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

Form 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2016**

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM ________________ TO ________________ .**

Commission file number: 333-179121

Hughes Satellite Systems Corporation

(Exact name of registrant as specified in its charter)

Colorado	**45-0897865**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
100 Inverness Terrace East, Englewood, Colorado	**80112-5308**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: **(303) 706-4000**

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☒ No o

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes o No ☒*

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ☒

The aggregate market value of the registrant's voting interests held by non-affiliates on June 30, 2016 was $0.

As of February 15, 2017, the registrant's outstanding common stock consisted of 1,000 shares of common stock, $0.01 par value per share.

The Registrant meets the conditions set forth in General Instructions (I)(1)(a) and (b) of Form 10-K and is therefore filing this Annual Report on Form 10-K with the reduced disclosure format.

* The Registrant currently is not subject to the filing requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934 and is filing this Annual Report on Form 10-K on a voluntary basis. The Registrant has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months as if it were subject to such filing requirements during such period.

DOCUMENTS INCORPORATED BY REFERENCE

None

TABLE OF CONTENTS

*** This item has been omitted pursuant to the reduced disclosure format as set forth in General Instructions (I) (2) (a) and (c) of Form 10-K.**

DISCLOSURE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K ("Form 10-K") contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, 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 Form 10-K and represent management's current views and assumptions. 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 our primary customer, DISH Network Corporation and its subsidiaries ("DISH Network"), for a significant portion of our revenue;
- our ability to implement our strategic initiatives;
- risks and uncertainties associated with the pending Share Exchange with DISH Network (as described below);
- 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 in Part I, Item 1A. — Risk Factors and Item 7. — Management's Narrative Analysis of Results of Operations of this Form 10-K and those discussed in other documents we file with the Securities and Exchange Commission ("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.

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.

PART I

Item 1. BUSINESS

OVERVIEW

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.

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 in the notes to consolidated financial statements in Item 15 of this report, 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.

PENDING SHARE EXCHANGE

On January 31, 2017, our parent company EchoStar and certain of our and EchoStar’s subsidiaries entered into a Share Exchange Agreement (the “Share Exchange Agreement”) among DISH Network Corporation (“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, 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 (“ET Corp”), and EchoStar Technologies L.L.C., a direct wholly owned subsidiary of EchoStar.

Pursuant to the Share Exchange Agreement, among other things: (i) EchoStar will receive all of the shares of EchoStar Tracking Stock (as defined below) owned by DNLLC in exchange for 100% of the equity interests of ET Corp, which will hold that portion of the EchoStar Technologies business segment of EchoStar that (a) designs, develops and distributes secure end-to-end video technology solutions including digital set-top boxes and related products and technology, primarily for satellite TV service providers and telecommunication companies, (b) provides 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) includes an over-the-top, Streaming Video on Demand platform business, which includes assets acquired from Sling TV Holding L.L.C. (formerly DISH Digital Holding L.L.C.) and primarily provides support services to DISH’s Sling TV™ operations, and (ii) EB LLC will receive all of the shares of HSS Tracking Stock (as defined below) owned by DOLLC in exchange for 100% of the equity interests of EB Corp, which will hold 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"). Pursuant to the Share Exchange Agreement, EchoStar will also transfer certain assets, investments in joint ventures, spectrum licenses and real estate properties and the DISH Parties will assume certain liabilities relating to the transferring assets and businesses. In connection with the Share Exchange, EchoStar and DISH Network and certain of their subsidiaries will enter into certain customary agreements covering, among other things, matters relating to taxes, employees, intellectual property and the provision of transitional services. 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 (as defined below).

In March 2014, HSS issued shares of preferred stock (the "HSS Tracking Stock,") to DOLLC. The HSS 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"), and represents a 28.11% economic interest in the Hughes Retail Group. Following the closing of the Share Exchange, the HSS Tracking Stock will be retired and all agreements, arrangements and policy statements with respect to, and terms of the HSS Tracking Stock will terminate and be of no further effect. For more information regarding the Tracking Stock, see Note 3 in the notes to consolidated financial statements in Item 15 of this report.

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 the parties 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.

See "Risks Related to the Pending Share Exchange" in Item 1A Risk Factors of this Annual Report on Form 10-K. For more information regarding the Share Exchange, see Note 18 in the notes to consolidated financial statements in Item 15 of this report and our Current Report on Form 8-K filed January 31, 2017.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and accordingly file an annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and other information with the Securities and Exchange Commission ("SEC"). The public may read and copy any materials filed with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at (800) SEC-0330 for further information on the operation of the Public Reference Room. As an electronic filer, our public filings are also maintained on the SEC's internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that website is http://www.sec.gov.

WEBSITE ACCESS

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, may also be accessed free of charge through the website of our parent company, EchoStar, as soon as reasonably practicable after we have electronically filed such material with, or furnished it to, the SEC. The address of that website is http://www.echostar.com.

We have adopted a written code of ethics that applies to all of our directors, officers, and employees, including our principal executive officer and senior financial officers, in accordance with the Sarbanes-Oxley Act of 2002 and the rules of the SEC promulgated thereunder. Our code of ethics is available on our corporate website at http://www.echostar.com. In the event that we make changes in, or provide waivers of, the provisions of this code of ethics that the SEC requires us to disclose, we intend to disclose these events on our website.

Item 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones facing us. If any of the following events occur, our business, financial condition, results of operation, prospects or ability to invest capital in our business could be materially and adversely affected.

GENERAL RISKS AFFECTING OUR BUSINESS

We currently derive a significant portion of our revenue from our primary customer, DISH Network. If the Share Exchange is not consummated, 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 EchoStar Satellite Services ("ESS") segment provides satellite services to DISH Network and DISH Network is also a wholesale distributor of the Hughes satellite internet service, and in connection with such wholesale distribution, 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 EchoStar Satellite Services 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.

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 EchoStar Satellite Services 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 network or other 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. At present, until the launch and operation of additional satellites, there is limited availability of capacity on the frequencies we use in North America, including within our own fleet of satellites. 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, and the potential bankruptcy, lack of liquidity or operational failure of our suppliers. We do not generally maintain long-term agreements 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 any additional necessary approvals will be granted on a timely basis or at all, in all jurisdictions in which we wish to operate new satellites, 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 our 6 1/2% Senior Secured Notes due 2019 (the “2019 Senior Secured Notes”), 7 5/8% Senior Notes due 2021 (the “2021 Senior Unsecured Notes”), 5.250% Senior Secured Notes due August 1, 2026 (the “2026 Senior Secured Notes”) and 6.625% Senior Unsecured Notes due August 1, 2026 (the “2026 Senior Unsecured Notes” and together with the 2026 Senior Secured Notes, the “2026 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 2019 Senior Secured Notes and the 2026 Senior 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.

Pursuant to the terms of our preferred tracking stock and related agreements and policies, we could be required to use assets attributed to one group to pay liabilities attributed to the other group if the Share Exchange is not consummated.

Even though we attribute, for financial reporting purposes, all of our consolidated assets, liabilities, revenue, expenses and cash flows to either the HSSC Group or the Hughes Retail Group (see Note 3 in the notes to consolidated financial statements in Item 15 of this report for definitions and a further discussion of the preferred tracking stock, the HSSC Group and the Hughes Retail Group) and prepare separate attributed financial information for the Hughes Retail Group, we retain legal title to all of our assets and our capitalization will not limit our legal responsibility, or that of our subsidiaries, for the liabilities included in our financial statements and such attributed financial information. As such, the assets attributed to one group are potentially subject to the liabilities attributed to the other group, even if those liabilities arise from lawsuits, contracts or indebtedness that are attributed to such other group. Although the policy statement (the “Policy Statement”) regarding the relationships between the HSSC Group and the Hughes Retail Group with respect to matters such as the attribution and allocation of costs, tax liabilities and benefits, attribution of assets, corporate opportunities and similar items generally requires that all changes in the attribution of assets from one group to the other group will be made on a fair value basis as determined in accordance with certain guiding principles, these policies and our articles of incorporation generally do not prevent us from satisfying liabilities of one group with assets of the other group, and our creditors are not limited by our tracking stock capitalization from proceeding against any assets they could have proceeded against if we did not have a tracking stock capitalization.

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 will begin 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 many of 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 license to operate the satellite, undermine our ability to implement our business strategy or develop or pursue existing or future business opportunities with 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 co-primary 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. Any 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 Item 3. — Legal Proceedings of this Annual Report on Form 10-K.

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 PENDING SHARE EXCHANGE

There are risks and uncertainties associated with the pending Share Exchange.

There are a number of risks and uncertainties associated with the pending Share Exchange including, among others, the potential failure to satisfy the conditions to closing, including the conditions related to obtaining required governmental approvals. Any delay or failure to complete the Share Exchange could negatively impact our relationships with DISH Network, other customers, suppliers and employees and could adversely affect our business. Pending completion of the Share

Exchange, the attention of our management may be focused on the transaction and related matters, and diverted from our day-to-day business operations, including from other opportunities that might benefit us.

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 will undertake upon closing of the Share Exchange 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 43.3% of EchoStar's total equity securities (assuming conversion of only the Class B common stock held by Mr. Ergen into Class A common stock 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 February 15, 2017) and possesses approximately 63.6% of the total voting power of all classes of shares (assuming no conversion of the Class B common stock and no conversion of the preferred tracking stock 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 February 15, 2017). Mr. Ergen's beneficial ownership of EchoStar excludes 1,640 shares of EchoStar's Class A common stock and 14,493,094 shares of its Class A common stock issuable upon conversion of shares of its Class B common stock, in each case, currently held by certain trusts established by Mr. Ergen for the benefit of his family. These trusts beneficially own approximately 23.6% of EchoStar's total equity securities (assuming conversion of only the Class B common stock held by such trusts into Class A common stock) and possess approximately 27.6% of EchoStar's total voting power of all classes of shares (assuming no conversion of the Class B common stock and no conversion of the preferred tracking stock). Thus, Mr. Ergen has the ability to elect a majority of EchoStar's directors and to control all other matters requiring the approval of EchoStar's stockholders. As a result of Mr. Ergen's voting power, 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) a nominating committee composed solely of independent directors; (iii) compensation of our executive officers determined by a majority of the independent directors or a compensation 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, including Mr. Ergen. Furthermore, until consummation of the Share Exchange, DISH Network holds shares of preferred tracking stock in EchoStar and us that in the aggregate represents an 80.0% economic interest in our residential retail satellite broadband business. 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 Net***We and EchoStar have entered into various agreements with DISH Network. Pursuant to certain agreements, DISH Network provides EchoStar and us certain professional services, for which we and EchoStar pay DISH Network an amount equal to DISH Network's 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 EchoStar entered into with DISH Network did not necessarily reflect what two unaffiliated parties might have agreed to. Had these 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 continu EchoStar or its subsidiaries, us or our subsidiaries, or other affiliates, including in connection with the consummation of the Share Exchange transaction. Although the terms of any such transactions will be established based upon negotiations between DISH Network an 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.d 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.e to enter into transactions with EchoStar or its subsidiaries, us or our subsidiaries, or other affiliates, including in connection with the consummation of the Share Exchange transaction. 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- ***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 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. 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.

It may be difficult for a third party to acquire us, even if doing so may be beneficial to our shareholders, because of our capital structure.

Certain provisions of our articles of incorporation and bylaws, such as a provision that authorizes the issuance of “blank check” preferred stock, which could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt, may discourage delay or prevent a change in control of our company that a shareholder may consider favorable. In addition, our parent, EchoStar holds all of our issued and outstanding shares of common stock, which results in EchoStar having the power to elect all of our directors and control shareholder decision on all matters.

The preferred tracking stock in our capital structure may create conflicts of interest for our board of directors and management, and our board of directors may make decisions that could adversely affect only one group of holders.

If the Share Exchange is not consummated, our preferred tracking stock capital structure could give rise to occasions when the interests of holders of stock of one group might diverge or appear to diverge from the interests of holders of stock of the other group and our board of directors or officers could make decisions that could adversely affect only one group of holders. Colorado law requires that our board of directors and officers act in good faith and with a view to the interest of the company and are not required to consider, as a dominant factor, the effect of a proposed corporate action upon any particular group of shareholders. Decisions deemed to be in the interest of our company may not always align with the best interest of a particular group of our shareholders when considered independently. Examples include, but are not limited to:

- decisions as to the terms of any business relationships that may be created between the EchoStar Group and the Hughes Retail Group and the terms of any reattributions of assets between the groups;
- decisions as to the allocation of corporate opportunities between the groups, especially where the opportunities might meet the strategic business objectives of both groups;
- decisions as to operational and financial matters that could be considered detrimental to one group but beneficial to the other;
- decisions as to the internal or external financing attributable to businesses or assets attributed to either of our groups;
- decisions as to the payment of dividends on our common stock or preferred tracking stock; and
- decisions as to the disposition of assets of either of our groups.

In addition, as our preferred tracking stock is currently held by DISH Network, if the Share Exchange is not consummated questions relating to conflicts of interest may also arise between DISH Network and us due to EchoStar and DISH Network's common ownership and Chairman. Provisions of Colorado law and our articles of incorporation may protect decisions of our board of directors and officers that have a disparate impact on one group of shareholders. Our shareholders may have limited or no legal remedies under Colorado law with respect to such decisions even if the actions of our directors or officers adversely affect the market value of our common stock.

If the Share Exchange is not consummated, our board of directors has the ability to change our attribution policies at any time without a vote of our common shareholders.

Our board of directors has adopted the Policy Statement. Our board of directors may at any time change or make exceptions to the Policy Statement with only the consent of holders of a majority of the outstanding shares of our preferred tracking stock. Because these policies relate to matters concerning the day-to-day management of our company as opposed to significant corporate actions, such as a merger involving the Company or a sale of substantially all of our assets, no approval from our common shareholders is required with respect to the changes or exceptions to these policies. A decision to change, or make exceptions to the Policy Statement or adopt additional policies could disadvantage one group of shareholders while advantaging another.

Changes in United States Generally Accepted Accounting Principles ("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 in Item 15 of this report 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.

Table of Contents

We may face other risks described from time to time in periodic and current reports we file with the SEC.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Our principal executive offices are located at 100 Inverness Terrace East, Englewood, Colorado 80112-5308 and our telephone number is (303) 706-4000. The following table sets forth certain information concerning our principal properties related to our Hughes segment ("Hughes"), 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.

Location (4)	Segment(s)	Leased/ Owned	Function
San Diego, California	Hughes	Leased	Engineering and sales offices
Gaithersburg, Maryland	Hughes	Leased	Manufacturing and testing facilities, engineering and logistics and administrative offices
Southfield, Michigan (1)	Hughes	Leased	Shared hub
Las Vegas, Nevada (1)	Hughes	Leased	Shared hub, antennae yards, gateway, backup network operation and control center for Hughes corporate headquarters
American Fork, Utah (5)	Hughes	Leased	Office space and engineering offices
Barueri, Brazil (1)	Hughes	Leased	Shared hub and warehouse
Sao Paulo, Brazil	Hughes	Leased	Hughes Brazil corporate headquarters, sales offices, and warehouse
Bangalore, India (2)	Hughes	Leased	Office space
Gurgaon, India (1)(2)	Hughes	Leased	Administrative offices, shared hub, operations, warehouse, and development center
New Delhi, India	Hughes	Leased	Hughes India corporate headquarters
Mexico City, Mexico	Hughes	Leased	Sales office, gateways
Milton Keynes, United Kingdom	Hughes	Leased	Hughes Europe corporate headquarters and operations
Germantown, Maryland (1)	Hughes	Owned	Hughes corporate headquarters, engineering offices, network operations and shared hubs
Griesheim, Germany (1)	Hughes	Owned	Shared hub, operations, administrative offices and warehouse
Gilbert, Arizona (1)(3)(5)	ESS	Leased	Digital broadcast operations center
Black Hawk, South Dakota (1)(3)	ESS	Leased	Spacecraft autotrack operations center
Cheyenne, Wyoming (1)(3)(5)	ESS	Leased	Digital broadcast operations center
Mustang Ridge, Texas (1)(3)	ESS	Owned	Micro digital broadcast center
Englewood, Colorado (3)(5)	Hughes/ ESS/Other	Owned	Corporate headquarters, gateways

(1) We perform network services and customer support functions 24 hours a day, 365 days a year at these locations.
(2) These properties are used by subsidiaries that are less than wholly-owned by the Company.
(3) These properties are owned by EchoStar Corporation or its subsidiaries.
(4) 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 satellites as well as multiple regional broadcast operations centers.
(5) These properties are a part of the EchoStar Technologies segment of EchoStar. As a result, they, or a portion thereof, will be transferred in connection with, and upon consummation of, the pending Share Exchange. Hughes and ESS may enter into agreements with DISH Network for continued use of all or a portion of some of these facilities. See Note 18 in the notes to consolidated financial statements in Item 15 for further discussion of the Share Exchange.

Item 3. LEGAL PROCEEDINGS

For a discussion of legal proceedings, see Note 13 in the notes to consolidated financial statements in Item 15 of this report.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information. As of February 15, 2017, all of our 1,000 issued and outstanding shares of common stock were held by EchoStar. There is currently no established trading market for our common stock. On December 20, 2013, we amended our Articles of Incorporation to authorize the issuance of 1,000,000 shares of preferred stock. As of February 15, 2017, 81.128 shares of our preferred stock were issued and outstanding.

Dividends. We have not paid any cash dividends on our common stock in the past two years. Payment of any future dividends will depend upon our earnings, capital requirements, contractual restrictions, and other factors the board of directors considers appropriate. We currently intend to retain our earnings, if any, to support future growth and expansion. Our ability to declare dividends is affected by covenants in our indentures.

Item 7. MANAGEMENT'S NARRATIVE ANALYSIS OF 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 narrative analysis of results of operations should be read in conjunction with the consolidated financial statements and notes to our financial statements included elsewhere in this Annual Report on Form 10-K. This management's narrative 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 narrative 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 Annual Report on Form 10-K 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 Item 1A of this Annual Report on Form 10-K. Further, such forward-looking statements speak only as of the date of this Annual Report on Form 10-K and we undertake no obligation to update them.

EXECUTIVE SUMMARY

We are a holding company and a subsidiary of EchoStar Corporation ("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 and certain of our and EchoStar's 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 and HSS Tracking Stock in exchange for 100% of the equity interests of certain subsidiaries of EchoStar that will hold its EchoStar Technologies segment businesses. 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. See "Pending Share Exchange" in Item 1. Business and "Risks Related to the Pending Share Exchange" in Item 1A. Risk Factors of this Annual Report on Form 10-K.

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 28)

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 two owned satellites, the SPACEWAY 3 satellite and the EchoStar XVII satellite, and additional satellite capacity acquired from multiple third-party providers, to provide satellite broadband internet access and communications services to our customers. We currently provide HughesNet Gen4 satellite broadband internet services to our consumer market customers in North America on the EchoStar XVII satellite. 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 our parent company. 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, 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 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 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 in-orbit satellites. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network Corporation ("DISH Network") (our largest customer), Dish Mexico, S. de R.L. de C.V. ("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 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, low-earth orbit ("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.

Item 7. MANAGEMENT'S NARRATIVE ANALYSIS OF RESULTS OF OPERATIONS - Continued

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

Statements of Operations Data (1)	For the Years Ended December 31, 2016	For the Years Ended December 31, 2015	Variance Amount	Variance %
	(Dollars in thousands)			
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	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

* Percentage is not meaningful.

(1) An explanation of our key metrics is included on pages 30 and 31 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 28. For further information on our use of EBITDA, see "Explanation of Key Metrics and Other Items" on page 31.

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 5.250% Senior Secured Notes due August 1, 2026 (the "2026 Senior Secured Notes") and 6.625% Senior Unsecured Notes due August 1, 2026 (the "2026 Senior Unsecured Notes" and together with the 2026 Senior Secured Notes, the "2026 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 "2019 Senior 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 2019 Senior 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 2026 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 2019 Senior 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 2019 Senior 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 2019 Senior 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.

	For the Years Ended December 31,		Variance	
	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)

Item 7. MANAGEMENT'S NARRATIVE ANALYSIS OF RESULTS OF OPERATIONS - Continued

Segment Operating Results and Capital Expenditures

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

	Hughes	EchoStar Satellite Services	All Other and Eliminations	Consolidated Total
	(In thousands)			
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 the Years Ended December 31,		Variance	
	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.

EchoStar Satellite Services Segment

	For the Years Ended December 31,		Variance	
	2016	2015	Amount	%
	(Dollars in thousands)			
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.

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 employee-related 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 2019 Senior Secured Notes representing the redemption premium that the Company paid to the holders of its 2019 Senior 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.

Item 7A. 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.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our consolidated financial statements are included in Item 15 of this report beginning on page F-3.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this report. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report such that the information required to be disclosed in our SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rule 15d-15(f) under the Securities Exchange Act of 1934, as amended) that occurred during our fiscal quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We continue to review our internal control over financial reporting, and may from time to time make changes aimed at enhancing its effectiveness and to ensure that our systems evolve with our business.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States (“GAAP”).

Our internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;

(ii) provide reasonable assurance that our transactions are recorded as necessary to permit preparation of our financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2016.

Item 9B. OTHER INFORMATION

None.

PART III

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Appointment of Independent Registered Public Accounting Firm

Appointment of Independent Registered Public Accounting Firm for 2017. KPMG LLP served as our independent registered public accounting firm for the fiscal year ended December 31, 2016. EchoStar Corporation's ("EchoStar") board of directors, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if EchoStar's board of directors believes that a change would be in our best interests.

Fees Paid to KPMG LLP

The following table presents fees for professional services rendered by KPMG LLP on behalf of the Company for the years ended December 31, 2016 and 2015.

	For the Years Ended December 31,	
	2016	**2015**
Audit fees (1)	$ 1,651,744	$ 1,542,559
Audit-related fees (2)	90,171	25,832
Total audit and audited related fees	1,741,915	1,568,391
Tax fees (3)	22,875	29,206
Total fees	$ 1,764,790	$ 1,597,597

(1) Consists of fees paid by us for the audit of our and our subsidiaries' consolidated financial statements included in our Annual Report on Form 10-K, review of our unaudited financial statements included in our Quarterly Reports on Form 10-Q and fees in connection with statutory audits of our foreign subsidiaries.
(2) Consists of fees paid by us and our subsidiaries for the audit of financial statements and certain fees for other services that are normally provided by the accountant in connection with the issuance of consents, comfort letter, and certifications, compliance with XBRL tagging, and professional consultations with respect to accounting issues or matters that are non-recurring in nature.
(3) Consists of fees paid by us and our subsidiaries for tax consultation and tax compliance services.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Our board of directors has delegated to EchoStar's Audit Committee the responsibility for appointing, setting compensation, retaining, and overseeing the work of our independent registered public accounting firm. EchoStar's Audit Committee has established a process regarding pre-approval of all audit and permissible non-audit services provided by the independent registered public accounting firm.

Requests are submitted to EchoStar's Audit Committee in one of the following ways:

- Request for approval of services at a meeting of EchoStar's Audit Committee; or
- Request for approval of services by members of EchoStar's Audit Committee acting by written consent.

The request may be made with respect to either specific services or a type of service for predictable or recurring services. Fees paid by us to KPMG LLP for services rendered in 2016 and 2015 were pre-approved by EchoStar's Audit Committee.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report:

(3) Exhibits

Exhibit No.	Description
2.1*	Agreement and Plan of Merger between EchoStar Corporation, EchoStar Satellite Services L.L.C., Broadband Acquisition Corporation and Hughes Communications, Inc. dated as of February 13, 2011 (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K of Hughes Communications, Inc., filed February 15, 2011, Commission File No. 1-33040).****
3.1(a)*	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 Company's Registration Statement on Form S-4, 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 Company's Registration Statement on Form S-4, Registration No. 333-179121).
3.1(c)*	Articles of Amendment of Hughes Satellite Systems Corporation, dated as of December 30, 2013 (incorporated by reference to Exhibit 3.1(c) to the Annual Report on Form 10-K of Hughes Satellite Systems Corporation for the year ended December 31, 2013, filed February 21, 2014, 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, filed February 21, 2014, Commission File No. 333-179121).
3.1(e)*	Articles of Amendment of Hughes Satellite Systems Corporation, dated as of February 28, 2014 (incorporated by reference to Exhibit 3.1(a) to the Quarterly Report on Form 10-Q of Hughes Satellite Systems Corporation for the quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 333-179121).

Exhibit No.	Description
3.2*	Bylaws of EH Holding Corporation (incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-4, Registration No. 333-179121).
3.3*	Certificate of Designation Establishing the Voting Powers, Designations, Preferences, Limitations, Restrictions and Relative Rights of the Hughes Retail Preferred Tracking Stock, dated February 28, 2014 (incorporated by reference to Exhibit 3.1(b) to the Quarterly Report on Form 10-Q of Hughes Satellite Systems Corporation for quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 333-179121).
4.1*	Indenture relating to the EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) 6 1/2% 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 EchoStar Corporation's Current Report on Form 8-K filed June 2, 2011, Commission File No. 001-33807).
4.2*	Indenture relating to the EH Holding Corporation (currently known as Hughes Satellite Systems Corporation) 7 5/8% Senior Unsecured Notes due 2021, 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 trustee (incorporated by reference to Exhibit 4.2 to EchoStar Corporation's Current Report on Form 8-K, filed June 2, 2011, Commission File No. 001-33807).
4.3*	Supplemental Indenture relating to the 6 1/2% Senior Secured Notes due 2019 of EH Holding Corporation (currently known as Hughes Satellite Systems Corporation), 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 EchoStar Corporation's Current Report on Form 8-K, filed June 9, 2011, Commission File No. 001-33807).
4.4*	Supplemental Indenture relating to the 7 5/8% Senior Unsecured Notes due 2021 of EH Holding Corporation (currently known as Hughes Satellite Systems Corporation), 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 EchoStar Corporation's Current Report on Form 8-K, filed June 9, 2011, Commission File No. 001-33807).
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).
4.6*	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 4.1 to EchoStar Corporation's Current Report on Form 8-K, filed June 9, 2011, Commission File No. 001-33807).
4.7*	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 Exhibit 4.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 001-33807).
4.8*	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 EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 001-33807).

Exhibit No.	Description
4.9*	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 EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 001-33807).
4.10*	Form of Note for 6 1/2% Senior Secured Notes due 2019 (included as part of Exhibit 4.1).
4.11*	Form of Note for 7 5/8% Senior Unsecured Notes due 2021 (included as part of Exhibit 4.2).
10.1*	Form of Tax Sharing Agreement between EchoStar Corporation and DISH Network Corporation (incorporated by reference to Exhibit 10.2 to Amendment No. 1 of EchoStar Corporation's Form 10, filed December 12, 2007, Commission File No. 001-33807).
10.2*	Form of Employee Matters Agreement between EchoStar Corporation and DISH Network Corporation (incorporated by reference to Exhibit 10.3 to Amendment No. 1 of EchoStar Corporation's Form 10, filed December 12, 2007, Commission File No. 001-33807).**
10.3*	Form of Intellectual Property Matters Agreement between EchoStar Corporation, EchoStar Acquisition L.L.C., Echosphere L.L.C., DISH DBS Corporation, EIC Spain SL, EchoStar Technologies L.L.C. and DISH Network Corporation (incorporated by reference to Exhibit 10.4 to Amendment No. 1 of EchoStar Corporation's Form 10 filed December 12, 2007, Commission File No. 001-33807).
10.4*	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, filed May 6, 2003, Commission File No.000-26176).***
10.5*	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 September 30, 2003, filed November 10, 2003, Commission File No. 000-26176). ***
10.6*	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).***
10.7*	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).***
10.8*	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).***
10.9*	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).***
10.10*	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).**

Exhibit No.	Description
10.11*	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).
10.12*	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).***
10.13*	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).***
10.14*	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).**
10.15*	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).**
10.16*	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).***
10.17*	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).***
10.18*	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).
10.19*	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).
10.20*	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).***
10.21*	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)). **
10.22*	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)).***

Exhibit No.	Description
10. 23*	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)).***
10.24*	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)).**
10.25*	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)).**
10.26*	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).***
10.27*	Transaction Agreement, dated as of February 20, 2014, by and among EchoStar Corporation, Hughes Satellite Systems Corporation, Alpha Company LLC, DISH Network, L.L.C., DISH Operating L.L.C. and EchoStar XI Holding L.L.C. (incorporated by reference to Exhibit 10.1 to EchoStar Corporation’s Quarterly Report on Form 10-Q, for the quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 001-33807).***
10.28*	Investor Rights Agreement, dated as of February 20, 2014, by and among EchoStar Corporation, Hughes Satellite Systems Corporation, DISH Operating L.L.C. and DISH Network L.L.C. (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of EchoStar Corporation, filed May 9, 2014, Commission File No. 001-33807).***
10.29*	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).**
10.30*	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). **
10.31*	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). **
10.32*	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). **
10.33*	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). **
10.34*	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). **

Exhibit No.	Description
10.35*	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).**
31.1 (H)	Section 302 Certification of Chief Executive Officer.
31.2 (H)	Section 302 Certification of Chief Financial Officer.
32.1 (H)	Section 906 Certifications of Chief Executive Officer and Chief Financial Officer.
99.1 (H)	Unaudited Condensed Attributed Financial Information and Notes for Hughes Retail Group.
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.
(I) Furnished 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 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

HUGHES SATELLITE SYSTEMS CORPORATION

By: /s/ *David J. Rayner*
David J. Rayner
Executive Vice President,
Chief Financial Officer,
Chief Operating Officer, and
Treasurer

Date: February 24, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ *Michael T. Dugan* Michael T. Dugan	Chief Executive Officer, President and Director *(Principal Executive Officer)*	February 24, 2017
/s/ *David J. Rayner* David J. Rayner	Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer *(Principal Financial and Accounting Officer)*	February 24, 2017
/s/ *Charles W. Ergen* Charles W. Ergen	Chairman	February 24, 2017
/s/ *Dean A. Manson* Dean A. Manson	Executive Vice President, General Counsel, Secretary and Director	February 24, 2017

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Financial Statements:

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 December 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	80,734	115,420
Investments in unconsolidated entities	42,560	41,481
Other noncurrent assets, net	295,737	208,225
Total noncurrent assets	3,701,408	3,626,499
Total assets	$ 6,381,534	$ 4,571,279
Liabilities and Shareholders' Equity		
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,		
	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

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	$ (18,644)	$ (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	—	(8,552)	—	(237)	(8,789)
Unrealized losses on available-for-sale securities, net and other	—	(4,150)	—	—	(4,150)
Balance, December 31, 2014	1,361,599	(31,346)	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	—	(24,692)	—	(320)	(25,012)
Unrealized gains and other-than-temporary impairment loss on available-for-sale securities, net and other	—	1,922	—	—	1,922
Balance, December 31, 2015	1,417,748	(54,116)	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	—	(5,191)	—	(186)	(5,377)
Unrealized losses on available-for-sale securities, net and other	—	(1,412)	—	—	(1,412)
Balance, December 31, 2016	$ 1,516,199	$ (60,719)	$ 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)

	For the Years Ended December 31,		
	2016	2015	2014
Cash Flows from Operating Activities:			
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	(1,444)	(320)
Net cash flows from operating activities	565,871	575,490	653,572
Cash Flows from Investing Activities:			
Purchases of marketable investment securities	(396,730)	(208,821)	(509,814)
Sales and maturities of marketable investment securities	452,446	355,202	234,970
Expenditures for property and equipment	(381,287)	(386,714)	(247,341)
Changes in restricted cash and cash equivalents	8,320	(2,488)	(2,538)
Payment for EchoStar XXI launch services	(23,750)	(11,875)	—
Expenditures for externally marketed software	(23,252)	(22,327)	(22,955)
Other, net	(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
Cash paid for income taxes	$ 4,796	$ 4,783	$ 8,577
Property and equipment financed under capital lease obligations	$ 1,130	$ 673	$ 1,535
Increase in capital expenditures included in accounts payable, net	$ 1,175	$ 4,694	$ 4,377
Reduction of capital lease obligation for AMC-15 and AMC-16 satellites	$ —	$ 4,500	$ —

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 notes are an integral part of these consolidated financial statements.

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO 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 $23.3 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 Tracking Stock as compared to the aggregate market value of outstanding shares of HSS common stock. Market values of HSS Tracking Stock and HSS common 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 HSS Tracking Stock unless a dividend or distribution in an equivalent amount is paid on 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 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 Loss Components	Affected Line Item in our Consolidated Statements of Operations	For the Years Ended December 31, 2016	2015	2014
		(In 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 thousands)	
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 Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
	(In thousands)			
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 Fair Value	2016 Unrealized Losses	2015 Fair Value	2015 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, 2016, 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 December 31,					
	2016			2015		
	Total	Level 1	Level 2	Total	Level 1	Level 2
	(In thousands)					
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	6,276	—	6,276
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 December 31,	
	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	$ 48,797

Note 8. Property and Equipment

Property and equipment consisted of the following:

	Depreciable Life (In Years)	As of December 31,	
		2016	2015
		(In thousands)	
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.

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

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

Satellites	Segment	Launch Date	Nominal Degree Orbital Locations (West Longitude)	Depreciable Life (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. one year following expiration of the initial term in February 2015 and the agreement terminated according to its terms in February 2016.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, 2016, 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 Average Useful Life (in Years)	As of December 31, 2016 Cost	2016 Accumulated Amortization	2016 Carrying Amount	2015 Cost	2015 Accumulated Amortization	2015 Carrying Amount
		(In thousands)					
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,			
		2016		2015	
	Effective Interest Rate	Carrying Amount	Fair Value	Carrying Amount	Fair Value
		(In thousands)			
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		$ 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 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 “make-whole” 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
	(In 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
	(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 thousands)	
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**	**2015**	**2014**
		(In 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	Thereafter
	(In 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 XXIII, 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 with respect to components within our direct broadcast satellite ("DBS") products and services. We cannot be certain that these persons 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. Further, we cannot be certain that we would 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.

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 liabilities resulting from litigation. Under the terms of the separation agreement, EchoStar has assumed certain liabilities that relate to its business, 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 will indemnify EchoStar for any liabilities or damages resulting from intellectual property claims relating to the period prior to the Spin-off, as well as 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, though there is no assurance that the resolution and outcomes of these proceedings, individually or in the aggregate, will not be material to 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 thousands)		
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
	(In thousands)		
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	2015
	(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.

	For the Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Total revenue:			
DISH Network:			
Hughes segment	$ 107,300	$ 105,181	$ 112,692
EchoStar Satellite Services segment	349,549	423,465	407,236
All Other and Eliminations	1,538	959	—
Total DISH Network	458,387	529,605	519,928
All other	1,341,406	1,307,527	1,288,049
Total revenue	$ 1,799,793	$ 1,837,132	$ 1,807,977
Percentage of total revenue:			
DISH Network	25.5%	28.8%	28.8%
All other	74.5%	71.2%	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	September 30	December 31
	(In thousands)			
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 XXI 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 VII, 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 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.

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. 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 calEffective 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 culated 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. 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 XVIII 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 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.

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 DISH 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.

Table of Contents

Caltech. 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. 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.

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

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

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

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	$ 262,976	$ (4,539,725)	$ 4,571,279

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

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	—	—	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	Non-Guarantor Subsidiaries	Eliminations	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

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
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
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue - DISH Network	$ —	$ 487,286	$ 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

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Consolidating Statement of Cash Flows for the Year Ended December 31, 2016
(In thousands)

	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

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Consolidating Statement of Cash Flows for the Year Ended December 31, 2015
(In thousands)

	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	$ 55,767	$ 26,589	$ —	$ 382,990

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Consolidating Statement of Cash Flows for the Year Ended December 31, 2014
(In thousands)

	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 Beginning of Year	Charged to Costs and Expenses	Deductions	Balance at End of Year
	(In thousands)			
For the years ended:				
December 31, 2016	$ 11,447	$ 14,384	$ (13,079)	$ 12,752
December 31, 2015	$ 11,950	$ 6,637	$ (7,140)	$ 11,447
December 31, 2014	$ 10,736	$ 7,337	$ (6,123)	$ 11,950

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Section 302 Certification

I, Michael T. Dugan, certify that:

1. I have reviewed this Annual Report on Form 10-K of Hughes Satellite Systems Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2017

/s/ Michael T. Dugan

Chief Executive Officer, President and Director
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Section 302 Certification

I, David J. Rayner, certify that:

1. I have reviewed this Annual Report on Form 10-K of Hughes Satellite Systems Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2017

/s/ David J. Rayner

Executive Vice President, Chief Financial Officer,
Chief Operating Officer and Treasurer
(Principal Financial and Accounting Officer)

EXHIBIT 32.1

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
Section 906 Certifications

In connection with the annual report for the year ended December 31, 2016 on Form 10-K (the "Annual Report"), of Hughes Satellite Systems Corporation (the "Company") as filed with the Securities and Exchange Commission on the date hereof, we, Michael T. Dugan and David J. Rayner, Chief Executive Officer and Chief Financial Officer, respectively, of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant section 906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

(i) the Annual Report fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934; and

(ii) the information contained in this Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 24, 2017

	/s/ Michael T. Dugan
Name:	Michael T. Dugan
Title:	Chief Executive Officer, President and Director *(Principal Executive Officer)*

	/s/ David J. Rayner
Name:	David J. Rayner
Title:	Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer *(Principal Financial and Accounting Officer)*

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Annual Report or as a separate disclosure document.

A SIGNED ORIGINAL OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906 HAS BEEN PROVIDED TO THE COMPANY AND WILL BE RETAINED BY THE COMPANY AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.

EXHIBIT 99.1

Unaudited Condensed Attributed Financial Information for Hughes Retail Group

On March 1, 2014, EchoStar Corporation ("EchoStar") issued shares of its newly authorized Hughes Retail Preferred Tracking Stock (the "EchoStar Tracking Stock") and Hughes Satellite Systems Corporation ("HSS"), a subsidiary of EchoStar, also 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 certain subsidiaries of DISH Network Corporation.

The Tracking Stock is intended to reflect the separate performance of the Hughes Retail Group, which is comprised primarily of our business of providing satellite broadband internet services to residential retail subscribers, including the assets and liabilities primarily associated with the operation of the business; and the business operations, revenue, billings, operating and other direct and indirect support activities to provide services to the business and Hughes retail subscribers. The Hughes Retail Group also includes any proceeds associated with a sale or transfer of the Hughes Retail Group or any assets of the Hughes Retail Group, and any other assets acquired by or for the account of the Hughes Retail Group or otherwise attributed, contributed, allocated or transferred to the Hughes Retail Group from time to time. The HSSC Group is comprised of all existing and future businesses of Hughes Satellite Systems Corporation and its subsidiaries, excluding the Hughes Retail Group.

Holders of the Tracking Stock are holders of capital stock of the issuer (EchoStar or HSS) and are subject to risks associated with an investment in the issuer and all of its businesses, assets and liabilities. The issuance of the Tracking Stock does not affect the rights of our creditors or the creditors of our subsidiaries.

Notwithstanding the following attribution of assets, liabilities, revenue, expenses and cash flows to the Hughes Retail Group and the HSSC Group, our tracking stock structure does not affect the ownership of or the legal title to our assets or responsibility for our liabilities.

The accompanying condensed attributed financial information as of December 31, 2016 and 2015 and for the years ended December 31, 2016, 2015 and 2014 are unaudited. The Company's management is solely responsible for this financial information and believes that it has been prepared in conformity with accounting principles generally accepted in the United States.

The following tables present our consolidated assets and liabilities as of December 31, 2016 and 2015 and our consolidated revenue, expenses and cash flows for the years ended December 31, 2016, 2015 and 2014. The tables further present our assets, liabilities, revenue, expenses and cash flows that are attributed to the Hughes Retail Group as if that business and its assets had been attributed to that group at the beginning of each period. The financial information in this Exhibit should be read in conjunction with our consolidated financial statements for the period ended December 31, 2016 included in our Annual Report on Form 10-K.

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. For more information regarding the Share Exchange, See Note 18 in the notes to consolidated financial statements in Item 15 of our most recent Annual Report on Form 10-K.

Condensed Attributed Balance Sheets
(In thousands)
(Unaudited)

	Attributed As of December 31, 2016				Attributed As of December 31, 2015			
	Hughes Retail Group	HSSC Group	Inter-Group Eliminations	HSS Consolidated	Hughes Retail Group	HSSC Group	Inter-Group Eliminations	HSS Consolidated
Assets								
Current Assets:								
Cash, cash equivalents and marketable investment securities	$ —	$ 2,258,887	$ —	$ 2,258,887	$ —	$ 636,333	$ —	$ 636,333
Trade accounts receivable, net	28,452	154,060	—	182,512	27,094	112,416	—	139,510
Trade accounts receivable - DISH Network, net	—	19,323	—	19,323	—	21,258	—	21,258
Inventory	4,364	59,305	(1,031)	62,638	6,699	43,665	(1,567)	48,797
Prepaids and deposits	487	34,018	—	34,505	990	37,232	—	38,222
Inter-group advances	14,259	—	(14,259)	—	—	30,398	(30,398)	—
Other current assets	—	122,261	—	122,261	—	60,660	—	60,660
Total current assets	47,562	2,647,854	(15,290)	2,680,126	34,783	941,962	(31,965)	944,780
Noncurrent Assets:								
Restricted cash and cash equivalents	—	11,820	—	11,820	—	20,140	—	20,140
Property and equipment, net	143,496	2,168,238	(17,008)	2,294,726	162,497	2,118,727	(15,822)	2,265,402
Regulatory authorizations	—	471,658	—	471,658	—	471,658	—	471,658
Goodwill	260,000	244,173	—	504,173	260,000	244,173	—	504,173
Other intangible assets, net	15,402	65,332	—	80,734	31,488	83,932	—	115,420
Economic interest in Hughes Retail Group	—	317,999	(317,999)	—	—	320,412	(320,412)	—
Investments in unconsolidated entities	—	42,560	—	42,560	—	41,481	—	41,481
Deferred tax assets	39,407	9,150	(39,407)	9,150	19,685	3,816	(19,685)	3,816
Other noncurrent assets, net	31,477	255,577	(467)	286,587	35,277	169,799	(667)	204,409
Total noncurrent assets	489,782	3,586,507	(374,881)	3,701,408	508,947	3,474,138	(356,586)	3,626,499
Total assets	$ 537,344	$ 6,234,361	$ (390,171)	$ 6,381,534	$ 543,730	$ 4,416,100	$ (388,551)	$ 4,571,279
Liabilities and Stockholders' Equity								
Current Liabilities:								
Trade accounts payable	$ 13,104	$ 93,312	$ —	$ 106,416	$ 12,023	$ 85,644	$ —	$ 97,667
Current portion of long-term debt and capital lease obligations	—	32,984	—	32,984	—	30,284	—	30,284
Deferred revenue and prepayments	30,291	29,698	—	59,989	26,636	30,857	—	57,493
Accrued interest	—	46,255	—	46,255	—	8,310	—	8,310
Accrued compensation	—	33,457	—	33,457	—	31,932	—	31,932
Advances from affiliates, net	—	598	—	598	—	3,773	—	3,773
Inter-group advances	—	14,259	(14,259)	—	30,398	—	(30,398)	—
Accrued expenses and other	46,192	34,420	—	80,612	26,399	57,102	—	83,501
Total current liabilities	89,587	284,983	(14,259)	360,311	95,456	247,902	(30,398)	312,960
Noncurrent Liabilities:								
Long-term debt and capital lease obligations, net of unamortized debt issuance costs	—	3,622,463	—	3,622,463	—	2,154,988	—	2,154,988
Deferred tax liabilities	—	567,869	(39,407)	528,462	—	472,035	(19,685)	452,350
Advances from affiliates	—	31,968	—	31,968	—	25,283	—	25,283
Other noncurrent liabilities	5,416	77,891	—	83,307	2,576	81,482	—	84,058
Total noncurrent liabilities	5,416	4,300,191	(39,407)	4,266,200	2,576	2,733,788	(19,685)	2,716,679
Total liabilities	95,003	4,585,174	(53,666)	4,626,511	98,032	2,981,690	(50,083)	3,029,639
Commitments and Contingencies								
Shareholders' Equity:								
Equity/ Attributed net assets	442,341	1,636,357	(336,505)	1,742,193	445,698	1,423,100	(338,468)	1,530,330
Noncontrolling interests	—	12,830	—	12,830	—	11,310	—	11,310
Total shareholders' equity	442,341	1,649,187	(336,505)	1,755,023	445,698	1,434,410	(338,468)	1,541,640
Total liabilities and equity/attributed net assets	$ 537,344	$ 6,234,361	$ (390,171)	$ 6,381,534	$ 543,730	$ 4,416,100	$ (388,551)	$ 4,571,279

Condensed Attributed Statements of Operations

(In thousands)

(Unaudited)

	Attributed For the Year Ended December 31, 2016				Attributed For the Year Ended December 31, 2015				Attributed For the Year Ended December 31, 2014			
	Hughes Retail Group	**HSSC Group**	**Inter-Group Eliminations**	**HSS Consolidated**	**Hughes Retail Group**	**HSSC Group**	**Inter-Group Eliminations**	**HSS Consolidated**	**Hughes Retail Group**	**HSSC Group**	**Inter-Group Eliminations**	**HSS Consolidated**
Revenue:												
Services and equipment revenue - DISH Network	$ —	$ 458,387	$ —	$ 458,387	$ —	$ 529,605	$ —	$ 529,605	$ —	$ 519,928	$ —	$ 519,928
Services and equipment revenue - other	641,360	1,026,733	(326,687)	1,341,406	613,708	1,022,256	(328,437)	1,307,527	562,495	990,940	(265,386)	1,288,049
Total revenue	641,360	1,485,120	(326,687)	1,799,793	613,708	1,551,861	(328,437)	1,837,132	562,495	1,510,868	(265,386)	1,807,977
Costs and Expenses:												
Cost of sales (exclusive of depreciation and amortization)	372,625	668,054	(317,969)	722,710	360,947	675,888	(315,827)	721,008	320,127	677,946	(253,133)	744,940
Selling, general and administrative expenses	142,130	138,918	—	281,048	146,163	130,453	—	276,616	143,987	120,623	—	264,610
Research and development expenses	—	31,170	—	31,170	—	26,377	—	26,377	878	19,314	—	20,192
Depreciation and amortization	132,122	290,279	(8,268)	414,133	139,443	296,138	(5,454)	430,127	134,952	318,538	(1,352)	452,138
Total costs and expenses	646,877	1,128,421	(326,237)	1,449,061	646,553	1,128,856	(321,281)	1,454,128	599,944	1,136,421	(254,485)	1,481,880
Operating income (loss)	(5,517)	356,699	(450)	350,732	(32,845)	423,005	(7,156)	383,004	(37,449)	374,447	(10,901)	326,097
Other Income (Expense):												
Interest income	—	12,636	(38)	12,598	—	4,569	(153)	4,416	1	3,279	(46)	3,234
Interest expense, net of amounts capitalized	(38)	(187,198)	38	(187,198)	(153)	(169,150)	153	(169,150)	(45)	(191,259)	46	(191,258)
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	—	6,995	—	6,995	—	(6,463)	—	(6,463)	—	(32)	—	(32)
Equity in earnings of unconsolidated affiliate	—	9,444	—	9,444	—	8,502	—	8,502	—	5,121	—	5,121
Economic interest in earnings (loss) of Hughes Retail Group	—	(2,413)	2,413	—	—	(14,330)	14,330	—	—	(15,943)	15,943	—
Other, net	—	2,909	—	2,909	—	2,222	—	2,222	—	(485)	—	(485)
Total other income (expense), net	(38)	(157,627)	2,413	(155,252)	(153)	(185,833)	14,330	(171,656)	(44)	(199,319)	15,943	(183,420)
Income (loss) before income taxes	(5,555)	199,072	1,963	195,480	(32,998)	237,172	7,174	211,348	(37,493)	175,128	5,042	142,677
Income tax benefit (provision), net	2,198	(75,957)	—	(73,759)	13,065	(85,429)	—	(72,364)	14,836	(54,931)	—	(40,095)
Net income (loss)	(3,357)	123,115	1,963	121,721	(19,933)	151,743	7,174	138,984	(22,657)	120,197	5,042	102,582
Less: Net income attributable to noncontrolling interests	—	1,706	—	1,706	—	1,617	—	1,617	—	1,389	—	1,389
Net income (loss) attributable to HSS	$ (3,357)	$ 121,409	$ 1,963	$ 120,015	$ (19,933)	$ 150,126	$ 7,174	$ 137,367	$ (22,657)	$ 118,808	$ 5,042	$ 101,193

Condensed Attributed Statements of Cash Flows

(In thousands)

(Unaudited)

	Attributed For the Year Ended December 31, 2016				Attributed For the Year Ended December 31, 2015				Attributed For the Year Ended December 31, 2014			
	Hughes Retail Group	**HSSC Group**	**Inter-Group Eliminations**	**HSS Consolidated**	**Hughes Retail Group**	**HSSC Group**	**Inter-Group Eliminations**	**HSS Consolidated**	**Hughes Retail Group**	**HSSC Group**	**Inter-Group Eliminations**	**HSS Consolidated**
Cash Flows from Operating Activities:												
Net income (loss)	$ (3,357)	$ 123,115	$ 1,963	$ 121,721	$ (19,933)	$ 151,743	$ 7,174	$ 138,984	$ (22,657)	$ 120,197	$ 5,042	$ 102,582
Adjustments to reconcile net income (loss) to net cash flows from operating activities:												
Depreciation and amortization	132,122	290,279	(8,268)	414,133	139,443	296,138	(5,454)	430,127	134,952	318,538	(1,352)	452,138
Equity in earnings of unconsolidated affiliate	—	(9,444)	—	(9,444)	—	(8,502)	—	(8,502)	—	(5,121)	—	(5,121)
Economic interest in loss (earnings) of Hughes Retail Group	—	2,413	(2,413)	—	—	14,330	(14,330)	—	—	15,943	(15,943)	—
Amortization of debt issuance costs	—	6,551	—	6,551	—	6,042	—	6,042	—	5,813	—	5,813
Loss from partial redemption of debt	—	—	—	—	—	5,044	—	5,044	—	—	—	—
Dividends received from unconsolidated entity	—	10,000	—	10,000		—		—		2,400		2,400
Proceeds from sale of trading securities	—	7,140	—	7,140	—	380	—	380	—	17,053	—	17,053
Losses (gains) and other-than-temporary impairments on marketable investment securities, net	—	(6,995)	—	(6,995)	—	12,602	—	12,602	—	32	—	32
Stock-based compensation	—	4,822	—	4,822	—	5,204	—	5,204	—	3,152	—	3,152
Deferred tax provision (benefit)	(19,722)	90,623	—	70,901	(24,162)	92,173	—	68,011	(31,607)	65,099	—	33,492
Changes in current assets and current liabilities, net	26,009	(103,100)	(536)	(77,627)	13,951	(102,616)	(331)	(88,996)	18,996	29,999	1,899	50,894
Changes in noncurrent assets and noncurrent liabilities, net	6,640	7,793	(200)	14,233	3,946	4,072	20	8,038	(687)	(8,503)	647	(8,543)
Other, net	—	10,436	—	10,436	—	(1,444)	—	(1,444)	—	(320)	—	(320)
Net cash flows from operating activities	141,692	433,633	(9,454)	565,871	113,245	475,166	(12,921)	575,490	98,997	564,282	(9,707)	653,572
Cash Flows from Investing Activities:												
Purchases of marketable investment securities	—	(396,730)	—	(396,730)	—	(208,821)	—	(208,821)	—	(509,814)	—	(509,814)
Sales and maturities of marketable investment securities	—	452,446	—	452,446	—	355,202	—	355,202	—	234,970	—	234,970
Expenditures for property and equipment	(97,035)	(293,706)	9,454	(381,287)	(116,194)	(283,441)	12,921	(386,714)	(125,882)	(131,166)	9,707	(247,341)
Change in restricted cash and cash equivalents	—	8,320	—	8,320	—	(2,488)	—	(2,488)	—	(2,538)	—	(2,538)
Inter-group advances	(14,259)	30,398	(16,139)	—	—	(2,949)	2,949	—	—	(27,449)	27,449	—
Payment for EchoStar XXI launch services	—	(23,750)	—	(23,750)	—	(11,875)	—	(11,875)	—	—	—	—
Expenditures for externally marketed software	—	(23,252)	—	(23,252)	—	(22,327)	—	(22,327)	—	(22,955)	—	(22,955)
Other, net	—	(1,636)	—	(1,636)	—	(10)	—	(10)	—	(35)	—	(35)
Net cash flows from investing activities	(111,294)	(247,910)	(6,685)	(365,889)	(116,194)	(176,709)	15,870	(277,033)	(125,882)	(458,987)	37,156	(547,713)
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)	—	—	—	—	—	—	—	—
Net Proceeds from issuance of Hughes Retail Preferred Tracking Stock	—	—	—	—	—	—	—	—	—	10,601	—	10,601
Repayment of 6 1/2% Senior Notes Due 2019 and related premium	—	—	—	—	—	(113,300)	—	(113,300)	—	—	—	—
Repayment of other long-term debt and capital lease obligations	—	(31,669)	—	(31,669)	—	(39,441)	—	(39,441)	—	(59,835)	—	(59,835)
Advances from affiliates	—	6,982	—	6,982		20,002	—	20,002	—	—	—	—
Inter-group advances	(30,398)	14,259	16,139	—	2,949	—	(2,949)	—	27,449	—	(27,449)	—
Capital contribution from EchoStar	—	23,750	—	23,750	—	—	—	—	—	—	—	—
Inter-group equity contributions (distributions), net	—	—	—	—	—	—	—	—	(564)	564	—	—
Other, net	—	(4,157)	—	(4,157)	—	(5,154)	—	(5,154)	—	107	—	107
Net cash flows from financing activities	(30,398)	1,502,068	16,139	1,487,809	2,949	(137,893)	(2,949)	(137,893)	26,885	(48,563)	(27,449)	(49,127)
Effect of exchange rates on cash and cash equivalents	—	183	—	183	—	(3,131)	—	(3,131)	—	5,116	—	5,116
Net increase (decrease) in cash and cash equivalents	—	1,687,974	—	1,687,974	—	157,433	—	157,433	—	61,848	—	61,848
Cash and cash equivalents, beginning of period	—	382,990	—	382,990	—	225,557	—	225,557	—	163,709	—	163,709
Cash and cash equivalents, end of period	$ —	$ 2,070,964	$ —	$ 2,070,964	$ —	$ 382,990	$ —	$ 382,990	$ —	$ 225,557	$ —	$ 225,557

NOTES TO CONDENSED ATTRIBUTED FINANCIAL INFORMATION
(Unaudited)

Note 1. Business Description

The Hughes Retail Group is generally comprised of our business of providing satellite broadband internet services to residential retail subscribers in the United States, including the assets and liabilities primarily associated with the operation of the business; and the business operations, revenue, billings, operating and other direct and indirect support activities to provide services to the business and Hughes retail subscribers. The Hughes Retail Group also includes any proceeds associated with a sale or transfer of the Hughes Retail Group or any assets of the Hughes Retail Group, and any other assets acquired by or for the account of the Hughes Retail Group or otherwise attributed, contributed, allocated or transferred to the Hughes Retail Group from time to time. The HSSC Group consists of all other operations of HSS, including all existing and future businesses other than the Hughes Retail Group. HSS has adopted a policy statement (the "Policy Statement") as described in Note 2 below, which sets 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 (each as fully defined in the Policy Statement and collectively, the "Groups").

Note 2. Basis of Presentation

The overall objective of the attributed financial information is to present HSS' attributed amounts reported in its consolidated financial statements to the Hughes Retail Group and the HSSC Group. The Policy Statement contains specific provisions that determine how certain assets, liabilities, revenue and expenses are attributed to the Groups. The Policy Statement does not explicitly address the attribution of all amounts reported in our consolidated financial statements; accordingly, management applies judgment in attributing certain amounts based on its assessment of the activities of the Groups and the guiding principles set forth in the Policy Statement.

Set forth below is an overview of the Policy Statement and additional discussion about how we have attributed amounts in our consolidated financial statements to the Groups.

Policy Statement

In accordance with the Policy Statement, all existing and future retail subscribers in the United States, including related customer contracts, are attributed to the Hughes Retail Group. Assets and liabilities that are directly related to the Hughes Retail Group are attributed to the Hughes Retail Group, including certain accounts receivable, inventory, property and equipment, deferred subscriber acquisition costs, intangible assets and tax related assets and liabilities. To the extent practicable, costs and expenses are attributed without markup to the Hughes Retail Group or the HSSC Group based on specific identification. Common or shared costs, including corporate overhead, are allocated between the Hughes Retail Group and the HSSC Group using objective methods and criteria that reflect the relative usage of the corresponding functions or services. Where resources are shared by the Groups and determinations based on use alone are not practicable, we use other methods and criteria that we believe are fair and result in a reasonable estimate of the costs associated with operation, utilization, and maintenance of such resources to each Group. Such methods and criteria may include allocations based on revenue, operating costs, square footage, headcount or management estimates. Under the documents governing the Tracking Stock, any change in our management's allocation methodologies requires the consent of the holders of a majority of the outstanding shares of the Tracking Stock, but does not require the consent of our common shareholders.

The Hughes Retail Group utilizes broadband satellite capacity that is operated and maintained by the HSSC Group. The Policy Statement provides for a monthly charge to the Hughes Retail Group for its utilization of such capacity based on the number of retail subscribers and revenue per month. In addition, the Policy Statement establishes pricing for the Hughes Retail Group purchases of customer rental equipment from the HSSC Group based on cost plus a fixed margin percentage. Income taxes incurred by HSS and its subsidiaries that include operations of the Hughes Retail Group are allocated between the HSSC Group and the Hughes Retail Group based primarily on the relative amounts of earnings or loss attributable to each Group.

The various attributions, allocations and inter-group charges provided for in the Policy Statement generally do not affect the amounts reported in HSS' consolidated financial statements, except for effects on the attribution of equity and net income or loss between the holders of Tracking Stock and HSS' common shareholders. The Policy Statement also does not significantly affect the way that the Hughes segment management assesses operating performance and allocates resources. In addition, our chief operating decision maker reviews the Hughes Retail Group financial information only to the extent such information is included in our periodic filings with the SEC. Therefore we do not consider the Hughes Retail Group to be a separate operating segment.

Balance Sheet Attributions

Assets attributed to the Hughes Retail Group based on specific identification consist primarily of trade accounts receivable from retail broadband subscribers, property and equipment (primarily customer rental equipment) used solely in the retail business, and deferred subscriber acquisition costs included in other noncurrent assets. Goodwill and other intangible assets (primarily customer relationships, developed technology and trademarks), which were recognized in connection with our acquisition of Hughes Communications, Inc. in June 2011, were attributed to the Hughes Retail Group based on an analysis of information for the retail business that was available at the acquisition date.

No attribution to the Hughes Retail Group has been made for certain significant assets that it shares with the HSSC Group, including regulatory authorizations and property and equipment (such as satellites and related terrestrial facilities), because those assets are operated and maintained by the HSSC Group and it is not practicable to allocate the asset carrying amounts between the Groups. However, the Hughes Retail Group has the right to use such assets and is charged for its use of such assets in accordance with the Policy Statement.

Liabilities attributed to the Hughes Retail Group based on specific identification consist primarily of customer prepayments and deferred revenue related to retail subscribers and deferred tax liabilities related to assets and liabilities that have been attributed to the Hughes Retail Group. Except to a limited extent, it is not practicable to attribute accounts payable and accrued liabilities to the Hughes Retail Group because those amounts arise from centralized processes managed by the HSSC Group. The Hughes Retail Group generally incurs inter-group payables to all other operations in connection with such centralized processes. As provided in the Policy Statement, none of our long-term debt is attributed to the Hughes Retail Group; however, interest is charged on all inter-group payables.

Revenue and Expense Attributions

The Hughes Retail Group revenue relates to services and equipment provided to retail broadband subscribers and is readily identifiable based on specific identification.

Expenses attributed to the Hughes Retail Group based on specific identification include depreciation of property and equipment and amortization of intangible assets that are attributed to the Hughes Retail Group. Certain other operating expenses, such as compensation of employees that work exclusively in the retail business, are also attributed to the Hughes Retail Group based on specific identification. A substantial portion of the Hughes Retail Group cost of sales is based on the specific inter-group pricing provisions of the Policy Statement, including a monthly charge per retail subscriber and charges for customer rental equipment at cost plus a fixed margin percentage. The Hughes Retail Group operating expenses also reflect allocations of corporate overhead and other expenses incurred by HSS.

Cash Flow Attributions

The Hughes Retail Group participates in HSS' centralized cash management system and does not maintain separate cash accounts. Under the centralized cash management system, net advances of cash to or from the Hughes Retail Group are reflected in an inter-group receivable or payable account, which bears interest at the same rate earned by HSS on its cash and marketable investment securities portfolio. There is no allocation of HSS' long-term debt or related interest costs to the Hughes Retail Group.

Cash receipts from retail broadband subscribers and payments of certain expenses attributed to the Hughes Retail Group on a specific identification basis generally are reflected in the attributed statements of cash flows in the period the cash is received or paid. It is not practicable to determine the timing of related cash disbursements under the centralized cash management system for other costs and expenses attributed to the Hughes Retail Group. The accompanying statements of cash flows generally presents cash flows related to such transactions when they are recognized on an accrual basis in an inter-group receivable or payable account. Periodic changes in inter-group receivables or payables generally are indicative of amounts received or paid by the HSSC Group on behalf of the Hughes Retail Group and are reported in the accompanying attributed statements of cash flows as investing activity for the Group with a net receivable balance or as financing activity for the Group with a net payable balance.

Attributions for Periods Prior to Adoption of the Policy Statement

Except as discussed below, attributions of assets, liabilities, revenue, expenses and cash flows to the Hughes Retail Group in periods prior to the adoption of the Policy Statement effective March 1, 2014 are substantially as described above. However, because the Policy Statement was not effective, the attributed financial information for periods prior to March 1, 2014 do not reflect retrospective application of specific pricing terms in the Policy Statement, such as the monthly charge per subscriber or the cost-plus-fixed-margin pricing for equipment transfers. In lieu of charges based on such specific terms, the attributed financial information for periods prior to March 1, 2014 reflect actual costs incurred for specifically identified items or are based on allocations of actual costs incurred for shared resources. In addition, because no arrangement for interest-bearing inter-group receivables or payables existed prior to March 1, 2014, no such accounts or related interest are reflected in the attributed financial information for periods prior to March 1, 2014. In such periods, HSS' equity in the net assets of the Hughes Retail Group is presented as "Equity/ Attributed net assets" and periodic changes in such equity are presented as "Inter-group equity contributions (distributions), net" within financing activities in the attributed statements of cash flows. As a result of our use of different attribution methods for certain items in periods prior to March 1, 2014, the attributed financial position, results of operations and cash flows of the Groups are not directly comparable to the corresponding attributed financial information for periods after March 1, 2014. Accordingly, the attributed financial information for periods prior to March 1, 2014 does not purport to present the attributed financial information that would have resulted if the Policy Statement had been adopted in such periods.

Note 3. Property and Equipment

Property and equipment for the Hughes Retail Group consisted of the following:

	Depreciable Life (In Years)	As of December 31, 2016	2015
		(In thousands)	
Customer rental equipment	2-4	$ 681,121	$ 584,086
Accumulated depreciation		(537,625)	(421,589)
Property and equipment, net		$ 143,496	$ 162,497

Depreciation expense associated with the Hughes Retail Group property and equipment, net of retirements, was $116.0 million, $119.8 million and $110.8 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Note 4. Goodwill and Other Intangible Assets

Goodwill

Goodwill is assigned to reporting units of our operating segments. A portion of the Hughes segment goodwill was attributed to the Hughes Retail Group as if the Hughes Retail Group had been a separate reporting unit at June 8, 2011, the date EchoStar completed the acquisition of Hughes Communications, Inc. Approximately $260.0 million of the $504.2 million Hughes segment goodwill was attributed to the Hughes Retail Group.

Other Intangible Assets

Other intangible assets for the Hughes Retail Group consisted of the following:

	As of December 31,					
	2016			2015		
	Cost	Accumulated Amortization	Carrying Amount	Cost	Accumulated Amortization	Carrying Amount
	(In thousands)					
Customer relationships	$ 145,100	$ (141,148)	$ 3,952	$ 145,100	$ (129,660)	$ 15,440
Technology-based	23,500	(21,868)	1,632	23,500	(17,951)	5,549
Trademark portfolio	13,620	(3,802)	9,818	13,620	(3,121)	10,499
Total other intangible assets	$ 182,220	$ (166,818)	$ 15,402	$ 182,220	$ (150,732)	$ 31,488

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. Amortization expense was $16.1 million, $19.6 million and $24.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Note 5. Income Taxes

We establish a provision 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 the Hughes Retail Group was 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 bases 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.

In accordance with the Policy Statement, all income tax obligations and benefits that arose prior to March 1, 2014, except for deferred income taxes related to differences between the financial reporting carrying amounts and tax bases of the Hughes Retail Group assets and liabilities, are attributable to the HSSC Group. Because no arrangements for inter-group settlement of income taxes existed prior to March 1, 2014, no inter-group receivables or payables were recognized for attributed income tax expenses or benefits related to operations for periods prior to March 1, 2014.

We have accounted for income taxes for the Hughes Retail Group in the accompanying attributed financial information in a manner similar to a stand-alone company. To the extent this methodology differs from our tax sharing policy, differences have been reflected in the attributed net assets of the groups.

The components of the benefit (provision) for income taxes for the Hughes Retail Group are as follows:

	For the Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Current:			
Federal	$ (14,411)	$ (9,125)	$ (13,788)
State and local	(3,114)	(1,972)	(2,982)
Total current benefit (provision)	(17,525)	(11,097)	(16,770)
Deferred:			
Federal	17,445	21,372	27,954
State and local	2,278	2,790	3,652
Income tax benefit (provision)	19,723	24,162	31,606
Total income tax benefit (provision) , net	$ 2,198	$ 13,065	$ 14,836

The actual tax provisions for the Hughes Retail Group for the years ended December 31, 2016, 2015 and 2014 reconcile to the amounts computed by applying the statutory federal tax rate to income (loss) 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	4.6%	4.6%	4.6%
Total effective tax rate	39.6%	39.6%	39.6%

The tax effects of temporary differences that give rise to significant portions of the deferred income tax assets and deferred income tax liabilities for the Hughes Retail Group are presented below:

	As of December 31,	
	2016	2015
	(In thousands)	
Deferred tax assets		
Accrued expense	$ 4,346	$ 5,875
Deferred revenue	2,143	1,019
Depreciation and amortization	32,918	12,791
Total deferred tax assets	$ 39,407	$ 19,685

Note 6. Equity/Attributed Net Assets

The reported amounts of equity/attributed net assets for the Hughes Retail Group and the HSSC Group represent the excess of attributed assets over attributed liabilities for the respective groups. The HSSC Group equity reflects EchoStar's aggregate 71.89% economic interest in the net assets of the Hughes Retail Group, which comprises DISH Network's 51.89% economic interest in the Hughes Retail Group represented by EchoStar Tracking Stock and EchoStar's 20.0% retained interest in the Hughes Retail Group.

The Hughes Retail Group equity/attributed net assets consisted of attributed paid-in capital and accumulated earnings as follows:

	As of December 31,	
	2016	2015
	(In thousands)	
Attributed paid-in-capital	$ 456,122	$ 456,122
Attributed accumulated earnings (deficit):		
Periods prior to March 1, 2014	33,395	33,395
Periods beginning March 1, 2014	(47,176)	(43,819)
Total	(13,781)	(10,424)
Total equity/ attributed net assets	$ 442,341	$ 445,698