whole RF Channel Service Agreement, dated September 15, 2009, between Telesat Canada and EchoStar Corporation (incorporated by reference to Exhibit 10.30 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, filed March 1, 2010, Commission File No. 001-33807).***
10.15*	NIMIQ 5 Whole RF Channel Service Agreement, dated September 15, 2009, between EchoStar Corporation and DISH Network L.L.C. (incorporated by reference to Exhibit 10.31 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, Commission File No. 001-33807).***
10.16*	Form A Amendment to form of Satellite Capacity Agreement between EchoStar Corporation and DISH Network L.L.C. (incorporated by reference to Exhibit 10.34 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, filed March 1, 2010, Commission File No. 001-33807).
10.17*	Form B Amendment to Form of Satellite Capacity Agreement between EchoStar Satellite Services L.L.C. and DISH Network L.L.C. (incorporated by reference to Exhibit 10.35 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, filed March 1, 2010, Commission File No. 001-33807).
10.18*	EchoStar XVI Satellite Transponder Service Agreement between EchoStar Satellite Operating Corporation and DISH Network L.L.C., effective December 21, 2009 (incorporated by reference to Exhibit 10.36 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, filed March 1, 2010, Commission File No. 001-33807).***
10.19*	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of Hughes Communications, Inc., filed June 22, 2006, (Commission File No. 000-51784)). **
10.20*	Contract between Hughes Network Systems, LLC and Space Systems/Loral, Inc. for the Hughes Jupiter Satellite Program dated June 8, 2009 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of Hughes Communications, Inc., for the quarter ended June 30, 2009, filed August 7, 2009 (File No. 001-33040)).***
10.21*	Launch Services Agreement by and between Hughes Network Systems, LLC and Arianespace dated April 30, 2010 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of Hughes Communications, Inc., for the quarter ended June 30, 2010, filed August 4, 2010 (File No. 333-138009)).***
10.22*	Employment Agreement, dated as of April 23, 2005 by and between Hughes Network Systems, LLC and Pradman Kaul (incorporated by reference to Exhibit 10.3 to the Registration Statement on Form S-1 of Hughes Communications, Inc., filed December 5, 2005 (File No. 333-130136)).**
10.23*	Amendment to Employment Agreement, dated as of December 23, 2010 by and between Hughes Communications, Inc. and Pradman Kaul (incorporated by reference to Exhibit 10.29 to the Annual Report on Form 10-K of Hughes Communications, Inc., filed March 7, 2011 (File No. 001-33040)).**
10.24**	Amendment to Employment Agreement, dated as of April 1, 2016, between 2010 between Hughes Communications, Inc. and Pradman Kaul (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of EchoStar Corporation, filed April 6, 2016, Commission File No. 001-33807).**
10.25*	First Amendment to EchoStar XVI Satellite Transponder Service Agreement, dated December 21, 2012 between EchoStar Satellite Operating Corporation and DISH Network L.L.C. (incorporated by reference to Exhibit 10.37 to Hughes Satellite Systems Corporation's Annual Report on Form 10-K, for the year ended December 31, 2012, filed February 20, 2013, File No. 333-179121).***
10.26*	Form of Restricted Stock Unit Agreement for 2008 Stock Incentive Plan — Executive or Director (incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed November 6, 2015, Commission File No. 001-33807).**
10.27*	Form of Stock Option Agreement for 2008 Stock Incentive Plan (1999) (incorporated by reference to Exhibit 10.31 to Hughes Satellite System Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 333-179121). **

EXHIBIT NO.	DESCRIPTION
10.28*	Form of Stock Option Agreement for 2008 Stock Incentive Plan — Employee (2008) (incorporated by reference to Exhibit 10.32 to Hughes Satellite System Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 333-179121).
10.29*	Form of Stock Option Agreement for 2008 Stock Incentive Plan — Executive (2008) (incorporated by reference to Exhibit 10.33 to Hughes Satellite System Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 333-179121).
10.30*	Form of Stock Option Agreement for 2008 Stock Incentive Plan — Employee (2014) (incorporated by reference to Exhibit 10.34 to Hughes Satellite System Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 333-179121).
10.31*	Form of Stock Option Agreement for 2008 Stock Incentive Plan — Executive (2014) (incorporated by reference to Exhibit 10.35 to Hughes Satellite System Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 333-179121).
10.32*	Form of Restricted Stock Unit Agreement for 2008 Stock Incentive Plan — Executive or Director (2011) (incorporated by reference to Exhibit 10.36 to Hughes Satellite System Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 333-179121).**
12.1 ^н	Statement regarding computation of ratio of earnings to fixed charges.
21 ^H	Subsidiaries of Hughes Satellite Systems Corporation.
23.1 ^H	Consent of KPMG LLP.
23.2 ^H	Consent of Sullivan & Cromwell LLP (included as part of Exhibit 5.1).
23.3 ^н	Consent of Brownstein Hyatt Farber Schreck, LLP (included as part of Exhibit 5.2).
24.1 ^H	Powers of Attorney (included on the signature pages hereto).
25.1 ^н	Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939 of U.S. Bank National Association, as trustee under the indentures governing the Notes.
99.1 ^H	Form of Letter of Transmittal.
99.2 ^H	Form of Notice of Guaranteed Delivery.
101.SCH	XBRL Taxonomy Extension Schema.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	XBRL Taxonomy Extension Definition Linkbase.
101.LAB	XBRL Taxonomy Extension Label Linkbase.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase.

^H Filed herewith.

^{*} Incorporated by reference.

^{**} Constitutes a management contract or compensatory plan or arrangement.

^{***} Certain portions of the exhibit have been omitted and separately filed with the Securities and Exchange Commission with a request for confidential treatment.

^{****} Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. We agree to furnish supplementally to the Securities and Exchange Commission a copy of any omitted schedule or exhibit upon request, subject to our right to request confidential treatment of any requested schedule or exhibit.

ITEM 22. UNDERTAKINGS

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrants pursuant to the foregoing provisions, or otherwise, the Registrants have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrants of expenses incurred or paid by a director, officer or controlling person of the Registrants in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrants will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned Registrants hereby undertake to respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11, or 13 of this Form S-4, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of this Registration Statement through the date of responding to the request.

The undersigned Registrants hereby undertake to supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in this Registration Statement when it became effective.

The undersigned Registrants hereby undertake that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrants' annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934(and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrants hereby undertake:

- (a) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - 1. To include any prospectus required by section 10(a)(3) of the Securities Act of 1933.
 - 2. To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.
 - 3. To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement.
- (b) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Englewood, State of Colorado, on April 6, 2017.

HUGHES SATELLITE SYSTEMS CORPORATION

By: /s/ Michael T. Dugan

Name: Michael T. Dugan

Title: President and Chief Executive Officer

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>	Title	Date
/s/ Michael T. Dugan Michael T. Dugan	President, Chief Executive Officer and Director (Principal Executive Officer)	April 6, 2017
/s/ David J. Rayner	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	April 6, 2017
David J. Rayner		
/s/ Charles W. Ergen Charles W. Ergen	_ Chairman	April 6, 2017
/s/ Dean A. Manson Dean A. Manson	Director	April 6, 2017

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrants have duly caused this registration statement to be signed on their behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

EchoStar Orbital L.L.C. EchoStar Government Services L.L.C. EchoStar Satellite Services L.L.C.

By: /s/ Anders N. Johnson

Name:Anders N. JohnsonTitle:President

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>	Title	Date
	President	
/s/ Anders N. Johnson	(Principal Executive Officer)	April 6, 2017
Anders N. Johnson		
	Chief Financial Officer	

/s/ David J. Rayner

David J. Rayner

/s/ Michael T. Dugan

Hughes Satellite Systems Corporation As Sole Member By: Michael T. Dugan President and Chief Executive Officer Sole Member

(Principal Financial Officer

and Principal Accounting Officer)

April 6, 2017

April 6, 2017

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

EchoStar Satellite Operating Corporation

By: /s/ Anders N. Johnson

Name:Anders N. JohnsonTitle:President

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

Signature	Title	Date
/s/ Anders N. Johnson	President (Principal Executive Officer)	April 6, 2017
Anders N. Johnson		
/s/ David J. Rayner	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	April 6, 2017
David J. Rayner		
/s/ Charles W. Ergen Charles W. Ergen	Chairman	April 6, 2017
/s/ Michael T. Dugan Michael T. Dugan	Director	April 6, 2017
/s/ Dean A. Manson Dean A. Manson	Director	April 6, 2017

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

EchoStar 77 Corporation

By: /s/ Anders N. Johnson

Name: Anders N. Johnson Title: President

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

Signature	Title	Date
/s/ Anders N. Johnson	President (Principal Executive Officer)	April 6, 2017
Anders N. Johnson		
/s/ David J. Rayner	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	April 6, 2017
David J. Rayner		
/s/ Charles W. Ergen	Chairman	April 6, 2017
Charles W. Ergen		
/s/ Michael T. Dugan	Director	April 6, 2017
Michael T. Dugan		
/s/ Dean A. Manson	Director	April 6, 2017
Dean A. Manson		

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

Hughes Communications, Inc.

By: /s/ Pradman P. Kaul

Name: Pradman P. Kaul Title: President

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>	Title	Date
/s/ Pradman P. Kaul	President (Principal Executive Officer)	April 6, 2017
Pradman P. Kaul		
	Executive Vice President and Chief Financial Officer (Principal Financial	
/s/ Grant Barber	Officer and Principal Accounting Officer)	April 6, 2017
Grant Barber		
/s/ Charles W. Ergen	Chairman	April 6, 2017
Charles W. Ergen		
/s/ Michael T. Dugan	Director	April 6, 2017
Michael T. Dugan		
/s/ Dean A. Manson	Director	April 6, 2017
Dean A. Manson		

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HUGHES NETWORK SYSTEMS, LLC

By: /s/ Pradman P. Kaul

Name:	Pradman P. Kaul
Title:	President and Sole Member of the Board of Managers

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>

<u>Title</u> President and Sole Member of the Board of Managers (Principal Executive Officer) <u>Date</u>

April 6, 2017

/s/ Pradman P. Kaul

Pradman P. Kaul

Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

April 6, 2017

/s/ Grant A. Barber

Grant A. Barber

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HNS FINANCE CORP.

By: /s/ Pradman P. Kaul

Name:Pradman P. KaulTitle:President and Chief Executive Officer

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

Signature	Title	Date
/s/ Pradman P. Kaul Pradman P. Kaul	Chief Executive Officer, President and Director (Principal Executive Officer)	April 6, 2017
/s/ Grant A. Barber Grant A. Barber	Executive Vice President, Chief Financial Officer and Director (Principal Financial Officer and Principal Accounting Officer)	April 6, 2017
/s/ Dean A. Manson	Vice President, General Counsel, Secretary and Director	April 6, 2017

Dean A. Manson

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HUGHES NETWORK SYSTEMS INTERNATIONAL SERVICE COMPANY

By: /s/ Pradman P. Kaul

Name: Pradman P. Kaul Title: President

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>

/s/ Pradman P. Kaul Pradman P. Kaul <u>Title</u> President and Director (Principal Executive Officer) Date

April 6, 2017

/s/ Grant A. Barber

Grant A. Barber

Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

April 6, 2017

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HNS REAL ESTATE, LLC

By: /s/ Pradman P. Kaul

Name: Pradman P. Kaul Title: President

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>	Title	Date
/s/ Pradman P. Kaul	President (Principal Executive Officer)	April 6, 2017
Pradman P. Kaul		
	Chief Financial Officer (Principal Financial	
/s/ Grant A. Barber	Officer and Principal Accounting Officer)	April 6, 2017
Grant A. Barber		
/s/ Pradman P. Kaul	Sole Member ¹	April 6, 2017
Hughes Network Systems, LLC		
As Sole Member		
By: Pradman P. Kaul		
President and Sole Member of the Board of		
Managers		

1 HNS Real Estate, LLC ("HNSRE") is a single member limited liability company managed by its sole member, Hughes Network Systems, LLC. HNSRE does not have a board of directors or similar body. A separate signature page of Hughes Network Systems, LLC is included elsewhere in this Registration Statement.

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HNS LICENSE SUB, LLC

By: HUGHES NETWORK SYSTEMS, LLC, as Sole Member

By: /s/ Pradman P. Kaul

Name:Pradman P. KaulTitle:President and Sole Member of the Board of Managers

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>

<u>Title</u>

Date

/s/ Pradman P. Kaul

Hughes Network Systems, LLC As Sole Member By: Pradman P. Kaul President and Sole Member of the Board of Managers Sole Member¹

April 6, 2017

1 HNS License Sub, LLC ("HNSLS") is a single member limited liability company managed by its sole member, Hughes Network Systems, LLC. HNSLC does not have a board of directors or similar body or any officers. A separate signature page of Hughes Network Systems, LLC is included elsewhere in this Registration Statement.

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HNS-INDIA VSAT, INC.

By: /s/ Pradman P. Kaul

Name: Pradman P. Kaul Title: President

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

<u>Signature</u>

/s/ Pradman P. Kaul

Pradman P. Kaul

Title

Date

April 6, 2017

President and Director (Principal Executive Officer)

Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

/s/ Grant A. Barber

Grant A. Barber

April 6, 2017

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

HNS-SHANGHAI, INC.

By: /s/ Pradman P. Kaul

Name: Pradman P. Kaul Title: President

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Grant A. Barber and Dean A. Manson, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

Signature

/s/ Pradman P. Kaul

Pradman P. Kaul

<u>Title</u> President and Director (Principal Executive Officer) Date

April 6, 2017

Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

April 6, 2017

/s/ Grant A. Barber Grant A. Barber

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

EchoStar XI Holding L.L.C.

By: /s/ Anders N. Johnson

Name:Anders N. JohnsonTitle:President

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

	Title	Date
Signature	President	
/s/ Anders N. Johnson	(Principal Executive Officer)	April 6, 2017
Anders N. Johnson		
/s/ David J. Rayner David J. Rayner	Chief Financial Officer (Principal Executive Officer and Principal Accounting Officer)	April 6, 2017
/s/ Michael T. Dugan Hughes Satellite Systems Corporation As Sole Member By: Michael T. Dugan President and Chief Executive Officer	(Sole Member) ¹	April 6, 2017

1 EchoStar XI Holding L.L.C. ("ES XI") is a single member limited liability company managed by its sole member, Hughes Satellite Systems Corporation. ES XI does not have a board of directors or similar body. A separate signature page of Hughes Satellite Systems Corporation is included elsewhere in this Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Germantown, State of Maryland, on April 6, 2017.

EchoStar XIV Holding L.L.C.

By: /s/ Anders N. Johnson

Name:Anders N. JohnsonTitle:President

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

	Title	Date
<u>Signature</u>		
	President	
/s/ Anders N. Johnson	(Principal Executive Officer)	April 6, 2017
Anders N. Johnson		
	Chief Financial Officer	
	(Principal Executive Officer and Principal	
/s/ David J. Rayner	Accounting Officer)	April 6, 2017
David J. Rayner		
/s/ Anders N. Johnson	(Sole Member) ¹	April 6, 2017
EchoStar XI Holding L.L.C.		
As Sole Member		
By: Anders N. Johnson		
President		

1 EchoStar XIV Holding L.L.C. ("ES XIV") is a single member limited liability company managed by its sole member, EchoStar XI Holding L.L.C. ES XIV does not have a board of directors or similar body. A separate signature page of EchoStar XI Holding L.L.C. is included elsewhere in this Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Englewood, State of Colorado, on April 6, 2017.

Cheyenne Data Center LLC

By: /s/ Michael T. Dugan

Name:Michael T. DuganTitle:President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Dean A. Manson and David J. Rayner, and each of them, his true and lawful attorneysin-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file or cause to be filed the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated below.

Signatura	Title	Date
<u>Signature</u>		
/s/ Michael T. Dugan	President and Chief Executive Officer (Principal Executive Officer)	April 6, 2017
Michael T. Dugan		
	Executive Vice President, Chief Financial Officer and Treasurer (Principal Executive Officer and Principal	
/s/ David J. Rayner	Accounting Officer)	April 6, 2017
David J. Rayner		
/c/ Michael T. Ducan	(Sala Mambar)	April 6, 2017
/s/ Michael T. Dugan	(Sole Member) ¹	April 6, 2017
Hughes Satellite Systems Corporation As Sole Member		
By: Michael T. Dugan		
President and Chief Executive Officer		

1 Cheyenne Data Center LLC ("CDC") is a single member limited liability company managed by its sole member, Hughes Satellite Systems Corporation. CDC does not have a board of directors or similar body or any officers. A separate signature page of Hughes Satellite Systems Corporation is included elsewhere in this Registration Statement.

EXHIBIT 3.25(a)

Document must be filed electronically.

Paper documents will not be accepted. Document processing fee \$50.00 Fees & forms/cover sheets are subject to change. To access other information or print copies of filed documents, visit <u>www.sos.state.co.us</u> and select Business Center.

王-Filed

Colorado Secretary of State Date and Time: 08/13/2009 04:45 PM ID Number: 20091435243

Document number: 20091435243

Amount Paid: \$50.00

ABOVE SPACE FOR OFFICE USE ONLY

Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

1. The domestic entity name of the limited liability company is

EchoStar XI Holding L.L.C.

9601 S. Meridian Blvd.

(The name of a limited liability company must contain the term or abbreviation "limited liability company", "Itd. liability co.", "limited", "l.l.c.", "llc", or "ltd.". See §7-90-601, C.R.S.)

(Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.)

2. The principal office address of the limited liability company's initial principal office is

<u>Street</u> address

<u>Succi</u> address					
		(Street number and name)			
	Englewood	СО		80112	
	(City)		(State)	(2	Zip/Postal Code)
			United S	tates	
	(Province	e – if applicable)		(Country – i	f not US)
<u>Mailing</u> address					
(leave blank if same as street address)	P.O. Box 6655	(Street number and no	ama ar Daat Offica B	ou information)	
			une of Post Office B		
	Englewood	CO		80155	
	(City)		(State)		Zip/Postal Code)
			United S	tates	
	(Province	e – if applicable)		(Count	try)
The registered agent name and registered agen	t addross of the limited liabili	ty company's initi	al registered ager	nt are	
The registered agent nume and registered agen	it address of the minited naom	ty company s mud	ii regioterea agei		
Name		ty company's mut	in registered ugen	it the	
	Dodge	R.	Stanton		
Name			Stanton	fiddle)	(Suffix)
Name	Dodge	R.	Stanton		(Suffix)
Name (if an individual)	Dodge	R.	Stanton		(Suffix)
Name (if an individual) OR	Dodge (Last)	R.	Stanton		(Suffix)
Name (if an individual) OR (if an entity)	Dodge (Last)	R. (First)	Stanton		(Suffix)
Name (if an individual) OR (if an entity) (Caution: Do not provide both an individual and an en	Dodge (Last)	R. (First)	Stanton (M	fiddle)	(Suffix)
Name (if an individual) OR (if an entity) (Caution: Do not provide both an individual and an en	Dodge (Last)	R. (First)	Stanton (M	fiddle)	(Suffix)
Name (if an individual) OR (if an entity) (Caution: Do not provide both an individual and an en	Dodge (Last) ntity name.) 9601 S. Meridian B	R. (First)	Stanton (M	fiddle) hox information)	(Suffix) (Zip Code)
Name (if an individual) OR (if an entity) (Caution: Do not provide both an individual and an en	Dodge (Last) atity name.) 9601 S. Meridian B Englewood	R. (First)	Stanton (M ame or Post Office B	fiddle) hox information)	
Name (if an individual) OR (if an entity) (<i>Caution: Do not provide both an individual and an en</i> <u>Street</u> address	Dodge (Last) ntity name.) 9601 S. Meridian B Englewood (City)	R. (First)	Stanton (M ame or Post Office B (State)	fiddle) tox information) 80112	
Name (if an individual) OR (if an entity) (<i>Caution: Do not provide both an individual and an en</i> <u>Street</u> address	Dodge (Last) ntity name.) 9601 S. Meridian B Englewood (City)	R. (First) Blvd. (Street number and no CO	Stanton (M ame or Post Office B (State)	fiddle) tox information) 80112	
Name (if an individual) OR (if an entity) (<i>Caution: Do not provide both an individual and an en</i> <u>Street</u> address	Dodge (Last) 9601 S. Meridian B Englewood (City) P.O. Box 6655	R. (First) Blvd. (Street number and no CO	Stanton (M ame or Post Office B (State)	tiddle) tox information) 80112 tox information) 80155	
Name (if an individual) OR (if an entity) (<i>Caution: Do not provide both an individual and an en</i> <u>Street</u> address	Dodge (Last) 9601 S. Meridian B Englewood (City) P.O. Box 6655 Englewood	R. (First) Blvd. (Street number and no CO	Stanton (M ame or Post Office B (State) ame or Post Office B	tiddle) tox information) 80112 tox information) 80155	(Zip Code) Zip/Postal Code)

(The following statement is adopted by marking the box.)

It is the person appointed as registered agent has consented to being so appointed.

4. The true name and mailing address of the person forming the limited liability company are

Name

(if an individual)				
	(Last)	(First)	(Middle)	(Suffix)
OR				
(if an entity)	DISH Network L.L.	с.		
(Caution: Do not provide both an individual and a	an entity name.)			
Mailing address	9601 S. Meridian B	vd.		
		(Street number and nam	e or Post Office Box information)	1
	Englewood	CO	80112	
	(City)		(State)	(Zip/Postal Code)
			United	States
	(Province	– if applicable)	(Cou	intry)
 The limited liability company has one or m each such person are stated in an attachment. The management of the limited liability com <i>(Mark the applicable box.)</i> one or more managers. OR Me the members. 			angung und die name und i	
6. (The following statement is adopted by marking the be ⊠ There is at least one member of the lin				
 7. (If the following statement applies, adopt the statemen □ This document contains additional info 		hment.)		
8. (Caution: <u>Leave blank</u> (f the document does not have a date.)	a delayed effective date. Starting a delaye	d effective date has signij	ficant legal consequences. Read i	nstructions before entering

(If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

The delayed effective date and, if applicable, time of this document is/are

(mm/dd/yyyy hour:minute am/pm)

Notice:

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the Secretary of State, whether or not such individual is named in the document as one who has caused it to be delivered.

9. The true name and mailing address of the individual causing the document to be delivered for filing are

Lentell	Eric	Peter	
(Last)	(First)	(Mide	dle) (Suffix)
9601 S. Meridia	ın Blvd.		
	(Street name and num	nber or Post Office Box	information)
Englewood	CO		80112
(City)		(State)	(Zip/Postal Code)
			United States
(Provir	nce – if applicable)		(Country)

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

□ This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.

Disclaimer:

This form/cover sheet, and any related instructions, are not intended to provide legal, business or tax advice, and are furnished without representation or warranty. While this form/cover sheet is believed to satisfy minimum legal requirements as of its revision date, compliance with applicable law, as the same may be amended from time to time, remains the responsibility of the user of this form/cover sheet. Questions should be addressed to the user's legal, business or tax advisor(s).

WRITTEN CONSENT OF THE SOLE MEMBER AND OPERATING AGREEMENT OF ECHOSTAR XI HOLDING L.L.C. AS OF AUGUST 13, 2009

The undersigned, being the sole member (the "Member") of EchoStar XI Holding L.L.C., a Colorado limited liability company (the "Company"), in lieu of holding an organizational meeting, hereby adopts the following operating agreement and resolutions by written consent in accordance with the Colorado Limited Liability Company Act, as amended (the "Act").

1. Discharge of Organizer.

NOW, THEREFORE, BE IT RESOLVED, that the organizer of the Company is hereby forever discharged, released, and indemnified by the Company from and against any and all expense or liability actually incurred by the organizer by reason of having been the organizer of the Company; and further

2. Adoption of Articles of Organization.

RESOLVED, that the Articles of Organization which were filed in the office of the Colorado Secretary of State on August 13, 2009, are hereby approved and adopted, and that said Articles of Organization shall be placed in the records of the Company; and further

3. Appointment of Officers.

RESOLVED, that the Company hereby appoints the following officers of the Company to act with the authority customarily exercised by officers of a Corporation formed under Colorado law holding corresponding titles:

President and Chief Executive Officer	Charles W. Ergen
Executive Vice President	James DeFranco
Executive Vice President, General Counsel and Secretary	R. Stanton Dodge

4. Banking.

RESOLVED, that the Company shall open bank accounts as deemed necessary by any officer of the Company for the operation of the Company's business, and each officer is authorized and directed to execute, acknowledge and deliver any and all documents as may be required to open accounts and borrow funds from a bank with such additional provisions and restrictions as the officer in his or her discretion deems appropriate; and further

RESOLVED, that a copy of the form of bank resolution filed with such bank pursuant to the foregoing resolution be attached hereto and made a part of the minutes and that all resolutions contained therein be adopted as resolutions made by the Member at this meeting; and further

5. **Payment of Organizational Expenses.**

RESOLVED, that the Company is authorized and directed to pay all charges and expenses incident to or arising out of the organization of the Company and to reimburse the organizer which has advanced said charges and expenses on behalf of the Company in connection with the organization of the Company; and further

6. Miscellaneous.

RESOLVED, that the officers be, and each one of them acting alone or with one or more other officers hereby is, authorized and directed to do any and all acts and to execute any and all documents necessary or appropriate to carry out the foregoing resolutions; and further

RESOLVED, that any actions taken on behalf of the Company prior to the date of this Consent by the organizer of the Company, are hereby approved and ratified in all respects.

The action taken by this Consent shall have the same force and effect as if taken by the undersigned at an organizational meeting, duly called and constituted pursuant to the Act.

IN WITNESS WHEREOF, the undersigned, being the sole member of the Company, hereby consents to, approves, and adopts the foregoing resolutions effective as of the date first written above.

SOLE MEMBER

DISH Network L.L.C.

By: /s/ R. Stanton Dodge

Name: R. Stanton Dodge Title: Executive Vice President, General Counsel and Secretary

WRITTEN CONSENT OF THE SOLE MEMBER OF ECHOSTAR XI HOLDING L.L.C. AS OF MARCH 1, 2014

The undersigned, being the sole member (the "Member") of EchoStar XI Holding L.L.C., a Colorado limited liability company (the "Company"), in lieu of holding a special meeting, hereby adopts the following resolutions by written consent in accordance with the Colorado Limited Liability Company Act, as amended (the "Act").

WHEREAS, the Member desires to amend the Operating Agreement, dated August 13, 2009, of the Company (the "Operating Agreement").

NOW, THEREFORE BE IT RESOLVED, that Section 3 of the Operating Agreement is hereby amended in its entirety to state the following:

1. Appointment of Officers.

RESOLVED, that the Company hereby appoints the following officers of the Company to act with the authority customarily exercised by officers of a Corporation formed under Colorado law holding corresponding titles:

Chairman	Charles W. Ergen
President and Chief Executive Officer	Michael T. Dugan
Executive Vice President, General Counsel and Secretary	Dean A. Manson
President - EchoStar Satellite Systems L.L.C.	Anders N. Johnson

; and further

RESOLVED, that Section 4 of the Operating Agreement is hereby amended in its entirety to state the following:

2. Banking.

RESOLVED, that the Company be, and it hereby is, authorized and directed to open, operate, maintain and close such bank accounts and/or brokerage accounts ("Accounts") at one or more banks or similar institutions as designated by the proper officers (as defined below) of the Company (a "Bank" or the "Banks"), from time to time, as may be deemed necessary or required for the operation of the Company's business (the "Banking Authority"); and further

RESOLVED, that, the Member hereby delegates the power and authority for the Company's Banking Authority to the Company's proper officers, and the proper officers be, and each one of them acting alone or with one or more other proper officers hereby is, authorized, empowered and directed in the name and on behalf of the Company, from time to time, to carry out the Company's Banking Authority with such Banks and to make, execute and deliver, or cause to be made, executed and delivered, any and all agreements, certificates, instruments or documents as may be necessary or required by any Bank in connection with a Bank Account, with such additional provisions and restrictions as the proper officers in their discretion deem necessary or appropriate. For the purpose of these resolutions, a "proper officer" means the Chairman, Executive Vice President, General Counsel and Secretary or Treasurer of the Company; and further

RESOLVED, that each proper officer of the Company, be, and they hereby are, authorized, empowered and directed in the name and on behalf of the Company, from time to time, to certify to any Bank with respect to any Bank Account the Banking Authority conferred by the foregoing resolutions and that the authority thereby conferred is within the power and authority of the Company and the proper officers; and further

RESOLVED, that the form of any bank resolution(s) required by and delivered to a Bank, from time to time, with respect to any Bank Account may be made and delivered by the proper officers of the Company pursuant to the Banking Authority conferred by the foregoing resolutions without any further action by the Member and that all resolutions contained therein are adopted as resolutions made by the Member; and further

; and further

General Enabling Resolutions

RESOLVED, that the officers be, and each one of them acting alone or with one or more other officers hereby is, authorized and directed to do any and all acts and to execute any and all documents necessary or appropriate to carry out the foregoing resolutions; and further

RESOLVED, that any actions taken on behalf of the Company prior to the date of this Consent by the organizer of the Company, are hereby approved and ratified in all respects.

The action taken by this Consent shall have the same force and effect as if taken by the undersigned at an organizational meeting, duly called and constituted pursuant to the Act.

IN WITNESS WHEREOF, the undersigned, being the sole member of the Company, hereby consents to, approves, and adopts the foregoing resolutions effective as of the date first written above.

SOLE MEMBER

ECHOSTAR CORPORATION

By: /s/ Dean A. Manson

Name: Dean A. Manson Title: Executive Vice President, General Counsel and Secretary Document must be filed electronically. Paper documents will not be accepted. Document processing fee Fees & forms/cover sheets are subject to change. To access other information or print copies of filed documents, visit www.sos.state.co.us and select Business Center.

E-File

Colorado Secretary of State Date and Time: 06/03/2010 02:20 PM ID Number: 20101318162

Document number: 20101318162 Amount Paid: \$50.00

ABOVE SPACE FOR OFFICE USE ONLY

Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

1. The domestic entity name of the limited liability company is

EchoStar XIV Holding L.L.C.

(The name of a limited liability company must contain the term or abbreviation "limited liability company", "Itd. liability co.", "ltd. liability co.", "limited", "l.l.c.", "llc", or "ltd.". See §7-90-601, C.R.S.)

(Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.)

2. The principal office address of the limited liability company's initial principal office is

3. The

	9601 S. Meridian Blvd				
		(Street number and name)			
	Englewood	СО	801	12	
	(City)	(State)	(Zip/Postal Code)	
			United States		
	(Province – i	f applicable)	(Count	ry – if not US)	
Mailing address					
(leave blank if same as street address)	P.O. Box 6655			· 、	
			r Post Office Box informat		
	Englewood	CO	801		
	(City)	(State)	(Zip/Postal Code)	
			United States		
	(Province – i	f applicable)	(*	Country)	
registered agent name and registered agen	nt address of the limited liabilit	y company's initial	registered agent are		
registered agent name and registered agen Name	nt address of the limited liabilit	y company's initial	registered agent are		
		y company's initial R.	Stanton		
Name				(Suffix)	
Name	Dodge	R.	Stanton	(Suffix)	
Name (if an individual)	Dodge	R.	Stanton	(Suffix)	
Name (if an individual) OR	Dodge (Last)	R.	Stanton	(Suffix)	
Name (if an individual) OR (if an entity)	Dodge (Last)	R. (First)	Stanton	(Suffix)	
Name (if an individual) OR (if an entity) uution: Do not provide both an individual and an e	Dodge (Last)	R. (First)	Stanton		
Name (if an individual) OR (if an entity) uution: Do not provide both an individual and an e	Dodge (Last)	R. (First)	Stanton (Middle)	ion)	
Name (if an individual) OR (if an entity) uution: Do not provide both an individual and an e	Dodge (Last) entity name.) 9601 S. Meridian Bly (S	R. (First) rd. Etreet number and name of CO	Stanton (Middle) r Post Office Box information	ion)	
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Name (if an individual) OR (if an entity) nution: Do not provide both an individual and an e Street address <u>Mailing</u> address	Dodge (Last) entity name.) 9601 S. Meridian Blv (S Englewood (City) P.O. Box 6655	R. (First) rd. Street number and name of CO	Stanton (Middle) r Post Office Box informat 801 State)	ion) 12 (Zip Code) ion)	

(The following statement is adopted by marking the box.)

It is the person appointed as registered agent has consented to being so appointed.

4. The true name and mailing address of the person forming the limited liability company are

Name

(if an individual)

	(Last)	(First)	(Middle)	(Suffix)
OR				
(if an entity)	DISH Network L.L	.C.		
(Caution: Do not provide both an individual an	nd an entity name.)			
Mailing address	9601 S. Meridian B	lvd		
		(Street number and name or F	Post Office Box information)	
	Englewood	CO	80112	
	(City)	(Sta	te) (Zip/P	ostal Code)
			United Stat	es
	Υ. Υ.	- if applicable)	(Country)	es
] The limited liability company has one o ach such person are stated in an attachme	nt by marking the box and include an attact or more additional persons forming nt.	nment.)	(Country)	
The limited liability company has one o ach such person are stated in an attachme	nt by marking the box and include an attact or more additional persons forming nt.	nment.)	(Country)	
	nt by marking the box and include an attact or more additional persons forming nt.	nment.)	(Country)	

7. (*If the following statement applies, adopt the statement by marking the box and include an attachment.*) □ This document contains additional information as provided by law.

8. (Caution: Leave blank (f the document does not have a delayed effective date. Starting a delayed effective date has significant legal consequences. Read instructions before entering a date.)

(If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

The delayed effective date and, if applicable, time of this document is/are

Notice:

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

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9. The true name and mailing address of the individual causing the document to be delivered for filing are

Tracy	А.	
(First)	(Middl	e) (Suffix)
(Street name and n	umber or Post Office Box in	nformation)
СО		80155
	(State)	(Zip/Postal Code)
		United States
ce – if applicable)		(Country)
	(First) (Street name and n CO	(First) (Middle (Street name and number or Post Office Box in CO (State)

(mm/dd/yyyy hour:minute am/pm)

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

□ This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.

Disclaimer:

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WRITTEN CONSENT OF THE SOLE MEMBER AND OPERATING AGREEMENT OF ECHOSTAR XIV HOLDING L.L.C. AS OF JUNE 3, 2010

The undersigned, being the sole member (the "Member") of EchoStar XIV Holding L.L.C., a Colorado limited liability company (the "Company"), in lieu of holding an organizational meeting, hereby adopts the following operating agreement and resolutions by written consent in accordance with the Colorado Limited Liability Company Act, as amended (the "Act").

1. **Discharge of Organizer.**

NOW, THEREFORE, BE IT RESOLVED, that the organizer of the Company is hereby forever discharged, released, and indemnified by the Company from and against any and all expense or liability actually incurred by the organizer by reason of having been the organizer of the Company; and further

2. Adoption of Articles of Organization.

RESOLVED, that the Articles of Organization which were filed in the office of the Colorado Secretary of State on June 3, 2010, are hereby approved and adopted, and that said Articles of Organization shall be placed in the records of the Company; and further

3. Appointment of Officers.

RESOLVED, that the Company hereby appoints the following officers of the Company to act with the authority customarily exercised by officers of a Corporation formed under Colorado law holding corresponding titles:

President and Chief Executive Officer	Charles W. Ergen
Executive Vice President	James DeFranco
Executive Vice President, General Counsel and Secretary	R Stanton Dodge

4. Banking.

RESOLVED, that the Company shall open bank accounts as deemed necessary by any officer of the Company for the operation of the Company's business, and each officer is authorized and directed to execute, acknowledge and deliver any and all documents as may be required to open accounts and borrow funds from a bank with such additional provisions and restrictions as the officer in his or her discretion deems appropriate; and further

RESOLVED, that a copy of the form of bank resolution filed with such bank pursuant to the foregoing resolution be attached hereto and made a part of the minutes and that all resolutions contained therein be adopted as resolutions made by the Member at this meeting; and further

5. **Payment of Organizational Expenses.**

RESOLVED, that the Company is authorized and directed to pay all charges and expenses incident to or arising out of the organization of the Company and to reimburse the organizer which has advanced said charges and expenses on behalf of the Company in connection with the organization of the Company; and further

6. Miscellaneous.

RESOLVED, that the officers be, and each one of them acting alone or with one or more other officers hereby is, authorized and directed to do any and all acts and to execute any and all documents necessary or appropriate to carry out the foregoing resolutions; and further

RESOLVED, that any actions taken on behalf of the Company prior to the date of this Consent by the organizer of the Company, are hereby approved and ratified in all respects.

The action taken by this Consent shall have the same force and effect as if taken by the undersigned at an organizational meeting duly called and constituted pursuant to the Act.

IN WITNESS WHEREOF, the undersigned, being the sole member of the Company, hereby consents to, approves, and adopts the foregoing resolutions effective as of the date first written above.

SOLE MEMBER

DISH Network L.L.C.

By: /s/ R. Stanton Dodge

Name: R. Stanton Dodge Title: Executive Vice President, General Counsel and Secretary

WRITTEN CONSENT OF THE SOLE MEMBER OF ECHOSTAR XIV HOLDING L.L.C. AS OF March 1, 2014

The undersigned, being the sole member (the "Member") of EchoStar XIV Holding L.L.C., a Colorado limited liability company (the "Company"), in lieu of holding a special meeting, hereby adopts the following resolutions by written consent in accordance with the Colorado Limited Liability Company Act, as amended (the "Act").

WHEREAS, the Member desires to amend the Operating Agreement, dated June 3, 2010, of the Company (the "Operating Agreement").

NOW, THEREFORE BE IT RESOLVED, that Section 3 of the Operating Agreement is hereby amended in its entirety to state the following:

1. Appointment of Officers.

RESOLVED, that the Company hereby appoints the following officers of the Company to act with the authority customarily exercised by officers of a Corporation formed under Colorado law holding corresponding titles:

Chairman	Charles W. Ergen
President and Chief Executive Officer	Michael T. Dugan
Executive Vice President, General Counsel and Secretary	Dean A. Manson
President - EchoStar Satellite Systems L.L.C.	Anders N. Johnson

; and further

RESOLVED, that Section 4 of the Operating Agreement is hereby amended in its entirety to state the following:

2. Banking.

RESOLVED, that the Company be, and it hereby is, authorized and directed to open, operate, maintain and close such bank accounts and/or brokerage accounts ("Accounts") at one or more banks or similar institutions as designated by the proper officers (as defined below) of the Company (a "Bank" or the "Banks"), from time to time, as may be deemed necessary or required for the operation of the Company's business (the "Banking Authority"); and further

RESOLVED, that, the Member hereby delegates the power and authority for the Company's Banking Authority to the Company's proper officers, and the proper officers be, and each one of them acting alone or with one or more other proper officers hereby is, authorized, empowered and directed in the name and on behalf of the Company, from time to time, to carry out the Company's Banking Authority with such Banks and to make, execute and deliver, or cause to be made, executed and delivered, any and all agreements, certificates, instruments or documents as may be necessary or required by any Bank in connection with a Bank Account, with such additional provisions and restrictions as the proper officers in their discretion deem necessary or appropriate. For the purpose of these resolutions, a "proper officer" means the Chairman, Executive Vice President, General Counsel and Secretary or Treasurer of the Company; and further

RESOLVED, that each proper officer of the Company, be, and they hereby are, authorized, empowered and directed in the name and on behalf of the Company, from time to time, to certify to any Bank with respect to any Bank Account the Banking Authority conferred by the foregoing resolutions and that the authority thereby conferred is within the power and authority of the Company and the proper officers; and further

RESOLVED, that the form of any bank resolution(s) required by and delivered to a Bank, from time to time, with respect to any Bank Account may be made and delivered by the proper officers of the Company pursuant to the Banking Authority conferred by the foregoing resolutions without any further action by the Member and that all resolutions contained therein are adopted as resolutions made by the Member; and further

; and further

General Enabling Resolutions

RESOLVED, that the officers be, and each one of them acting alone or with one or more other officers hereby is, authorized and directed to do any and all acts and to execute any and all documents necessary or appropriate to carry out the foregoing resolutions; and further

RESOLVED, that any actions taken on behalf of the Company prior to the date of this Consent by the organizer of the Company, are hereby approved and ratified in all respects.

The action taken by this Consent shall have the same force and effect as if taken by the undersigned at an organizational meeting, duly called and constituted pursuant to the Act.

IN WITNESS WHEREOF, the undersigned, being the sole member of the Company, hereby consents to, approves, and adopts the foregoing resolutions effective as of the date first written above.

SOLE MEMBER

ECHOSTAR XI HOLDING L.L.C.

By: /s/ Dean A. Manson

Name: Dean A. Manson Title: Executive Vice President, General Counsel and Secretary Document must be filed electronically.

Paper documents are not accepted. Fees & forms are subject to change. For more information or to print copies of filed documents, visit www.sos.state.co.us.

E-Filed

Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

1. The domestic entity name of the limited liability company is

Cheyenne Data Center L.L.C.

(The name of a limited liability company must contain the term or abbreviation "limited liability company", "ltd. liability company", "limited liability co.", "ltd. liability co.", "limited", "l.l.c.", "ltc", or "ltd.". See §7-90-601, C.R.S.)

(Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.)

The principal office address of the limited liability company's initial principal office is

OR

Street address	100 Inverness Terr	ace East		
		(Street n	umber and name)	
	Englewood	CO	8011	2
	(City)		(State)	(Zip/Postal Code)
			United States	
	(Province –	if applicable)	(Country	v − if not US)
<u>Mailing</u> address (leave blank if same as street address)				
	(8	treet number and name	e or Post Office Box informa	tion)
	(City)		(State)	(Zip/Postal Code)
	(Province –	if applicable)	(C	ountry)
 The registered agent name and registered a Name (if an individual) 		lability company	s initial registered ager	
	(Last)	(First)	(Middle)	(Suffix)
OR				
(if an entity)	Corporation Servi	ce Company		
(Caution: Do not provide both an individual and a	n entity name.)			
<u>Street</u> address	1560 Broadway, Su	1ite 2090		
	(S	treet number and name	e or Post Office Box informa	tion)
	Denver	CO	8020	2
	(City)		(State)	(Zip Code)
(The following statement is adopted by marking the box.) ⊠ The person appointed as registered agent h		pointed.		
4. The true name and mailing address of the p	erson forming the limited l	iability company a	are	
Name (if an individual)				
	(Last)	(First)	(Middle)	(Suffix)

Colorado Secretary of State Date and Time: 03/01/2017 11:15 AM ID Number: 20171174663 Document number: 20171174663 Amount Paid: \$50.00

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Mailing address

(Caution: Do not provide both an individual

(Str	(Street number and name or Post Office Box information)			
Germantown	MD	20876		
(City)	(State)	(Zip/Postal Code)		
		United States		
(Province – i	f applicable)	(Country)		

(Province - if applicable)

(If the following statement applies, adopt the statement by marking the box and include an attachment.) The limited liability company has one or more additional persons forming the limited liability company and the name and mailing address of each such person are stated in an attachment.

5. The management of the limited liability company is vested in (Mark the applicable box.)

one or more managers.

OR

 \boxtimes the members.

6. (The following statement is adopted by marking the box.)

☑ There is at least one member of the limited liability company.

7. (If the following statement applies, adopt the statement by marking the box and include an attachment.)

□ This document contains additional information as provided by law.

8. (Caution: Leave blank (f the document does not have a delayed effective date. Starting a delayed effective date has significant legal consequences. Read instructions before entering a date.)

(If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

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(mm/dd/vvvv hour:minute am/pm)

Notice:

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the Secretary of State, whether or not such individual is named in the document as one who has caused it to be delivered.

9. The true name and mailing address of the individual causing the document to be delivered for filing are

Yost	Jeanne		
(Last)	(First)	(Middle)	(Suffix)
11717 Exploration	n Lane		
(Street name and number o	r Post Office Box inform	nation)
Germantown	MD	208	376
(City)	(5	State)	(Zip/Postal Code)
		United States	
(Province – if applicable)		(Country)

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

□ This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.

Disclaimer:

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ARTICLES OF ORGANIZATION OF CHEYENNE DATA CENTER L.L.C.

I, the undersigned natural person of the age of eighteen years or more, acting as organizer of a limited liability company under the Colorado Limited Liability Company Act, as amended, adopt the following Articles of Organization (the "Articles of Organization") for such limited liability company:

ARTICLE I

The name of the limited liability company is Cheyenne Data Center L.L.C. (the "Company").

ARTICLE II

The principal place of business of the Company is 100 Inverness Terrace East, Englewood, Colorado 80112.

ARTICLE III

The street address of the initial registered office of the Company is 100 Inverness Terrace East, Englewood, Colorado 80112.

The mailing address of the initial registered office of the Company is 1560 Broadway, Suite 2090, Denver, Colorado 80202. The name of the proposed initial registered agent of the Company in Colorado at the address is Corporation Service Company.

ARTICLE IV

The purpose for which the Company is organized and its powers are as follows:

- 1. To engage in the transaction of all business or pursue any other lawful purpose or purposes for which a limited liability company may be organized under Colorado law.
- 2. To have, enjoy, and exercise all of the rights, powers and privileges conferred upon limited liability companies organized pursuant to Colorado law, whether now or hereafter in effect, and whether or not herein specifically mentioned.

The foregoing enumeration of purposes and powers shall not limit or restrict in any manner the transaction of other business, the pursuit of other purposes, or the exercise of other and further rights and power that may now or hereafter be permitted to provide by law.

ARTICLE V

The management of the company is initially vested in its sole member.

ARTICLE VI

The name and the business address of the initial member is: Hughes Satellite Systems Corporation 100 Inverness Terrace East Englewood, Colorado 80112

ARTICLE VII

The Company shall have perpetual existence.

ARTICLE VIII

The Company shall indemnify, to the fullest extent permitted by applicable law in effect from time to time, any person, and the estate and personal representative of any such person, against all liability and expense (including attorneys' fees) incurred by reason of the fact that such person is or was a manager, officer, employee or fiduciary of the Company or, while serving as manager, officer, employee, or fiduciary of the Company, such person is or was serving at the request of the Company as manager, director, officer, partner, trustee, employee, fiduciary or agent of, or in any similar managerial or fiduciary position of, another domestic or foreign entity or other individual or entity or of an employee benefit plan. The Company shall also indemnify any person, and the estate and personal representative of any such person, who is serving or has served the Company as manager, officer, employee, fiduciary, or agent, to the extent and in the manner provided in any article of organization, resolution of any of the Company's members, contract or otherwise, so long as such provision is legally permissible.

IN WITNESS WHEREOF, the undersigned has signed and acknowledged the Articles of Organization this <u>1st</u> day of March, 2017.

Hughes Satellite Systems Corporation Organizer

By: /s/ Dean A. Manson

Name: Dean A. Manson Title: Executive Vice President, General Counsel, and Secretary

The (a) name or names, and (b) mailing address or addresses, of any one or more of the individuals who cause this document to be delivered for filing, and to whom the Secretary of State may deliver notice of filing of this document if refused, are: <u>Jeanne Yost</u>, <u>Hughes Satellite Systems Corporation</u>, <u>11717 Exploration Lane</u>, <u>Germantown. Maryland 20876</u>.

WRITTEN CONSENT OF THE SOLE MEMBER AND OPERATING AGREEMENT OF CHEYENNE DATA CENTER L.L.C. AS OF MARCH 1, 2017

The undersigned, Hughes Satellite Systems Corporation, a Colorado corporation (the "Member"), being the sole member of Cheyenne Data Center L.L.C., a Colorado limited liability company (the "Company"), in lieu of holding an organizational meeting, hereby adopts the following operating agreement and resolutions by this written consent (this "Consent") in accordance with the Colorado Limited Liability Company Act, as amended (the "Act"):

1. Discharge of Organizer.

NOW, THEREFORE BE IT RESOLVED, that the organizer of the Company is hereby forever discharged, released, and indemnified by the Company from and against any and all expense or liability actually incurred by the organizer by reason of having been the organizer of the Company; and be it further

2. Adoption of the Articles of Organization.

RESOLVED, that the Articles of Organization which were filed in the office of the Colorado Secretary of State on March 1, 2017, are hereby approved and adopted, and that said Articles of Organization shall be placed in the records of the Company; and be it further

3. Appointment of Officers.

RESOLVED, that the Company hereby appoints the following officers of the Company to act with the authority customarily exercised by officers of a Corporation formed under Colorado law holding corresponding titles:

Name	Title
Michael T. Dugan	President, Chief Executive Officer
David J. Rayner	Executive Vice President, Chief Financial Officer and Treasurer
Dean A. Manson	Executive Vice President, General Counsel and Secretary
Joseph Turitz	Vice President, Associate General Counsel and Assistant Secretary

; and be it further

4. Banking

RESOLVED, that the Company shall open bank accounts as deemed necessary by any officer of the Company for the operation of the Company's business, and each office is authorized and directed to execute, acknowledge and deliver any and all documents as may be required to open accounts and borrow funds from a bank with such additional provisions and restrictions as the office in his or her discretion deems appropriate; and be it further

5. Payment of Organizational Expenses

RESOLVED, that the Company is authorized and directed to pay all charges and expenses incident to or arising out of the organization of the Company and to reimburse the organizer which has advanced said charges and expenses on behalf of the Company in connection with the organization of the Company; and be it further

6. Miscellaneous

RESOLVED, that the officers be, and each one of them acting alone or with one or more other officers hereby is, authorized and directed to do any and all acts and to execute any and all documents necessary or appropriate to carry out the foregoing resolutions; and be it further

RESOLVED, that any actions taken on behalf of the Company prior to the date of this Consent by the organizer of the Company, are hereby approved and ratified in all respects.

The action taken by this Consent shall have the same force and effect as if taken by the undersigned at an organizational meeting, duly called and constituted pursuant to the Act.

IN WITNESS WHEREOF, the undersigned, being the sole member of the Company, hereby consents to, approves, and adopts the foregoing resolutions effective as of the date first written above.

SOLE MEMBER

Hughes Satellite Systems Corporation

By: /s/ Dean A. Manson

Name: Dean A. Manson Title: Executive Vice President, General Counsel and Secretary

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Colorado Secretary of State

ID Number: 20101154239

Amount Paid: \$50.00

Date and Time: 03/15/2010 12:49 PM

Document number: 20101154239

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visit www.sos.state.co.us and select Business Center.

Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

1. The domestic entity name of the limited liability company is

EchoStar Orbital L.L.C. (The name of a limited liability company must contain the term or abbreviation "limited liability company", "ltd. liability co.", "limited", "l.l.c.", "llc", or "ltd.". See §7-90-601, C.R.S.) (Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.) 2. The principal office address of the limited liability company's initial principal office is **100 Inverness Terrace East** Street address (Street number and name) Englewood CO 80112 (City) (State) (Zip/Postal Code) **United States** (Province - if applicable) (Country - if not US) Mailing address P.O. Box 6655 (leave blank if same as street address) (Street number and name or Post Office Box information) Englewood 80155 CO (City) (State) (Zip/Postal Code) **United States** (Province – if applicable) (Country) 3. The registered agent name and registered agent address of the limited liability company's initial registered agent are Name (if an individual) Dodge R. Stanton (Last) (First) (Middle) (Suffix) OR (if an entity) (Caution: Do not provide both an individual and an entity name.) 9601 S. Meridian Blvds Street address (Street number and name or Post Office Box information) Englewood CO 80112 (City) (State) (Zip Code) (The following statement is adopted by marking the box.) It is the person appointed as registered agent has consented to being so appointed. 4. The true name and mailing address of the person forming the limited liability company are Name (if an individual) (Middle) (Last) (First) (Suffix) OR (if an entity) **EchoStar Corporation**

ARTORG_LLC Page 1 of 1 Rev. 02/28/2008



(Caution: Do not provide both an individual and an entity name.)

<u>Mailing</u>	address
----------------	---------

(Street number and name or Post Office Box information)			
Englewood	CO 80112		CO
(City)		(State)	(Zip/Postal Code
			United States
(Province – if applicable)			(Country)

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

The limited liability company has one or more additional persons forming the limited liability company and the name and mailing address of each such person are stated in an attachment.

5. The management of the limited liability company is vested in

(Mark the applicable box.) \Box one or more managers.

 \boxtimes the members.

6. (The following statement is adopted by marking the box.)

In There is at least one member of the limited liability company.

7. (If the following statement applies, adopt the statement by marking the box and include an attachment.) □ This document contains additional information as provided by law.

8. (Caution: Leave blank (f the document does not have a delayed effective date. Starting a delayed effective date has significant legal consequences. Read instructions before entering a date.) (If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

The delayed effective date and, if applicable, time of this document is/are

(mm/dd/yyyy hour:minute am/pm)

Notice:

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the Secretary of State, whether or not such individual is named in the document as one who has caused it to be delivered.

9. The true name and mailing address of the individual causing the document to be delivered for filing are

Lentell	Eric	Р	
(Last)	(First)	(M	iddle) (Suffix
P.O. Box 6655			
	(Street name and nu	mber or Post Office Bo	x information)
Englewood	CO	80155	
(City)		(State)	(Zip/Postal Code
			United States
(Prov	ince – if applicable)		(Country)

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

□ This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.

Disclaimer:

This form/cover sheet, and any related instructions, are not intended to provide legal, business or tax advice, and are furnished without representation or warranty. While this form/cover sheet is believed to satisfy minimum legal requirements as of its revision date, compliance with applicable law, as the same may be amended from time to time, remains the responsibility of the user of this form/cover sheet. Questions should be addressed to the user's legal, business or tax advisor(s).

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Document must be filed electronically. Paper documents will not be accepted. Document processing fee Fees & forms/cover sheets are subject to change. To access other information or print copies of filed documents, visit www.sos.state.co.us and select Business Center.



Colorado Secretary of State Date and Time: 08/05/2009 04:29 PM ID Number: 20091420920

Document number: 20091420920 Amount Paid: \$50.00

ABOVE SPACE FOR OFFICE USE ONLY

Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

1. The domestic entity name of the limited liability company is

EchoStar Broadband I L.L.C.

(The name of a limited liability company must contain the term or abbreviation "limited liability company", "Itd. liability company", "limited liability co.", "ltd. iability co.", "limited "i.l.c.", "llc", or "ltd.". See §7-90-601, C.R.S.)

(Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.)

2. The principal office address of the limited liability company's initial principal office is

Street address 100 Inverness Terrace East (Street number and name) 80112 Englewood CO (City) (State) (Zip/Postal Code) United States (Province - if applicable) (Country) P.O. Box 6655 Mailing address (leave blank if same as street address) (Street number and name or Post Office Box information) Englewood 80155 CO (City) (State) (Zip/Postal Code) United States (Province – if applicable) (Country) 3. The registered agent name and registered agent address of the limited liability company's initial registered agent are Name Stanton R. Dodge (if an individual) (Last) (First) (Middle) (Suffix) OR (if an entity) (Caution: Do not provide both an individual and an entity name.) Street address 9601 S. Meridian Blvd. (Street number and name) Englewood CO 80112 (City) (State) (Zip/Postal Code) P.O. Box 6655 Mailing address (leave blank if same as street address) (Street number and name or Post Office Box information) Englewood CO 80155 (City) (Zip/Postal Code) (State) 4. The true name and mailing address of the person forming the limited liability company are

ARTORG_LLC Page 1 of 1 Rev. 02/28/2008

Name

(if an individual)

OR	(Last)	(First)	(Middle)	(Suffix)
(if an entity)	EchoStar Corporation			
Caution: Do not provide both an individual and an entity nam	e.)			
Mailing address		100 Inverness Terrace East		
	(Street nur	nber and name or Post Office Box inforr	nation)	
	Englewood	CO	80	0112
	(City)	(State)	(Zip/Po	ostal Code)
		United States		
	(Province – if applicable)	(Country)		
(If the following	statement applies, adopt the statement by marking	the box and include an attachment.)		
The limited liability company has one or more a person are stated in an attachment.	additional persons forming the limited lia	ability company and the name an	nd mailing address o	of each such
5. The management of the limited liability compan (Mark the applicable box.)	y is vested in			
\Box one or more managers.				
OR				

 \boxtimes the members.

6. (*The following statement is adopted by marking the box.*)

There is at least one member of the limited liability company.

7. (If the following statement applies, adopt the statement by marking the box and include an attachment.)

 $\hfill\square$ This document contains additional information as provided by law.

8. (Caution: Leave blank if the document does not have a delayed effective date. Stating a delayed effective date has significant legal consequences. Read instructions before entering a date.) (If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

The delayed effective date and, if applicable, time of this document is/are

(mm/dd/yyyy hour:minute am/pm)

Notice:

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the Secretary of State, whether or not such individual is named in the document as one who has caused it to be delivered.

9. Name(s) and address(es) of the individual(s) causing the document to be delivered for filing:

	0			
Strickland	Tracy	А.		
(Last)	(First)		(Middle)	(Suffix)
P.O. Box 6655				
	(Street name and	number or Post Of	fice Box information	n)
Englewood	CO		8015	55
(City)		(State)		(Postal/Zip Code)
		United	l States	
(Province – if applicable) (Country – if not U		try – if not US)		

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- This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.
 - (The document need not state the true name and address of more than one individual. However, if you wish to state the name and address of any additional individuals causing the document to be delivered for filing, mark this box 🗵 and include an attachment stating the name and address of such individuals.)

Disclaimer:

This form/cover sheet, and any related instructions, are not intended to provide legal, business or tax advice, and are furnished without representation or warranty. While this form/cover sheet is believed to satisfy minimum legal requirements as of its revision date, compliance with applicable law, as the same may be amended from time to time, remains the responsibility of the user of this form/cover sheet. Questions should be addressed to the user's legal, business or tax advisor(s).

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JOINDER AGREEMENT

March 23, 2017 Wells Fargo Bank, National Association 625 Marquette Ave. 11th Floor MAC N9311-110 Minneapolis, Minnesota 55479

Ladies and Gentlemen:

Reference is made to the Security Agreement (as amended, amended and restated, supplemented or otherwise modified from time to time, the "<u>Security Agreement</u>"; capitalized terms used but not otherwise defined herein shall have the meanings assigned to such terms in the Security Agreement), dated as of June 8, 2011, made by Hughes Satellite Systems Corporation (formerly known as EH Holding Corporation), a Colorado corporation (the "<u>Issuer</u>"), the other pledgors party thereto, and Wells Fargo Bank, National Association, as collateral agent (in such capacity and together with any successors in such capacity, the "<u>Collateral Agent</u>").

This Joinder Agreement supplements the Security Agreement and is delivered by the undersigned, Cheyenne Data Center L.L.C., a Colorado limited liability company (the "<u>New Pledgor</u>"), pursuant to <u>Section 3.6</u> of the Security Agreement. The New Pledgor hereby agrees to be bound as a Pledgor party to the Security Agreement by all of the terms, covenants and conditions set forth in the Security Agreement to the same extent that it would have been bound if it had been a signatory to the Security Agreement. The New Pledgor also hereby agrees to be bound as a party by all of the terms, covenants and conditions applicable to it set forth in the Security Agreement to the same extent that it would have been bound if it had been a signatory to the Security Agreement on the execution date of the Security Agreement. Without limiting the generality of the foregoing, the New Pledgor hereby grants and pledges to the Collateral Agent, as collateral security for the full, prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Secured Obligations, a Lien on and security interest in, all of such New Pledgor's right, title and interest in, to and under the Collateral and expressly assumes all obligations and liabilities of a Pledgor thereunder. The New Pledgor hereby makes each of the representations and warranties and agrees to each of the covenants applicable to the Pledgors contained in the Security Agreement.

This Joinder Agreement and any amendments, waivers, consents or supplements hereto may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed to be an original, but all such counterparts together shall constitute one and the same agreement.

THIS JOINDER AGREEMENT SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES THEREOF.

IN WITNESS WHEREOF, the New Pledgor has caused this Joinder Agreement to be executed and delivered by its duly authorized officer as of the date first above written.

CHEYENNE DATA CENTER L.L.C.

By:

/s/ Dean A. Manson

Name: Dean A. Manson Title: Executive Vice President, General Counsel and Secretary WELLS FARGO BANK, NATIONAL ASSOCIATION, as Collateral Agent

By: /s/ Raymond Delli Colli Name: Raymond Delli Colli

Name: Raymond Delli Co Title: Vice President

SUPPLEMENTAL INDENTURE

THIS SUPPLEMENTAL INDENTURE (this "<u>Supplemental Indenture</u>"), entered into as of March 23, 2017, by and among Hughes Satellite Systems Corporation (formerly known as EH Holding Corporation), a Colorado corporation (the "<u>Company</u>"), the guarantors listed on the signature pages to the Secured Indenture (the "<u>Guarantors</u>"), Cheyenne Data Center L.L.C., a Colorado limited liability company (the "<u>Supplemental Guarantor</u>"), U.S. Bank National Association, as trustee (the "<u>Trustee</u>") and Wells Fargo Bank, National Association, as collateral agent (the "<u>Collateral Agent</u>"). Capitalized terms used herein and not otherwise defined herein are used as defined in the Secured Indenture referred to below.

RECITALS

WHEREAS, the Company, the guarantors listed on the signature pages thereto and the Trustee and Collateral Agent entered into that certain Secured Indenture, dated as of July 27, 2016 (the "<u>Secured Indenture</u>"), relating to the 5¼% Senior Secured Notes due 2026 of the Company in original principal amount of \$750,000,000 (the "<u>Secured Notes</u>");

WHEREAS, the Company has formed a new Wholly Owned Subsidiary, the Supplemental Guarantor;

WHEREAS, the Supplemental Guarantor is a Restricted Subsidiary of the Company; and

WHEREAS, pursuant to Section 4.13 of the Secured Indenture, the Supplemental Guarantor is required to become a Guarantor under the Secured Indenture; and

AGREEMENT

NOW, THEREFORE, the parties to this Supplemental Indenture hereby agree as follows:

Section 1. The Supplemental Guarantor shall be a Guarantor under the Secured Indenture and be bound by the terms thereof applicable to Guarantors and shall deliver an executed Guarantee pursuant to Section 11.02.

Section 2. This Supplemental Indenture is an amendment supplemental to the Secured Indenture, and the Secured Indenture will henceforth be read together.

Section 3. This Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York.

Section 4. This Supplemental Indenture may be signed in various counterparts which together will constitute one and the same instrument.

The exchange of copies of this Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Supplemental Indenture as to the parties hereto and may be used in lieu of the original Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

[Signature pages follow]

HUGHES SATELLITE SYSTEMS CORPORATION

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

ECHOSTAR 77 CORPORATION ECHOSTAR SATELLITE SERVICES L.L.C. ECHOSTAR ORBITAL L.L.C. ECHOSTAR GOVERNMENT SERVICES L.L.C.

ECHOSTAR SATELLITE OPERATING CORPORATION, as Guarantors

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HUGHES COMMUNICATIONS, INC., as a Guarantor

By:	/s/ Dean A. Manson	
Name:	Dean A. Manson	
Title:	Executive Vice President, General Counsel & Secretary	

HUGHES NETWORK SYSTEMS, LLC, as a Guarantor

By:	/s/ Dean A. Manson	
Name:	Dean A. Manson	
Title:	Executive Vice President, General Counsel & Secretary	

HNS FINANCE CORP., as a Guarantor

By: /s/ Dean A. Manson Name: Dean A. Manson

Title: Vice President, General Counsel & Secretary

HUGHES NETWORK SYSTEMS INTERNATIONAL SERVICE COMPANY, as a Guarantor

By: /s/ Dean A. Manson

Name: Dean A. Manson

Title: Executive Vice President, General Counsel & Secretary

HNS REAL ESTATE, LLC, as a Guarantor

By: /s/ Dean A. Manson

Name:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-INDIA VSAT, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-SHANGHAI, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS LICENSE SUB, LLC, as a Guarantor

By: Hughes Network Systems, LLC, its Sole Member

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

By:/s/ Richard ProkoschName:Richard ProkoschTitle:Vice President

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Collateral Agent

By: /s/ Raymond Delli Colli

Name: Raymond Delli Colli Title: Vice President

SUPPLEMENTAL INDENTURE

THIS SUPPLEMENTAL INDENTURE (this "<u>Supplemental Indenture</u>"), entered into as of March 23, 2017, by and among Hughes Satellite Systems Corporation (formerly known as EH Holding Corporation), a Colorado corporation (the "<u>Company</u>"), the guarantors listed on the signature pages to the Unsecured Indenture (the "<u>Guarantors</u>"), Cheyenne Data Center L.L.C., a Colorado limited liability company (the "<u>Supplemental Guarantor</u>"), and U.S. Bank National Association, as trustee (the "<u>Trustee</u>"). Capitalized terms used herein and not otherwise defined herein are used as defined in the Unsecured Indenture referred to below.

RECITALS

WHEREAS, the Company, the guarantors listed on the signature pages thereto and the Trustee entered into that certain Unsecured Indenture, dated as of July 27, 2016 (the "<u>Unsecured Indenture</u>"), relating to the 65% Senior Unsecured Notes due 2026 of the Company in original principal amount of \$750,000,000 (the "<u>Unsecured Notes</u>");

WHEREAS, the Company has formed a new Wholly Owned Subsidiary, the Supplemental Guarantor;

WHEREAS, the Supplemental Guarantor is a Restricted Subsidiary of the Company; and

WHEREAS, pursuant to Section 4.13 of the Unsecured Indenture, the Supplemental Guarantor is required to become a Guarantor under the Unsecured Indenture; and

AGREEMENT

NOW, THEREFORE, the parties to this Supplemental Indenture hereby agree as follows:

Section 1. The Supplemental Guarantor shall be a Guarantor under the Unsecured Indenture and be bound by the terms thereof applicable to Guarantors and shall deliver an executed Guarantee pursuant to Section 10.02.

Section 2. This Supplemental Indenture is an amendment supplemental to the Unsecured Indenture, and the Unsecured Indenture and this Supplemental Indenture will henceforth be read together.

Section 3. This Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York.

Section 4. This Supplemental Indenture may be signed in various counterparts which together will constitute one and the same instrument.

The exchange of copies of this Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Supplemental Indenture as to the parties hereto and may be used in lieu of the original Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

HUGHES SATELLITE SYSTEMS CORPORATION

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

ECHOSTAR 77 CORPORATION ECHOSTAR SATELLITE SERVICES L.L.C. ECHOSTAR ORBITAL L.L.C. ECHOSTAR GOVERNMENT SERVICES L.L.C.

ECHOSTAR SATELLITE OPERATING CORPORATION, as Guarantors

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HUGHES COMMUNICATIONS, INC., as a Guarantor

By:	/s/ Dean A. Manson	
Name:	Dean A. Manson	
Title:	Executive Vice President, General Counsel & Secretary	

HUGHES NETWORK SYSTEMS, LLC, as a Guarantor

By:	/s/ Dean A. Manson
Name:	Dean A. Manson
Title:	Executive Vice President, General Counsel & Secretary

HNS FINANCE CORP., as a Guarantor

By: /s/ Dean A. Manson

Name: Dean A. Manson

Title: Vice President, General Counsel & Secretary

HUGHES NETWORK SYSTEMS INTERNATIONAL SERVICE COMPANY, as a Guarantor

By: /s/ Dean A. Manson

Name:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HNS REAL ESTATE, LLC, as a Guarantor

By: /s/ Dean A. Manson

Name:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-INDIA VSAT, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-SHANGHAI, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS LICENSE SUB, LLC, as a Guarantor

By: Hughes Network Systems, LLC, its Sole Member

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

By: /s/ Richard Prokosch

Name:Richard ProkoschTitle:Vice President

THIRD SUPPLEMENTAL INDENTURE

THIS THIRD SUPPLEMENTAL INDENTURE (this "<u>Third Supplemental Indenture</u>"), entered into as of March 23, 2017, by and among Hughes Satellite Systems Corporation (formerly known as EH Holding Corporation), a Colorado corporation (the "<u>Company</u>"), the guarantors listed on the signature pages to the Secured Indenture (the "<u>Guarantors</u>"), Cheyenne Data Center L.L.C., a Colorado limited liability company (the "<u>Supplemental Guarantor</u>"), and Wells Fargo Bank, National Association, as trustee (the "<u>Trustee</u>") and collateral agent (the "<u>Collateral Agent</u>"). Capitalized terms used herein and not otherwise defined herein are used as defined in the Secured Indenture referred to below.

RECITALS

WHEREAS, the Company, the guarantors listed on the signature pages thereto and the Trustee and Collateral Agent entered into that certain Secured Indenture, dated as of June 1, 2011, relating to the 6½% Senior Secured Notes due 2019 of the Company in original principal amount of \$1,100,000,000 (the "Secured Notes"), as supplemented by a Supplemental Indenture, dated as of June 8, 2011, by and among the Company, the Guarantors and the Trustee and Collateral Agent and as further supplemented by a Second Supplemental Indenture, dated as of March 28, 2014, by and among the Company, the guarantors listed on the signature pages thereto and the Trustee and Collateral Agent (as so supplemented, the "Secured Indenture");

WHEREAS, the Company has formed a new Wholly Owned Subsidiary, the Supplemental Guarantor;

WHEREAS, the Supplemental Guarantor is a Restricted Subsidiary of the Company;

WHEREAS, pursuant to Section 4.13 of the Secured Indenture, the Supplemental Guarantor is required to become a Guarantor under the Secured Indenture; and

WHEREAS, this Supplemental Indenture has not resulted in a material modification of the Notes for Foreign Account Tax Compliance Act (FATCA) purposes.

AGREEMENT

NOW, THEREFORE, the parties to this Third Supplemental Indenture hereby agree as follows:

Section 1. The Supplemental Guarantor shall be a Guarantor under the Secured Indenture and be bound by the terms thereof applicable to Guarantors and shall deliver an executed Guarantee pursuant to Section 11.02.

Section 2. This Third Supplemental Indenture is an amendment supplemental to the Secured Indenture, and the Secured Indenture and this Third Supplemental Indenture will henceforth be read together.

Section 3. This Third Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York.

Section 4. This Third Supplemental Indenture may be signed in various counterparts which together will constitute one and the same instrument.

The exchange of copies of this Third Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Third Supplemental Indenture as to the parties hereto and may be used in lieu of the original Third Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

HUGHES SATELLITE SYSTEMS CORPORATION

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

ECHOSTAR 77 CORPORATION ECHOSTAR SATELLITE SERVICES L.L.C. ECHOSTAR ORBITAL L.L.C. ECHOSTAR GOVERNMENT SERVICES L.L.C. ECHOSTAR SATELLITE OPERATING CORPORATION, as Guarantors

By:	/s/ Dean A. Manson
Name:	Dean A. Manson
Title:	Executive Vice President, General Counsel & Secretary

HUGHES COMMUNICATIONS, INC., as a Guarantor

By:	/s/ Dean A. Manson
Name:	Dean A. Manson
Title:	Executive Vice President, General Counsel & Secretary

HUGHES NETWORK SYSTEMS, LLC, as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HNS FINANCE CORP., as a Guarantor

By: /s/ Dean A. Manson

Name:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HUGHES NETWORK SYSTEMS INTERNATIONAL SERVICE COMPANY, as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HNS REAL ESTATE, LLC, as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-INDIA VSAT, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-SHANGHAI, INC., as a Guarantor

By: Name: Title: /s/ Dean A. Manson Dean A. Manson Vice President, General Counsel & Secretary

HNS LICENSE SUB, LLC, as a Guarantor

By: Hughes Network Systems, LLC, its Sole Member

By:	/s/ Dean A. Manson
Name:	Dean A. Manson
Title:	Executive Vice President, General Counsel & Secretary

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Trustee and Collateral Agent

By: /s/ Raymond Delli Colli

Name:Raymond Delli ColliTitle:Vice President

Americas 92519329

THIRD SUPPLEMENTAL INDENTURE

THIS THIRD SUPPLEMENTAL INDENTURE (this "<u>Third Supplemental Indenture</u>"), entered into as of March 23, 2017, by and among Hughes Satellite Systems Corporation (formerly known as EH Holding Corporation), a Colorado corporation (the "<u>Company</u>"), the guarantors listed on the signature pages to the Unsecured Indenture (the "<u>Guarantors</u>"), Cheyenne Data Center L.L.C., a Colorado limited liability company (the "<u>Supplemental Guarantor</u>"), and Wells Fargo Bank, National Association, as trustee (the "<u>Trustee</u>"). Capitalized terms used herein and not otherwise defined herein are used as defined in the Unsecured Indenture referred to below.

RECITALS

WHEREAS, the Company, the guarantors listed on the signature pages thereto and the Trustee entered into that certain Unsecured Indenture, dated as of June 1, 2011, relating to the 75% Senior Unsecured Notes due 2021 of the Company in original principal amount of \$900,000,000 (the "<u>Unsecured Notes</u>"), as supplemented by a Supplemental Indenture, dated as of June 8, 2011, by and among the Company, the Guarantors and the Trustee, and as further supplemented by the Second Supplemental Indenture, dated as of March 28, 2014, by and among the Company, the guarantors listed on the signature pages thereto and the Trustee (as so supplemented, the "<u>Unsecured Indenture</u>");

WHEREAS, the Company has formed a new Wholly Owned Subsidiary, the Supplemental Guarantor;

WHEREAS, the Supplemental Guarantor is a Restricted Subsidiary of the Company;

WHEREAS, pursuant to Section 4.13 of the Unsecured Indenture, the Supplemental Guarantor is required to become a Guarantor under the Unsecured Indenture; and

WHEREAS, this Supplemental Indenture has not resulted in a material modification of the Notes for Foreign Account Tax Compliance Act (FATCA) purposes.

AGREEMENT

NOW, THEREFORE, the parties to this Third Supplemental Indenture hereby agree as follows:

Section 1. The Supplemental Guarantor shall be a Guarantor under the Unsecured Indenture and be bound by the terms thereof applicable to Guarantors and each shall deliver an executed Guarantee pursuant to Section 10.02.

Section 2. This Third Supplemental Indenture is an amendment supplemental to the Unsecured Indenture, and the Unsecured Indenture and this Third Supplemental Indenture will henceforth be read together.

Section 3. This Third Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York.

Section 4. This Third Supplemental Indenture may be signed in various counterparts which together will constitute one and the same instrument.

The exchange of copies of this Third Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Third Supplemental Indenture as to the parties hereto and may be used in lieu of the original Third Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

HUGHES SATELLITE SYSTEMS CORPORATION

ECHOSTAR 77 CORPORATION ECHOSTAR SATELLITE SERVICES L.L.C. ECHOSTAR ORBITAL L.L.C. ECHOSTAR GOVERNMENT SERVICES L.L.C. ECHOSTAR SATELLITE OPERATING CORPORATION, as Guarantors

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HUGHES COMMUNICATIONS, INC., as a Guarantor

By:	/s/ Dean A. Manson
Name:	Dean A. Manson
Title:	Executive Vice President, General Counsel & Secretary

HUGHES NETWORK SYSTEMS, LLC, as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

HNS FINANCE CORP., as a Guarantor

By: /s/ Dean A. Manson

Name:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HUGHES NETWORK SYSTEMS INTERNATIONAL SERVICE COMPANY, as a Guarantor By: /s/ Dean A. Manson

Name: Dean A. Manson

Title: Executive Vice President, General Counsel & Secretary

HNS REAL ESTATE, LLC, as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-INDIA VSAT, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS-SHANGHAI, INC., as a Guarantor

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Vice President, General Counsel & Secretary

HNS LICENSE SUB, LLC, as a Guarantor

By: Hughes Network Systems, LLC, its Sole Member

By:/s/ Dean A. MansonName:Dean A. MansonTitle:Executive Vice President, General Counsel & Secretary

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Trustee

By: /s/ Raymond Delli Colli

Name:Raymond Delli ColliTitle:Vice President

April 5, 2017

Hughes Satellite Systems Corporation, 100 Inverness Terrace East, Englewood, Colorado 80112.

Ladies and Gentlemen:

In connection with the registration under the Securities Act of 1933, as amended (the "Securities Act"), of (a) \$750,000,000 principal amount of 5.250% Senior Secured Notes due 2026 (the "Secured Notes") of Hughes Satellite Systems Corporation, a Colorado corporation (the "Company"), to be issued in exchange for the Company's outstanding 5.250% Senior Secured Notes due 2026 pursuant to an Indenture, dated as of July 27, 2016 (as supplemented, the "Secured Indenture"), among the Company, the subsidiaries of the Company party thereto (collectively, the "Initial Guarantors"), U.S. Bank National Association, as trustee (the "Trustee"), and Wells Fargo Bank, National Association, as collateral agent (the "Collateral Agent"), as supplemented by a Supplemental Indenture, dated as of March 23, 2017, among the Company, the Initial Guarantors, the supplemental guarantor party thereto (the "Supplemental Guarantor" and, together with the Initial Guarantors, the "Guarantors"), the Trustee and the Collateral Agent, (b) \$750,000,000 principal amount of 6.625% Senior Notes due 2026 (the "Unsecured Notes" and, together with the Secured Notes, the "Notes") of the Company, to be issued in exchange for the Company's outstanding 6.625% Senior Notes due 2026 pursuant to an Indenture, dated as of July 27, 2016 (as supplemented, the "Unsecured Indenture" and, together with the Secured Indenture, the "Indentures"), among the Company, the Initial Guarantors and the Trustee, as supplemented by a Supplemental Indenture, dated as of March 23, 2017, among the Company, the Guarantors and the Trustee, and (c) the Guarantees (the "Guarantees") of each of the Guarantors endorsed upon the Notes, we, as your counsel, have examined such corporate records, certificates and other documents, and such questions of law, as we have considered necessary or appropriate for the purposes of this opinion.

Upon the basis of such examination, it is our opinion that, when the Registration Statement on Form S-4 relating to the Notes and the Guarantees (the "Registration Statement") has become effective under the Securities Act, the terms of the Notes and the Guarantees and of their issuance have been duly established in conformity with the respective Indenture so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company or any of the Guarantors and so as to comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company or any of the Guarantors, and the Notes and the Guarantees have been duly executed, delivered and authenticated in accordance with the respective Indenture and issued as contemplated in the Registration Statement, the Notes and the Guarantees will constitute valid and legally binding obligations of the Company and the Guarantors, respectively, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equity principles.

In rendering the foregoing opinion, we are not passing upon, and assume no responsibility for, any disclosure in the Registration Statement or any related Prospectus or other offering material relating to the offer and sale of the Notes or the Guarantees. In addition, in rendering the foregoing opinion with respect to the Guarantees, we express no opinion as to the provisions of the sentence immediately preceding the penultimate paragraph of Section 11.01 of the Secured Indenture or of Section 10.01 of the Unsecured Indenture nor the effect of such provisions on the enforceability of the Guarantees.

The foregoing opinion is limited to the Federal laws of the United States, the laws of the State of New York, the General Corporation Law of the State of Delaware and the Limited Liability Company Act of the State of Delaware, and we are expressing no opinion as to the effect of the laws of any other jurisdiction, nor with respect to any Federal or state laws relating to communications or telecommunications, including without limitation, the Communications Act of 1934, as amended, and any laws that regulate individuals, companies or businesses because such entities provide communications or telecommunications services, including the provision of satellite broadcast television services, or because such entities own, operate or manage satellites. With

respect to all matters of Colorado law, we note that you have received the opinion of Brownstein Hyatt Farber Schreck, LLP, of even date herewith.

We have relied as to certain factual matters on information obtained from public officials, officers of the Company and the Guarantors and other sources believed by us to be responsible, and we have assumed that the Indentures have been duly authorized, executed and delivered by each of the Trustee and the Collateral Agent, that the Indentures have been duly authorized and executed by each of the Company and the Guarantors incorporated or formed under the laws of the State of Colorado, that the Notes and the Guarantees to be endorsed thereon will conform to the specimens thereof examined by us and that the signatures on all documents examined by us are genuine, assumptions which we have not independently verified.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to us under the heading "Validity of the Notes" in the Prospectus forming a part of the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Sullivan & Cromwell LLP

DC_LAN01:344995.2

Hughes Satellite Systems Corporation 100 Inverness Terrace East Englewood, Colorado 80112

Ladies and Gentlemen:

We have acted as special Colorado counsel to Hughes Satellite Systems Corporation, a Colorado corporation (the "Company"), and each of the entities listed on Exhibit A attached hereto (the "Colorado Subsidiaries" and together with the Company, the "Colorado Companies") in connection with the filing by the Company of a registration statement on Form S-4 (the "Registration Statement") with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), relating to the registration of (i) up to \$750,000,000 aggregate principal amount of the Company's 5.250% Senior Secured Notes due 2026 (the "Exchange Secured Notes"), to be issued under that certain Indenture, dated as of July 27, 2016 (the "Original Secured Indenture"), by and among the Colorado Companies, the other subsidiaries of the Company party thereto, Wells Fargo Bank, National Association, as collateral agent (in such capacity, the "Collateral Agent"), and U.S. Bank National Association, as trustee (in such capacity, the "Trustee"), as supplemented by the Supplemental Indenture, dated as of March 23, 2017 (the "Supplemental Secured Indenture"), by and among the Colorado Companies, the other subsidiaries of the Company party thereto, the Collateral Agent and the Trustee (the Original Secured Indenture, as supplemented by the Supplemental Secured Indenture, the "Secured Indenture"), such Exchange Secured Notes to be issued in exchange for a corresponding principal amount of the Company's 5.250% Senior Secured Notes due 2026 issued pursuant to the Original Secured Indenture (the "Original Secured Notes"); (ii) the guarantees of the Exchange Secured Notes (the "Exchange Secured Guarantees") to be issued in exchange for the guarantees of the Original Secured Notes; (iii) up to \$750,000,000 aggregate principal amount of the Company's 6.625% Senior Notes due 2026 (the "Exchange Unsecured Notes" and together with the Exchange Secured Notes, the "Exchange Notes"), to be issued under that certain Indenture, dated as of July 27, 2016 (the "Original Unsecured Indenture" and together with the Original Secured Indenture, the "Original Indentures"), by and among the Colorado Companies, the other subsidiaries of the Company party thereto and the Trustee, as supplemented by the Supplemental Indenture, dated as of March 23, 2017, 2017 (the "Supplemental Unsecured Indenture" and together with the Supplemental Secured Indenture, the "Supplemental Indentures"), by and among the Colorado Companies, the other subsidiaries of the Company party thereto and the Trustee (the Original Unsecured Indenture, as supplemented by the Supplemental Unsecured Indenture, the "Unsecured Indenture" and together with the Secured Indenture, the "Indentures"), such Exchange Unsecured Notes to be issued in exchange for a corresponding principal amount of the Company's 6.625% Senior Notes due 2026 issued pursuant to the Original Unsecured Indenture (the "Original Unsecured Notes"); and (iv) the guarantees of the Exchange Unsecured Notes (together with the Exchange Secured Guarantees and the Exchange Notes, the "Exchange Securities") to be issued in exchange for the guarantees of the Original Unsecured Notes.

In our capacity as such counsel, we are familiar with the proceedings taken and proposed to be taken by the Colorado Companies in connection with the authorization and issuance of the Exchange Securities, all as referenced in the Registration Statement. For purposes of this opinion letter, and except to the extent set forth in the opinions expressed below, we have assumed all such proceedings have been or will be timely completed in the manner presently proposed and the terms of such issuance will be in compliance with applicable laws.

For purposes of issuing this opinion letter, we have made such legal and factual examinations and inquiries, including an examination of originals or copies certified or otherwise identified to our satisfaction as being true copies of (i) the Registration Statement; (ii) the Indentures, the Supplemental Indentures and the forms of the Exchange Securities filed as exhibits to the Registration Statement (collectively, the "<u>Notes</u> <u>Documents</u>"); (ii) the articles of incorporation and bylaws, or articles of organization and operating agreement, as applicable, of each of the Colorado Companies, each as amended to date (the "<u>Governing Documents</u>"); (iii) the resolutions of the board of directors, managers or members, as applicable, of each of the Colorado Companies with respect to the Notes Documents; and (iv) such other documents, agreements, instruments and corporate or limited liability company, as applicable, records and proceedings, as we have deemed necessary or appropriate for purposes of this opinion letter. We have obtained from officers and other representatives of the Colorado Companies and from public officials, and have relied upon, such certificates, representations and assurances as we have deemed necessary or appropriate for the purpose of issuing the opinions set forth herein.

Without limiting the generality of the foregoing, in issuing this opinion letter, we have, with your permission, assumed without independent verification that: (i) the obligations of each party set forth in the documents we have reviewed are the valid and binding obligations of such party, enforceable in accordance with their respective terms; (ii) each natural person executing a document has sufficient legal capacity to do so; (iii) all documents submitted to us as originals are authentic, the signatures on all documents that we have examined are genuine, and all documents submitted to us as certified, conformed, photostatic, facsimile or electronic copies conform to the original document; and (iv) all corporate or limited liability company, as applicable, records made available to us by the Colorado Companies, and all public records we have reviewed, are accurate and complete.

As used herein, all references to: (i) "<u>statutes</u>" generally, are to the Colorado Revised Statutes as in effect on the date hereof; and (ii) "<u>Applicable Colorado Law</u>" are to the statutes, rules and regulations of the State of Colorado which we, in the exercise of our customary professional diligence, recognize as being directly applicable to the Colorado Companies and the notes transactions contemplated by the Notes Documents.

We are qualified to practice law in the State of Colorado. The opinions set forth herein are expressly limited to the internal laws of the State of Colorado in effect on the date hereof, and we do not purport to be experts on, or to express any opinion with respect to the applicability or effect of, the laws of any other jurisdiction. We express no opinion herein concerning, and we assume no responsibility as to laws or judicial decisions related to, or any orders, consents or other authorizations or approvals as may be required by, any federal laws, rules or regulations, including, without limitation, any federal securities laws, rules or regulations, or any state securities or "Blue Sky" laws, rules or regulations.

Based on the foregoing, and in reliance thereon, and having regard to legal considerations and other information that we deem relevant, we are of the opinion that:

1. Each of the Colorado Companies is validly existing as a corporation or limited liability company, as applicable, and in good standing under the laws of the State of Colorado.

2. Each of the Colorado Companies has the corporate or limited liability company, as applicable, power and authority to execute and deliver the Notes Documents to which it is a party and to perform its obligations thereunder.

3. The execution and delivery by each of the Colorado Companies of the Notes Documents to which it is a party and the performance by such Colorado Company of its obligations thereunder have been duly authorized by such Colorado Company.

4. The execution and delivery by each of the Colorado Companies of the Notes Documents to which it is a party and the consummation of the notes transactions contemplated thereby do not violate the Governing Documents of such Colorado Company or any Applicable Colorado Law.

5. Each of the Colorado Companies has duly executed each of the Original Indentures and Supplemental Indentures to which it is a party.

The opinions contained herein are subject to, and we express no opinion as to, the effect of bankruptcy, insolvency, reorganization, moratorium, anti-deficiency, and other similar laws, rules and regulations now or hereafter in effect relating to or affecting the enforcement of creditors' rights generally, the federal Bankruptcy Code, the Colorado Uniform Fraudulent Transfer Act (as codified in Colorado Revised Statutes 38-8-101 *et seq.*), and any other laws, rules or regulations relating to fraudulent or unlawful conveyances, distributions and transfers.

The opinions expressed herein are based upon the Applicable Colorado Law and the facts in existence as of the date of this opinion letter. In delivering this opinion letter to you, we disclaim any obligation to update or supplement the opinions set forth herein or to apprise you of any changes in any laws or facts after such time as the Registration Statement is declared effective. No opinion is offered or implied as to any matter, and no inference may be drawn, beyond the strict scope of the specific issues expressly addressed by the opinions set forth herein.

We hereby consent to your filing this opinion letter as an exhibit to the Registration Statement and to the reference to our firm in the Registration Statement under the heading "Validity of the Notes". In giving such consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder. Subject to all of the qualifications, limitations, exceptions, restrictions and assumptions set forth herein, Sullivan & Cromwell LLP may rely on this opinion letter as if it were an addressee hereof on this date for the sole purpose of issuing its opinion letter to the Company relating to the validity of the Exchange Securities, as filed with the Commission as Exhibit 5.1 to the Registration Statement.

Very truly yours, /s/Brownstein Hyatt Farber Schreck, LLP

EXHIBIT A

COLORADO SUBSIDIARIES

- 1. Cheyenne Data Center L.L.C.
- 2. EchoStar Government Services L.L.C.
- 3. EchoStar Orbital L.L.C.
- 4. EchoStar Satellite Operating Corporation
- 5. EchoStar Satellite Services L.L.C.
- 6. EchoStar XI Holding L.L.C.
- 7. EchoStar XIV Holding L.L.C.

* * * *

HUGHES SATELLITE SYSTEMS CORPORATION STATEMENT OF COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES (Dollars in thousands)

	For the Years Ended December 31,									
	2016		2015		2014		2013		2012	
Earnings:										
Income (loss) before income taxes	\$	195,480	\$	211,348	\$	142,677	\$	(70,348)	\$	(23,121)
Equity in earnings of affiliate		(9,444)		(8,502)		(5,121)		(4,288)		(2,540)
Interest expense, net of amounts capitalized		187,198		169,150		191,258		197,062		153,955
Amortization of ESS capitalized interest (estimate)		526		2,023		3,668		4,116		3,716
Amortization of Jupiter I capitalized interest (estimate)		5,732		5,732		5,732		5,732		1,433
Amortization of Spaceway capitalized interest (estimate)		1,348		1,400		1,286		1,295		1,321
Interest component of rent expense (1)		676		685		674		727		723
Earnings before fixed charges	\$	381,516	\$	381,836	\$	340,174	\$	134,296	\$	135,487
Fixed Charges:										
Interest expense (net of amounts capitalized)		187,198		169,150		191,258		197,062		153,955
Capitalized interest		30,202		15,852		2,168		—		45,058
Interest component of rent expense (1)		676		685		674		727		723
Total fixed charges	\$	218,076	\$	185,687	\$	194,100	\$	197,789	\$	199,736
Ratio of earnings to fixed charges		1.75		2.06		1.75				
Deficiency of available earnings to fixed charges	\$	_	\$	_	\$	_	\$	(63,493)	\$	(64,249)

(1) The interest component of rent expense has been estimated by taking the difference between our gross rent expense and the net present value of our rent expense using the weighted average cost of debt during each respective period.

HUGHES SATELLITE SYSTEMS CORPORATION AND SUBSIDIARIES

LIST OF SUBSIDIARIES

As of December 31, 2016

Legal Entity	State or Country of Incorporation		
Hughes Communications, Inc.	Delaware		
Hughes Network Systems, LLC	Delaware		
EchoStar Satellite Services L.L.C	Colorado		
EchoStar Satellite Operating Corporation	Colorado		
EchoStar XI Holding L.L.C.	Colorado		

Consent of Independent Registered Public Accounting Firm

The Board of Directors Hughes Satellite Systems Corporation:

We consent to the use of our report dated February 24, 2017, with respect to the consolidated balance sheets of Hughes Satellite Systems Corporation and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive income (loss), changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and the related financial statement schedule, included herein and to the reference to our firm under the heading "Experts" in the prospectus.

/s/ KPMG LLP

Denver, Colorado April 5, 2017

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM T-1

STATEMENT OF ELIGIBILITY UNDER THE TRUST INDENTURE ACT OF 1939 OF A CORPORATION DESIGNATED TO ACT AS TRUSTEE

Check if an Application to Determine Eligibility of

a Trustee Pursuant to Section 305(b)(2)

U.S. BANK NATIONAL ASSOCIATION

(Exact name of Trustee as specified in its charter)

31-0841368

I.R.S. Employer Identification No.

800 Nicollet Mall	
Minneapolis, Minnesota	55402
(Address of principal executive offices)	(Zip Code)

Richard Prokosch U.S. Bank National Association 60 Livingston Avenue St. Paul, MN 55107-2292 (651) 466-6619 (Name, address and telephone number of agent for service)

HUGHES SATELLITE SYSTEMS CORPORATION

(Issuer with respect to the Securities)

Colorado	45-0897865
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

100 Inverness Terrace East Englewood, Colorado	80112
(Address of Principal Executive Offices)	(Zip Code)

5.250% Senior Secured Notes due 2026 6.625% Senior Notes due 2026 (Title of the Indenture Securities)

Exact Name of Additional Registrants as Specified in their Respective Charters*	Jurisdiction of Incorporation/ Organization	IRS Employer Identification No.	Address, including Zip Code and Telephone Number, including Area Code, of Registrant's Principal Executive Offices
EchoStar Satellite Services L.L.C.	Colorado	20-5109074	100 Inverness Terrace East, Englewood, Colorado 80112
EchoStar Satellite Operating Corporation	Colorado	35-2353699	100 Inverness Terrace East, Englewood, Colorado 80112
EchoStar 77 Corporation	Delaware	26-2191105	100 Inverness Terrace East, Englewood, Colorado 80112
EchoStar Orbital L.L.C.	Colorado	27-2342485	100 Inverness Terrace East, Englewood, Colorado 80112
EchoStar Government Services L.L.C.	Colorado	27-0682004	100 Inverness Terrace East, Englewood, Colorado 80112
Hughes Communications, Inc.	Delaware	13-3871202	11717 Exploration Lane, Germantown, Maryland 20876
Hughes Network Systems, LLC	Delaware	11-3735091	11717 Exploration Lane, Germantown, Maryland 20876
HNS Finance Corp.	Delaware	56-2571546	11717 Exploration Lane, Germantown, Maryland 20876
HNS Real Estate, LLC	Delaware	20-2712714	11717 Exploration Lane, Germantown, Maryland 20876
Hughes Network Systems International Service Company	Delaware	52-1691571	11717 Exploration Lane, Germantown, Maryland 20876
HNS-India VSAT, Inc.	Delaware	52-1755631	11717 Exploration Lane, Germantown, Maryland 20876
HNS-Shanghai, Inc.	Delaware	52-1720113	11717 Exploration Lane, Germantown, Maryland 20876
HNS License Sub, LLC	Delaware	86-1124461	11717 Exploration Lane, Germantown, Maryland 20876
EchoStar XI Holding L.L.C.	Colorado	27-0811198	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
EchoStar XIV Holding L.L.C.	Colorado	27-2806230	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000
Cheyenne Data Center LLC	Colorado	35-2588282	100 Inverness Terrace East, Englewood, Colorado 80112 (303) 706-4000

FORM T-1

Item 1. GENERAL INFORMATION. Furnish the following information as to the Trustee.

a)Name and address of each examining or supervising authority to which it is subject. Comptroller of the Currency Washington, D.C.

b) Whether it is authorized to exercise corporate trust powers.

Yes

- **Item 2. AFFILIATIONS WITH OBLIGOR.** *If the obligor is an affiliate of the Trustee, describe each such affiliation.* None
- **Items 3-15** Items 3-15 are not applicable because to the best of the Trustee's knowledge, the obligor is not in default under any Indenture for which the Trustee acts as Trustee.

Item 16. LIST OF EXHIBITS: List below all exhibits filed as a part of this statement of eligibility and qualification.

- 1. A copy of the Articles of Association of the Trustee.*
- 2. A copy of the certificate of authority of the Trustee to commence business, attached as Exhibit 2.
- 3. A copy of the certificate of authority of the Trustee to exercise corporate trust powers, attached as

Exhibit 3.

- 4. A copy of the existing bylaws of the Trustee.**
- 5. A copy of each Indenture referred to in Item 4. Not applicable.
- 6. The consent of the Trustee required by Section 321(b) of the Trust Indenture Act of 1939, attached as Exhibit 6.
- 7. Report of Condition of the Trustee as of December 31, 2016 published pursuant to law or the requirements of its supervising or examining authority, attached as Exhibit 7.

* Incorporated by reference to Exhibit 25.1 to Amendment No. 2 to registration statement on S-4, Registration Number 333-128217 filed on November 15, 2005.

** Incorporated by reference to Exhibit 25.1 to registration statement on form S-3ASR, Registration Number 333-199863 filed on November 5, 2014.

SIGNATURE

Pursuant to the requirements of the Trust Indenture Act of 1939, as amended, the Trustee, U.S. BANK NATIONAL ASSOCIATION, a national banking association organized and existing under the laws of the United States of America, has duly caused this statement of eligibility and qualification to be signed on its behalf by the undersigned, thereunto duly authorized, all in the City of St. Paul in the State of Minnesota on the 14th day of March, 2017.

Date: March 14, 2017

By: /s/ Richard Prokosch

Richard Prokosch Vice President

Exhibit 2

Office of the Comptroller of the Currency

Washington, DC 20219

CERTIFICATE OF CORPORATE EXISTENCE

I, Thomas J. Curry, Comptroller of the Currency, do hereby certify that:

1. The Comptroller of the Currency, pursuant to Revised Statutes 324, et seq, as amended, and 12 USC 1, et seq, as amended, has possession, custody, and control of all records pertaining to the chartering, regulation, and supervision of all national banking associations.

"U.S. Bank National Association," Cincinnati, Ohio (Charter No. 24), is a
national banking association formed under the laws of the United States and is
authorized thereunder to transact the business of banking on the date of this
certificate.

IN TESTIMONY WHEREOF, today, December 4, 2015, I have hereunto subscribed my name and caused my seal of office to be affixed to these presents at the U.S. Department of the Treasury, in the City of Washington, District of Columbia.

Comptroller of the Currency



Office of the Comptroller of the Currency

Washington, DC 20219

CERTIFICATION OF FIDUCIARY POWERS

I, Thomas J. Curry, Comptroller of the Currency, do hereby certify that:

1. The Office of the Comptroller of the Currency, pursuant to Revised Statutes 324, et seq, as amended, and 12 USC 1, et seq, as amended, has possession, custody, and control of all records pertaining to the chartering, regulation, and supervision of all national banking associations.

2. "U.S. Bank National Association," Cincinnati, Ohio (Charter No. 24), was granted, under the hand and seal of the Comptroller, the right to act in all fiduciary capacities authorized under the provisions of the Act of Congress approved September 28, 1962, 76 Stat. 668, 12 USC 92a, and that the authority so granted remains in full force and effect on the date of this certificate.

IN TESTIMONY WHEREOF, today,

December 4, 2015, I have hereunto

subscribed my name and caused my seal of

office to be affixed to these presents at the

U.S. Department of the Treasury, in the City

of Washington, District of Columbia.

Comptroller of the Currency



<u>Exhibit 6</u>

CONSENT

In accordance with Section 321(b) of the Trust Indenture Act of 1939, as amended, the undersigned, U.S. BANK NATIONAL ASSOCIATION hereby consents that reports of examination of the undersigned by Federal, State, Territorial or District authorities may be furnished by such authorities to the Securities and Exchange Commission upon its request therefor.

Dated: March 14, 2017

By: /s/ Richard Prokosch

Richard Prokosch Vice President

<u>Exhibit 7</u> U.S. Bank National Association Statement of Financial Condition As of 12/31/2016

(\$000's)

12/31/2016

Assets

Cash and Balances Due From \$15,670,179 **Depository Institutions** Securities 109,032,596 Federal Funds 60,327 Loans & Lease Financing Receivables 273,415,762 Fixed Assets 4,682,022 **Intangible Assets** 12,978,461 Other Assets 25,170,748 **Total Assets** \$441,010,095

Liabilities

Deposits \$343,142,193 Fed Funds 1,157,970 **Treasury Demand Notes** 0 **Trading Liabilities** 1,536,287 Other Borrowed Money 31,668,666 Acceptances 0 Subordinated Notes and Debentures 3,800,000 Other Liabilities 13,559,469 **Total Liabilities** \$394,864,585

Equity

Common and Preferred Stock 18,200 Surplus 14,266,915 Undivided Profits 31,054,149 Minority Interest in Subsidiaries 806,246 **Total Equity Capital \$46,145,510**

Total Liabilities and Equity Capital \$441,010,095

THE EXCHANGE OFFER WILL EXPIRE AT 5:00 P.M., NEW YORK CITY TIME, ON , 2017, UNLESS EXTENDED (THE "EXPIRATION DATE"). TENDERS MAY BE WITHDRAWN PRIOR TO THE EXPIRATION DATE.

HUGHES SATELLITE SYSTEMS CORPORATION

100 Inverness Terrace East Englewood, Colorado 80112

LETTER OF TRANSMITTAL

To Exchange 5.250% Senior Secured Notes due 2026 and 6.625% Senior Notes due 2026

Exchange Agent:

U.S. BANK NATIONAL ASSOCIATION

To: U.S. Bank National Association

By hand, overnight delivery or mail (registered or certified mail recommended): U.S. Bank National Association

60 Livingston Avenue St. Paul, MN 55107 Attention: Specialized Finance By facsimile (Eligible Institutions Only): (651) 466-7372 Attention: Specialized Finance

For information or confirmation by telephone: (800) 934-6802

Fax cover sheets should provide a call-back number and request a call back, upon receipt.

Delivery of this instrument to an address other than as set forth above or transmission of this instrument to a facsimile number other than as set forth above does not constitute a valid delivery.

The undersigned acknowledges receipt of the Prospectus dated , 2017 (the "Prospectus") of Hughes Satellite Systems Corporation, a Colorado corporation (the "Issuer"), and this Letter of Transmittal (this "Letter") for the Issuer's 5.250% Senior Secured Notes due 2026 and 6.625% Senior Notes due 2026, which may be amended from time to time, which together constitute the Issuer's offer (the "Exchange Offer") to exchange \$2,000 principal amount or integral multiples of \$1,000 in excess thereof of its newly issued 5.250% Senior Secured Notes due 2026 (the "Secured Notes") and 6.625% Senior Notes due 2026 (the "Unsecured Notes" and, together with the Secured Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Unsecured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old Secured Notes") and 6.625% Senior Notes due 2026 (the "Old

The undersigned has completed, executed and delivered this Letter to indicate the action he or she desires to take with respect to the Exchange Offer.

All holders of Old Notes who wish to tender their Old Notes must, prior to the Expiration Date: (1) complete, sign, date and deliver this Letter, or a facsimile thereof, to the Exchange Agent, in person or to the address set forth above; and (2) tender his or her Old Notes or, if a tender of Old Notes is to be made by book-entry transfer to the account maintained by the Exchange Agent at The Depository Trust Company (the "Book-Entry Transfer Facility"), confirm such book-entry transfer (a "Book-Entry Confirmation"), in each case in accordance with the procedures for tendering described in the Instructions to this Letter. Holders of Old Notes whose certificates are not immediately available, or who are unable to deliver their certificates or Book-Entry Confirmation and all other documents required by this Letter to be delivered to the Exchange Agent on or prior to the Expiration Date, must tender their Old Notes according to the guaranteed delivery procedures set forth under the caption "The Exchange Offer—How to use the guaranteed delivery procedures if you will not have enough time to send all documents to us" in the Prospectus. (See Instruction 1).

Upon the terms and subject to the conditions of the Exchange Offer, the acceptance for exchange of Old Notes validly tendered and not withdrawn and the issuance of the Notes will be made on the Exchange Date. For the purposes of the Exchange Offer, the Issuer shall be deemed to have accepted for exchange validly tendered Old Notes when, as and if the Issuer has given written notice thereof to the Exchange Agent. The Instructions included with this Letter must be followed in their entirety. Questions and requests for assistance or for additional copies of the Prospectus or this Letter may be directed to the Exchange Agent, at the address listed above, or to Dean A. Manson, Executive Vice President, General Counsel and Secretary, Hughes Satellite Systems Corporation, 100 Inverness Terrace East, Englewood, Colorado 80112.

PLEASE READ THE ENTIRE LETTER OF TRANSMITTAL, INCLUDING THE INSTRUCTIONS TO THIS LETTER, CAREFULLY BEFORE CHECKING ANY BOX BELOW.

Capitalized terms used in this Letter and not defined herein shall have the respective meanings ascribed to them in the Prospectus.

List in Box 1 below the Old Notes of which you are the holder. If the space provided in Box 1 is inadequate, list the certificate numbers and principal amount of Old Notes on a separate signed schedule and affix that schedule to this Letter.

BOX 1

TO BE COMPLETED BY ALL TENDERING HOLDERS

5.250% Senior Secured Notes due 2026				
Name(s) and Address(es) of Registered Holder(s) (Please fill in if blank)	Certificate Number(s)(1)	Aggregate Principal Amount of Old Secured Notes	Principal Amount of Old Secured Notes Tendered if less than all (2)	

Total Old Secured Notes Tendered: \$

(1) Need not be completed if Old Secured Notes are being tendered by book-entry.

(2) Unless otherwise indicated, the entire principal amount of Old Secured Notes represented by a certificate or Book-Entry Confirmation delivered to the Exchange Agent will be deemed to have been tendered.

6.625% Senior Notes due 2026				
Name(s) and Address(es) of Registered Holder(s) (Please fill in if blank)	Certificate Number(s)(3)	Aggregate Principal Amount of Old Unsecured Notes	Principal Amount of Old Unsecured Notes Tendered if less than all (4)	

Total Old Unsecured Notes Tendered: \$

(3) Need not be completed if Old Unsecured Notes are being tendered by book-entry.

(4) Unless otherwise indicated, the entire principal amount of Old Unsecured Notes represented by a certificate or Book-Entry Confirmation delivered to the Exchange Agent will be deemed to have been tendered.

The Exchange Offer is subject to the more detailed terms set forth in the Prospectus and, in case of any conflict between the terms of the Prospectus and this Letter, the Prospectus shall prevail.

[] CHECK HERE IF TENDERED OLD NOTES ARE BEING DELIVERED BY BOOK-ENTRY TRANSFER MADE TO THE ACCOUNT MAINTAINED BY THE EXCHANGE AGENT WITH DTC AND COMPLETE THE FOLLOWING:

Name of Tendering Institution:_____

DTC Account Number:_____

Transaction Code Number:_____

[] CHECK HERE IF TENDERED OLD NOTES ARE BEING DELIVERED PURSUANT TO A NOTICE OF GUARANTEED DELIVERY PREVIOUSLY SENT TO THE EXCHANGE AGENT AND COMPLETE THE FOLLOWING:

Name(s) of Registered Owner(s):_____

Date of Execution of Notice of Guaranteed Delivery:_____

Window Ticket Number (if available):_____

Name of Eligible Institution which Guaranteed Delivery:

[] CHECK HERE IF OLD NOTES ARE BEING DELIVERED BY BOOK-ENTRY TRANSFER AND NON-EXCHANGED OR UNTENDERED OLD NOTES ARE TO BE RETURNED BY CREDITING THE DTC ACCOUNT NUMBER(S) SET FORTH ABOVE.

Ladies and Gentlemen:

Upon the terms and subject to the conditions of the Exchange Offer, the undersigned tenders to the Issuer the principal amount of Old Notes indicated above. Subject to, and effective upon, the acceptance for exchange of the Old Notes tendered with this Letter, the undersigned exchanges, assigns and transfers to, or upon the order of, the Issuer all right, title and interest in and to the Old Notes tendered. The undersigned constitutes and appoints the Exchange Agent as his or her agent and attorney-in-fact (with full knowledge that the Exchange Agent also acts as the agent of the Issuer) with respect to the tendered Old Notes, with full power of substitution, to: (a) deliver certificates for such Old Notes; (b) deliver Old Notes and all accompanying evidence of transfer and authenticity to or upon the order of the Issuer upon receipt by the Exchange Agent, as the undersigned's agent, of the Notes to which the undersigned is entitled upon the acceptance by the Issuer of the Old Notes tendered under the Exchange Offer; and (c) receive all benefits and otherwise exercise all rights of beneficial ownership of the Old Notes, all in accordance with the terms of the Exchange Offer. The power of attorney granted in this paragraph shall be deemed irrevocable and coupled with an interest.

The undersigned hereby represents and warrants that he or she has full power and authority to tender, exchange, assign and transfer the Old Notes tendered hereby and to acquire the Notes and that the Issuer will acquire good, marketable and unencumbered title thereto, free and clear of all security interests, liens, restrictions, charges and encumbrances and not subject to any adverse claim. The undersigned will, upon request, execute and deliver any additional documents deemed by the Issuer to be necessary or desirable to complete the exchange, assignment and transfer of the Old Notes tendered for exchange hereby. The undersigned agrees that acceptance of any tendered Old Notes by the Issuer and the issuance of Notes in exchange therefor shall constitute performance in full by the Issuer of its obligations under the registration rights agreement (as referred to in the Prospectus) and that, upon the issuance of the Notes, the Issuer will have no further obligations or liabilities thereunder (except in certain limited circumstances).

The undersigned hereby further represents to the Issuer that (i) the Notes to be acquired pursuant to the Exchange Offer will be acquired in the ordinary course of business of the person acquiring the Notes, whether or not such person is the undersigned, (ii) neither the undersigned nor any person receiving any Notes directly or indirectly from the undersigned pursuant to the Exchange Offer is engaging or intends to engage in the distribution of the Notes and none of them have any arrangement or understanding with any person to participate in the distribution of the Notes, (iii) the undersigned and each person receiving any Notes directly or indirectly from the undersigned pursuant to the Exchange Offer acknowledge and agree that any broker-dealer or any person participating in the Exchange Offer for the purpose of distributing the Notes (x) must comply with the registration and prospectus delivery requirements of the Securities Act of 1933, as amended (the "Securities Act"), in order to resell the Notes acquired by such person and must be identified as an underwriter in the prospectus and (y) cannot rely on the position of the staff of the Securities and Exchange Commission (the "Commission") set forth in the Exxon Capital Holdings Corporation no-action letter (available May 13, 1988) and the Morgan Stanley and Co., Inc. no-action letter (available June 5, 1991), as interpreted in the Commission's no-action letter to Shearman & Sterling dated July 2, 1993, and similar no-action letters, (iv) the undersigned and each person receiving any Notes directly or indirectly from the undersigned pursuant to the Exchange Offer understand that a secondary resale transaction described in clause (iii) above should be covered by an effective registration statement, (v) neither the undersigned nor any person receiving any Notes directly or indirectly from the undersigned pursuant to the Exchange Offer is an "affiliate" of the Issuer, as defined under Rule 405 under the Securities Act, and (vi) neither the undersigned nor any person receiving any Notes directly or indirectly from the undersigned pursuant to the Exchange Offer is a brokerdealer that acquired the Old Notes from the Issuer. If the undersigned is a broker-dealer that will receive Notes for its own account in exchange for Old Notes that were acquired as a result of market making or other trading activities, it acknowledges that it will deliver a prospectus meeting the requirements of the Securities Act in connection with any resale of such Notes received in respect of such Old Notes pursuant to the Exchange Offer; however, by so acknowledging and by delivering a prospectus, the undersigned will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. Any broker-dealer that will receive Notes for its own account in exchange for Old Notes that were acquired as a result of market making or other trading activities hereby agrees to notify the Issuer (through the Exchange Agent), at the time of tendering such Old Notes in the Exchange Offer, of such brokerdealer's need or potential need for delivering a prospectus.

All authority conferred or agreed to be conferred by this Letter shall survive the death, incapacity, liquidation, dissolution, winding up or any other event relating to the undersigned, and every obligation of the undersigned under this Letter shall be binding upon the undersigned's heirs, personal representatives, successors, assigns, executors and administrators. Tenders may be withdrawn only in connection with the procedures set forth in the Instructions contained in this Letter. Except as otherwise stated in the Prospectus, this tender is irrevocable.

Unless otherwise indicated under "Special Delivery Instructions" in Box 4 below, the Exchange Agent will deliver Notes (and, if applicable, a certificate for any Old Notes not tendered but represented by a certificate also encompassing Old Notes which are tendered) to the undersigned at the address set forth in Box 1.

PLEASE READ THE ACCOMPANYING INSTRUCTIONS CAREFULLY

BOX 2

PLEASE SIGN HERE WHETHER OR NOT OLD NOTES ARE BEING PHYSICALLY TENDERED HEREBY

This box must be signed by registered holder(s) of Old Notes exactly as their name(s) appear(s) on certificate(s) for Old Notes, or by person(s) authorized to become registered holder(s) by endorsement and documents transmitted with this Letter. If signature is by a trustee, executor, administrator, attorney-in-fact, guardian, officer or other person acting in a fiduciary or representative capacity, such person must set forth his or her full title below. (See Instruction 3)

Х

(Signature(s) of Owner(s) or Authorized Signatory)

Date<u>:</u> Name(s) , 2017

(Please Print)

Capacity (Full Title):	
Address:	(Include Zip Code)
Area Code and Telephone No.:	
Taxpayer Identification Number or Social Security Number:	
SIGNATURE GUARANTEE (SEE INSTR certain signatures must be guaranteed by	
(Name of Eligible Institution Guaranteeing Signatures)	
Address (Including Zip Code)	
Telephone Number (Including Area Code) of Firm:	
	(Authorized Signature)
	(Title)
	(Print Name)
Date:, 2017_	
BOX 3	
SPECIAL ISSUANCE INSTRU (See Instructions 3 and	
someone other than the person whose signature appears in Box 2, or if Old Notes delivere be returned by credit to an account maintained at the Book-Entry Transfer facility other th Issue and deliver: (Check appropriate boxes) [] Old Notes not tendered [] Notes, to: (Please Print) Name:	an the account indicated above.
BOX 4	
SPECIAL DELIVERY INSTRU (See Instructions 3 and To be completed ONLY if the Notes and/or any Old Notes that are not to of the Old Notes whose signature appears in Box 2, or to such registered holder at an addr	4) endered are to be sent to someone other than the registered holder
Mail:	
(Check appropriate boxes)	
[] Old Notes not tendered	
[] Notes, to:	
(Please Print)	
Name:	

Address:

INSTRUCTIONS FORMING PART OF THE TERMS AND CONDITIONS OF THE EXCHANGE OFFER

1. DELIVERY OF THIS LETTER AND CERTIFICATES. Certificates for Old Notes or a Book-Entry Confirmation, as the case may be, as well as a properly completed and duly executed copy of this Letter and any other documents required by this Letter, must be received by the Exchange Agent at one of its addresses set forth herein on or before the Expiration Date. The method of delivery of this Letter, certificates for Old Notes or a Book-Entry Confirmation, as the case may be, and any other required documents is at the election and risk of the tendering holder, but except as otherwise provided below, the delivery will be deemed made when actually received by the Exchange Agent. If delivery is by mail, the use of registered mail with return receipt requested, properly insured, is suggested.

If tendered Old Notes are registered in the name of the signer of the Letter of Transmittal and the Notes to be issued in exchange therefor are to be issued (and any untendered Old Notes are to be reissued) in the name of the registered holder and delivered to the registered holder's address as set forth in Box 2 or if the Old Notes are tendered for the account of an Eligible Institution (as defined below), the signature of such signer need not be guaranteed. In any other case, the tendered Old Notes must be endorsed or accompanied by written instruments of transfer in a form satisfactory to the Issuer and duly executed by the registered holder, and the signature on the endorsement or instrument of transfer must be guaranteed by a bank, broker, dealer, credit union, savings association, clearing agency or other institution (each an "Eligible Institution") that is a member of a recognized signature guarantee medallion program within the meaning of Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended. In all other cases, the signature on the Letter of Transmittal must be guaranteed by an Eligible Institution.

Any beneficial owner whose Old Notes are registered in the name of a broker, dealer, commercial bank, trust company or other nominee and who wishes to tender Old Notes should contact such registered holder promptly and instruct such holder to tender Old Notes on such beneficial owner's behalf. If such beneficial owner wishes to tender such Old Notes himself or herself, such beneficial owner must, prior to completing and executing the Letter of Transmittal and delivering such Old Notes, either make appropriate arrangements to register ownership of the Old Notes in such beneficial owner's name or follow the procedures described in the immediately preceding paragraph. The transfer of record ownership may take considerable time.

Holders whose Old Notes are not immediately available or who cannot deliver their Old Notes or a Book-Entry Confirmation, as the case may be, and all other required documents to the Exchange Agent on or before the Expiration Date may tender their Old Notes pursuant to the guaranteed delivery procedures set forth in the Prospectus. Pursuant to such procedure: (i) tender must be made by or through an Eligible Institution; (ii) prior to the Expiration Date, the Exchange Agent must have received from the Eligible Institution a properly completed and duly executed Notice of Guaranteed Delivery (by facsimile transmission, mail or hand delivery) (x) setting forth the name and address of the holder, the description of the Old Notes and the principal amount of Old Notes tendered, (y) stating that the tender is being made thereby and (z) guaranteeing that, within three New York Stock Exchange trading days after the date of execution of such Notice of Guaranteed Delivery, this Letter together with the certificates representing the Old Notes or a Book-Entry Confirmation, as the case may be, and any other documents required by this Letter will be deposited by the Eligible Institution with the Exchange Agent; and (iii) the certificates for all tendered Old Notes or a Book-Entry Confirmation, as the case may be, as well as all other documents required by this Letter, must be received by the Exchange Agent within three New York Stock Exchange trading days after the date of execution of such Notice of Guaranteed Delivery, all as provided in the Prospectus under the caption "The Exchange Offer-How to use the guaranteed delivery procedures if you will not have enough time to send all documents to us." The method of delivery of Old Notes and all other documents is at the election and risk of the holder. If sent by mail, it is recommended that registered mail, return receipt requested, be used, proper insurance be obtained, and the mailing be made sufficiently in advance of the Expiration Date to permit delivery to the Exchange Age

A tender will be deemed to have been received as of the date when the tendering holder's properly completed and duly signed Letter of Transmittal accompanied by the Old Notes (or a timely Book-Entry Confirmation) is received by the Exchange Agent. Issuances of Notes in exchange for Old Notes tendered pursuant to a Notice of Guaranteed Delivery or letter or facsimile transmission to similar effect (as provided above) by an Eligible Institution will be made only against deposit of the Letter of Transmittal (and any other required documents) and the tendered Old Notes (or a timely Book-Entry Confirmation).

All questions as to the validity, form, eligibility (including time of receipt), acceptance and withdrawal of tendered Old Notes will be determined by the Issuer, in its sole discretion, whose determination will be final and binding. The Issuer reserves the absolute right to reject any or all tenders that are not in proper form or the acceptance of which, in the opinion of the Issuer or its counsel, would be unlawful. The Issuer also reserves the right to waive any irregularities or conditions of tender as to particular Old Notes. All tendering holders, by execution of this Letter, waive any right to receive notice of acceptance of their Old Notes. The Issuer's interpretation of the terms and conditions of the Exchange Offer (including the Letter of Transmittal and the instructions thereto) will be final and binding.

Neither the Issuer, the Exchange Agent nor any other person shall be obligated to give notice of defects or irregularities in any tender, nor shall any of them incur any liability for failure to give any such notice.

2. PARTIAL TENDERS; WITHDRAWALS. Tenders of Old Notes will be accepted only in \$2,000 principal amount or integral multiples of \$1,000 in excess thereof. If less than the entire principal amount of any Old Note evidenced by a submitted certificate or by a Book-Entry Confirmation is tendered, the tendering holder must fill in the principal amount tendered in the fourth column of Box 1 above. All of the Old Notes represented by a certificate or by a Book-Entry Confirmation delivered to the Exchange Agent will be deemed to have been tendered unless otherwise indicated. A certificate for Old Notes not tendered will be sent to the holder, unless otherwise provided in Box 4, as soon as practicable after the Expiration Date, in the event that less than the entire principal amount of Old Notes represented by a submitted certificate is tendered (or, in the case of Old Notes tendered by book-entry transfer, such non-exchanged Old Notes will be credited to an account maintained by the holder with the Book-Entry Transfer Facility).

If not yet accepted, a tender pursuant to the Exchange Offer may be withdrawn at any time prior to the Expiration Date. For a withdrawal to be effective, a written or facsimile transmission notice of withdrawal must be timely received by the Exchange Agent at its address or facsimile number set forth in the back cover of the Prospectus prior to the Expiration Date. Any such notice of withdrawal must specify the person named in the Letter of Transmittal as having tendered Old Notes to be withdrawn, the certificate numbers of Old Notes to be withdrawn, the principal amount of Old Notes to be withdrawn, a statement that such holder is withdrawing his election to have such Old Notes exchanged, and the name of the registered holder of such Old Notes, and must be signed by the holder in the same manner as the original signature on the Letter of Transmittal (including any required signature guarantees) or be accompanied by evidence satisfactory to the Issuer that the person withdrawing the tender has succeeded to the beneficial ownership of the Old Notes being withdrawn. The Exchange Agent will return the properly withdrawn Old Notes promptly following receipt of notice of withdrawal. All questions as to the validity of notices of withdrawals, including time of receipt, will be determined by the Issuer, and such determination will be final and binding on all parties.

3. SIGNATURES ON THIS LETTER; ASSIGNMENTS; GUARANTEE OF SIGNATURES. If this Letter is signed by the holder(s) of Old Notes tendered hereby, the signature must correspond with the name(s) as written on the face of the certificate(s) for such Old Notes, without alteration, enlargement or any change whatsoever.

If any of the Old Notes tendered hereby are owned by two or more joint owners, all owners must sign this Letter. If any tendered Old Notes are held in different names on several certificates, it will be necessary to complete, sign and submit as many separate copies of this Letter as there are names in which certificates are held.

If this Letter is signed by the holder of record and (i) the entire principal amount of the holder's Old Notes are tendered; and/or (ii) untendered Old Notes, if any, are to be issued to the holder of record, then the holder of record need not endorse any certificates for tendered Old Notes, nor provide a separate bond power. In any other case, the holder of record must transmit a separate bond power with this Letter.

If this Letter or any certificate or assignment is signed by trustees, executors, administrators, guardians, attorneys-in-fact, officers of corporations or others acting in a fiduciary or representative capacity, such persons should so indicate when signing and proper evidence satisfactory to the Issuer of their authority to so act must be submitted, unless waived by the Issuer.

Signatures on this Letter must be guaranteed by an Eligible Institution, unless Old Notes are tendered: (i) by a holder who has not completed the Box entitled "Special Issuance Instructions" or "Special Delivery Instructions" on this Letter; or (ii) for the account of an Eligible Institution. In the event that the signatures in this Letter or a notice of withdrawal, as the case may be, are required to be guaranteed, such guarantees must be by an Eligible Institution. If Old Notes are registered in the name of a person other than the signer of this Letter, the Old Notes surrendered for exchange must be endorsed by, or be accompanied by a written instrument or instruments of transfer or exchange, in satisfactory form as determined by the Issuer, in its sole discretion, duly executed by the registered holder with the signature thereon guaranteed by an Eligible Institution.

4. SPECIAL ISSUANCE AND DELIVERY INSTRUCTIONS. Tendering holders should indicate, in Box 3 or 4, as applicable, the name and address to which the Notes or certificates for Old Notes not exchanged are to be issued or sent, if different from the name and address of the person signing this Letter. In the case of issuance in a different name, the tax identification number of the person named must also be indicated. Holders tendering Old Notes by book-entry transfer may request that Old Notes not exchanged be credited to such account maintained at the Book-Entry Transfer Facility as such holder may designate.

5. TAX IDENTIFICATION NUMBER. A holder whose tendered Old Notes are accepted for exchange must provide the Exchange Agent (as payor) with his or her correct taxpayer identification number ("TIN"), which, in the case of the holder who is an individual, is his or her social security number.

6. TRANSFER TAXES. The Issuer will pay all transfer taxes, if any, applicable to the transfer of Old Notes to it or its order pursuant to the Exchange Offer. If, however, the Notes or certificates for Old Notes not exchanged are to be delivered to, or are to be issued in the name of, any person other than the record holder, or if tendered certificates are recorded in the name of any person other than the person signing this Letter, or if a transfer tax is imposed by any reason other than the transfer of Old Notes to the Issuer or its order pursuant to the Exchange Offer, then the amount of such transfer taxes (whether imposed on the record holder or any other person) will be payable by the tendering holder. If satisfactory evidence of payment of taxes or exemption from taxes is not submitted with this Letter, the amount of transfer taxes will be billed directly to the tendering holder. Except as provided in this Instruction 6, it will not be necessary for transfer tax stamps to be affixed to the certificates listed in this Letter.

7. WAIVER OF CONDITIONS. The Issuer reserves the absolute right to amend or waive any of the specified conditions in the Exchange Offer in the case of any Old Notes tendered.

8. MUTILATED, LOST, STOLEN OR DESTROYED CERTIFICATES. Any holder whose certificates for Old Notes have been mutilated, lost, stolen or destroyed should contact the Exchange Agent at the address indicated above, for further instructions.

9. REQUESTS FOR ASSISTANCE OR ADDITIONAL COPIES. Questions relating to the procedure for tendering, as well as requests for additional copies of the Prospectus or this Letter, may be directed to the Exchange Agent.

IMPORTANT: THIS LETTER (TOGETHER WITH CERTIFICATES REPRESENTING TENDERED OLD NOTES OR A BOOK-ENTRY CONFIRMATION AND ALL OTHER REQUIRED DOCUMENTS) MUST BE RECEIVED BY THE EXCHANGE AGENT ON OR BEFORE THE EXPIRATION DATE.

HUGHES SATELLITE SYSTEMS CORPORATION

NOTICE OF GUARANTEED DELIVERY

5.250% Senior Secured Notes due 2026 and

6.625% Senior Notes due 2026

As set forth in the Prospectus dated , 2017 (the "Prospectus") of Hughes Satellite Systems Corporation (the "Issuer"), under the caption "The Exchange Offer—How to use the guaranteed delivery procedures if you will not have enough time to send all documents to us" and the Letter of Transmittal to exchange the Issuer's 5.250% Senior Secured Notes due 2026 and 6.625% Senior Notes due 2026 (the "Letter of Transmittal"), this form or one substantially equivalent hereto must be used to accept the Exchange Offer (as defined below) if: (i) certificates for any outstanding 5.250% Senior Secured Notes due 2026 (the "Old Unsecured Notes") or 6.625% Senior Notes due 2026 (the "Old Unsecured Notes" and, together with the Old Secured Notes, the "Old Notes") to be tendered are not immediately available, (ii) time will not permit all required documents to reach the Exchange Agent (as defined below) on or prior to the Expiration Date (as defined below) or (iii) the procedures for book-entry transfer cannot be completed on or prior to the Expiration Date. Such form may be transmitted by facsimile or delivered by mail, hand delivery or overnight delivery to the Exchange Agent.

THE EXCHANGE OFFER WILL EXPIRE AT 5:00 P.M., NEW YORK CITY TIME, ON , 2017, UNLESS EXTENDED (THE "EXPIRATION DATE"). TENDERS MAY BE WITHDRAWN PRIOR TO THE EXPIRATION DATE.

To: U.S. Bank National Association

By hand, overnight delivery or mail (registered or certified mail recommended): U.S. Bank National Association 60 Livingston Avenue St. Paul, MN 55107 Attention: Specialized Finance By facsimile (Eligible Institutions Only): (651) 466-7372 Attention: Specialized Finance

For information or confirmation by telephone: (800) 934-6802

Fax cover sheets should provide a call-back number and request a call back, upon receipt.

Delivery of this instrument to an address other than as set forth above or transmission of this instrument to a facsimile number other than as set forth above does not constitute a valid delivery.

This form is not to be used to guarantee signatures. If a signature on the Letter of Transmittal is required to be guaranteed by an "Eligible Institution" under the instructions thereto, such signature guarantee must appear in the applicable space provided in the signature box on the Letter of Transmittal.

Ladies and Gentlemen:

The undersigned hereby tenders to the Issuer, upon the terms and conditions set forth in the Prospectus and the Letter of Transmittal (which together constitute the "Exchange Offer"), receipt of which are hereby acknowledged, the principal amount of Old Notes set forth below pursuant to the guaranteed delivery procedures described in the Prospectus and the Letter of Transmittal.

The undersigned understands that tenders of Old Notes will be accepted only in authorized denominations. The undersigned understands that tenders of Old Notes pursuant to the Exchange Offer may not be withdrawn after the Expiration Date. Tenders of Old Notes may be withdrawn at any time prior to the Expiration Date or if the Exchange Offer is terminated or as otherwise provided in the Prospectus.

All authority herein conferred or agreed to be conferred by this Notice of Guaranteed Delivery shall survive the death, incapacity, liquidation, dissolution, winding up or any other event relating to the undersigned and every obligation of the undersigned under this Notice of Guaranteed Delivery shall be binding upon the heirs, personal representatives, executors, administrators, successors, assigns, trustees in bankruptcy and other legal representatives of the undersigned.

SIGNATURES

Signature of Owner

Signature of Owner (if more than one)

Dated:

Name(s):____ (Please Print)

Address:

(Include Zip Code)

Area Code and Telephone Number:

Capacity (full title), if signing in a representative capacity:

Taxpayer Identification or Social Security Number:

Principal amount of Old Secured Notes Exchanged: \$____

Certificate Nos. of Old Secured Notes (if available):____

Principal amount of Old Unsecured Notes Exchanged: \$_____

Certificate Nos. of Old Unsecured Notes (if available):____

IF OLD NOTES WILL BE DELIVERED BY BOOK-ENTRY TRANSFER, PROVIDE THE DEPOSITORY TRUST COMPANY ("DTC") ACCOUNT NO.:

Account No.:

GUARANTEE OF DELIVERY (NOT TO BE USED FOR SIGNATURE GUARANTEE)

The undersigned, a member of a recognized signature guarantee medallion program within the meaning of Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended, hereby guarantees delivery to the Exchange Agent, at its address set forth above, of the Old Notes tendered hereby, in proper form for transfer (or confirmation of the book-entry transfer of such Old Notes to the Exchange Agent's account at The Depository Trust Company pursuant to the procedures for book-entry transfer set forth in the Prospectus), together with a properly completed and duly executed Letter of Transmittal (or facsimile thereof), with any required signature guarantees, and any other documents required by the Letter of Transmittal by 5:00 p.m., New York City time, within three New York Stock Exchange trading days following the date of execution of this Notice of Guaranteed Delivery.

Name of Firm

Number and Street or P.O. Box

City State Zip Code

Telephone No.:

Fax No.:___

(Authorized Signature)

Title:

Date:___

NOTE: DO NOT SEND CERTIFICATES REPRESENTING NOTES WITH THIS NOTICE. NOTES SHOULD BE SENT TO THE EXCHANGE AGENT TOGETHER WITH A PROPERLY COMPLETED AND DULY EXECUTED LETTER OF TRANSMITTAL.