

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

**FORM 10-K/A**

(Amendment No. 1)

(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, 2018

OR

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**

(State or Other Jurisdiction of Incorporation or Organization)

**45-0897865**

(I.R.S. Employer Identification No.)

**100 Inverness Terrace East, Englewood, Colorado**

(Address of Principal Executive Offices)

**80112-5308**

(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  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

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  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes  No

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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

The aggregate market value of the registrant's voting interests held by non-affiliates on June 30, 2018 was \$0.

As of February 11, 2019, the registrant's outstanding common stock consisted of 1,078 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 Amendment No. 1 to the Annual Report on Form 10-K/A 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 Amendment No. 1 to the Annual Report on Form 10-K/A 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

**Explanatory Note**

This Amendment No. 1 to Form 10-K on Form 10-K/A (this "Amended 10-K") is being filed with respect to the Annual Report of Hughes Satellite Systems Corporation ("HSS" or the "Company") on Form 10-K for the fiscal year ended December 31, 2018 filed with the Securities and Exchange Commission ("SEC") on February 21, 2019 (the "10-K"). HSS is filing this Amended 10-K to correct various formatting errors in the 10-K that occurred due to a file corruption discovered after filing the 10-K. Other than such corrections, there are no other changes, amendments or updates to any other information in the 10-K, but this Amended 10-K is being filed in its entirety for ease of review.

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\* 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:

- significant risks related to the construction and operation of our satellites, such as the risk of not being able to timely complete the construction of or material malfunction on one or more of our satellites, risks resulting from potentially missing our regulatory milestones, 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 reliance on DISH Network Corporation and its subsidiaries for a significant portion of our revenue;
- our ability to realize the anticipated benefits of our current satellites and any future satellite we may construct or acquire;
- our ability to implement and/or realize benefits of our domestic and/or international investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions;
- 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 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, except as required by law.

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

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

We are a global provider of broadband satellite technologies, broadband internet services for home and small office customers, satellite operations and satellite services. We also deliver innovative network technologies, managed services and various communications solutions for aeronautical, enterprise and government customers.

Our industry continues to evolve with the increasing 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, medium-earth orbit (“MEO”) systems, balloons and High Altitude Platform Systems are playing 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, the internet-of-things, entertainment and commerce in North America and internationally for consumers as well as aeronautical, enterprise and government customers. We are closely tracking 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.

We currently operate in two business segments: Hughes and EchoStar Satellite Services (“ESS”), as discussed below. Our corporate department operations as well as activities that have not been assigned to our operating segments and eliminations of intersegment transactions are all accounted for in Corporate and Other in our segment reporting.

During 2017, EchoStar and certain of its and our subsidiaries entered into a share exchange agreement with DISH and certain of its subsidiaries. EchoStar and certain of its and our subsidiaries received all of the shares of the Hughes Retail Preferred Tracking Stock previously issued by EchoStar and us (together, the “Tracking Stock”) in exchange for 100% of the equity interests of certain EchoStar subsidiaries that held substantially all of EchoStar’s former EchoStar Technologies businesses and certain other assets (collectively, the “Share Exchange”). Following the consummation of the Share Exchange, EchoStar no longer operates its former EchoStar Technologies businesses, the Tracking Stock was retired and is no longer outstanding, and all agreements, arrangements and policy statements with respect to the Tracking Stock terminated.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, with respect to the annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and other information that we file with the SEC. Our public filings are 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 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>.

EchoStar has adopted a written code of ethics that applies to all of our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer and controller, in accordance with the Sarbanes-Oxley Act of 2002 and the rules of the SEC promulgated thereunder. This code of ethics is available on EchoStar's corporate website at <http://www.echostar.com>. In the event that EchoStar makes changes in, or provides waivers of, the provisions of this code of ethics that the SEC requires EchoStar to disclose, it intends to disclose these events on its 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 fund a debt repurchase program, invest capital in or otherwise run our business or execute on our strategic plans could be materially and adversely affected.

### GENERAL RISKS AFFECTING OUR BUSINESS

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

DISH Network Corporation and its subsidiaries ("DISH Network") accounted for 17.5%, 23.1% and 25.5% of our total revenue for the years ended December 31, 2018, 2017 and 2016, respectively.

DISH Network is the primary customer of the satellite services provided by our ESS segment. For the years ended December 31, 2018, 2017 and 2016 DISH Network accounted for 86.5%, 87.9% and 85.7% of our total ESS segment revenue, and we expect that DISH Network will continue to be the primary source of revenue for our ESS segment as we have entered into certain commercial agreements with DISH Network pursuant to which we provide DISH Network with satellite services at fixed prices for varying lengths of time depending on the satellite. See Note 16 in the notes to consolidated financial statements in Item 15 of this report for further discussion of our related party transactions with DISH Network. The results of operations of our ESS segment are linked to changes in DISH Network's satellite capacity requirements, which historically have been driven by the addition of new channels and migration of programming to high-definition TV and video on demand services. DISH Network's future satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch or acquire its own satellites, to continue to add new channels and/or to migrate to the provision of such channels and other video on demand services through streaming and other alternative technologies. There is no assurance that we will continue to provide satellite services to DISH Network beyond the terms of our agreements. Any termination or reduction in the satellite services we provide to DISH Network or the prices that DISH Network pays us for such services would cause us to have unused capacity on our satellites, require us to aggressively pursue alternative sources of revenue for this business and have a material adverse effect on our business, results of operation and financial position.

If we lose DISH Network as a customer of the satellite services provided by our ESS segment, 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 specialized 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.

Furthermore, DISH Network has transitioned from being a wholesale distributor of the satellite internet service of our Hughes segment to being a sales agent for such services. DISH Network (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for our HughesNet service and related equipment and other telecommunications services and (ii) installs HughesNet service equipment with respect to activations generated by DISH Network. For the years ended December 31, 2018, 2017 and 2016, DISH Network accounted for 2.9%, 5.6% and 7.7% of our total Hughes segment revenue. Any material reduction in or termination of sales generated by DISH Network in its capacity as our sale agent could have a material adverse effect on our business, results of operations, and financial position.

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

We intend to continue to selectively explore opportunities to pursue investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, domestically and internationally, that we believe may allow us to increase our existing market share, increase our satellite capacity, expand into new markets, obtain new customers, broaden our portfolio of services, products and intellectual property, make our business more valuable, align us for future growth and expansion, maximize the return on our investments and strengthen our business and 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.

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 new and existing markets, the response of existing and potential new customers, and the actions or reactions of competitors. 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 new or existing markets with established or new 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. There can be no assurance that we will be able to effectively compete against our competitors due to their significant resources and operating history. Risks to our business from competition include, but are not limited to, the following:

- Our ESS segment competes against larger, well-established satellite service companies. Because the satellite services industry is relatively mature, our 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, our Hughes segment faces 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, Central and South America. 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, our Hughes segment faces 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 continues to increase and the cost of their network and hardware services continues to decline. Terrestrial networks also have a competitive edge because of lower latency for data transmission.

**To the extent we have available satellite capacity in our ESS segment, 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.**

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 domestic and 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 available from our satellites or purchased from third parties to meet demand and we may not be able to quickly or easily adjust our capacity to changes in demand. As capacity becomes full on our existing satellites, significant delays in the construction or launch of new satellites and/or satellite anomalies or failures could materially and adversely affect our ability to provide services to customers. 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. 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 the satellite capacity available to us. Our business and results of operations could be adversely affected 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 provider. Our ability to provide additional capacity for subscriber growth in our North American consumer market could also be adversely affected by regulations and/or legislation in the U.S. that enable or propose to enable the use of a portion of the frequency bands, we currently use or in the future intend to use for satellite services, 5G mobile terrestrial services or other uses. These bands include the Ka-band, where we operate our broadband gateway earth stations, and other bands in which we

may operate in the future. Such regulation or legislation could limit our ability to use the Ka-band and/or other bands, limit our flexibility to change the way in which we use the Ka-band and/or adversely impact our ability to use additional bands in the future. Other countries in which we currently, or may in the future, operate are also considering regulations that could similarly limit access to the Ka-band or other frequency bands

**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 third-party 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.
- **Other services.** Some of our products rely on third parties to provide services necessary for the operation of functionalities of the products, such as third-party cloud computing services and satellite uplink hosting services. The failure of these services could disrupt the operation of certain functionalities of our products, which could harm our customer relationship and result in a loss of sales. In addition, if the agreements for the provision of these services are terminated or not renewed, we could face difficulties replacing these service providers, which would adversely affect our ability to obtain and retain customers and result in reduced revenue and income.

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

Our sales outside the U.S. accounted for approximately 13.9%, 19.5% and 18.3% of our revenue for the years ended December 31, 2018, 2017 and 2016, respectively. We expect our foreign operations to continue to represent a significant and growing portion of our business. Over the last 10 years, we sold products in over 100 countries and began offering broadband internet services to consumers in several Central and South American 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 or offer our products and services 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 privacy or intellectual property laws 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, penalties 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, the International Traffic in Arms Regulations (“ITAR”), the Export Administration Regulations (“EAR”), and trade sanctions laws and regulations administered by the U.S. Department of the Treasury’s Office of Foreign Assets Control (“OFAC”). The export of certain hardware, technical data and services relating to satellites is regulated by the U.S. Department of Commerce’s Bureau of Industry and Security (“BIS”) under the EAR. Other items are controlled for export by the U.S. Department of State’s Directorate of Defense Trade Controls 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, instability 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, including in Asia, Latin America, Middle East, Africa and Eastern Europe, has adversely affected, and is likely to continue to adversely affect, the development and 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, 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 fund a debt repurchase program, 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, dispositions, capital expenditures, the development, acquisition and launch of new satellites 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 investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions or other strategic initiatives and

transactions or development activities, including, without limitation, the design, development, construction, acquisition and launch of new satellites, to complement or expand our business and satellite fleet. Any such acquisitions, dispositions, activities, 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 or divide the operations and personnel of the acquired, disposed or combined business, technology or joint venture and/or to engage in such investments, dispositions and/or other activities;
- 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, activities, investments, dispositions and/or the underlying ventures are not successful and/or we are unable to achieve the intended objectives of the transaction, disposition or investment;
- the inability to obtain in the anticipated time frame, or at all, any regulatory approvals required to complete proposed acquisitions, dispositions, activities, 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 acquisitions, dispositions, investments, alliances and/or the development and launch of new satellites;
- the disruption of relationships with employees, vendors or customers;
- the risks associated with foreign and international operations and/or investments or dispositions; and
- the risks associated with developing and constructing new satellites.

New investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions, development activities, including, without limitation, the design, development, construction and launch of new satellites, and other strategic initiatives 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 debt repurchase 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, 2018, our total indebtedness was approximately \$3.5 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 capital 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 or equity 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 and/or the development, design, acquisition and construction of new satellites, 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. The Tax Cuts and Jobs Act of 2017 enacted in December 2017 (the "2017 Tax Act") limits the deductibility of interest expense for U.S. federal income tax purposes. While the 2017 Tax Act generally is likely to reduce our federal income tax obligations, if these limitations or other newly enacted provisions become applicable to us, they could minimize such reductions or otherwise require us to pay additional federal income taxes, which in turn could result in additional liquidity needs.

In addition, conditions in the financial markets could make it difficult for us to access equity or debt 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 and/or the development, design, acquisition and construction of new satellites. 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, 7 5/8% Senior Notes due 2021, 5.250% Senior Secured Notes due August 1, 2026 and 6.625% Senior Unsecured Notes due August 1, 2026 contain various covenants, subject to certain exceptions, that limit our ability and/or certain of our 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 our or their ability to pay dividends, make distributions, make other payments, or transfer assets.

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 6 1/2% Senior Secured Notes due 2019 and the 5.250% Senior Secured Notes due August 1, 2026. 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 depends 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 some of our key executives may have agreements relating to their equity compensation that limit 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 for both DISH Network and us, their attention may be diverted away from our business and therefore adversely affect our business.

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

The formal two-year process governing the United Kingdom's (the "U.K.") departure from the EU, commonly referred to as the "Brexit," began on March 29, 2017. Discussions between the U.K. and the EU focused on finalizing withdrawal issues and transition agreements are ongoing. However, given the limited progress to date in these negotiations and ongoing uncertainty within the U.K. Government and Parliament, it is possible that the U.K. will leave the EU on March 29, 2019 without a withdrawal agreement and associated transition period in place, which is likely to cause significant market and economic disruption. Further, it is possible that there will be greater restrictions on imports and exports between the U.K. and EU countries. Brexit may also cause our customers to closely monitor their costs and reduce

their spending budgets. The effects of Brexit, the uncertainty regarding the ultimate terms of Brexit and the perceptions as to the impact of the withdrawal of the U.K. from the EU have affected, and may continue to affect, business activity, political stability and economic and market conditions in the U.K., the Eurozone, the EU and elsewhere and could contribute to instability in global financial and foreign exchange markets, including volatility in the value of the Euro and the British Pound. Additionally, with the U.K. no longer being a part of the EU, there may be certain regulatory changes that may impact the regulatory regime under which we operate in both the U.K. and the EU. Given that a portion of our business is conducted in the EU, including the U.K., any of these and other changes, implications and consequences 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 and/or other infrastructure, equipment and facilities, 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 and/or other infrastructure, equipment and facilities could be impacted during a major natural disaster. If a future natural disaster impairs or destroys any of our ground facilities and/or other infrastructure, equipment and 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 and changes in tax laws or regulations may have a material adverse effect on our business, cash flow, financial condition or results of operations.**

We are subject to income taxes in the U.S. 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.

Additionally, new or modified income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which, like the 2017 Tax Act, could affect the tax treatment of our domestic and foreign earnings. Any new taxes could adversely affect our domestic and international business operations and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. The 2017 Tax Act contains many significant changes to U.S. tax laws, including changes in corporate tax rates, the availability of net deferred tax assets relating to our U.S. operations, the taxation and repatriation of foreign earnings, and the deductibility of expenses. The 2017 Tax Act or other tax reform legislation has had and could have a material impact on the value of our deferred tax assets, has and could result in significant charges, and could increase our future U.S. tax expense. Furthermore, changes to the taxation of undistributed foreign earnings could change our future intentions regarding reinvestment of such earnings. The foregoing items could have a material adverse effect on our business, cash flow, financial condition or results of operations.

We earn a portion of our operating income from outside the U.S., and any repatriation of funds currently held in foreign jurisdictions may result in higher effective tax rates for us. In addition, recent changes to U.S. tax laws significantly impacts how U.S. multinational corporations are taxed on foreign earnings. Numerous countries are evaluating their existing tax laws due in part, to recommendations made by the Organization for Economic Co-operation and Development's Base Erosion and Profit Shifting project. Although we cannot predict whether or in what form any legislation based on such proposals may be adopted by the countries in which we do business, future tax reform based on such proposals or otherwise may increase the amount of taxes we pay and adversely affect our operating results and cash flows.

**Recent developments with respect to trade policies, trade agreements, tariffs and related government regulations could increase our costs, limit the amount of components we can import, decrease demand for certain of our products and have a material adverse impact on our business, financial condition and results of operations.**

We source certain parts, components and items used in our products from manufacturers located outside of the U.S. and we sell certain of our products to customers located outside of the U.S. Concerns have been raised about certain countries potentially engaging in unfair trade practices and, as a result, tariffs have been increased on certain goods imported into the U.S. from those countries, including China and other countries from which we import

components or raw materials, and there is the possibility of additional tariff increases. The announcement of tariffs on imported products by the U.S. has triggered actions from certain foreign governments, including China, and may trigger additional actions by those and other foreign governments, potentially resulting in a “trade war”. A trade war of this nature or other governmental action related to tariffs, government regulations, or international trade agreements or policies could materially increase the cost of certain products we import, impact or limit the availability of such products, require us to change our manufacturers, and/or decrease demand for certain of our products, any or all of which could have a material adverse impact on our business, financial condition and results of operations.

## **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, general failures resulting from operating satellites in the harsh environment of space and cyber-attacks on our satellites.

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 or outages from occurring and may experience anomalies and outages in the future, whether of the types described above or arising from the failure of other systems or components. The failure to perform of any of our manufacturers which provide in-orbit anomaly support for our satellites could result in our inability to determine, eliminate or manage anomalies for our satellites. Even if alternate in-orbit anomaly support services are available, we may have difficulty identifying them in a timely manner or we may incur significant additional expense in changing suppliers. Maxar, through its subsidiary SSL, provides in-orbit anomaly support for several of our satellites. In the second half of 2018, Maxar announced that it is reviewing strategic alternatives for its geostationary communications satellite business to improve its financial performance and that it is in active discussions with potential buyers of the business. A decision by Maxar to discontinue, wind down or otherwise significantly modify its geostationary communications satellite business could have a material adverse impact on the operation of several of our satellites, including our ability to remedy any anomalies or outages.

Any single anomaly or outage or series of anomalies or outages could materially and adversely affect our ability to utilize the satellite, our operations, services and revenue as well as our relationships with current customers and our ability to attract new customers. In particular, future anomalies or outages may result in, among other things, the loss of individual transponders/beams and/or functional solar array circuits on a satellite, a group of transponders/beams on that satellite or the entire satellite, depending on the nature of the anomaly or outage. Anomalies or outages may also reduce the expected capacity, commercial operation and/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 and could have a material adverse effect on our business, financial condition and results of operations.

The loss of a satellite or other satellite malfunctions or anomalies or outages 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 or outages 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 or outages 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 satellites are in uncontrolled orbits, which pass through the geostationary belt at various points and present hazards to operational satellites, 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 have assessed that the cost of such insurance is 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 of 15 years, but could fail or suffer reduced capacity before then.**

Generally, the minimum design life of each of our satellites is 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. Several 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, technology, regulations and launch that could limit our ability to utilize these satellites and adversely affect our business and financial condition.**

Satellite construction and launch are subject to significant risks, including delays, anomalies, launch failure and incorrect orbital placement. The technologies in our satellite designs are very complex and difficulties in constructing our designs could result in delays in the deployment of our satellites or increased or unanticipated costs. There also can be no assurance that the technologies in our existing satellites or in new satellites that we design, acquire and build will work as we expect and/or will not become obsolete, that we will realize any or all of the anticipated benefits of our satellite designs or our new satellites, or that we will obtain all regulatory approvals required to operate our new or acquired satellites. In addition, 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. Certain 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. 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. Historically, we have not always carried launch insurance for the launch of our satellites and 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.

In the event the international coordination process that is triggered by ITU filings under applicable rules is not successfully completed, or that the requests for modification of the broadcast satellite services plan regarding the allocation of orbital locations and frequencies are not granted by the ITU, we will have to operate the applicable satellite(s) on a non-interference basis, which could have an adverse impact on our business operations. If we cannot do so, we may have to cease operating such satellite(s) at the affected orbital locations, which could have a material adverse effect on our business, results of operations and financial position.

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 in the DBS band. Several multichannel video and data distribution service 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, SSL 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 failure to perform 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. For example, in the second half of 2018, Maxar announced that it is reviewing strategic alternatives for its geostationary communications satellite business to improve its financial performance and that it is in active discussions with potential buyers of the business. SSL has indicated to us that it intends to meet its contractual obligations regarding the timely manufacture and delivery of the EchoStar XXIV satellite. However, if SSL or any potential successor fails to meet or is delayed in meeting these obligations for any reason, including if Maxar decides to discontinue, wind down or otherwise significantly modify its geostationary communications satellite business, such failure could have a material adverse effect on completing the manufacture of the EchoStar XXIV satellite and, like any other delays in the design, construction or launch of our other satellites, could have a material adverse impact on our business operations, future revenues, financial position and prospects.

## **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 could 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 has become more intense as demand for these types of employees grows. We compete with other companies for these employees and although we strive to attract and retain these employees, we may not succeed in these respects. Additionally, if we were to lose certain key technically skilled employees, the loss of knowledge and intellectual capital might have an adverse impact on business, financial condition and results of operations.

We have made and will continue to make significant investments in research, development, and marketing for new products, services, satellites and related technologies, as well as entry into new business areas. Investments in new technologies, satellites 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, satellites, technologies and business areas become profitable, their operating margins may be minimal.

### **Our future growth depends on growing demand for advanced technologies.**

Future demand and effective delivery for our products will depend significantly on the growing demand for advanced technologies, such as broadband internet connectivity. If the deployment of, or demand for, advanced technologies is not as widespread or as rapid as we or our customers expect, our revenue growth will be negatively impacted.

### **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 or as we plan to conduct it, 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 any such challenges or claims prove to be 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 or developed by us 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 both in and out of 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, to pay damages 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 from time to time may defend patent infringement actions and may from time to time 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, audits, consumer claims and governmental and other legal proceedings arising from 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, audits, and governmental and other legal proceedings is typically uncertain. Additionally, the possible outcomes of, or resolutions to, these proceedings could include adverse judgments, settlements, injunctions or liabilities, any of which could require substantial payments or have other adverse impacts on our revenue, results of operations or cash flow.

**If the encryption and related security technology used in our products is compromised, sales of our products may decline.**

Our customers use encryption and related security technology obtained from us or our suppliers in the products that they purchase from us to protect their data and products from unauthorized access to the features or functionalities of such products. Such encryption and related security technology has been compromised in the past and may be compromised in the future even though we continue to respond with significant investment in security measures, such as updates in security software, that are intended to make data theft more difficult. It has been our prior experience that security measures may only be effective for short periods of time or not at all. We cannot ensure that we will be successful in reducing or controlling theft of our customers' data. As a result, sales of our products may decline, our reputation and customer relationship could be damaged and we may incur additional costs or financial liability in the future if security of our customers' system is compromised.

**We may be exposed to financial and reputational damage to our business by cybersecurity incidents.**

We and third parties with whom we work face a constantly developing landscape of cybersecurity threats in which hackers and other parties use a complex assortment of techniques and methods to execute cyber-attacks, including but not limited to the use of stolen access credentials, social engineering, malware, ransomware, phishing, insider threats (which may be malicious or erroneous), structured query language injection attacks and distributed denial-of-service attacks. Cybersecurity incidents such as these have increased significantly in quantity and severity and are expected to continue to increase. Additionally, the risk of cyber-attacks and compromises will likely increase as we expand our business into other areas of the world outside of North America, some of which are still developing their cybersecurity infrastructure maturity. Should we be affected by such an incident, we may incur substantial costs and suffer other negative consequences, which may include:

- remediation costs, such as liability for stolen assets or information, repairs of system damage and/or incentives to customers or business partners in an effort to maintain relationships after an attack;
- increased cybersecurity protection costs, which may include the costs of making organizational changes, deploying additional personnel and protection technologies, training employees and engaging third party experts and consultants;
- increased liability due to financial or other harm inflicted on our partners;
- lost revenues resulting from attacks on our satellites or technology, the unauthorized use of proprietary information or the failure to retain or attract customers following an attack;
- litigation and legal risks, including regulatory actions by state, federal and international regulators; and
- loss of or damage to reputation.

Our business is subject to varying degrees of regulation that include programs designed to review our protections against cybersecurity threats and risks. If it is determined that our systems do not reasonably protect our partners' assets and data and/or that we have violated these regulations, we could be subject to enforcement activity and sanctions.

We regularly review and revise our internal cybersecurity policies and procedures, invest in and maintain internal and external cybersecurity teams and systems and software to detect, deter, prevent and/or mitigate cyber-attacks and review, modify and supplement our defenses through the use of various services, programs and outside vendors. It is impossible, however, for us to know when or if any particular cyber-attack may arise or the impact on our business and operations of any such incident. We expect to continue to incur increasing costs in preparing our infrastructure and maintaining it to resist any such attacks. There can be no assurance that we can successfully detect, deter, prevent or mitigate the effects of cyber-attacks, any of which could have a material adverse effect on our business, costs, operations, prospects, results of operation or financial position. 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.

**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 and may limit or constrain and/or have other adverse effects on and implications for our business and operations. The U.S. and foreign countries in which we currently, or may in the future, operate may not authorize us access to all of the spectrum that we need to provide service in a particular country. Moreover, the U.S. and 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. In addition, we must obtain new licenses from the FCC and other countries' regulators for the operation of new satellites that we may build and/or acquire. 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, fail to grant or impose conditions on 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 or limitations on our ability to use the frequencies we currently use and/or intend to use in the future 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 USF.**

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.

**Restrictions on immigration or increased enforcement of immigration laws could limit our access to qualified and skilled professionals, increase our cost of doing business or otherwise disrupt our operations.**

The success of our business is dependent on our ability to recruit engineers and other professionals. Immigration laws in the U.S. and other countries in which we operate are subject to legislative changes, as well as variations in the standards of application and enforcement due to political forces and economic conditions. It is difficult to predict the political and economic events that could affect immigration laws, or the restrictive impact they could have on obtaining or renewing work visas for our professionals. If immigration laws are changed or if new more restrictive government regulations are enacted or increased, our access to qualified and skilled professionals may be limited, the costs of doing business may increase and our operations may be disrupted.

**RISKS RELATED TO THE SHARE EXCHANGE**

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

To preserve the intended tax-free treatment of the Share Exchange, EchoStar must 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 50.9% of EchoStar's total equity securities (assuming conversion of only the Class B common stock beneficially owned 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 as of, or may become exercisable within 60 days after, February 11, 2019) and beneficially owns approximately 88.3% of the total voting power of all classes of shares of EchoStar (assuming no conversion of any Class B common stock and giving effect to the exercise of options held by Mr. Ergen that are either currently exercisable as of, or may become exercisable within 60 days after, February 11, 2019). Through his beneficial ownership of EchoStar's equity securities, 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; (iv) a compensation committee charter which provides the compensation committee with the authority and funding to retain compensation consultants and other advisors and/or (v) 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 directorships and stock ownership.** We have overlap in our Chairman position with DISH, which may lead to conflicting interests. EchoStar's board of directors includes persons who are members of the board of directors of DISH, including Charles W. Ergen, who serves as the Chairman of these companies and of us and is employed by both EchoStar and DISH. Our Chairman and the other members of EchoStar's board of directors who overlap with DISH also have fiduciary duties to DISH'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, our Chairman and certain other EchoStar directors and certain of our officers own DISH stock and options to purchase DISH stock, certain of which they acquired or were granted prior to our spin-off from DISH in 2008 (the "Spin-off"), including Mr. Ergen. These ownership interests could create actual, apparent or potential conflicts of interest when these individuals are faced with decisions that could have different implications for our company and DISH Network.
- **Intercompany agreements with DISH Network.** We and EchoStar have entered into various agreements with DISH Network. Pursuant to certain agreements, 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 EchoStar and DISH Network, respectively, indemnify each other against certain liabilities arising from our respective businesses. Generally, the amounts paid for products and services provided under the agreements are based on cost plus a fixed margin, which varies depending on the nature of the products and services provided. 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 entered into with DISH Network in connection with the Spin-Off and the Share Exchange 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 us or EchoStar. In addition, DISH Network or its affiliates will likely continue to enter into transactions, including joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, with EchoStar or its subsidiaries, us or our subsidiaries, or other affiliates. Although the terms of any such transactions will be established based upon negotiations between DISH Network and us and, when appropriate, subject to approval by a committee of EchoStar's non-interlocking directors or in certain instances non-interlocking management, there can be no assurance that the terms of any such transactions will be as favorable to us or our subsidiaries or affiliates as may otherwise be obtained in negotiations between unaffiliated third parties.
- **Competition for business opportunities.** DISH Network may have 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. 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 and EchoStar 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 arrangements 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. If our intercompany arrangements 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 EchoStar and our respective articles of incorporation and bylaws, such as a provision that authorizes the issuance of "blank check" preferred stock, which could be issued by our or EchoStar's boards of directors to increase the number of outstanding shares and thwart a takeover attempt and EchoStar's capital structure with multiple classes of common stock some of which entitle the holders to multiple votes per share, may discourage delay or prevent a change in control of our company that a shareholder may consider favorable. Both we and EchoStar also have a significant amount of authorized and unissued stock under our respective articles of incorporation that would allow our respective boards of directors to issue shares to persons friendly to current management, thereby protecting the continuity of management, or which could be used to dilute the stock ownership of persons seeking to obtain control of us. In addition, Charles W. Ergen, our Chairman, has the power to elect all of EchoStar's directors and control shareholder decisions of EchoStar on matters on which all classes of EchoStar's common stock vote together, and as our parent, EchoStar in turn holds all of our issued and outstanding equity and has the power to elect all of our directors and control shareholder decision on all matters.

**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”) and EchoStar Satellite Services segment (“ESS”) and to our other operations and administrative functions (“Other”) as of December 31, 2018. We operate various facilities in the United States and abroad. We believe that our facilities are well maintained and are sufficient to meet our current and projected needs.

<b>Location (4)</b>	<b>Segment(s)</b>	<b>Leased/ Owned</b>	<b>Function</b>
San Diego, California	Hughes	Leased	Engineering and sales offices
Englewood, Colorado (1)(4)	Hughes	Leased	Gateways
Gaithersburg, Maryland	Hughes	Leased	Manufacturing and testing facilities, engineering and logistics and administrative offices
Southfield, Michigan (1)	Hughes	Leased	Shared hub and regional network management center
Las Vegas, Nevada (1)	Hughes	Leased	Shared hub, antennae yards, gateway, backup network operation and control center for Hughes corporate headquarters
American Fork, Utah	Hughes	Leased	Office space, engineering offices
Sao Paulo, Brazil	Hughes	Leased	Hughes Brazil corporate headquarters, sales offices, and warehouse
Bangalore, India (2)	Hughes	Leased	Engineering office and 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
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
Cheyenne, Wyoming (1)	Hughes/ESS	Leased	Spacecraft operations center, satellite access center and gateway
Gilbert, Arizona (1)	Hughes/ESS	Leased	Spacecraft operations center, satellite access center and gateway
Barueri, Brazil (1)	Hughes/Other	Leased	Shared hub, warehouse, operations center and spacecraft operations center
Black Hawk, South Dakota (1)(3)	ESS	Owned	Spacecraft auto-track operations center
Englewood, Colorado (3)	ESS/Other	Owned	Corporate headquarters, engineering offices
Campinas, Brazil	Other	Leased	Uplink facility
Cheyenne, Wyoming	Other	Owned	Data Center

(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) We also 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.

**ITEM 3. LEGAL PROCEEDINGS**

For a discussion of legal proceedings, see Note 13 in the notes to our accompanying Consolidated Financial Statements in Item 15 of this Annual Report on Form 10-K.

**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 11, 2019, all of our 1,078 issued and outstanding shares of common stock were held by EchoStar. There is currently no established trading market for our common stock. Our Articles of Incorporation authorize the issuance of 1,000,000 shares of preferred stock and as of February 11, 2019, no 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 operations, 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 ("U.S.") dollars. The following management's narrative analysis of results of operations should be read in conjunction with our accompanying Consolidated Financial Statements and notes thereto included elsewhere in this Annual Report on Form 10-K ("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 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 Form 10-K. Further, such forward-looking statements speak only as of the date of this 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 broadband satellite technologies, broadband internet services for home and small office customers, satellite operations and satellite services. We also deliver innovative network technologies, managed services and various communications solutions for aeronautical, enterprise and government customers. We currently operate in two business segments: Hughes and EchoStar Satellite Services ("ESS"). These segments are consistent with the way we make decisions regarding the allocation of resources, as well as how operating results are reviewed by our chief operating decision maker, who is the Company's Chief Executive Officer.

During 2017, EchoStar and certain of its and our subsidiaries entered into a share exchange agreement with DISH and certain of its subsidiaries. EchoStar and certain of its and our subsidiaries received all of the shares of the Hughes Retail Preferred Tracking Stock previously issued by EchoStar and us (together, the "Tracking Stock") in exchange for 100% of the equity interests of certain EchoStar subsidiaries that held substantially all of EchoStar's former EchoStar Technologies businesses and certain other assets (collectively, the "Share Exchange"). Following the consummation of the Share Exchange, EchoStar no longer operates its former EchoStar Technologies businesses, the Tracking Stock was retired and is no longer outstanding, and all agreements, arrangements and policy statements with respect to the Tracking Stock terminated.

Our operations also include various corporate departments (primarily Executive, Treasury, Strategic Development, Human Resources, IT, Finance, Real Estate, Accounting and Legal) and other activities that have not been assigned to our operating segments such as costs incurred in certain satellite development programs and other business development activities, and gains or losses from certain of our investments. These activities, costs and income, as well as eliminations of intersegment transactions, are accounted for in Corporate and Other in our segment reporting.

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

Highlights from our financial results are as follows:

**Consolidated Results of Operations for the Year Ended December 31, 2018**

- Revenue of \$2.1 billion
- Operating income of \$344 million
- Net income of \$97 million
- Net income attributable to HSS of \$96 million
- EBITDA of \$894 million (see reconciliation of this non-GAAP measure on page 32)

**Consolidated Financial Condition as of December 31, 2018**

- Total assets of \$6.9 billion
- Total liabilities of \$4.5 billion
- Total shareholders' equity of \$2.4 billion
- Cash, cash equivalents and current marketable investment securities of \$2.5 billion

**Hughes Segment**

Our Hughes segment is a global provider of broadband satellite technologies and broadband internet services to home and small office customers and broadband network technologies, managed services, equipment, hardware, satellite services and communications solutions to consumers, aeronautical, enterprise and government customers. The Hughes segment also designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment designs, develops, constructs and provides telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and our enterprise customers.

We incorporate advances in technology to reduce costs and to increase the functionality and reliability of our products and services. Through advanced and proprietary methodologies, technologies, software and techniques, we continue to improve the efficiency of our networks. We invest in technologies to enhance our system and network management capabilities, specifically our managed services for enterprises. We also continue to invest in next generation technologies that can be applied to our future products and services.

We continue to focus our efforts on growing our consumer revenue by maximizing utilization of our existing satellites while planning for new satellites to be launched or acquired. Our consumer revenue growth depends on our success in adding new and retaining existing subscribers in our domestic and international markets across wholesale and retail channels. The growth of our enterprise businesses, including aeronautical, relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies. Service costs related to ongoing support for our direct and indirect customers and partners are typically impacted most significantly by our growth.

Our Hughes segment currently uses capacity from three of our satellites (the SPACEWAY 3 satellite, the EchoStar XVII satellite and the EchoStar XIX satellite) and additional satellite capacity acquired from multiple third-party providers to provide services to our customers. In December 2016, EchoStar launched the EchoStar XIX satellite, a high throughput geostationary satellite employing a multi-spot beam, bent pipe Ka-band architecture. EchoStar contributed the EchoStar XIX satellite to us in February 2017. The EchoStar XIX satellite provides capacity for the Hughes broadband services to our current and future customers in North America and certain Central and South American countries and our aeronautical and enterprise broadband services. Until new satellite launches or acquisitions provide additional capacity for subscriber growth, we manage subscriber growth across our existing satellite platform.

In August 2018, we entered into an agreement with Al Yah Satellite Communications Company PrJSC ("Yahsat") to establish a new entity, Broadband Connectivity Solutions (Restricted) Limited (together with its subsidiaries, "BCS"), to provide commercial Ka-band satellite broadband services across Africa, the Middle East and southwest Asia operating over Yahsat's Al Yah 2 and Al Yah 3 Ka-band satellites. The transaction was consummated in December 2018 when we invested \$100 million in cash in exchange for a 20% interest in BCS. Under the terms of the agreement,

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

we may also acquire, for further cash investments, additional ownership interests in BCS in the future provided certain conditions are met. We supply network operations and management services and equipment to BCS.

In August 2017, a subsidiary of EchoStar entered into a contract for the design and construction of the EchoStar XXIV, a new, next-generation, high throughput geostationary satellite, with a planned 2021 launch. The EchoStar XXIV satellite is primarily intended to provide additional capacity for our Hughes satellite internet ("HughesNet") service in North, Central and South America as well as aeronautical and enterprise broadband services. In March 2018, the Federal Communications Commission ("FCC") granted authorization to construct, deploy and operate the EchoStar XXIV satellite. In the second half of 2018, Maxar Technologies Inc. ("Maxar"), the parent company of Space Systems/Loral ("SSL"), the manufacturer of our EchoStar XXIV satellite, announced that it was reviewing strategic alternatives for its geostationary communications satellite business to improve its financial performance and that it was in active discussions with potential buyers of the business. SSL has indicated to us that it intends to meet its contractual obligations regarding the timely manufacture and delivery of the EchoStar XXIV satellite. However, if SSL or any potential successor fails to meet or is delayed in meeting these obligations for any reason, including if Maxar decides to discontinue, wind down or otherwise significantly modify its geostationary communications satellite business, such failure could have a material adverse impact on our business operations, future revenues, financial position and prospects, completing the manufacture of the EchoStar XXIV satellite and our planned expansion of satellite broadband services throughout North, South and Central America. Capital expenditures associated with the construction and launch of this satellite are included in EchoStar's Corporate and Other in its segment reporting.

In March 2017, we and a wholly-owned subsidiary of DISH entered into a master service agreement (the "Hughes Broadband MSA"). Pursuant to the Hughes Broadband MSA, DISH's subsidiary, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for the HughesNet service and related equipment and other telecommunication services and (ii) installs HughesNet service equipment with respect to activations generated by DNLLC. As a result of the Hughes Broadband MSA, we have not earned and do not expect to earn in the future, significant equipment revenue from our distribution agreement with another wholly-owned subsidiary of DISH. We expect churn in the existing wholesale subscribers to continue to reduce Services and other revenue – DISH Network in the future.

Developments toward the launch of next-generation satellite systems including low-earth orbit ("LEO"), medium-earth orbit ("MEO") and geostationary systems could provide additional opportunities to drive the demand for our equipment, hardware, technology and services. In June 2015, a subsidiary of EchoStar made an equity investment in WorldVu Satellites Limited ("OneWeb"), a global LEO satellite service company. In addition, we have an agreement with OneWeb to provide certain equipment and services in connection with the ground network system for OneWeb's LEO satellites. We expect to continue delivering additional equipment and services to OneWeb.

We continue our efforts to expand our consumer satellite services business outside of the U.S. In April 2014, we entered into a 15-year agreement with Eutelsat do Brasil for Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite, which was launched in March 2016. We began delivering high-speed consumer satellite broadband services in Brazil in July 2016. Additionally, in September 2015, we entered into 15-year agreements pursuant to which affiliates of Telesat Canada will provide to us Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location. This satellite was launched in July 2018, placed in service during the fourth quarter of 2018 and augmented the capacity being provided by the EUTELSAT 65 West A and EchoStar XIX satellites in Central and South America. We currently provide satellite broadband internet service in several Central and South American countries, and expect to continue to launch similar services in other Central and South American countries.

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

Our subscriber metrics as of December 31, 2018 and for the quarter then ended are as follows were:

	As of December 31,		
	2018	2017	2016
Total broadband subscribers	1,361,000	1,208,000	1,036,000

  

	For the three months ended	
	December 31, 2018	September 30, 2018
Net additions	29,000	33,000

These broadband subscribers include customers that subscribe to our HughesNet services in North, Central and South America through retail, wholesale and small/medium enterprise service channels. Our total gross subscriber additions for the fourth quarter of 2018 decreased by approximately 7,000 compared to the third quarter of 2018 primarily due to reduced satellite capacity available for sale. Our total net subscriber additions for the quarter ended December 31, 2018 decreased by approximately 4,000 compared to the quarter ended September 30, 2018 primarily due to lower gross consumer subscriber additions, partially offset by a lower average monthly subscriber churn percentage.

As of December 31, 2018 and 2017, our Hughes segment had approximately \$1.4 billion and \$1.6 billion, respectively, of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue, including lease revenue, under customer contracts that are non-cancelable, excluding agreements with customers in our consumer market. The decrease in our contracted revenue backlog reflects our recognition of revenue in excess of additions to backlog resulting from new orders from our customers. Of the total contracted revenue backlog as of December 31, 2018, we expect to recognize approximately \$430 million of revenue in 2019.

**ESS Segment**

Our ESS segment is a global provider of satellite operations and satellite services. We operate our business using our owned and leased in-orbit satellites and related licenses. Revenue in our ESS segment depends largely on our ability to continuously make use of our available satellite capacity with existing customers and our ability to enter into commercial relationships with new customers. Our ESS segment, like others in the fixed satellite services industry, has encountered, and may continue to encounter, negative pressure on transponder rates and demand. We are also pursuing other opportunities such as providing value added services such as telemetry, tracking and control ("TT&C") services to third parties, which leverage the ground monitoring networks and personnel currently within our ESS segment.

We provide satellite operations and satellite services on a full-time and/or occasional-use basis primarily to DISH Network Corporation and its subsidiaries ("DISH Network"), Dish Mexico, S. de R.L. de C.V., a joint venture EchoStar entered into in 2008 ("Dish Mexico"), U.S. government service providers, internet service providers, broadcast news organizations, content providers 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 as we have entered into certain commercial agreements with DISH Network pursuant to which we provide DISH Network with satellite services at fixed prices for varying lengths of time depending on the satellite. Therefore, the results of operations of our ESS segment are linked to changes in DISH Network's satellite capacity requirements, which historically have been driven by the addition of new channels and migration of programming to high-definition television and video on demand services. DISH Network's future satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch or acquire its own satellites, to continue to add new channels and/or to migrate to the provision of such channels and other video on demand services through streaming and other alternative technologies. There is no assurance that we will continue to provide satellite services to DISH Network beyond the terms of our agreements. Any termination or reduction in the satellite services we provide to DISH Network would cause us to have unused capacity on our satellites and require that we aggressively pursue alternative sources of revenue for this business. The agreement with DISH Network to lease satellite capacity on the EchoStar VII satellite expired in June 2018. As

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

a result, we expect a \$43 million annualized decrease in our revenue. We are exploring other opportunities to utilize this satellite in the future.

In August 2014, we entered into: (i) a contract with Airbus Defence and Space SAS for the construction of the EchoStar 105/SES-11 satellite with C-, Ku- 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. pursuant to which we transferred the title to the payloads to two affiliates of SES Americom Inc. We retained the right to use the entire Ku-band payload on the satellite for an initial ten-year term, with an option for us to renew the agreement on a year-to-year basis. The EchoStar 105/SES-11 satellite was launched in October 2017 and placed into service in November 2017 at the 105 degree west longitude orbital location. Our Ku-band payload on the EchoStar 105/SES-11 satellite replaced and augments the capacity we had on the AMC-15 satellite. We transferred activities from the AMC-15 satellite to the EchoStar 105/SES-11 satellite in the fourth quarter of 2017 and our agreement for satellite services on certain transponders on the AMC-15 satellite terminated according to its terms in December 2017.

As of December 31, 2018 and 2017, our ESS segment had contracted revenue backlog of approximately \$832 million and \$1.2 billion, respectively. We define contracted revenue backlog for our ESS segment as contracted future satellite lease revenue. The decrease is primarily driven by the fixed-term nature of the satellite services agreements with DISH Network and Dish Mexico. Of the total contracted revenue backlog as of December 31, 2018, we expect to recognize approximately \$288 million of revenue in 2019.

**New Business Opportunities**

Our industry continues to evolve with the increasing 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, medium-earth orbit ("MEO") systems, balloons and High Altitude Platform Systems are playing 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, the internet-of-things, entertainment and commerce in North America and internationally for consumers as well as aeronautical, enterprise and government customers. We are closely tracking 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.

We intend to continue to selectively explore opportunities to pursue investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, domestically and internationally, that we believe may allow us to increase our existing market share, increase our satellite capacity, expand into new markets and new customers, broaden our portfolio of services, products and intellectual property, make our business more valuable, align us for future growth and expansion, maximize the return on our investments and strengthen our business and relationships with our customers. We may allocate or dispose of significant resources for long-term value that may not have a short or medium-term or any positive impact on our revenue, results of operations, or cash flow.

**Cybersecurity**

As a global provider of satellite technologies and services, internet services and communications equipment and networks, we may be prone to more targeted and persistent levels of cyber-attacks than other businesses. These risks may be more prevalent as we continue to expand and grow our business into other areas of the world outside of North America, some of which are still developing their cybersecurity infrastructure maturity. Detecting, deterring, preventing and mitigating incidents caused by hackers and other parties may result in significant costs to us and may expose our customers to financial or other harm that have the potential to significantly increase our liability.

We treat cybersecurity risk seriously and are focused on maintaining the security of our and our partners' systems, networks, technologies and data. We regularly review and revise our relevant policies and procedures, invest in and maintain internal resources, personnel and systems and review, modify and supplement our defenses through the use of various services, programs and outside vendors. EchoStar also maintains agreements with third party vendors and experts to assist in our remediation and mitigation efforts if we experience or identify a material incident or threat. In addition, senior management and the Audit Committee of EchoStar's Board of Directors are regularly briefed on cybersecurity matters.

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

We are not aware of any cyber-incidents with respect to our owned or leased satellites or other networks, equipment or systems that have had a material adverse effect on our business, costs, operations, prospects, results of operation or financial position during the year ended December 31, 2018. There can be no assurance, however, that any such incident can be detected or thwarted or will not have such a material adverse effect in the future.

**Item 7. MANAGEMENT'S NARRATIVE ANALYSIS OF RESULTS OF OPERATIONS - Continued**
**RESULTS OF OPERATIONS**
**Basis of Presentation**

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

**Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017**

Statements of Operations Data (1)	For the years ended December 31,		Variance	
	2018	2017	Amount	%
	(Dollars in thousands)			
<b>Revenue:</b>				
Services and other revenue - DISH Network	\$ 366,155	\$ 433,829	(67,674)	(15.6)
Services and other revenue - other	1,526,098	1,203,551	322,547	26.8
Equipment revenue	205,410	239,489	(34,079)	(14.2)
Total revenue	2,097,663	1,876,869	220,794	11.8
<b>Costs and expenses:</b>				
Cost of sales - services and other	600,213	559,684	40,529	7.2
% of total services and other revenue	31.7%	34.2%		
Cost of sales - equipment	176,600	195,439	(18,839)	(9.6)
% of total equipment revenue	86.0%	81.6%		
Selling, general and administrative expenses	398,153	337,591	60,562	17.9
% of total revenue	19.0%	18.0%		
Research and development expenses	27,570	31,745	(4,175)	(13.2)
% of total revenue	1.3%	1.7%		
Depreciation and amortization	551,416	496,798	54,618	11.0
Impairment of long-lived assets	—	6,000	(6,000)	(100.0)
Total costs and expenses	1,753,952	1,627,257	126,695	7.8
Operating income	343,711	249,612	94,099	37.7
<b>Other income (expense):</b>				
Interest income	59,104	31,952	27,152	85.0
Interest expense, net of amounts capitalized	(259,721)	(245,478)	(14,243)	5.8
Gains (losses) on investments, net	187	(1,574)	1,761	*
Other, net	431	4,839	(4,408)	(91.1)
Total other expense, net	(199,999)	(210,261)	10,262	(4.9)
Income before income taxes	143,712	39,351	104,361	*
Income tax benefit (provision), net	(46,369)	258,202	(304,571)	*
Net income	97,343	297,553	(200,210)	(67.3)
Less: Net income attributable to noncontrolling interests	1,842	1,583	259	16.4
Net income attributable to HSS	\$ 95,501	\$ 295,970	\$ (200,469)	(67.7)
<b>Other data:</b>				
EBITDA (2)	\$ 893,903	\$ 748,092	\$ 145,811	19.5
Subscribers, end of period	1,361,000	1,208,000	153,000	12.7
* Percentage is not meaningful				

(1) An explanation of our key metrics is included on pages 34 and 35 under the heading "Explanation of Key Metrics and Other Items."

(2) A reconciliation of EBITDA to "Net income," the most directly comparable generally accepted accounting principles ("U.S. GAAP") measure in the accompanying financial statements, is included on page 32. For further information on our use of EBITDA, see "Explanation of Key Metrics and Other Items" on page 35.

**Services and other revenue - DISH Network.** Services and other revenue — DISH Network totaled \$366 million for the year ended December 31, 2018, a decrease of \$68 million, or 15.6%, compared to the same period in 2017.

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

Services and other revenue — DISH Network from our Hughes segment for the year ended December 31, 2018 decreased by \$33 million, or 39.5%, to \$50 million compared to the same period in 2017. The decrease was primarily attributable to a continued decrease in residential wholesale broadband services.

Services and other revenue — DISH Network from our ESS segment for the year ended December 31, 2018 decreased by \$35 million, or 10.2%, to \$310 million compared to the same period in 2017. The decrease was primarily attributable to the revenue reduction of (i) \$21 million resulting from the expiration of DISH Network's agreement to lease satellite capacity from us on the EchoStar VII satellite at the end of June 2018, (ii) \$7 million resulting from DISH Network's termination of its agreement to lease satellite capacity from us on the EchoStar XII satellite at the end of September 2017, (iii) \$4 million as a result of the satellite anomaly experienced by the EchoStar X satellite in December 2017 which reduced the satellite capacity leased to DISH Network and (iv) \$3 million as a result of a decrease in satellite capacity leased to DISH Network on the EchoStar IX satellite.

**Services and other revenue — other.** Services and other revenue — other totaled \$1.5 billion for the year ended December 31, 2018, an increase of \$323 million, or 26.8%, compared to the same period in 2017.

Services and other revenue — other from our Hughes segment for the year ended December 31, 2018 increased by \$305 million, or 26.4%, to \$1.5 billion compared to the same period in 2017. The increase was primarily attributable to increases in sales of broadband services to our consumer and enterprise customers of \$271 million and \$28 million, respectively.

Services and other revenue — other from our ESS segment for the year ended December 31, 2018 increased by \$1 million, or 1.8%, to \$48 million compared to the same period in 2017. The increase was due to a net increase in transponder services provided.

Services and other revenue — other from our Corporate and other segment for the year ended December 31, 2018 increased by \$17 million compared to the same period in 2017. The increase was primarily due to the services and lease equipment we provide to support EchoStar Mobile Limited, a subsidiary of EchoStar that provides mobile satellite services and complementary ground component services covering the entire European Union using S-band spectrum.

**Equipment revenue** Equipment revenue totaled \$205 million for the year ended December 31, 2018, a decrease of \$34 million, or 14.2%, compared to the same period in 2017. The decrease was primarily due to a decrease in hardware sales in our Hughes segment of \$23 million to our domestic enterprise customers, \$8 million to our mobile satellite systems customers and \$6 million to our consumer customers. The decrease was partially offset by an increase in hardware sales in our Hughes segment of \$3 million to our international enterprise customers.

**Cost of sales — services and other.** Cost of sales — services and other totaled \$600 million for the year ended December 31, 2018, an increase of \$41 million, or 7.2%, compared to the same period in 2017.

Cost of sales — services and other from our Hughes segment for the year ended December 31, 2018 increased by \$60 million, or 12.0%, to \$555 million compared to the same period in 2017. The increase was primarily attributable to an increase in the costs of broadband services provided to our consumer and enterprise customers.

Cost of sales — services and other from our ESS segment for the year ended December 31, 2018 decreased by \$20 million, or 31.7%, to \$44 million compared to the same period in 2017. The decrease was primarily attributable to the termination of our agreement for satellite capacity on the AMC-15 satellite in December 2017.

**Cost of sales — equipment.** Cost of sales — equipment totaled \$177 million for the year ended December 31, 2018, a decrease of \$19 million, or 9.6%, compared to the same period in 2017. The decrease was primarily attributable to a decrease in hardware sales in our Hughes segment provided to our consumer customers, domestic enterprise customers and mobile satellite systems customers, partially offset by an increase in hardware sales in our Hughes segment to our international enterprise customers.

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

**Selling, general and administrative expenses.** Selling, general and administrative expenses totaled \$398 million for the year ended December 31, 2018, an increase of \$61 million, or 17.9%, compared to the same period in 2017. Selling expenses increased \$37 million primarily attributable to the amortization of contract acquisition and fulfillment costs from our Hughes segment and an increase in marketing and promotional costs from our Hughes segment mainly associated with our consumer business. General and administration expenses increased \$24 million primarily attributable to increases in bad debt expense, costs associated with beginning operations in certain Central and South American countries and other administrative costs from our Hughes segment.

**Depreciation and amortization.** Depreciation and amortization expenses totaled \$551 million for the year ended December 31, 2018, an increase of \$55 million, or 11.0%, compared to the same period in 2017. The increase was primarily due to an increase in depreciation expense of: (i) \$28 million relating to our customer rental equipment, (ii) \$17 million relating to the EchoStar XIX and EchoStar 105/SES-11 satellites that were placed into service in the first and fourth quarters of 2017, respectively and the Telesat T19V satellite that was placed into service in the fourth quarter of 2018, (iii) \$9 million relating to the decrease in depreciable life of the SPACEWAY 3 satellite (iv) \$12 million relating to machinery and equipment and (v) an increase of \$3 million in amortization expense relating to the development of externally marketed software. The increases were partially offset by a decrease of \$8 million in amortization expense from certain fully amortized other intangible assets in our Hughes segment

**Impairment of long-lived assets.** Impairment of long-lived assets totaled nil for the year ended December 31, 2018, a decrease of \$6 million compared to the same period in 2017. The decrease was attributable to an impairment loss of \$6 million relating to our regulatory authorizations with indefinite lives from our ESS segment in 2017.

**Interest income.** Interest income totaled \$59 million for the year ended December 31, 2018, an increase of \$27 million, or 85%, compared to the same period in 2017. The increase was primarily attributable to an increase in yield percentage in 2018 compared to 2017.

**Interest expense, net of amounts capitalized.** Interest expense, net of amounts capitalized totaled \$260 million for the year ended December 31, 2018, an increase of \$14 million, or 5.8%, compared to the same period in 2017. The increase was primarily due to a decrease of \$17 million in capitalized interest relating to the EchoStar XIX, EchoStar XXI and EchoStar 105/SES-11 satellites that were placed into service in the first and fourth quarters of 2017, respectively. The increase was partially offset by a decrease of \$3 million in interest expense relating to lower principal balances on certain capital lease obligations.

**Gains (losses) on investments, net.** Gains (losses) and impairment on marketable investment securities, net totaled nil for the year ended December 31, 2018 compared to \$2 million in gains for the same period in 2017. The change was primarily due to an other-than-temporary impairment loss of \$3 million on one of our available-for-sale securities in 2017 and a \$2 million gain on our trading securities in 2017.

**Other, net.** Other, net totaled \$0.4 million in income for the year ended December 31, 2018, a decrease of \$4 million, or 91.1%, compared to the same period in 2017. The decrease was primarily related to an unfavorable foreign exchange impact of \$11 million and \$2 million decrease in equity in earnings of our unconsolidated affiliates. The decreases were partially offset by a net gain of \$10 million due to the settlement of certain amounts due to and from a third party vendor in the second quarter of 2018.

**Income tax benefit (provision).** Income tax provision was \$46 million for the year ended December 31, 2018, an increase of \$305 million, compared to the same period in 2017. Our effective income tax rate was 32.3% for the year ended December 31, 2018, compared to (656.2)% for the same period in 2017. The variations in our effective tax rate from the U.S. federal statutory rate for the year ended December 31, 2018 were primarily due to various permanent tax differences, the impact of state and local taxes, increase in our valuation allowance associated with certain foreign losses, and the change in our valuation allowance associated with net unrealized losses that are capital in nature. For the year ended December 31, 2017, the variations in our effective tax rate from the U.S. federal statutory rate were primarily due to the Tax Cuts and Jobs Act of 2017, recognition of a one-time tax benefit for the revaluation of our deferred tax assets and liabilities due to a change in our state effective tax rate as a result of the Share Exchange. The tax benefit recognized from the change in our effective tax rate was partially offset by the increase in our valuation allowance associated with certain state and foreign losses.

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

**Net income attributable to HSS.** Net income attributable to HSS was \$96 million for the year ended December 31, 2018, a decrease of \$200 million compared to the same period in 2017 as set forth in the following table.

	Amounts	
	(In thousands)	
Net income attributable to HSS for the year ended December 31, 2017	\$	295,970
Increase in tax provision		(304,571)
Increase in interest expense		(14,243)
Increase in other net		(4,408)
Increase in operating income, including depreciation and amortization		94,099
Increase in interest income		27,152
Decrease in losses on investments, net		1,761
Increase in net income attributable to noncontrolling interests		(259)
Net income attributable to HSS for the year ended December 31, 2018	\$	95,501

**EBITDA.** 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 (loss)*, the most directly comparable U.S. GAAP measure in the accompanying financial statements.

	For the years ended December 31,		Variance	
	2018	2017	Amount	%
	(Dollars in thousands)			
Net income	\$ 97,343	\$ 297,553	\$ (200,210)	(67.3)
Interest income and expense, net	200,617	213,526	(12,909)	(6.0)
Income tax (benefit) provision	46,369	(258,202)	304,571	*
Depreciation and amortization	551,416	496,798	54,618	11.0
Net income attributable to noncontrolling interests	(1,842)	(1,583)	(259)	16.4
EBITDA	\$ 893,903	\$ 748,092	\$ 145,811	19.5

EBITDA was \$894 million for the year ended December 31, 2018, an increase of \$146 million, or 19.5%, compared to the same period in 2017. The increase was primarily due to an increase in operating income, excluding depreciation and amortization, of \$149 million.

**Segment Operating Results and Capital Expenditures**

	Hughes	ESS	Corporate and Other	Consolidated Total
	(In thousands)			
<b>For the year ended December 31, 2018</b>				
Total revenue	\$ 1,716,528	\$ 358,058	\$ 23,077	\$ 2,097,663
Capital expenditures	\$ 390,108	\$ (76,582)	\$ 15	\$ 313,541
EBITDA	\$ 601,319	\$ 308,058	\$ (15,474)	\$ 893,903
<b>For the year ended December 31, 2017</b>				
Total revenue	\$ 1,477,918	\$ 392,244	\$ 6,707	\$ 1,876,869
Capital expenditures	\$ 376,502	\$ 20,725	\$ —	\$ 397,227
EBITDA	\$ 475,222	\$ 315,285	\$ (42,415)	\$ 748,092

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

	For the years ended December 31,		Variance	
	2018	2017	Amount	%
	(Dollars in thousands)			
Total revenue	\$ 1,716,528	\$ 1,477,918	\$ 238,610	16.1
Capital expenditures	\$ 390,108	\$ 376,502	\$ 13,606	3.6
EBITDA	\$ 601,319	\$ 475,222	\$ 126,097	26.5

Total revenue for the year ended December 31, 2018 increased by \$239 million, or 16.1%, compared to the same period in 2017. The increase was primarily due to an increase in sales of broadband services to our consumer and enterprise customers of \$271 million and \$28 million, respectively, and an increase in hardware sales of \$3 million to our international enterprise customers. The increase was partially offset by (i) a decrease of \$33 million in residential wholesale broadband services and a decrease in hardware sales of (ii) \$23 million to our domestic enterprise customers, (iii) \$8 million to our mobile satellite systems customers and (iv) \$6 million to our consumer customers.

Capital expenditures for the year ended December 31, 2018 increased by \$14 million, or 3.6%, compared to the same period in 2017, primarily due to increases in capital expenditures relating to our Telesat T19V satellite and our enterprise business of \$31 million. The increases were partially offset by a decrease of \$17 million in capital expenditures mainly associated with satellite ground facilities.

EBITDA for the year ended December 31, 2018 increased by \$126 million, or 26.5%, compared to the same period in 2017. The increase was primarily due to an increase of \$196 million in gross margin and an other-than-temporary impairment loss of \$3 million on one of our available-for-sale securities in the first quarter of 2017. The increase was partially offset by (i) an increase of \$66 million in selling, general and administrative expenses due to bad debt expense, the amortization of contract acquisition and fulfillment costs and an increase in marketing and promotional costs mainly associated with our consumer business and (ii) an unfavorable foreign exchange impact of \$11 million in 2018 compared to the same period in 2017.

*ESS Segment*

	For the years ended December 31,		Variance	
	2018	2017	Amount	%
	(Dollars in thousands)			
Total revenue	\$ 358,058	\$ 392,244	\$ (34,186)	(8.7)
Capital expenditures	\$ (76,582)	\$ 20,725	\$ (97,307)	*
EBITDA	\$ 308,058	\$ 315,285	\$ (7,227)	(2.3)

\* Percentage is not meaningful

Total revenue for the year ended December 31, 2018 decreased by \$34 million, or 8.7%, compared to the same period in 2017. The decrease was primarily attributable to revenue reduction of (i) \$21 million resulting from the expiration of DISH Network's agreement to lease satellite capacity from us on the EchoStar VII satellite at the end of June 2018, (ii) \$7 million resulting from DISH Network's termination of its agreement to lease satellite capacity from us on the EchoStar XII satellite at the end of September 2017, (iii) \$4 million as a result of the satellite anomaly experienced by the EchoStar X satellite in December 2017 which reduced the satellite capacity leased to DISH Network and (iv) \$3 million as a result of a decrease in satellite capacity leased to DISH Network on the EchoStar IX satellite.

Capital expenditures for the year ended December 31, 2018 decreased by \$97 million, compared to the same period in 2017, primarily reflect a reimbursement of \$77 million and a decrease in satellite expenditure as a result of the EchoStar 105/SES-11 satellite that was placed into service in the fourth quarter of 2017.

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

EBITDA for the year ended December 31, 2018 decreased by \$7 million, or 2.3%, compared to the same period in 2017. The decrease was primarily due to the decrease in ESS segment total revenue of \$34 million in 2018 compared to the same period in 2017. The decrease was partially offset by a decrease in satellite services costs of \$19 million mainly associated with the termination of our agreement for satellite capacity on the AMC-15 satellite in December 2017 and an impairment loss of \$6 million relating to our regulatory authorizations with indefinite lives in 2017.

*Corporate and Other*

	For the years ended December 31,		Variance	
	2018	2017	Amount	%
	(Dollars in thousands)			
Total revenue	\$ 23,077	\$ 6,707	\$ 16,370	*
Capital expenditures	\$ 15	\$ —	\$ 15	*
EBITDA	\$ (15,474)	\$ (42,415)	\$ 26,941	(63.5)

\* Percentage is not meaningful

EBITDA for the year ended December 31, 2018 was a loss of \$15 million, an increase of \$27 million, or 63.5%, compared to a loss of \$42 million during same period in 2017. The change in EBITDA was primarily due to an increase in operating income, excluding depreciation and amortization, of \$21 million and a net gain of \$10 million due to the settlement of certain amounts due to and from a third party vendor in the second quarter of 2018.

**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 leases and services, TT&C, 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 HughesNet satellite internet service (the "HughesNet service") sold to DISH Network.

**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 leases and services, satellite uplinking/downlinking and other services provided to customers other than DISH Network.

**Equipment revenue .** Equipment revenue primarily includes broadband equipment and networks sold to customers in our enterprise and consumer markets and sales of satellite broadband equipment and related equipment, related to the HughesNet service, to DISH Network.

**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 leases and services, TT&C, 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 and to DISH Network. Cost of sales - equipment also includes certain other costs associated with the deployment of equipment to our customers.

**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

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

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.

**Impairment of long-lived assets.** Impairment of long-lived assets includes our impairment losses related to our property and equipment, goodwill and other intangible assets.

**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.

**Gains (losses) on investments, net.** Gains (losses) on investments, net primarily includes changes in fair value of our marketable equity securities and other investments for which we have elected the fair value option. It may also include realized gains and losses on the sale or exchange of our available-for-sale debt securities, other-than-temporary impairment losses on our available-for-sale securities, realized gains and losses on the sale or exchange of our investments in unconsolidated entities and adjustments to the carrying amount of investments in unconsolidated entities resulting from impairments and observable price changes.

**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 income and expense, net, Income tax benefit (provision), net, and Depreciation and amortization. EBITDA is not a measure determined in accordance with U.S. 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 U.S. 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 and is appropriate to enhance an overall understanding of our financial performance. 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 HughesNet service, 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, 2018, our cash, cash equivalents and current marketable investment securities had a fair value of \$2.5 billion. Of this amount, a total of \$2.5 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 United States ("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 cash, cash equivalents and current marketable debt securities investment portfolio of \$2.5 billion as of December 31, 2018, a hypothetical 10% change in average interest rates during 2018 would not have had 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, 2018 of 2.4%. 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 2018 would have resulted in a decrease of approximately \$6 million in annual interest income.

#### Investments in Unconsolidated Entities

As of December 31, 2018, we had investments with an aggregate carrying amount of \$126 million in securities of privately held companies that we hold for strategic business purposes. The fair value of these investments is not readily determinable. We periodically review these investments and we may estimate fair value and adjust the carrying amount when there are indications of impairment or observable price changes for the investments. A hypothetical adverse change equal to 10% of the carrying amount of these equity instruments during 2018 would have resulted in a decrease of approximately \$12.6 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, 2018, we had \$32 million of net foreign currency denominated receivables and payables outstanding and foreign currency forward contracts with a notional value of \$7 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, 2018. 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 during 2018 would have been an estimated loss to the cumulative translation adjustment of \$18 million as of December 31, 2018.

### ***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 accompanying Consolidated Financial Statements are included in Item 15 of this Annual Report on Form 10-K 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 (the "Exchange Act")) as of the end of the period covered by this Annual Report on Form 10-K ("Form 10-K"). 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 Form 10-K such that the information required to be disclosed in our Securities and Exchange Commission reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission 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 Exchange Act) that occurred during the three months ended December 31, 2018 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.

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 generally accepted accounting principles in the United States, 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, 2018.

#### **ITEM 9B. OTHER INFORMATION**

On February 21, 2019, EchoStar issued a press release (the “Press Release”) announcing its financial results for the quarter and year ended December 31, 2018. A copy of the Press Release is furnished herewith as Exhibit 99.1.

The foregoing information, including the exhibit related thereto, is furnished in response to Item 2.02 of Form 8-K and shall not be deemed “filed” for the purposes of Section 18 of the Exchange Act, or otherwise, and shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended, or into any filing or other document pursuant to the Exchange Act, except as otherwise expressly stated in any such filing.

## PART III

## Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

## Appointment of Independent Registered Public Accounting Firm

**Appointment of Independent Registered Public Accounting Firm for 2019.** KPMG LLP served as our independent registered public accounting firm for the fiscal year ended December 31, 2018. 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, 2018 and 2017.

	For the Years Ended December 31,	
	2018	2017
	(Dollars in thousands)	
Audit fees (1)	\$ 1,828,355	\$ 1,760,310
Audit-related fees (2)	112,158	27,125
Total audit and audited related fees	1,940,513	1,787,435
Tax fees (3)	78,794	29,063
Total fees	<u>\$ 2,019,307</u>	<u>\$ 1,816,498</u>

(1) Consists of fees for the audit of our 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 and other audits of our foreign subsidiaries.

(2) Consists of fees for assurance and other services that are provided in connection with the issuance of consents, comfort letters, 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 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

EchoStar's Audit Committee is responsible 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 2018 and 2017 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:

	<u>Page</u>
(1) Consolidated Financial Statements	
<a href="#">Index to Consolidated Financial Statements</a>	<a href="#">F-1</a>
<a href="#">Report of Independent Registered Public Accounting Firm</a>	<a href="#">F-2</a>
<a href="#">Consolidated Balance Sheets as of December 31, 2018 and 2017</a>	<a href="#">F-3</a>
<a href="#">Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended December 31, 2018, 2017 and 2016</a>	<a href="#">F-4</a>
<a href="#">Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2018, 2017 and 2016</a>	<a href="#">F-5</a>
<a href="#">Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016</a>	<a href="#">F-6</a>
<a href="#">Notes to Consolidated Financial Statements</a>	<a href="#">F-7</a>
(2) Financial Statement Schedules	
<a href="#">Schedule II — Valuation and Qualifying Accounts</a>	<a href="#">F-61</a>
(3) Exhibits	

<u>Exhibit No.</u>	<u>Description</u>
<a href="#">2.1*</a>	<a href="#">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 Hughes Communications Inc.'s Current Report on Form 8-K, filed February 15, 2011, Commission File No. 1-33040).****</a>
<a href="#">3.1(a)*</a>	<a href="#">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).</a>
<a href="#">3.1(b)*</a>	<a href="#">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).</a>
<a href="#">3.1(c)*</a>	<a href="#">Articles of Amendment of Hughes Satellite Systems Corporation, dated as of December 30, 2013 (incorporated by reference to Exhibit 3.1(c) to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2013, filed February 21, 2014, Commission File No. 333-179121).</a>
<a href="#">3.1(d)*</a>	<a href="#">Articles of Amendment of Hughes Satellite Systems Corporation, dated as of January 21, 2014 (incorporated by reference to Exhibit 3.1(d) to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2013, filed February 21, 2014, Commission File No. 333-179121).</a>
<a href="#">3.1(e)*</a>	<a href="#">Articles of Amendment of Hughes Satellite Systems Corporation, dated as of February 28, 2014 (incorporated by reference to Exhibit 3.1(a) to Hughes Satellite Systems Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed May 9, 2014, Commission File No. 333-179121).</a>

Exhibit No.	Description
3.1(f)*	<a href="#">Articles of Amendment to Articles of Incorporation of Hughes Satellite Systems Corporation, dated as of March 1, 2017 (incorporated by reference to Exhibit 32 to EchoStar Corporation's Current Report on Form 8-K filed March 6, 2017, Commission File No. 001-33807).</a>
3.2*	<a href="#">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).</a>
4.1*	<a href="#">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).</a>
4.2*	<a href="#">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).</a>
4.3*	<a href="#">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).</a>
4.4*	<a href="#">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).</a>
4.5*	<a href="#">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).</a>
4.6*	<a href="#">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).</a>
4.7*	<a href="#">Second Supplemental Indenture relating to the 6 1/2% Senior Secured Notes due 2019 of Hughes Satellite Systems Corporation, 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).</a>

Exhibit No.	Description
4.8*	<a href="#"><u>Second Supplemental Indenture relating to the 7 5/8% Senior Unsecured Notes due 2021 of Hughes Satellite Systems Corporation, 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).</u></a>
4.9*	<a href="#"><u>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).</u></a>
4.10*	<a href="#"><u>Form of Note for 6 1/2% Senior Secured Notes due 2019 (included as part of Exhibit 4.1).</u></a>
4.11*	<a href="#"><u>Form of Note for 7 5/8% Senior Unsecured Notes due 2021 (included as part of Exhibit 4.2).</u></a>
4.12*	<a href="#"><u>Indenture, relating to the 5.250% Senior Secured Notes, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the guarantors party thereto, U.S. Bank National Association, as trustee, 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 on July 27, 2016, Commission File No. 001-33807).</u></a>
4.13*	<a href="#"><u>Indenture, relating to the 6.625% Senior Unsecured Notes, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the guarantors party thereto and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to EchoStar Corporation's Current Report on Form 8-K filed on July 27, 2016, Commission File No. 001-33807).</u></a>
4.14*	<a href="#"><u>Registration Rights Agreement, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the guarantors party thereto and Deutsche Bank Securities Inc. (incorporated by reference to Exhibit 4.3 to EchoStar Corporation's Current Report on Form 8-K filed on July 27, 2016, Commission File No. 001-33807).</u></a>
4.15*	<a href="#"><u>Additional Secured Party Joinder, dated as of July 27, 2016, among U.S. Bank National Association, as trustee, Wells Fargo Bank, National Association, as collateral agent and Hughes Satellite Systems Corporation (incorporated by reference to Exhibit 4.4 to EchoStar Corporation's Current Report on Form 8-K filed on July 27, 2016, Commission File No. 001-33807).</u></a>
4.16*	<a href="#"><u>Form of 5.250% Senior Secured Note due 2026 (included as part of Exhibit 4.12).</u></a>
4.17*	<a href="#"><u>Form of 6.625% Senior Unsecured Note due 2026 (included as part of Exhibit 4.13).</u></a>
4.18*	<a href="#"><u>Joinder Agreement, dated as of March 23, 2017, to the Security Agreement dated as of June 8, 2011, by and between Cheyenne Data Center L.L.C. and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.18 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121).</u></a>
4.19*	<a href="#"><u>Supplemental Indenture relating to Hughes Satellite Systems Corporation's 5.250% Senior Secured Notes due 2026, dated March 23, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto, U.S. Bank National Association, as trustee, and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.19 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121).</u></a>

Exhibit No.	Description
4.20*	<a href="#"><u>Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, dated as of March 23, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.20 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121).</u></a>
4.21*	<a href="#"><u>Third Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6½% Senior Secured Notes due 2019, dated March 23, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and Wells Fargo Bank, National Association, as collateral agent and trustee (incorporated by reference to Exhibit 4.21 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121).</u></a>
4.22*	<a href="#"><u>Third Supplemental Indenture relating to Hughes Satellite Systems Corporation's 7½% Senior Notes due 2021, dated March 23, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.22 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121).</u></a>
4.23*	<a href="#"><u>Joinder Agreement, dated as of August 10, 2017, to the Security Agreement dated as of June 8, 2011, by and between HNS Americas, L.L.C., HNS Americas II, L.L.C. and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.23 to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 333-179121).</u></a>
4.24*	<a href="#"><u>Second Supplemental Indenture relating to Hughes Satellite Systems Corporation's 5.250% Senior Secured Notes due 2026, dated August 10, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto, U.S. Bank National Association, as trustee, and Wells Fargo Bank, National Association, as collateral agent (incorporated by reference to Exhibit 4.24 to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 333-179121).</u></a>
4.25*	<a href="#"><u>Second Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, dated as of August 10, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.25 to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 333-179121).</u></a>
4.26*	<a href="#"><u>Fourth Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6½% Senior Secured Notes due 2019, dated August 10, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and Wells Fargo Bank, National Association, as collateral agent and trustee (incorporated by reference to Exhibit 4.26 to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 333-179121).</u></a>
4.27*	<a href="#"><u>Fourth Supplemental Indenture relating to Hughes Satellite Systems Corporation's 7½% Senior Notes due 2021, dated August 10, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.27 to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 333-179121).</u></a>

Exhibit No.	Description
<a href="#">10.1*</a>	<a href="#">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).</a>
<a href="#">10.2*</a>	<a href="#">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).**</a>
<a href="#">10.3*</a>	<a href="#">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).***</a>
<a href="#">10.4*</a>	<a href="#">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).***</a>
<a href="#">10.5*</a>	<a href="#">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).**</a>
<a href="#">10.6*</a>	<a href="#">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).***</a>
<a href="#">10.7*</a>	<a href="#">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).***</a>
<a href="#">10.8*</a>	<a href="#">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).***</a>
<a href="#">10.9*</a>	<a href="#">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)).**</a>
<a href="#">10.10*</a>	<a href="#">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 Hughes Communications, Inc.'s Registration Statement on Form S-1, filed December 5, 2005 (File No. 333-130136)).**</a>
<a href="#">10.11*</a>	<a href="#">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 Hughes Communications, Inc.'s Annual Report on Form 10-K, filed March 7, 2011 (File No. 001-33040)).**</a>

Exhibit No.	Description
<a href="#"><u>10.12*</u></a>	<a href="#"><u>Amendment to Employment Agreement, dated as of April 1, 2016, between Hughes Communications, Inc. and Pradman Kaul (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of EchoStar Corporation, filed April 6, 2016, Commission File No. 001-33807).</u></a> **
<a href="#"><u>10.13*</u></a>	<a href="#"><u>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).</u></a> ***
<a href="#"><u>10.14*</u></a>	<a href="#"><u>Form of Satellite Transponder Service Agreement by and between EchoStar Satellite Operating Corporation and DISH Operating L.L.C (incorporated by reference to Exhibit 10.3 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).</u></a>
<a href="#"><u>10.15*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.16*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.17*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.18*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.19*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.20*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.21*</u></a>	<a href="#"><u>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).</u></a> **
<a href="#"><u>10.22*</u></a>	<a href="#"><u>EchoStar Corporation Executive Officer Bonus Incentive Plan, dated as of May 4, 2016 (incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Current Report on Form 8-K, filed May 5, 2016, Commission File No. 001-33807).</u></a> **

Exhibit No.	Description
<a href="#"><u>10.23*</u></a>	<a href="#"><u>EchoStar Corporation 2017 Stock Incentive Plan (incorporated by reference to EchoStar Corporation's Definitive Proxy Statement on Form 14, filed March 23, 2017, Commission File No. 001-33807).**</u></a>
<a href="#"><u>10.24*</u></a>	<a href="#"><u>Amended and Restated EchoStar Corporation 2017 Employee Stock Purchase Plan (incorporated by reference to EchoStar Corporation's Definitive Proxy Statement on Form 14, filed March 23, 2017, Commission File No. 001-33807).**</u></a>
<a href="#"><u>10.25*</u></a>	<a href="#"><u>EchoStar Non-Qualified Plan -- Executive Plan and Adoption Agreement, as amended (incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed August 9, 2017, Commission File No. 001-33807).**</u></a>
<a href="#"><u>10.26*</u></a>	<a href="#"><u>Form of Stock Option Agreement for the EchoStar Corporation 2017 Stock Incentive Plan - Employee (2017) (incorporated by reference to Exhibit 10.2 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed August 9, 2017, Commission File No. 001-33807).**</u></a>
<a href="#"><u>10.27*</u></a>	<a href="#"><u>Form of Stock Option Agreement for the EchoStar Corporation 2017 Stock Incentive Plan - Executive (2017) (incorporated by reference to Exhibit 10.3 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed August 9, 2017, Commission File No. 001-33807). **</u></a>
<a href="#"><u>10.28*</u></a>	<a href="#"><u>Form of Restricted Stock Unit Agreement for the EchoStar Corporation 2017 Stock Incentive Plan - Executive (2017) (incorporated by reference to Exhibit 10.5 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed August 9, 2017, Commission File No. 001-33807).**</u></a>
<a href="#"><u>10.29*</u></a>	<a href="#"><u>Letter Agreement between EchoStar Corporation and DISH Network Corporation, dated August 3, 2018, amending that certain Form of Tax Sharing Agreement between EchoStar Corporation and DISH Network (incorporated by reference to Exhibit 10.1 to Hughes Satellite System Corporation's Quarterly Report on Form 10-Q for the quarter ended September 2018, filed November 8, 2018, Commission File No. 333-179121).</u></a>
<a href="#"><u>10.30 (J)</u></a>	<a href="#"><u>Amendment to EchoStar Non-Qualified Plan-Executive Plan and Adoption Agreement, dated November 1, 2018.**</u></a>
<a href="#"><u>31.1 (H)</u></a>	<a href="#"><u>Section 302 Certification of Chief Executive Officer.</u></a>
<a href="#"><u>31.2 (H)</u></a>	<a href="#"><u>Section 302 Certification of Chief Financial Officer.</u></a>
<a href="#"><u>32.1 (H)</u></a>	<a href="#"><u>Section 906 Certifications of Chief Executive Officer and Chief Financial Officer.</u></a>
<a href="#"><u>99.1 (J)</u></a>	<a href="#"><u>Press release dated February 21, 2018 issued by EchoStar Corporation regarding financial results for the quarter and full year ended December 31, 2018.</u></a>
101.SCH	XBRL Taxonomy Extension Schema.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	XBRL Taxonomy Extension Definition Linkbase.

<u>Exhibit No.</u>	<u>Description</u>
101.LAB	XBRL Taxonomy Extension Label Linkbase.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase.

(H) Filed herewith.  
(I) Furnished herewith  
(J) Included as an exhibit to Hughes Satellite Systems Corporation's Annual Report on Form 10-K for the year ended December 31, 2019, filed February 21, 2019, Commission File No. 333-179121.  
\* 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 27, 2019

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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Michael T. Dugan</u> Michael T. Dugan	Chief Executive Officer, President and Director (Principal Executive Officer)	February 27, 2019
<u>/s/ David J. Rayner</u> David J. Rayner	Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer (Principal Financial and Accounting Officer)	February 27, 2019
<u>/s/ Charles W. Ergen</u> Charles W. Ergen	Chairman	February 27, 2019
<u>/s/ Dean A. Manson</u> Dean A. Manson	Executive Vice President, General Counsel Secretary and Director	February 27, 2019

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## Report of Independent Registered Public Accounting Firm

To the stockholders and board of directors  
Hughes Satellite Systems Corporation:

### *Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated balance sheets of Hughes Satellite Systems Corporation and subsidiaries (the "Company") as of December 31, 2018 and 2017, 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, 2018, and the related notes *and financial statement schedule II* listed in Item 15, (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

### *Changes in Accounting Principles*

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue recognition in 2018 due to the adoption of Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers and changed its method of accounting for marketable investment securities and fair value measurements due to the adoption of Accounting Standards Update No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities.

### *Basis for Opinion*

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2011.

Denver, Colorado  
February 21, 2019

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**  
(Dollars in thousands, except per share amounts)

	As of December 31,	
	2018	2017
<b>Assets</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 847,823	\$ 1,822,561
Marketable investment securities, at fair value	1,609,196	455,602
Trade accounts receivable and contract assets, net (Note 3)	201,096	196,840
Trade accounts receivable - DISH Network	13,550	38,641
Inventory	75,379	83,595
Prepays and deposits	48,681	38,797
Advances to affiliates, net	103,550	114,858
Other current assets	18,539	91,544
Total current assets	<u>2,917,814</u>	<u>2,842,438</u>
<b>Noncurrent assets:</b>		
Property and equipment, net	2,582,181	2,753,098
Regulatory authorizations	465,658	465,658
Goodwill	504,173	504,173
Other intangible assets, net	43,952	58,582
Investments in unconsolidated entities	126,369	30,587
Other noncurrent assets, net	253,025	202,814
Total noncurrent assets	<u>3,975,358</u>	<u>4,014,912</u>
Total assets	<u>\$ 6,893,172</u>	<u>\$ 6,857,350</u>
<b>Liabilities and Shareholders' Equity</b>		
<b>Current liabilities:</b>		
Trade accounts payable	\$ 104,751	\$ 102,816
Trade accounts payable - DISH Network	752	3,769
Current portion of long-term debt and capital lease obligations	959,577	40,631
Advances from affiliates, net	868	477
Contract liabilities	72,249	65,959
Accrued interest	46,703	46,834
Accrued compensation	42,796	36,924
Accrued taxes	7,609	8,198
Accrued expenses and other	68,854	77,312
Total current liabilities	<u>1,304,159</u>	<u>382,920</u>
<b>Noncurrent liabilities:</b>		
Long-term debt and capital lease obligations, net	2,573,204	3,594,213
Deferred tax liabilities, net	488,736	439,631
Advances from affiliates	33,438	33,715
Other noncurrent liabilities	101,140	107,627
Total noncurrent liabilities	<u>3,196,518</u>	<u>4,175,186</u>
Total liabilities	<u>4,500,677</u>	<u>4,558,106</u>
Commitments and contingencies (Note 13)		
<b>Shareholders' equity:</b>		
Preferred stock, \$0.001 par value, 1,000,000 shares authorized, none issued and outstanding at each of December 31, 2018 and 2017	—	—
Common stock, \$0.01 par value; 1,000,000 shares authorized, 1,078 shares issued and outstanding at each of December 31, 2018 and 2017	—	—
Additional paid-in capital	1,767,037	1,754,561
Accumulated other comprehensive loss	(83,774)	(52,822)
Accumulated earnings	693,957	582,683
Total HSS shareholders' equity	<u>2,377,220</u>	<u>2,284,422</u>
Noncontrolling interests	15,275	14,822
Total shareholders' equity	<u>2,392,495</u>	<u>2,299,244</u>
Total liabilities and shareholders' equity	<u>\$ 6,893,172</u>	<u>\$ 6,857,350</u>

The accompanying notes are an integral part of these consolidated financial statements.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)**  
(Dollars in thousands)

	For the years ended December 31,		
	2018	2017	2016
<b>Revenue:</b>			
Services and other revenue - DISH Network	\$ 366,155	\$ 433,829	\$ 449,547
Services and other revenue - other	1,526,098	1,203,551	1,103,127
Equipment revenue	205,410	239,489	247,119
Total revenue	<u>2,097,663</u>	<u>1,876,869</u>	<u>1,799,793</u>
<b>Costs and expenses:</b>			
Cost of sales - services and other (exclusive of depreciation and amortization)	600,213	559,684	533,305
Cost of sales - equipment (exclusive of depreciation and amortization)	176,600	195,439	189,405
Selling, general and administrative expenses	398,153	337,591	281,048
Research and development expenses	27,570	31,745	31,170
Depreciation and amortization	551,416	496,798	414,133
Impairment of long-lived asset	—	6,000	—
Total costs and expenses	<u>1,753,952</u>	<u>1,627,257</u>	<u>1,449,061</u>
Operating income	<u>343,711</u>	<u>249,612</u>	<u>350,732</u>
<b>Other income (expense):</b>			
Interest income	59,104	31,952	12,598
Interest expense, net of amounts capitalized	(259,721)	(245,478)	(187,198)
Gains (losses) on investments, net	187	(1,574)	6,995
Equity in earnings of unconsolidated affiliate	4,874	7,027	9,444
Other, net	(4,443)	(2,188)	2,909
Total other expense, net	<u>(199,999)</u>	<u>(210,261)</u>	<u>(155,252)</u>
Income before income taxes	143,712	39,351	195,480
Income tax benefit (provision), net	<u>(46,369)</u>	<u>258,202</u>	<u>(73,759)</u>
Net income	97,343	297,553	121,721
Less: Net income attributable to noncontrolling interests	1,842	1,583	1,706
Net income attributable to HSS	<u>\$ 95,501</u>	<u>\$ 295,970</u>	<u>\$ 120,015</u>
<b>Comprehensive Income:</b>			
Net income	<u>\$ 97,343</u>	<u>\$ 297,553</u>	<u>\$ 121,721</u>
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	(31,938)	7,196	(5,377)
Unrealized gains (losses) on available-for-sale securities and other	(624)	(2,188)	1,584
Amounts reclassified to net income:			
Other-than-temporary impairment loss on available-for-sale securities	—	3,298	—
Recognition of realized gains on available-for-sale securities in net income	(212)	—	(2,996)
Total other comprehensive gain (loss), net of tax	<u>(32,774)</u>	<u>8,306</u>	<u>(6,789)</u>
Comprehensive income	64,569	305,859	114,932
Less: Comprehensive income attributable to noncontrolling interests	453	1,992	1,520
Comprehensive income attributable to HSS	<u>\$ 64,116</u>	<u>\$ 303,867</u>	<u>\$ 113,412</u>

The accompanying notes are an integral part of these consolidated financial statements.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**  
(Dollars in thousands)

	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Earnings	Noncontrolling Interests	Total
<b>Balance, January 1, 2016</b>	\$ 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 comprehensive loss	—	(6,539)	—	(186)	(6,725)
Net income	—	—	120,015	1,706	121,721
Other, net	(421)	(64)	—	—	(485)
<b>Balance, December 31, 2016</b>	<b>1,516,199</b>	<b>(60,719)</b>	<b>286,713</b>	<b>12,830</b>	<b>1,755,023</b>
Stock-based compensation	5,117	—	—	—	5,117
Transfer of launch service contracts to EchoStar	(145,114)	—	—	—	(145,114)
Contribution of EchoStar XIX satellite, net of deferred tax	349,337	—	—	—	349,337
Contribution of net assets pursuant to Share Exchange Agreement	219,662	—	—	—	219,662
Exchange of uplinking business net assets for HSS Tracking Stock	(190,221)	—	—	—	(190,221)
Other comprehensive income	—	7,805	—	409	8,214
Net income	—	—	295,970	1,583	297,553
Other	(419)	92	—	—	(327)
<b>Balance, December 31, 2017</b>	<b>1,754,561</b>	<b>(52,822)</b>	<b>582,683</b>	<b>14,822</b>	<b>2,299,244</b>
Cumulative effect of adoption of ASU 2014-09 and ASU 2016-01 as of January 1, 2018	—	433	15,773	—	16,206
<b>Balance, January 1, 2018</b>	<b>1,754,561</b>	<b>(52,389)</b>	<b>598,456</b>	<b>14,822</b>	<b>2,315,450</b>
Stock-based compensation	5,435	—	—	—	5,435
Capital contribution from EchoStar Corporation	7,125	—	—	—	7,125
Other comprehensive income	—	(31,385)	—	(1,389)	(32,774)
Net Income	—	—	95,501	1,842	97,343
Other	(84)	—	—	—	(84)
<b>Balance, December 31, 2018</b>	<b>\$ 1,767,037</b>	<b>\$ (83,774)</b>	<b>\$ 693,957</b>	<b>\$ 15,275</b>	<b>\$ 2,392,495</b>

The accompanying notes are an integral part of these consolidated financial statements.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Dollars in thousands)

	For the years ended December 31,		
	2018	2017	2016
<b>Cash flows from operating activities:</b>			
Net income	\$ 97,343	\$ 297,553	\$ 121,721
<b>Adjustments to reconcile net income to net cash flows from operating activities:</b>			
Depreciation and amortization	551,416	496,798	414,133
Amortization of debt issuance costs	7,923	7,378	6,551
Losses (gains) and impairment on marketable investment securities, net	(184)	1,574	(6,995)
Impairment of long-lived asset	—	6,000	—
Equity in earnings of unconsolidated affiliate	(4,791)	(7,027)	(9,444)
Stock-based compensation	5,435	5,117	4,822
Deferred tax (benefit) provision	43,698	(268,071)	70,901
Dividends received from unconsolidated entity	10,000	19,000	10,000
Proceeds from sale of trading securities	—	8,922	7,140
<b>Changes in current assets and current liabilities, net:</b>			
Trade accounts receivable, net	(17,840)	(12,459)	(39,092)
Advances to and from affiliates, net	7,276	12,176	(67,579)
Trade accounts receivable - DISH Network	25,091	(19,318)	1,935
Inventory	5,650	(23,373)	(13,221)
Other current assets	(17,312)	(9,303)	298
Trade accounts payable	6,258	(4,826)	9,429
Accrued expenses and other	16,839	13,701	30,603
Changes in noncurrent assets and noncurrent liabilities, net	(2,680)	(30,831)	14,233
Other, net	8,581	4,018	10,436
<b>Net cash flows from operating activities</b>	<b>742,703</b>	<b>497,029</b>	<b>565,871</b>
<b>Cash flows from investing activities:</b>			
Purchases of marketable investment securities	(2,063,042)	(535,476)	(396,730)
Sales and maturities of marketable investment securities	909,996	259,263	460,834
Expenditures for property and equipment	(391,065)	(401,538)	(381,287)
Refunds and other receipts related to property and equipment	77,524	4,311	—
Investment in unconsolidated entity	(100,991)	—	—
Payment for EchoStar XXI launch services	(7,125)	—	(23,750)
Expenditures for externally marketed software	(31,639)	(31,331)	(23,252)
Other, net	—	—	(1,636)
<b>Net cash flows from investing activities</b>	<b>(1,606,342)</b>	<b>(704,771)</b>	<b>(365,821)</b>
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of long-term debt	—	—	1,500,000
Payments of debt issuance costs	—	(414)	(7,097)
Repurchase of the 2019 Senior Secured Notes	(70,173)	—	—
Repayment of debt and capital lease obligations	(41,019)	(37,063)	(31,669)
Advances from (to) affiliates	—	(36)	6,982
Capital contribution from EchoStar	7,125	—	23,750
Repayment of in-orbit incentive obligations	(4,796)	(5,850)	(5,499)
Other, net	—	1,486	1,342
<b>Net cash flows from financing activities</b>	<b>(108,863)</b>	<b>(41,877)</b>	<b>1,487,809</b>
Effect of exchange rates on cash and cash equivalents	(2,233)	1,286	183
<b>Net increase (decrease) in cash and cash equivalents, including restricted amounts</b>	<b>(974,735)</b>	<b>(248,333)</b>	<b>1,688,042</b>
Cash and cash equivalents, including restricted amounts, beginning of period	1,823,354	2,071,687	383,645
<b>Cash and cash equivalents, including restricted amounts, end of period</b>	<b>\$ 848,619</b>	<b>\$ 1,823,354</b>	<b>\$ 2,071,687</b>
<b>Supplemental disclosure of cash flow information:</b>			
Cash paid for interest, net of amounts capitalized	\$ 250,576	\$ 236,232	\$ 141,827
Cash paid for income taxes	\$ 4,837	\$ 3,574	\$ 4,796

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 broadband satellite technologies, broadband internet services for home and small office customers, satellite operations and satellite services. We also deliver innovative network technologies, managed services and various communications solutions for aeronautical, enterprise and government customers.

We primarily operate in the following two business segments:

- **Hughes** — which provides broadband satellite technologies and broadband internet services to domestic and international home and small office customers and broadband network technologies, managed services, equipment, hardware, satellite services and communication solutions to domestic and international consumers and aeronautical, enterprise and government customers. The Hughes segment also designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment designs, develops, constructs and provides telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and our enterprise customers.
- **EchoStar Satellite Services (“ESS”)** — which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite operations and satellite services on a full-time and/or occasional-use basis primarily to DISH Network Corporation and its subsidiaries (“DISH Network”), Dish Mexico, S. de R.L. de C.V., a joint venture that EchoStar entered into in 2008 (“Dish Mexico”), United States (“U.S.”) government service providers, internet service providers, broadcast news organizations, content providers, and private enterprise customers.

Our operations also include various corporate departments (primarily Executive, Treasury, Strategic Development, Human Resources, IT, Finance, Real Estate, Accounting and Legal) and other activities that have not been assigned to our operating segments such as costs incurred in certain satellite development programs and other business development activities, and gains or losses from certain of our investments. These activities, costs and income, as well as eliminations of intersegment transactions, are accounted for in Corporate and Other in our segment reporting.

During 2017, EchoStar and certain of its and our subsidiaries entered into a share exchange agreement with DISH and certain of its subsidiaries. EchoStar, and certain of its and our subsidiaries, received all of the shares of the Hughes Retail Preferred Tracking Stock previously issued by EchoStar and us (together, the “Tracking Stock”) in exchange for 100% of the equity interests of certain of EchoStar subsidiaries that held substantially all of EchoStar’s former EchoStar Technologies businesses and certain other assets (collectively, the “Share Exchange”). Following the consummation of the Share Exchange, EchoStar no longer operate its former EchoStar Technologies businesses, the Tracking Stock was retired and is no longer outstanding, and all agreements, arrangements and policy statements with respect to the Tracking Stock terminated.

**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% 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.

**Reclassification**

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Certain prior period amounts have been reclassified to conform with the current period presentation.

### **Use of Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles in the U.S. ("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 financial statements. Estimates are used in accounting for, among other things, (i) amortization periods for deferred contract acquisition costs, (ii) inputs used to recognize revenue over time, (iii) allowances for doubtful accounts, (iv) warranty obligations, (v) self-insurance obligations, (vi) deferred taxes and related valuation allowances, (vii) uncertain tax positions, (viii) loss contingencies, (ix) fair value of financial instruments, (x) fair value of EchoStar's stock-based compensation awards, (xi) fair value of assets and liabilities acquired in business combinations, (xii) lease classifications, (xiii) asset impairment testing and (xiv) useful lives and methods for depreciation and amortization of long-lived assets.

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 financial statements. Additionally, 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 thereto are reflected in the period they occur or prospectively if the revised estimate affects future periods.

### **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.

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 Level 1 measurements that reflect quoted prices for identical securities in active markets. Fair values of our investments in other marketable debt securities are generally based on Level 2 measurements, as the markets for such debt securities are less active. We consider trades of identical debt securities on or near the measurement date as a strong indication of fair value and matrix pricing techniques that consider par value, coupon rate, credit quality, maturity and other relevant features may also be used to determine fair value of our investments in marketable debt securities. Fair values for our outstanding debt (see Note 10) are based on quoted market prices in less active markets and are categorized as Level 2 measurements. Additionally, 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.

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, 2018 and 2017.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

As of December 31, 2018 and 2017, the carrying amounts of our cash and cash equivalents, trade and other receivables, net of allowance for doubtful accounts, accounts payable and accrued liabilities were equal to or approximated their fair value due to their short-term nature or proximity to current market rates.

## **Revenue Recognition**

### **Overview**

We account for our sales and services revenue in accordance with *Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("Topic 606")*, which we adopted on January 1, 2018, using the modified retrospective approach to contracts not completed as of the adoption date. Topic 606 provides a five-step revenue recognition model that we apply to our customer contracts. Under this model we (i) identify the contract with the customer, (ii) identify our performance obligations in the contract, (iii) determine the transaction price for the contract, (iv) allocate the transaction price to our performance obligations and (v) recognize revenue when or as we satisfy our performance obligations.

Revenue is recognized upon transfer of control of the promised goods or our performance of the services to our customers in an amount that reflects the consideration we expect to receive in exchange for those goods or services. We enter into contracts that may include various combinations of products and services, which are generally distinct and accounted for as separate performance obligations.

Additionally, a significant portion of our revenue is derived from leases of property and equipment that is reported in *Services and other revenue - other* and *Services and other revenue - DISH Network* in our Consolidated Statements of Operations and Comprehensive Income (Loss). Certain of our customer contracts contain embedded equipment leases, which we separate from non-lease components of the contract based on the relative standalone selling prices of the lease and non-lease components.

### **Hughes**

Our Hughes segment provides various communication and networking services to consumer and enterprise customers in both domestic and international markets. Our service contracts typically obligate us to provide substantially the same services on a recurring basis in exchange for fixed recurring fees over the term of the contract. We satisfy such performance obligations over time and recognize revenue ratably as services are rendered over the service period. Certain of our contracts with service obligations provide for fees based on usage, capacity or volume. We satisfy these performance obligations and recognize the related revenue at the point in time or over the period when the services are rendered. Our Hughes segment also sells and leases communications equipment to its customers. Revenue from equipment sales generally is recognized upon shipment of the equipment. Our equipment sales contracts typically include standard product warranties, but generally do not provide for returns or refunds. Revenue for extended warranties is recognized ratably over the extended warranty period. For contracts with multiple performance obligations, we typically allocate the contract's transaction price to each performance obligation based on their relative standalone selling prices. When the standalone selling price is not observable, our primary method used to estimate standalone selling price is the expected cost plus a margin. Our contracts generally require customer payments to be made at or shortly after the time we transfer control of goods or perform the services.

In addition to equipment and service offerings, our Hughes segment also enters into long-term contracts to design, develop, construct and install complex telecommunication networks to customers in its enterprise and mobile satellite systems markets. Revenue from such contracts is generally recognized over time at a measure of progress that depicts the transfer of control of the goods or services to the customer. Depending on the nature of the arrangement, we measure progress toward contract completion using an appropriate input method or output method. Under the input method, we recognize the transaction price as revenue based on the ratio of costs incurred to estimated total costs at completion. Under the output method, revenue and cost of sales are recognized as products are delivered based on the expected profit for the entire agreement. Profit margins on long-term contracts generally 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 generally receive interim payments as work progresses, although for some contracts, we may be entitled to receive an advance payment.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**ESS**

Our ESS segment provides satellite operations through leasing arrangements and satellite services on a full-time and/or occasional-use basis to DISH Network and Dish Mexico, as well as government service providers, internet service providers, broadcast news organizations, content providers and private enterprise customers. Our ESS segment also provides telemetry, tracking and control ("TT&C") services for satellites owned by DISH Network and technical consulting services that are billed by the hour. Generally, our service contracts with customers contain a single performance obligation and therefore there is no need to allocate the transaction price. We transfer control and recognize revenue for satellite services at the point in time or over the period when the services are rendered.

**Other**

Sales and Value Added Taxes, Universal Service Fees and other taxes that we collect concurrent with revenue producing activities are excluded from revenue.

Shipping and handling costs associated with outbound freight are accounted for as a fulfillment cost after control over a product has transferred to the customer and are included in *Cost of sales - equipment* in our Consolidated Statements of Operations and Comprehensive Income (Loss) at the time of shipment.

**Contract Balances****Trade Accounts Receivable**

Trade accounts receivable includes amounts billed and currently due from customers and represents our unconditional rights to consideration arising from our performance under our customer contracts. Trade accounts receivable also includes amounts due from customers under our leasing arrangements. We make ongoing estimates relating to the collectibility of our trade accounts receivable and maintain an allowance for estimated losses resulting from the inability of our customers to make the required payments. In determining the amount of the allowance, we consider historical levels of credit losses and make judgments about the creditworthiness of our customers based on ongoing credit evaluations. Past due trade accounts receivable balances are written off when our internal collection efforts have been unsuccessful. Bad debt expense related to our trade accounts receivable and other contract assets is included in *Selling, general and administrative expenses* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

**Contract Assets and Contract Liabilities**

Contract assets represent revenue that we have recognized in advance of billing the customer and are included in *Trade accounts receivable and contract assets, net* or *Other noncurrent assets, net* in our Consolidated Balance Sheets based on the expected timing of customer payment. Our contract assets include amounts that we referred to as Contracts in Process in prior periods. Our contract assets typically relate to our long-term contracts where we recognize revenue using the cost-based input method and the revenue recognized exceeds the amount billed to the customer.

Contract liabilities consist of advance payments and billings in excess of revenue recognized under customer contracts and are included in *Contract liabilities* or *Other noncurrent liabilities* in our Consolidated Balance Sheets based on the timing of when we expect to recognize revenue. *Contract liabilities* include amounts that we referred to as deferred revenue in prior periods. We recognize contract liabilities as revenue after all revenue recognition criteria have been met.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

## **Contract Acquisition and Fulfillment Costs**

### ***Contract Acquisition Costs***

Our contract acquisition costs represent incremental direct costs of obtaining a contract and consist primarily of sales incentives paid to employees and third-party representatives. When we determine that our contract acquisition costs are recoverable, we defer and amortize the costs over the contract term, or over the estimated life of the customer relationship if anticipated renewals are expected and the incentives payable upon renewal are not commensurate with the initial incentive. We amortize contract acquisition costs in proportion to the revenue to which the costs relate. We expense sales incentives as incurred if the expected amortization period is one year or less. Unamortized contract acquisition costs are included in *Other noncurrent assets, net* in our Consolidated Balance Sheets and related amortization expense is included in *Selling, general and administrative expenses* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

### ***Contract Fulfillment Costs***

We recognize costs to fulfill a contract as an asset when the costs relate directly to a specific contract, the costs generate or enhance our resources that will be used in satisfying future performance obligations and the costs are expected to be recovered. We may incur such costs on certain contracts that require initial setup activities in advance of the transfer of goods or services to the customer. We amortize these costs in proportion to the revenue to which the costs relate. Unamortized contract fulfillment costs are included in *Other noncurrent assets, net* in our Consolidated Balance Sheets and related amortization expense is included in *Cost of sales - services and other* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

## **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 reported in other comprehensive income (loss) as Foreign currency translation adjustments in our Consolidated Statements of Operations and Comprehensive Income (Loss). Except in certain uncommon circumstances, 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).

## **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, 2018 and 2017 primarily consisted of commercial paper, government bonds, corporate notes, and money market funds. The amortized cost of these investments approximates their fair value.

## **Inventory**

Inventory is stated at the lower of cost, determined using the first-in, first-out ("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.

**Capitalized Software Costs*****Internal-Use Software***

Costs related to the procurement and development of software for internal-use 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* in our Consolidated Balance Sheets.

***Externally Marketed Software***

Costs related to the procurement and development of software for 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 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 or lease 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.

**Marketable Investment Securities**

Our marketable investment securities portfolio consists of investments in debt and equity instruments with readily determinable fair values.

***Debt Securities***

We classify all of our debt securities as available for sale based on our investment strategy for the securities. Generally, we recognize periodic changes in the difference between fair value and amortized cost in *Unrealized gains on available-for-sale securities and other* in our Consolidated Statements of Operations and Comprehensive Income (Loss). Realized gains and losses upon sales of debt securities are reclassified from other comprehensive income (loss) and recognized on the trade date in *Gains and losses on investments, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss). We use the FIFO method to determine the cost basis on sales of debt securities. Interest income from debt securities is reported in *Interest income* in our Consolidated Statements of Operations and Comprehensive Income (Loss). We could realize proceeds from certain investments prior to their contractual maturity if we sell these securities before such maturity.

We evaluate our available-for-sale debt securities portfolio periodically to determine whether declines in the fair value of these securities are other-than-temporary. Our evaluation considers, among other things, the length of time and the extent to which the fair value of such security has been lower than amortized cost, market and company-specific factors related to the security and our intent and ability to hold the investment to maturity or when it recovers its value. We generally consider a decline to be other-than-temporary when: (i) we intend to sell the security, (ii) it is more likely than not that we will be required to sell the security before maturity or when it recovers its value, or (iii) we do not expect to recover the amortized cost of the security at maturity. Declines in the fair value of available-for-sale debt securities that are determined to be other-than-temporary are reclassified from other comprehensive income (loss) and recognized in *Net income*, in our Consolidated Statements of Operations and Comprehensive Income (Loss), thus establishing a new cost basis for the investment.

Additionally, from time to time we make strategic investments in corporate debt securities. We may elect to account for these investments using the fair value option when it reduces accounting complexity. When we have made this election, we recognize periodic changes in fair value of these investments in *Gains (losses) on investments, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss). Interest income from these securities is reported in *Interest income* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

***Equity Securities***

Prior to January 1, 2018, we classified our marketable equity securities as available-for-sale or trading securities, depending on our investment strategy for the securities. For available-for-sale securities, we recognized periodic

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

changes in the difference between fair value and cost in *Unrealized gains (losses) on available-for-sale securities and other* in our Consolidated Statements of Operations and Comprehensive Income (Loss). Realized gains and losses upon sale of available-for-sale securities were reclassified from other comprehensive income (loss) and recognized on the trade date in *Gains (losses) on investments, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss). We used the FIFO method to determine the cost basis on sales of available-for-sale securities. For trading securities, we recognized periodic changes in the fair value of the securities in *Gains and losses on investments, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

Effective January 1, 2018, we adopted *Accounting Standards Update ("ASU") No. 2016-01, Financial Instruments (the "New Investment Standard")*, which established new requirements for investments in equity securities in *ASC Topic 321, Investments - Equity Securities*. Accordingly, beginning in 2018, we recognize periodic changes in the fair value of all of our equity securities with a readily determinable fair value that are not accounted for using the equity method in *Gains and losses on investments, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss). We recognize dividend income on equity securities on the ex-dividend date and report such income in *Other, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

### **Investments in Unconsolidated Entities**

Our investments in unconsolidated entities consist of investments in equity securities that are not publicly traded and do not have readily determinable fair values.

#### **Equity Method**

We use the equity method to account for investments when we have the ability to exercise significant influence on the operating decisions of the investee. Such investments in unconsolidated entities 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 such 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 Consolidated Statements of Operations and Comprehensive Income (Loss) and include the intra-entity profit eliminations within *Equity in earnings of unconsolidated affiliate*.

#### **Other Investments**

Prior to January 1, 2018, we accounted for other investments without a readily determinable fair value using the cost method. In connection with our adoption of the New Investment Standard as of January 1, 2018, we have elected to measure such investments at cost, adjusted for changes resulting from impairments and observable price changes in orderly transactions for identical or similar securities of the same issuer. We consider information in periodic financial statements and other documentation provided by our investees and we may make inquiries of investee management to determine whether observable price changes have occurred.

#### **Impairment Considerations**

We evaluate all of our investments in unconsolidated entities periodically to determine whether events or changes in circumstances have occurred that may have a significant adverse effect on the fair value of the investment. As part of our evaluation, we review available information such as 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, we adjust the carrying amount of the investment to its estimated fair value and recognize the impairment loss in *Gains and losses on investments, net* in our Consolidated Statements of Operations and Comprehensive Income (Loss).

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

### **Property and Equipment**

Property and equipment is stated at cost, less accumulated depreciation. Depreciation is recorded on a straight-line basis over lives ranging from one to 40 years. 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. 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* in our Consolidated Statements of Operations. 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, 2018 and 2017 is assigned to reporting units of our Hughes segment. We test such goodwill for impairment in the second fiscal quarter. The goodwill impairment test involves a comparison of the fair value of a reporting unit with its carrying amount, including goodwill. We typically estimate fair value of 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, we recognize an impairment loss equal to such excess, not to exceed the carrying amount of goodwill. We may bypass the quantitative 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 their useful lives.

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 (see Impairment of Long-lived Assets above).

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;

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- expenditures required to maintain the authorization are not significant; and
- we intend to use these authorizations indefinitely.

#### **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.

#### **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 based on enacted tax laws 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.

#### **Cost of Sales - Services and Equipment**

*Cost of sales - services and other* in our Consolidated Statements of Operations and Comprehensive Income (Loss) primarily consists of costs of satellite capacity and services, hub infrastructure, customer care, wireline and wireless capacity, and direct labor costs associated with the services provided. *Cost of sales - services and other* generally are charged to expense as incurred. *Cost of sales - equipment* in our Consolidated Statements of Operations and Comprehensive Income (Loss) 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 are generally 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-equipment in our Consolidated Statements of Operations and Comprehensive Income (Loss).

#### **Advertising Costs**

Advertising costs are expensed as incurred and are included in *Selling, general and administrative expenses* in Consolidated Statements of Operations and Comprehensive Income (Loss).

**Recently Adopted Accounting Pronouncements*****Revenue Recognition and Financial Instruments***

On January 1, 2018, we adopted ASU No. 2014-09, *Revenue from Contracts with Customers and related amendments (collectively, the "New Revenue Standard")*. The New Revenue Standard established a comprehensive new model for revenue recognition, which is codified in Topic 606 (see Revenue Recognition above), and provided guidance for certain costs associated with customer contracts. We adopted the New Revenue Standard using the modified retrospective method for contracts that were not completed as of January 1, 2018. Accordingly, comparative information for prior periods has not been restated and continues to be reported under the accounting standards in effect for those periods. Upon adoption of the New Revenue Standard, we recognized the cumulative effect of its initial application as a net increase to *Accumulated earnings* in our Consolidated Balance Sheets of \$16 million, net of related income taxes. The adoption of the New Revenue Standard also impacted the timing of recognition of certain fees charged to our customers in our consumer markets; however, the adoption has not had, and we do not expect it to have, a material impact on the overall timing or amount of revenue recognition.

The primary impacts of the New Revenue Standard on our operating results relate to how we account for sales incentive costs. Historically, we charged sales incentives to expense as incurred, except for incentives related to the consumer business in our Hughes segment, which were initially deferred and subsequently amortized over the related service agreement term. Under the New Revenue Standard, we continue to defer incentives for our consumer business; however, we now amortize those incentives over the estimated customer life, which includes expected contract renewal periods. In addition, we now defer certain sales incentives related to other businesses in our Hughes segment and amortize those incentives over the related service agreement term. As a result of these changes, we have recognized additional contract acquisition costs on our Consolidated Balance Sheets and the costs generally are recognized as expenses over a longer period of time in our Consolidated Statements of Operations and Comprehensive Income (Loss). The adoption of the New Revenue Standard by an unconsolidated entity had a similar impact on our investment in the unconsolidated entity, which we account for using the equity method.

Additionally, on January 1, 2018, we prospectively adopted the applicable requirements of the New Investment Standard. The New Investment Standard substantially revises standards for the recognition, measurement and presentation of financial instruments, including requiring all equity investments, except for investments in consolidated subsidiaries and investments accounted for using the equity method, to be measured at fair value with changes in the fair value recognized through earnings. The New Investment Standard permits an entity to elect to measure an equity security without a readily determinable fair value at its cost, adjusted for changes resulting from impairments and observable price changes in orderly transactions for identical or similar securities of the same issuer. It also amends certain disclosure requirements associated with equity investments and the fair value of financial instruments. Upon adoption of the New Investment Standard on January 1, 2018, we recorded a \$0.4 million charge to *Accumulated earnings* to include net unrealized losses on our marketable equity securities then designated as available for sale, which previously were recorded in *Accumulated other comprehensive loss* in our Consolidated Balance Sheets. For our equity investments without a readily determinable fair value that were previously accounted for using the cost method, we have elected to measure such securities at cost, adjusted for impairments and observable price changes. We expect our future net income or loss to be more volatile as a result of these changes in accounting for our investments in equity securities that were previously accounted for as available-for-sale or using the cost method.

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The cumulative effects of changes to the impacted line items on our Consolidated Balance Sheets as of January 1, 2018 for the adoption of these standards were as follows:

	Balance at December 31, 2017	Adjustments Due to the		Balance at January 1, 2018
		New Revenue Standard	New Investment Standard	
(In thousands)				
<b>Assets:</b>				
Trade accounts receivable and contract assets, net	\$ 196,840	\$ (7,103)	\$ —	\$ 189,737
Other current assets	\$ 91,544	\$ 533	\$ —	\$ 92,077
Other noncurrent assets, net	\$ 202,814	\$ 22,545	\$ —	\$ 225,359
<b>Total assets</b>	<b>\$ 6,857,350</b>	<b>\$ 15,975</b>	<b>\$ —</b>	<b>\$ 6,873,325</b>
<b>Liabilities:</b>				
Contract liabilities	\$ 65,959	\$ (1,542)	\$ —	\$ 64,417
Accrued expenses and other	\$ 77,312	\$ 255	\$ —	\$ 77,567
Deferred tax liabilities, net	\$ 439,631	\$ 5,124	\$ —	\$ 444,755
Other noncurrent liabilities	\$ 107,627	\$ (4,068)	\$ —	\$ 103,559
<b>Total liabilities</b>	<b>\$ 4,558,106</b>	<b>\$ (231)</b>	<b>\$ —</b>	<b>\$ 4,557,875</b>
<b>Shareholders' Equity:</b>				
Accumulated other comprehensive loss	\$ (52,822)	\$ —	\$ 433	\$ (52,389)
Accumulated earnings (losses)	\$ 582,683	\$ 16,206	\$ (433)	\$ 598,456
<b>Total shareholders' equity</b>	<b>\$ 2,299,244</b>	<b>\$ 16,206</b>	<b>\$ —</b>	<b>\$ 2,315,450</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 6,857,350</b>	<b>\$ 15,975</b>	<b>\$ —</b>	<b>\$ 6,873,325</b>

Our adoption of these standards impacted the referenced line items on our Consolidated Balance Sheets, Statement of Operations and Statements of Comprehensive Income (Loss) as follows:

Balance Sheet	As of December 31, 2018			
	As Reported	Adjustments Due to the		Balances If We Had Not Adopted the New Standards
		New Revenue Standard	New Investment Standard	
(In thousands)				
<b>Assets:</b>				
Trade accounts receivable and contract assets, net	\$ 201,096	\$ 8,379	\$ —	\$ 209,475
Other current assets	\$ 18,539	\$ (533)	\$ —	\$ 18,006
Other noncurrent assets, net	\$ 253,025	\$ (35,314)	\$ —	\$ 217,711
<b>Total assets</b>	<b>\$ 6,893,172</b>	<b>\$ (27,468)</b>	<b>\$ —</b>	<b>\$ 6,865,704</b>
<b>Liabilities:</b>				
Contract liabilities	\$ 72,249	\$ 878	\$ —	\$ 73,127
Accrued expenses and other	\$ 68,854	\$ (255)	\$ —	\$ 68,599
Deferred tax liabilities, net	\$ 488,736	\$ (7,263)	\$ —	\$ 481,473
Other noncurrent liabilities	\$ 101,140	\$ 1,635	\$ —	\$ 102,775
<b>Total liabilities</b>	<b>\$ 4,500,677</b>	<b>\$ (5,005)</b>	<b>\$ —</b>	<b>\$ 4,495,672</b>
<b>Shareholders' Equity:</b>				
Accumulated other comprehensive loss	\$ (83,774)	\$ —	\$ 366	\$ (83,408)
Accumulated earnings	\$ 693,957	\$ (22,463)	\$ (366)	\$ 671,128
<b>Total shareholders' equity</b>	<b>\$ 2,392,495</b>	<b>\$ (22,463)</b>	<b>\$ —</b>	<b>\$ 2,370,032</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 6,893,172</b>	<b>\$ (27,468)</b>	<b>\$ —</b>	<b>\$ 6,865,704</b>

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Statement of Operations and Comprehensive Income	For the year ended December 31, 2018			
	As Reported	Adjustments Due to the		Balances if We Had Not Adopted the New Standards
		New Revenue Standard	New Investment Standard	
(In thousands)				
<b>Revenue:</b>				
Services and other revenue - other	\$ 1,526,098	\$ 2,323	\$ —	\$ 1,528,421
Total revenue	\$ 2,097,663	\$ 2,323	\$ —	\$ 2,099,986
<b>Costs and expenses:</b>				
Cost of sales - services and other (exclusive of depreciation and amortization)	\$ 600,213	\$ 2,738	\$ —	\$ 602,951
Selling, general and administrative expenses	\$ 398,153	\$ 8,520	\$ —	\$ 406,673
Total costs and expenses	\$ 1,753,952	\$ 11,258	\$ —	\$ 1,765,210
Operating income	\$ 343,711	\$ (8,935)	\$ —	\$ 334,776
<b>Other income (expense):</b>				
Interest expense, net of amounts capitalized	\$ (259,721)	\$ 539	\$ —	\$ (259,182)
Gains (losses) on investments, net	\$ 187	\$ —	\$ (800)	\$ (613)
Total other income (expense), net	\$ (199,999)	\$ 539	\$ (800)	\$ (200,260)
Income (loss) before income taxes	\$ 143,712	\$ (8,396)	\$ (800)	\$ 134,516
Income tax benefit (provision)	\$ (46,369)	\$ 2,139	\$ —	\$ (44,230)
Net income	\$ 97,343	\$ (6,257)	\$ (800)	\$ 90,286
Net income attributable to HSS	\$ 95,501	\$ (6,257)	\$ (800)	\$ 88,444
<b>Comprehensive income</b>				
Net income (loss)	\$ 97,343	\$ (6,257)	\$ (800)	\$ 90,286
Other comprehensive income (loss), net of tax:				
Unrealized gains (losses) on available-for-sale securities and other	\$ (624)	\$ —	\$ (28)	\$ (652)
Other-than-temporary impairment loss on available-for-sale securities	\$ —	\$ —	\$ 828	\$ 828
Total other comprehensive gain (loss), net of tax	\$ (32,774)	\$ —	\$ 800	\$ (31,974)
Comprehensive income (loss)	\$ 64,569	\$ (6,257)	\$ —	\$ 58,312
Comprehensive income (loss) attributable to HSS	\$ 64,116	\$ (6,257)	\$ —	\$ 57,859

**Restricted Cash and Cash Equivalents**

ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* requires restricted cash and restricted cash equivalents to be included with cash and cash equivalents in our Statement of Cash Flows. We adopted ASU No. 2016-18 as of January 1, 2018. As a result, the beginning and ending balances of cash and cash equivalents presented in our Consolidated Statements of Cash Flows include amounts for restricted cash and cash equivalents, which historically were not included in such balances, and receipts and payments of restricted cash and cash equivalents, exclusive of transfers to and from unrestricted accounts, are reported in our Consolidated Statements of Cash Flows. The adoption of this accounting standard did not have a material impact on our Statements of Cash Flows and related disclosures.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Leases**

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). This standard requires lessees to recognize assets and liabilities for all leases with lease terms greater 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, finance or sales-type leases and requires certain additional disclosures. ASU No. 2016-02 is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The new standard, as amended in July 2018, may be applied either on a modified retrospective basis or prospectively as of the adoption date without restating prior periods, with certain practical expedients available. We adopted the new standard prospectively as of January 1, 2019 and elected certain practical expedients permitted under the new standard's transition guidance. This allows us to carry forward the historical lease classification and to not reassess the lease term for leases in existence as of the adoption date and to carry forward our historical accounting treatment for land easements on agreements existing on the adoption date. We also made policy elections for certain classes of underlying assets to not separate lease and non-lease components in a contract as permitted under the new standard.

We currently lease real estate and equipment from third parties under operating leases and we lease certain satellites from third parties under capital leases. We also lease satellites, real estate and equipment to some of our customers. Upon adoption of the new standard, we recognized right-of-use assets and liabilities related to substantially all operating leases where we are the lessee. While our work is not finalized, we expect that the aggregate increase in our operating lease assets and liabilities will be approximately 1% of total assets as of January 1, 2019.

Our accounting for capital leases was not significantly impacted on the adoption date. Based on our transition method, practical expedients and policy elections, our leases existing as of the adoption date will continue to be reported in our Consolidated Statements of Operations and Comprehensive Income (Loss) in accordance with current accounting standards throughout their remaining terms unless the leases are modified. However, all leases entered into or modified after the adoption date will be accounted for in accordance with the new standard. The classification of those leases as operating, finance or sales type may be impacted by the new standard and affect our future operating results and the classification of our cash flows.

**Recently Issued Accounting Pronouncements Not Yet Adopted****Credit Losses**

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, which introduces a new approach to estimate credit losses on certain types of financial instruments based on expected losses instead of incurred losses. It also modifies the impairment model for available-for-sale debt securities and provides a simplified accounting model for purchased financial assets with credit deterioration since their origination. ASU No. 2016-13 is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. Early adoption is permitted. We are currently assessing the impact of adopting this new accounting standard on our Consolidated Financial Statements and related disclosures.

**NOTE 3. REVENUE RECOGNITION**
**Information About Contract Balances**

The following table provides information about our contract balances with customers, including amounts for certain embedded leases.

	As of	
	December 31, 2018	January 1, 2018
(In thousands)		
Trade accounts receivable:		
Sales and services	\$ 154,415	\$ 156,794
Leasing	7,990	10,355
Total	162,405	167,149
Contract assets	55,295	34,615
Allowance for doubtful accounts	(16,604)	(12,027)
Total trade accounts receivable and contract assets, net	<u>\$ 201,096</u>	<u>\$ 189,737</u>
Trade accounts receivable - DISH Network:		
Sales and services	\$ 12,274	\$ 16,118
Leasing	1,276	22,523
Total trade accounts receivable - DISH Network, net	<u>\$ 13,550</u>	<u>\$ 38,641</u>
Contract liabilities:		
Current	\$ 72,249	\$ 64,417
Noncurrent	10,133	13,036
Total contract liabilities	<u>\$ 82,382</u>	<u>\$ 77,453</u>

For the year ended December 31, 2018, we recognized revenue of \$52 million that was previously included in the contract liability balance at January 1, 2018.

Our bad debt expense was \$25 million, \$10 million and \$14 million for the years ended December 31, 2018, 2017 and 2016, respectively.

**Transaction Price Allocated to Remaining Performance Obligations**

As of December 31, 2018, the remaining performance obligations for our customer contracts with original expected durations of more than one year was \$939 million. We expect to recognize approximately 35.7% of our remaining performance obligations of these contracts as revenue in the next twelve months. This amount excludes agreements with consumer customers in our Hughes segment and our leasing arrangements.

**Disaggregation of Revenue**

In the following tables, revenue is disaggregated by segment, primary geographic market, nature of the products and services and transactions with major customers.

### Geographic Information

The following table disaggregates revenue from customer contracts attributed to our North America (the U.S and its territories, Mexico and Canada), South and Central America and other foreign locations as well as by segment, based on the location where the goods or services are provided. All other revenue includes transactions with customers in Asia, Africa, Australia, Europe, and the Middle East.

	Hughes	ESS	Corporate and Other	Consolidated Total
(In thousands)				
<b>For the year ended December 31, 2018</b>				
North America	\$ 1,444,628	\$ 357,357	\$ 4,555	\$ 1,806,540
South and Central America	101,632	—	—	101,632
All other	170,268	701	18,522	189,491
Total revenue	<u>\$ 1,716,528</u>	<u>\$ 358,058</u>	<u>\$ 23,077</u>	<u>\$ 2,097,663</u>

### Nature of Products and Services

The following table disaggregates revenue based on the nature of products and services and by segment.

	Hughes	ESS	Corporate and Other	Consolidated Total
(In thousands)				
<b>For the year ended December 31, 2018</b>				
Equipment	\$ 119,657	\$ —	\$ —	\$ 119,657
Services	1,313,059	24,113	1,128	1,338,300
Design, development and construction services	85,753	—	—	85,753
Revenue from sales and services	1,518,469	24,113	1,128	1,543,710
Leasing income	198,059	333,945	21,949	553,953
Total revenue	<u>\$ 1,716,528</u>	<u>\$ 358,058</u>	<u>\$ 23,077</u>	<u>\$ 2,097,663</u>

During the fourth quarter of 2018, we reclassified our revenue among the categories above applicable for the full year.

**NOTE 4. OTHER COMPREHENSIVE INCOME (LOSS) AND RELATED TAX EFFECTS**

The changes in the balances of *Accumulated other comprehensive loss* by component were as follows:

	Cumulative Foreign Currency Translation Losses	Unrealized Gain (Loss) On Available-For-Sale Securities	Other	Accumulated Other Comprehensive Loss
	(In thousands)			
<b>Balance, December 31, 2016</b>	\$ (59,038)	\$ (1,666)	\$ (15)	\$ (60,719)
Other comprehensive income (loss) before reclassifications	6,787	(2,280)	92	4,599
Amounts reclassified to net income	—	3,298		3,298
Other comprehensive income	6,787	1,018	92	7,897
<b>Balance, December 31, 2017</b>	\$ (52,251)	\$ (648)	\$ 77	\$ (52,822)
Cumulative effect of adoption of the New Investment Standard		433		433
<b>Balance, January 1, 2018</b>	(52,251)	(215)	77	(52,389)
Other comprehensive loss before reclassifications	(30,549)	(665)	41	(31,173)
Amounts reclassified to net income	—	(212)		(212)
Other comprehensive loss	(30,549)	(877)	41	(31,385)
<b>Balance, December 31, 2018</b>	\$ (82,800)	\$ (1,092)	\$ 118	\$ (83,774)

The amounts reclassified to net income related to unrealized gain (loss) on available-for-sale securities in the table above are included in *Gains and losses on investments, net* in our Consolidated Statements of Operations and Other Comprehensive Income (Loss).

Except in unusual circumstances, we do not recognize tax effects on foreign currency translation adjustments because they are not expected to result in future taxable income or deductions.

**NOTE 5. MARKETABLE INVESTMENT SECURITIES**
**Overview**

Our marketable investment securities portfolio consists of various debt and equity instruments as follows:

	As of December 31,	
	2018	2017
	(In thousands)	
<b>Marketable investment securities:</b>		
Debt securities:		
Corporate bonds	\$ 1,234,017	\$ 368,083
Other debt securities	374,106	86,417
Total debt securities	1,608,123	454,500
Equity securities	1,073	1,102
Total marketable investment securities	\$ 1,609,196	\$ 455,602

**Debt Securities**

Our corporate bond portfolio includes debt instruments issued by individual corporations, primarily in the industrial and financial services industries. Our other debt securities portfolio includes investments in various debt instruments, including U.S. government bonds and commercial paper.

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A summary of our available-for-sale debt securities is presented in the table below.

	Amortized Cost	Unrealized		Estimated Fair Value
		Gains	Losses	
(In thousands)				
<b>As of December 31, 2018</b>				
Corporate bonds	\$ 1,235,110	\$ 230	\$ (1,323)	\$ 1,234,017
Other debt securities	374,106	—	—	374,106
Total available-for-sale debt securities	<u>\$ 1,609,216</u>	<u>\$ 230</u>	<u>\$ (1,323)</u>	<u>\$ 1,608,123</u>
<b>As of December 31, 2017</b>				
Corporate bonds	\$ 368,291	\$ —	\$ (208)	\$ 368,083
Other debt securities	86,425	—	(8)	86,417
Total available-for-sale debt securities	<u>\$ 454,716</u>	<u>\$ —</u>	<u>\$ (216)</u>	<u>\$ 454,500</u>

As of December 31, 2018, we have \$1.3 billion of available-for-sale debt securities with contractual maturities of one year or less and \$351 million with contractual maturities greater than one year.

### Equity Securities

Our marketable equity securities consist primarily of shares of common stock of public companies. Prior to January 1, 2018, we classified our marketable equity securities as available-for-sale or trading securities, depending on our investment strategy for the securities. As of December 31, 2017, our marketable equity securities consisted of available-for-sale securities with a fair value of \$1.1 million, reflecting an adjusted cost basis of \$1.5 million and unrealized losses of \$0.4 million. Substantially all unrealized losses on our available-for-sale securities related to securities that were in a continuous loss position for less than 12 months. We recognized a \$3 million other-than-temporary impairment for the year ended December 31, 2017 on one of our available-for-sale securities which had experienced a decline in market value as a result of adverse developments during the year ended December 31, 2017.

Upon adoption of the New Investment Standard as of January 1, 2018 (see Note 2), we account for investments in equity securities at their fair value and we recognize unrealized gains and losses in *Gains and losses on investments, net* in our Consolidated Statement of Operations and Comprehensive Income (Loss). For the year ended December 31, 2018, *Gains and losses on investments, net* included de minimis loss related to equity securities that we held as of December 31, 2018.

### Sales of Available-for-Sale Securities

Proceeds from sales of our available-for-sale securities were \$50 million, \$9 million and \$20 million for the years ended December 31, 2018, 2017 and 2016, respectively. We recognized nil, de minimis and \$3 million gains for the years ended December 31, 2018, 2017 and 2016, respectively. We recognized nil losses for the years ended December 31, 2018 and 2017 and de minimis losses for 2016.

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**Fair Value Measurements**

Our marketable investment securities are measured at fair value on a recurring basis as summarized in the table below. As of December 31, 2018 and 2017, we did not have investments that were categorized within Level 3 of the fair value hierarchy.

	As of December 31,					
	2018			2017		
	Level 1	Level 2	Total	Level 1	Level 2	Total
	(In thousands)					
<b>Debt securities:</b>						
Corporate bonds	\$ —	\$ 1,234,017	\$ 1,234,017	\$ —	\$ 368,083	\$ 368,083
Other debt securities	—	374,106	374,106	—	86,417	86,417
Total debt securities	—	1,608,123	1,608,123	—	454,500	454,500
Equity securities	1,073	—	1,073	1,102	\$ —	1,102
Total marketable investment securities	\$ 1,073	\$ 1,608,123	\$ 1,609,196	\$ 1,102	\$ 454,500	\$ 455,602

**NOTE 6. INVENTORY**

Our inventory consisted of the following:

	As of December 31,	
	2018	2017
	(In thousands)	
Raw materials	\$ 4,856	\$ 5,484
Work-in-process	13,901	7,442
Finished goods	56,622	70,669
Total inventory	\$ 75,379	\$ 83,595

**NOTE 7. PROPERTY AND EQUIPMENT**

Property and equipment consisted of the following:

	Depreciable Life (In Years)	As of December 31,	
		2018	2017
		(In thousands)	
Land	—	\$ 13,401	\$ 13,475
Buildings and improvements	1 to 40	117,564	128,292
Furniture, fixtures, equipment and other	1 to 12	741,429	650,385
Customer rental equipment	2 to 4	1,159,977	929,775
Satellites - owned	2 to 15	2,268,862	2,516,685
Satellites acquired under capital leases	10 to 15	1,051,110	916,820
Construction in progress	—	28,087	149,570
Total property and equipment		5,380,430	5,305,002
Accumulated depreciation		(2,798,249)	(2,551,904)
Property and equipment, net		\$ 2,582,181	\$ 2,753,098

As of December 31, 2018 and 2017, accumulated depreciation included amounts for satellites acquired under capital leases of \$468 million and \$394 million, respectively.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Construction in progress consisted of the following:

	<b>As of December 31,</b>	
	<b>2018</b>	<b>2017</b>
	(In thousands)	
Progress amounts for satellite construction, including prepayments under capital leases and launch services costs	\$ 246	\$ 101,733
Satellite related equipment	13,001	28,358
Other	14,840	19,479
Construction in progress	\$ 28,087	\$ 149,570

We recorded capitalized interest related to our satellites, satellite payloads and related ground facilities under construction of \$6 million, \$23 million and \$30 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Depreciation expense associated with our property and equipment consisted of the following:

	<b>For the years ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	(In thousands)		
Buildings and improvements	\$ 10,026	\$ 15,559	\$ 4,777
Furniture, fixtures, equipment and other	80,301	68,184	57,952
Customer rental equipment	174,749	146,562	114,568
Satellites	248,688	224,738	191,729
Total depreciation expense	\$ 513,764	\$ 455,043	\$ 369,026

Satellites depreciation expense includes amortization of satellites under capital lease agreements of \$76 million, \$66 million and \$56 million for the years ended December 31, 2018, 2017 and 2016, respectively.

#### **Satellites**

As of December 31, 2018, our satellite fleet consisted of 15 satellites, 10 of which are owned and five of which are leased. They are all 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. We depreciate our leased satellites on a straight-line basis over their respective lease terms.

**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, 2018.

Satellites	Segment	Launch Date	Nominal Degree Orbital Locations (West Longitude)	Depreciable Life (In Years)
<b>Owned:</b>				
SPACEWAY 3 (1)	Hughes	August 2007	95	12
EchoStar XVII	Hughes	July 2012	107	15
EchoStar XIX (6)	Hughes	December 2016	97.1	15
EchoStar VII (2)(3)(4)	ESS	February 2002	119	3
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	86.4	2
EchoStar XIV (2)(3)	ESS	March 2010	119	11
EchoStar XVI (2)	ESS	November 2012	61.5	15
<b>Capital Leases:</b>				
Eutelsat 65 West A	Hughes	March 2016	65	15
Telesat T19V	Hughes	July 2018	63	15
Nimiq 5 (2)	ESS	September 2009	72.7	15
QuetzSat-1 (2)	ESS	September 2011	77	10
EchoStar 105/SES-11	ESS	October 2017	105	15

(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 (the "Hughes Acquisition").

(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 16).

(4) Fully depreciated assets as of December 31, 2018.

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

(6) EchoStar contributed the EchoStar XIX satellite to us in February 2017.

### Recent Developments

**EchoStar I and EchoStar VI.** The EchoStar I and EchoStar VI satellites were removed from their orbital locations and retired from commercial service in January 2018 and May 2018, respectively. The retirement of these satellites has not had, and is not expected to have, a material impact on our results of operations or financial position.

**EchoStar 105/SES-11.** The EchoStar 105/SES-11 satellite was launched in October 2017 and was placed into service in November 2017 at the 105 degree west longitude orbital location. Pursuant to agreements that we entered into in August 2014, we funded substantially all construction, launch and other costs associated with the EchoStar 105/SES-11 satellite and transferred the C-, Ku- and Ka-band payloads to two affiliates of SES Americom, Inc. ("SES") after the launch date, while retaining the right to use the entire Ku-band payload on the satellite for an initial ten-year term, with an option for us to renew the agreement on a year-to-year basis. In October 2017, we recorded a \$77 million receivable from SES in *Other current assets* in the Consolidated Balance Sheets, representing capitalized costs allocable to certain satellite payloads controlled by SES, and we reduced our carrying amount of the satellite by such amount. In January 2018, we received payment from SES for the receivable plus accrued interest. Our leased Ku-band payload on the EchoStar 105/SES-11 satellite has replaced the capacity we had on the AMC-15 satellite.

**Telesat T19V.** In September 2015, we entered into agreements pursuant to which affiliates of Telesat Canada will provide to us Ka-band capacity on the Telesat T19V satellite at the 63 degree west longitude orbital location for a 15-year term. The Telesat T19V satellite was launched in July 2018 and placed into service in October 2018. This satellite augments the capacity being provided by the EUTELSAT 65 West A and EchoStar XIX satellites in Central and South America.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Satellite Anomalies and Impairments**

Our satellites may experience anomalies from time to time, some of which may have a significant adverse effect on their remaining useful lives, the commercial operation of the satellites or our operating results or financial position. We are not aware of any anomalies with respect to our owned or leased satellites that have had any such significant adverse effect during the year ended December 31, 2018. There can be no assurance, however, that anomalies will not have any such adverse effects 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 satellites were to fail.

The EchoStar X satellite experienced anomalies in the past which affected seven solar array circuits. In December 2017, the satellite experienced anomalies which affected one additional solar array circuit reducing the number of functional solar array circuits to 16. As a result of these anomalies, we had a reduction in revenue of \$4 million for the year ended December 31, 2018.

We historically have not carried in-orbit insurance on our satellites because we have assessed that the cost of insurance is not economical 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. Our 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 8. GOODWILL 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, 2018 and 2017, 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 impairment testing in the second quarter of 2018, our goodwill is considered to be not impaired.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

### 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,					
		2018			2017		
		Cost	Accumulated Amortization	Carrying Amount	Cost	Accumulated Amortization	Carrying Amount
(In thousands)							
Customer relationships	8	\$ 270,300	\$ (244,787)	\$ 25,513	\$ 270,300	\$ (231,642)	\$ 38,658
Technology-based	6	51,400	(51,400)	—	51,417	(51,417)	—
Trademark portfolio	20	29,700	(11,261)	18,439	29,700	(9,776)	19,924
Total other intangible assets		<u>\$ 351,400</u>	<u>\$ (307,448)</u>	<u>\$ 43,952</u>	<u>\$ 351,417</u>	<u>\$ (292,835)</u>	<u>\$ 58,582</u>

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 \$38 million, \$42 million and \$45 million for the years ended December 31, 2018, 2017 and 2016, respectively.

### Future Amortization

As of December 31, 2018, our estimated future amortization of intangible assets was as follows:

	Amount
	(In thousands)
<b>For the years ending December 31,</b>	
2019	\$ 14,631
2020	10,981
2021	4,356
2022	1,485
2023	1,485
Thereafter	11,014
Total	<u>\$ 43,952</u>

**NOTE 9. INVESTMENTS IN UNCONSOLIDATED ENTITIES**

We have strategic investments in certain non-publicly traded equity securities that do not have a readily determinable fair value. We account for most of these investments using the equity method. We accounted for other investments in such equity securities using the cost method of accounting prior to January 1, 2018. In connection with our adoption of the New Investment Standard effective January 1, 2018 (see Note 2), we elected to measure our equity securities without a readily determinable fair value, other than those accounted for using the equity method, at cost adjusted for changes resulting from impairments, if any, and observable price changes in orderly transactions for the identical or similar securities of the same issuer. For the year ended December 31, 2018, we did not identify any observable price changes requiring an adjustment to our investments.

Our investments in unconsolidated entities consisted of the following:

	As of December 31,	
	2018	2017
	(In thousands)	
<b>Investments in unconsolidated entities:</b>		
Equity method	\$ 110,931	\$ 15,149
Other equity investments without a readily determinable fair value	15,438	15,438
Total investments in unconsolidated entities	<u>\$ 126,369</u>	<u>\$ 30,587</u>

We recorded cash distributions from our investments accounted for using the equity method of \$10 million, \$19 million and \$10 million for the years ended December 31, 2018, 2017 and 2016, 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 10. LONG-TERM DEBT AND CAPITAL LEASE OBLIGATIONS**

As of December 31, 2018, our debt primarily consisted of the 2019 Senior Secured Notes, the 2021 Senior Unsecured Notes, the 2026 Senior Secured Notes and the 2026 Senior Unsecured Notes, each as defined below, and our capital lease obligations.

The following table summarizes the carrying amounts and fair values of our long-term debt and capital lease obligations:

	Effective Interest Rate	As of December 31,			
		2018		2017	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
		(In thousands)			
<b>Senior Secured Notes:</b>					
6 1/2% Senior Secured Notes due 2019	6.959%	\$ 920,836	\$ 932,696	\$ 990,000	\$ 1,042,609
5 1/4% Senior Secured Notes due 2026	5.320%	750,000	695,865	750,000	769,305
<b>Senior Unsecured Notes:</b>					
7 5/8% Senior Unsecured Notes due 2021	8.062%	900,000	934,902	900,000	992,745
6 5/8% Senior Unsecured Notes due 2026	6.688%	750,000	696,353	750,000	791,865
Less: Unamortized debt issuance costs		(16,757)	—	(24,857)	—
Subtotal		<u>3,304,079</u>	<u>\$ 3,259,816</u>	<u>3,365,143</u>	<u>\$ 3,596,524</u>
Capital lease obligations		228,702		269,701	
Total debt and capital lease obligations		3,532,781		3,634,844	
Less: Current portion		(959,577)		(40,631)	
Long-term debt and capital lease obligations, net		<u>\$ 2,573,204</u>		<u>\$ 3,594,213</u>	

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**2019 Senior Secured Notes and 2021 Senior Unsecured Notes**

On June 1, 2011, we issued \$1.1 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, 2018 and 2017, the outstanding principal balance on the 2019 Senior Secured Notes was \$921 million and \$990 million, respectively. The decrease in the principal outstanding was due to our repurchase of \$69 million in the open market during 2018. We recorded a loss on the repurchase of \$1 million.

On June 1, 2011, we also issued \$900 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, 2018 and 2017, the outstanding principal balance on the 2021 Senior Unsecured Notes was \$900 million.

**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. At each of December 31, 2018 and 2017, the outstanding principal balance on each of the 2026 Senior Secured Notes and the 2026 Senior Unsecured Notes was \$750 million, respectively.

**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;

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

- 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

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

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.

Pursuant to the terms of a registration rights agreement, we registered notes having substantially identical terms as the 2026 Notes with the Securities and Exchange Commission as part of an offer to exchange registered notes for the 2026 Notes. This exchange offer expired May 11, 2017 with 99.98% of the 2026 Notes being tendered for exchange.

#### Debt Issuance Costs

In connection with the issuance of the 2026 Notes, we incurred \$8 million of debt issuance costs. For the years ended December 31, 2018, 2017 and 2016, we amortized \$8 million, \$7 million and \$7 million of debt issuance costs incurred for all debt issuances, 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 7). 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 10.7% as of December 31, 2018.

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, 2018, are as follows:

	<b>Amount</b>
	(In thousands)
<b>For the Years Ending December 31,</b>	
2019	\$ 88,615
2020	88,395
2021	84,248
2022	63,484
2023	63,360
Thereafter	47,520
Total minimum lease payments	435,622
Less: Amount representing use of the orbital location and estimated executory costs including profit thereon, included in total minimum lease payments	(136,799)
Net minimum lease payments	298,823
Less: Amount representing interest	(70,121)
Present value of net minimum lease payments	228,702
Less: Current portion	(40,662)
Long-term portion of capital lease obligations	\$ 188,040

We received rental income from the sublease of our capital lease satellites of approximately \$132 million for each of the years ended December 31, 2018, 2017 and 2016. As of December 31, 2018, our future minimum sublease rental income was \$216 million relating to such satellites. The subleases have a remaining weighted average term of two years.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**NOTE 11. INCOME TAXES**

The components of income before income taxes in our Consolidated Statements of Operations and Comprehensive Income (Loss) are as follows:

	For the years ended December 31,		
	2018	2017	2016
	(In thousands)		
Domestic	\$ 177,563	\$ 66,947	\$ 202,905
Foreign	(33,851)	(27,596)	(7,425)
Income before income taxes	\$ 143,712	\$ 39,351	\$ 195,480

The components of the provision for income taxes in our Consolidated Statements of Operations and Comprehensive Income (Loss) are as follows:

	For the years ended December 31,		
	2018	2017	2016
	(In thousands)		
<b>Current benefit (provision):</b>			
Federal	\$ (914)	\$ (638)	\$ (223)
State	138	(7,211)	(62)
Foreign	(1,895)	(2,020)	(2,573)
Total current provision	(2,671)	(9,869)	(2,858)
<b>Deferred benefit (provision):</b>			
Federal	(32,301)	275,957	(67,035)
State	(11,625)	(2,618)	(8,693)
Foreign	228	(5,268)	4,827
Total deferred benefit (provision)	(43,698)	268,071	(70,901)
Total income tax benefit (provision), net	\$ (46,369)	\$ 258,202	\$ (73,759)

The actual tax provisions for the years ended December 31, 2018, 2017 and 2016 reconcile to the amounts computed by applying the statutory federal tax rate to income before income taxes in our Consolidated Statements of Operations and Comprehensive Income (Loss) as shown below:

	For the years ended December 31,		
	2018	2017	2016
Statutory rate	21.0 %	35.0 %	35.0 %
State income taxes, net of Federal effect	8.0 %	(6.0)%	4.5 %
Permanent differences	0.7 %	(2.6)%	0.6 %
Tax credits	(2.7)%	(8.2)%	(1.5)%
Rates Different than Statutory	(2.8)%	— %	— %
Valuation allowance	8.1 %	44.0 %	(1.1)%
Enactment of Tax Cuts and Job Act of 2017	— %	(719.2)%	— %
Other	— %	0.8 %	0.2 %
Total effective tax rate	32.3 %	(656.2)%	37.7 %

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

The components of our deferred tax assets and liabilities are as follows:

	<b>As of December 31,</b>	
	<b>2018</b>	<b>2017</b>
	(In thousands)	
<b>Deferred tax assets:</b>		
Net operating losses, credit and other carryforwards	\$ 103,230	\$ 155,450
Unrealized losses on investments, net	6,998	6,597
Accrued expenses	21,646	22,683
Stock-based compensation	1,613	1,285
Other assets	7,707	7,179
Total deferred tax assets	141,194	193,194
Valuation allowance	(49,183)	(39,511)
Deferred tax assets after valuation allowance	92,011	153,683
<b>Deferred tax liabilities:</b>		
Depreciation and amortization	(575,875)	(588,105)
Other liabilities	(1,290)	(1,509)
Total deferred tax liabilities	(577,165)	(589,614)
Total net deferred tax liabilities	\$ (485,154)	\$ (435,931)

Deferred tax assets and liabilities reflect the effects of tax losses, credits, and the future income tax effects of temporary differences between the accompanying 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 \$49 million and \$40 million as of December 31, 2018 and 2017, respectively. The change in the valuation allowance primarily relates to a decrease in realized and unrealized gains that are capital in nature, and an increase 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, 2018, we had net operating loss carryforwards of \$193 million, including \$119 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, 2018, we have tax credit carryforwards of \$40 million and \$2 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, 2018, 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. However, due to the one-time transition tax on the deemed repatriation of post-1986 undistributed foreign subsidiary earnings, the majority of previously unremitted earnings have now been subjected to U.S. federal income tax.

#### **Accounting for the U.S. Tax Cuts and Jobs Act**

The Tax Cuts and Jobs Act of 2017 (the "2017 Tax Act") was enacted in December 2017 and has significantly impacted our effective tax rate and the tax benefit calculated for the year ended December 31, 2017. For the year ended December 31, 2017, we recorded a benefit of \$283 million to reflect the change in the value of our deferred tax assets and liabilities resulting from the change in the federal corporate tax rate from 35% to 21%. For the year ended December 31, 2018, we recorded an additional benefit of \$0.8 million upon completion of our analysis. This amount included an estimate of zero related to valuation allowances on foreign tax credit carryovers. We account for the effects, if any, of

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the global intangible low-taxed income provisions (“GILTI”) of the 2017 Tax Act as incurred. We also recorded a tax provision of nil related to the tax on deemed mandatory repatriation of our unrepatriated foreign earnings.

### 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, 2018, 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:

<b>Unrecognized tax benefit</b>	<b>For the Years Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	(In thousands)		
Balance as of beginning of period	\$ 7,950	\$ 7,057	\$ 3,508
Additions based on tax positions related to the current year	572	656	388
Additions based on tax positions related to prior years	—	237	3,161
Reductions based on tax positions related to prior years	(656)	—	—
Balance as of end of period	\$ 7,866	\$ 7,950	\$ 7,057

As of December 31, 2018, we had \$8 million of unrecognized income tax benefits, all of which, if recognized, would affect our effective tax rate. As of December 31, 2017, we had \$8 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, 2018, 2017 and 2016, 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 5.0 million shares of EchoStar Class A common stock. As of December 31, 2018, EchoStar had approximately 2.5 million shares of Class A common stock which remain available for issuance under the ESPP. Generally, all full-time employees who have been employed by EchoStar for at least one calendar quarter are eligible to participate in the ESPP. Employee stock purchases are made through payroll deductions. Under the terms of the ESPP, each employee’s deductions are limited so that the maximum 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 EchoStar’s Class A common stock on that date. For the years ended December 31, 2018, 2017 and 2016, employee purchases of EchoStar Class A common stock through the ESPP totaled approximately 235,000 shares, 169,000 shares and 209,000 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 eligible compensation subject to the maximum contribution limit provided by the Internal Revenue Code of 1986, as amended (the “Code”). Eligible employees have the option to contribute up to 75% of their eligible compensation on a pre-tax

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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 Plan to be made in cash or EchoStar's stock. EchoStar's 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.

During the years ended December 31, 2018, 2017 and 2016, we recognized matching contributions, net of forfeitures, of \$5 million, \$5 million and \$4 million, respectively, and EchoStar made discretionary contributions to our employees of shares of its Class A common stock, net of forfeitures, with a fair value of \$8 million, \$7 million and \$6 million, respectively, to the Plan.

**NOTE 13 COMMITMENTS AND CONTINGENCIES**

**Commitments**

The following table summarizes our contractual obligations at December 31, 2018:

	<b>Payments Due in the Year Ending December 31,</b>						
	<b>Total</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>Thereafter</b>
	(In thousands)						
Long-term debt	\$ 3,320,836	\$ 920,836	\$ —	\$ 900,000	\$ —	\$ —	\$ 1,500,000
Capital lease obligations	228,702	40,662	45,031	46,353	31,857	35,476	29,323
Interest on long-term debt and capital lease obligations	983,824	209,989	175,808	136,662	98,265	94,529	268,571
Satellite-related obligations	482,010	115,514	118,688	52,515	39,451	39,771	116,071
Operating lease obligations	87,987	17,587	16,957	13,400	9,730	8,427	21,886
<b>Total</b>	<b>\$ 5,103,359</b>	<b>\$ 1,304,588</b>	<b>\$ 356,484</b>	<b>\$ 1,148,930</b>	<b>\$ 179,303</b>	<b>\$ 178,203</b>	<b>\$ 1,935,851</b>

Our satellite-related obligations primarily include payments pursuant to regulatory authorizations; executory costs for our capital lease satellites; costs under agreements to lease satellite capacity; 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 \$101 million, \$140 million and \$144 million for the years ended December 31, 2018, 2017 and 2016, 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, 2018, 2017 and 2016, we recorded \$26 million, \$28 million and \$19 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 have in the future 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 tripled. 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 our products and services. We cannot be certain that these parties 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 parties 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 and Share Exchange***

In connection with EchoStar's spin-off from DISH in 2008 (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 assumed certain liabilities that relate to its and our 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. Additionally, in connection with the Share Exchange, EchoStar entered into a share exchange agreement and other agreements which provide, among other things, for the division of certain liabilities, including liabilities relating to taxes, intellectual property and employees and liabilities resulting from litigation and the assumption of certain liabilities that relate to the transferred businesses and assets. These agreements also contain additional indemnification provisions between EchoStar and us and DISH Network for certain pre-existing liabilities and legal proceedings.

### ***Litigation***

We are involved in a number of legal proceedings 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 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, 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 trials, 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). Except as described below, however, management does not believe, based on currently available information, that the outcomes of these proceedings will have a material 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.

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We intend to vigorously defend the proceedings against us. In the event that a court or jury 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.

#### **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 Hughes Network Systems, L.L.C. ("HNS"), as well as against Black Elk Energy Offshore Operations, LLC, Bluetide Communications, Inc. and Helm Hotels Group, in the U.S. District Court for the Eastern District of Texas, alleging infringement of U.S. 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 ("USPTO") challenging the validity of the patents in suit, which the USPTO subsequently declined to institute. On April 13, 2016, the defendants answered Elbit's complaint. At Elbit's request, on June 26, 2017, the court dismissed Elbit's claims of infringement against all parties other than HNS. Trial commenced on July 31, 2017. On August 7, 2017, the jury returned a verdict that the 073 patent was valid and infringed, and awarded Elbit approximately \$21 million. The jury also found that such infringement of the 073 patent was not willful and that the 874 patent was not infringed. On March 30, 2018, the court ruled on post-trial motions, upholding the jury's findings and awarding Elbit attorneys' fees in an amount that has not yet been specified. As a result of pre-judgment interest, costs and unit sales through the 073 patent's expiration in November 2017, the jury verdict would result in a payment of approximately \$29 million plus post-judgment interest if not overturned or modified on appeal. Elbit has requested an award of approximately \$14 million of attorneys' fees. HNS is contesting Elbit's claims as inappropriate and unreasonable in light of the court's decision and prevailing law. On April 27, 2018, HNS filed a notice of appeal to the U.S. Court of Appeals for the Federal Circuit. The parties have briefed the appeal and are awaiting a date for oral arguments. We cannot predict with certainty the outcome of the appeal. As of December 31, 2018 and 2017, we have recorded an accrual of approximately \$3 million and \$3 million, respectively, with respect to this liability. Any eventual payments made with respect to the ultimate outcome of this matter may be different from our accruals and such differences could be significant.

#### **Realtime Data LLC**

On May 8, 2015, Realtime Data LLC ("Realtime") filed suit against EchoStar Corporation and our subsidiary HNS in the U.S. District Court for the Eastern District of Texas alleging infringement of U.S. Patent Nos. 7,378,992 (the "992 patent"), entitled "Content Independent Data Compression Method and System;" 7,415,530 (the "530 patent"), entitled "System and Methods for Accelerated Data Storage and Retrieval," and 8,643,513 (the "513 patent"), entitled "Data Compression System and Methods." On September 14, 2015, Realtime amended its complaint, additionally alleging infringement of U.S. Patent No. 9,116,908 (the "908 patent"), entitled "System and Methods for Accelerated Data Storage and Retrieval." 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 U.S. Patents, Nos. 7,358,867 (the "867 patent"), entitled "Content Independent Data Compression Method and System;" 8,502,707 (the "707 patent"), entitled "Data Compression Systems and Methods;" 8,717,204 (the "204 patent"), entitled "Methods for Encoding and Decoding Data;" and 9,054,728 (the "728 patent"), entitled "Data Compression System and Methods." On February 13, 2018, we filed petitions before the USPTO challenging the validity of all claims asserted against us from the 707 patent, as well as one of the asserted claims of the 728 patent. On September 5, 2018, the USPTO declined to institute proceedings for the petition that we had filed against the 728 patent. On September 12, 2018, the USPTO instituted proceedings to review the validity of the asserted claims of the 707 patent. In a stipulation filed on October 24, 2018, Realtime voluntarily elected not to pursue any previously asserted claims from the 992, 530, 513, 908, 867 and 204 patents. Realtime is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein. In February 2019, we entered into a settlement agreement with Realtime and the case was dismissed with prejudice.

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**Other**

In addition to the above actions, we are subject to various other legal proceedings and claims, which arise in the ordinary course of business. As part of our ongoing operations, we are 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 we 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, we from time to time receive 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 other 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.

We also indemnify our directors, officers and employees for certain liabilities that might arise from the performance of their responsibilities for us. Additionally, in the normal course of its business, we enter into contracts pursuant to which we may make a variety of representations and warranties and indemnify the counterparty for certain losses. Our 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 us or our 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 our chief operating decision maker (“CODM”), who is our Chief Executive Officer. We primarily operate in two business segments, Hughes and ESS as described in Note 1 .

The primary measure of segment profitability that is reported regularly to our CODM is earnings before interest, taxes, depreciation and amortization, or EBITDA. Our operations also include various corporate departments (primarily Executive, Treasury, Strategic Development, Human Resources, IT, Finance, Real Estate, Accounting and Legal) and other activities that have not been assigned to our operating segments such as costs incurred in certain satellite development programs and other business development activities, and gains or losses from certain of our investments. These activities, costs and income, as well as eliminations of intersegment transactions, are accounted for in Corporate and Other in the tables below or in the reconciliation of EBITDA below.

Transactions between segments were not significant for the years ended December 31, 2018, 2017 and 2016. Total assets by segment have not been reported herein because the information is not provided to our CODM on a regular basis.

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The following table presents revenue, EBITDA and capital expenditures for each of our operating segments:

	Hughes	ESS	Corporate and Other	Consolidated Total
(In thousands)				
<b>For the year ended December 31, 2018</b>				
External revenue	\$ 1,716,169	\$ 355,734	\$ 25,760	\$ 2,097,663
Intersegment revenue	\$ 359	\$ 2,324	\$ (2,683)	\$ —
Total revenue	\$ 1,716,528	\$ 358,058	\$ 23,077	\$ 2,097,663
EBITDA	\$ 601,319	\$ 308,058	\$ (15,474)	\$ 893,903
Capital expenditures	\$ 390,108	\$ (76,582)	\$ 15	\$ 313,541
<b>For the year ended December 31, 2017</b>				
External revenue	\$ 1,476,131	\$ 390,831	\$ 9,907	\$ 1,876,869
Intersegment revenue	\$ 1,787	\$ 1,413	\$ (3,200)	\$ —
Total revenue	\$ 1,477,918	\$ 392,244	\$ 6,707	\$ 1,876,869
EBITDA	\$ 475,222	\$ 315,285	\$ (42,415)	\$ 748,092
Capital expenditures	\$ 376,502	\$ 20,725	\$ —	\$ 397,227
<b>For the year ended December 31, 2016</b>				
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
EBITDA	\$ 477,165	\$ 341,516	\$ (36,174)	\$ 782,507
Capital expenditures	\$ 322,362	\$ 58,925	\$ —	\$ 381,287

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,		
	2018	2017	2016
(In thousands)			
EBITDA	\$ 893,903	\$ 748,092	\$ 782,507
Interest income and expense, net	(200,617)	(213,526)	(174,600)
Depreciation and amortization	(551,416)	(496,798)	(414,133)
Net income attributable to noncontrolling interests	1,842	1,583	1,706
Income before income taxes	<u>\$ 143,712</u>	<u>\$ 39,351</u>	<u>\$ 195,480</u>

**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 customers in the U.S. and its territories, Mexico and Canada. Central and South America revenue includes transactions with customers in Brazil, Colombia, Peru, Ecuador and other countries in this region. All other revenue includes transactions with customers in Asia, Africa, Australia, Europe, and the Middle East. The following table summarizes total long-lived assets and revenue attributed to the North America, South and Central America and other foreign locations.

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<b>Long-lived assets:</b>	<b>As of December 31,</b>	
	<b>2018</b>	<b>2017</b>
	(In thousands)	
North America	\$ 3,311,208	\$ 3,482,462
Central and South America	192,860	28,360
All other	91,798	270,689
<b>Total long-lived assets</b>	<b>\$ 3,595,866</b>	<b>\$ 3,781,511</b>

<b>Revenue:</b>	<b>For the Years Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	(In thousands)		
North America	\$ 1,806,540	\$ 1,511,096	\$ 1,469,666
Central and South America	101,632	89,928	86,236
All other	189,491	275,845	243,891
<b>Total revenue</b>	<b>\$ 2,097,663</b>	<b>\$ 1,876,869</b>	<b>\$ 1,799,793</b>

**Transactions with Major Customers.** For the years ended December 31, 2018, 2017 and 2016, our revenue included sales to one major customer. The following table summarizes sales to this customer and its percentage of total revenue.

	<b>For the Years Ended December 31,</b>		
	<b>2018</b>	<b>2017</b>	<b>2016</b>
	(In thousands)		
<b>Total revenue:</b>			
DISH Network:			
Hughes segment	\$ 50,275	\$ 82,625	\$ 107,300
EchoStar Satellite Services segment	309,815	344,841	349,549
Corporate and Other	6,537	6,653	1,538
<b>Total DISH Network</b>	<b>366,627</b>	<b>434,119</b>	<b>458,387</b>
All other	1,731,036	1,442,750	1,341,406
<b>Total revenue</b>	<b>\$ 2,097,663</b>	<b>\$ 1,876,869</b>	<b>\$ 1,799,793</b>
<b>Percentage of total revenue:</b>			
DISH Network	17.5%	23.1%	25.5%
All other	82.5%	76.9%	74.5%

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**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 (1)
	(In thousands)			
<b>Year Ended December 31, 2018</b>				
Total revenue	\$ 502,895	\$ 527,596	\$ 534,855	\$ 532,317
Operating income	\$ 80,664	\$ 98,778	\$ 94,320	\$ 69,949
Net income	\$ 20,381	\$ 40,693	\$ 28,920	\$ 7,349
Net income attributable to HSS	\$ 20,001	\$ 40,231	\$ 28,470	\$ 6,799
<b>Year Ended December 31, 2017</b>				
Total revenue	\$ 430,118	\$ 462,265	\$ 478,362	\$ 506,124
Operating income	\$ 60,690	\$ 53,034	\$ 68,919	\$ 66,969
Net income	\$ 9,427	\$ 302	\$ 11,483	\$ 276,341
Net income attributable to HSS	\$ 9,135	\$ 120	\$ 10,951	\$ 275,764

(1) Net income for the three months ended December 31, 2017 include a discrete income tax benefit of \$283 million related to the enactment of federal tax legislation in December 2017 and an impairment loss of \$6 million relating to our regulatory authorizations with indefinite lives. See Note 11 for additional information relating to the income tax benefit.

**NOTE 16. RELATED PARTY TRANSACTIONS****EchoStar**

We and EchoStar, including EchoStar's other subsidiaries, have agreed that we shall each have the right, but not the obligation, to receive from the other certain shared corporate services, including among other things: treasury, tax, accounting and reporting, risk management, cybersecurity, legal, internal audit, human resources, and information technology. These shared corporate services are generally provided at cost. Effective March 2017, and as a result of the Share Exchange, we implemented a new methodology for determining the cost of these shared corporate services. We and EchoStar, including EchoStar's other subsidiaries, may each terminate a particular shared corporate service for any reason upon at least 30 days' notice. We recorded net expenses for shared corporate services received from EchoStar and its other subsidiaries of \$16 million, \$22 million and \$17 million for the years ended December 31, 2018, 2017 and 2016, respectively.

We also reimburse EchoStar and its other subsidiaries from time to time for amounts paid by EchoStar and its other subsidiaries for costs and expenses attributable to us, and EchoStar and its other subsidiaries similarly reimburse us from time to time for amounts paid by us for costs and expenses attributable to EchoStar and its other subsidiaries. We report net payments under these arrangements in *Advances to affiliates, net* within current assets and we report net receipts under these arrangements in *Advances from affiliates, net* within current liabilities in our Consolidated Balance Sheets. No repayment schedule for these net advances has been determined.

In addition, we occupy certain office space in buildings owned or leased by EchoStar and its other subsidiaries and pay a portion of the taxes, insurance, utilities and maintenance of the premises in accordance with the percentage of the space we occupy.

EchoStar and certain of its other subsidiaries have also provided cash advances to certain of our foreign subsidiaries to fund certain expenditures pursuant to loan agreements that mature in 2021 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, net* within noncurrent liabilities in our Consolidated Balance Sheets.

**Contribution of EchoStar XIX Satellite.** On February 1, 2017, EchoStar contributed the EchoStar XIX satellite and assigned the related construction contract with the satellite manufacturer to us. We recorded a \$349 million increase in Additional paid-in capital, reflecting EchoStar's \$514 million carrying amount of the satellite, including capitalized

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interest that was previously charged to expense in our consolidated financial statements, less related deferred taxes of \$165 million.

**EchoStar XXI and EchoStar XXIII Launch Facilitation and Operational Control Agreements.** As part of applying for launch licenses for the EchoStar XXI and XXIII satellites through the UK Space Agency, we and a subsidiary of EchoStar, EchoStar Operating L.L.C. ("EOC"), entered into agreements in June 2015 and March 2016 to transfer to us EOC's launch service contracts for the EchoStar XXI and EchoStar XXIII satellites, respectively, and to grant us certain rights to control the in-orbit operations of these satellites. EOC retained ownership of the satellites and agreed to make additional payments to us for amounts that we are required to pay under both launch service contracts. In 2016, we recorded additions to *Other noncurrent assets, net* and corresponding increases in *Additional paid-in capital* in our Consolidated Balance Sheet to reflect EOC's cumulative payments under the launch service contracts prior to the transfer dates and to reflect EOC's funding of additional cash payments to the launch service provider. The EchoStar XXIII and the EchoStar XXI satellites were successfully launched in March 2017 and June 2017, respectively. We recorded decreases in *Other noncurrent assets, net* and *Additional paid-in capital* of \$62 million and \$83 million, respectively, representing the carrying amounts of the launch service contracts at the time of launch to reflect the consumption of the contracts' economic benefits by EOC, the owner of the satellites.

**Share Exchange.** Prior to consummation of the Share Exchange, EchoStar was required to complete steps necessary for the transferring of certain assets and liabilities to DISH and certain of its subsidiaries. As part of these steps, subsidiaries of EchoStar that, prior to the consummation of the Share Exchange, owned 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 and related assets and liabilities were contributed to one of our subsidiaries in consideration for additional shares of HSS' common stock that were then issued to a subsidiary of EchoStar. Certain data center assets that were included in the contribution of certain assets and liabilities to one of our subsidiaries were not included in the Share Exchange and continue to be owned by us and are pledged as collateral to support our obligations under the indentures relating to our Secured Notes.

**EchoStar Mobile Limited Service Agreements.** We provide services and lease equipment to support the business of EchoStar Mobile Limited, a subsidiary of EchoStar that is licensed by the European Union and its member states ("EU") to provide mobile satellite services and complementary ground component services covering the entire EU using S-band spectrum. Generally, the amounts EchoStar's subsidiaries pay for these services are based on cost plus a fixed margin. We have converted the receivables for certain of these services into loans, bearing an annual interest rate of 5%, that mature in 2023. We recorded revenue in *Services and other revenue - other* of \$19 million and \$3 million for the year ended December 31, 2018 and 2017, respectively, related to these services.

**DBS Transponder Lease.** EchoStar leases satellite capacity from us on eight DBS transponders on the QuetzSat-1 satellite through November 2021, after which EchoStar has certain options to renew the agreement on a year-to year basis through the end of life of the QuetzSat-1 satellite. We recorded revenue in connection with this agreement of approximately \$23 million for each of the years ended December 31, 2018, 2017 and 2016. As of December 31, 2018 and 2017, we had related trade accounts receivable of approximately \$6 million and \$8 million, respectively.

**Construction Management Services for EchoStar XXIV satellite.** In August 2017, a subsidiary of EchoStar entered into a contract with Space Systems Loral, LLC for the design and construction of the EchoStar XXIV satellite, a new, next-generation, high throughput geostationary satellite, with a planned 2021 launch. We provide construction management services to EchoStar's subsidiary for the construction of the EchoStar XXIV satellite. We charged EchoStar and reduced our operating expenses by the costs of such services of \$1 million and \$0.4 million for the years ended December 31, 2018 and 2017, respectively.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**DISH Network**

Following the Spin-off, EchoStar and DISH have operated as separate publicly-traded companies. In addition, prior to the consummation of the Share Exchange in February 2017, DISH Network owned the Tracking Stock, which represented an aggregate 80.0% economic interest in the residential retail satellite broadband business of our Hughes segment. Following the consummation of the Share Exchange, the Tracking Stock was retired. A substantial majority of the voting power of the shares of each of EchoStar and DISH is owned beneficially by Charles W. Ergen, our Chairman, and by certain entities established by Mr. Ergen for the benefit of his family.

In connection with and following both the Spin-off and the Share Exchange, EchoStar, we and certain other of EchoStar's subsidiaries and DISH and certain of its subsidiaries entered into certain agreements pursuant to which we and EchoStar and its other subsidiaries obtain certain products, services and rights from DISH Network; DISH Network obtains certain products, services and rights from us and EchoStar and its other subsidiaries and such entities indemnify each other against certain liabilities arising from the respective businesses. We and/or EchoStar also may enter into additional agreements with DISH Network in the future. Generally, the amounts we and/or EchoStar or DISH Network pay for products and services provided under the agreements are based on 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.

**Services and Other Revenue — DISH Network**

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

*EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV.* In March 2014, as part of the Satellite and Tracking Stock Transaction, described below in Other Agreements - DISH Network, we began leasing certain satellite capacity to DISH Network on the EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. These agreements to lease satellite capacity generally terminate 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 agreement to lease satellite capacity 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. The agreement to lease satellite capacity on the EchoStar VII satellite expired at the end of June 2018.

*EchoStar IX.* Effective January 2008, DISH Network began leasing satellite capacity from us on the EchoStar IX satellite. Subject to availability, DISH Network generally has the right to continue leasing satellite capacity from us on the EchoStar IX satellite on a month-to-month basis.

*EchoStar XII.* DISH Network leased satellite capacity from us on the EchoStar XII satellite. The agreement to lease satellite capacity expired at the end of September 2017.

*EchoStar XVI.* In December 2009, we entered into an initial ten-year agreement to lease satellite capacity to DISH Network, pursuant to which DISH Network has leased satellite capacity from us on the EchoStar XVI satellite since January 2013. Effective December 2012, we and DISH Network amended the 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 agreement to, among other things, extend the initial term by one additional year through January 2018 and to reduce the term of the first renewal option by one year. In May 2017, DISH Network renewed the agreement through January 2023. DISH Network has the option to renew for an additional five-year period prior to expiration of the current term. There can be no assurance that such option to renew this agreement will be exercised. In the event that DISH Network does not exercise its five-year renewal option, DISH Network has

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

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. We and DISH Network have amended the agreement to allow DISH Network to place and use certain satellites at the 61.5 degree west longitude orbital location.

*Nimiq 5 Agreement.* In September 2009, we entered into a fifteen-year agreement with Telesat Canada to lease satellite capacity from Telesat Canada on all 32 direct broadcast satellite (“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 an agreement with DISH Network, pursuant to which DISH Network leases satellite capacity from us on all 32 of the DBS transponders covered by the Telesat Transponder Agreement (the “DISH Nimiq 5 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 in October 2019. 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 lease satellite capacity 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 lease satellite capacity on a replacement satellite.

*QuetzSat-1 Agreement.* In November 2008, we entered into a ten-year agreement to lease satellite capacity from SES Latin America, which provides, among other things, for the provision by SES Latin America to us of leased satellite capacity on 32 DBS transponders on the QuetzSat-1 satellite. Concurrently, in 2008, we entered into an agreement pursuant to which DISH Network leases from us satellite capacity 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 January 2013, the QuetzSat-1 satellite was moved to the 77 degree west longitude orbital location. In February 2013, EchoStar and DISH Network entered into an agreement pursuant to which EchoStar leases back from DISH Network certain satellite capacity on five DBS transponders on the QuetzSat-1 satellite through November 2021, unless extended or earlier terminated under the terms and conditions of our agreement.

Under the terms of our contractual arrangements with DISH Network, we began leasing satellite capacity to DISH Network on the QuetzSat-1 satellite in February 2013 and will continue leasing such capacity through November 2021, unless extended or earlier terminated under the terms and conditions of our agreement with DISH Network for the QuetzSat-1 satellite. 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 lease satellite capacity 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 lease satellite capacity 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. Effective in March 2018, DISH Network exercised its right to terminate the DISH 103 Spectrum Development Agreement and we exercised our right to terminate the 103 Spectrum Development Agreement.

In connection with the 103 Spectrum Development Agreement, in May 2012, we also entered into a ten-year agreement with Ciel pursuant to which we leased certain satellite capacity from Ciel on the SES-3 satellite at the 103 degree west longitude orbital location (the “Ciel 103 Agreement”). In June 2013, we and DISH Network entered into an agreement pursuant to which DISH Network leased certain satellite capacity from us on the SES-3 satellite (the “DISH 103 Agreement”). Under the terms of the DISH 103 Agreement, DISH Network made certain monthly

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

payments to us through the service term. Effective in March 2018, DISH Network exercised its right to terminate the DISH 103 Agreement and we exercised our right to terminate the Ciel 103 Agreement.

**TT&C Agreement.** Effective January 2012, we entered into a TT&C agreement pursuant to which we provided TT&C services to DISH Network for a period ending in December 2016 (the "TT&C Agreement"). We and DISH Network have amended the TT&C Agreement over time to, among other things, extend the term through February 2023. The fees for services provided under the 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 TT&C Agreement for any reason upon 12 months' notice.

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.

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

**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 we provide, among other things, warranty, operations and maintenance and hosting services for TerreStar's ground-based communications equipment. In December 2017, we and DISH Network amended these agreements, effective as of January 1, 2018, to reduce certain pricing terms through December 31, 2023 and to modify certain termination provisions. DISH Network generally has the right to continue to receive warranty services from us for our products on a month-to-month basis unless terminated by DISH Network upon at least 21 days' written notice to us. DISH Network generally has the right to continue to receive operations and maintenance services from us on a quarter-to-quarter basis unless operations and maintenance services are terminated by DISH Network upon at least 90 days' written notice to us. The provision of hosting services will continue until May 2022. In addition, DISH Network generally may terminate any and all services for convenience subject to providing us with prior notice and/or payment of termination charges.

**Hughes Broadband Distribution Agreement.** Effective October 2012, we and DISH Network, entered into a distribution agreement (the "Distribution Agreement") pursuant to which DISH Network has the right, but not the obligation, to market, sell and distribute our HughesNet satellite internet service (the "HughesNet service"). DISH Network pays us a monthly per subscriber wholesale service fee for the HughesNet service based upon a subscriber's service level and based upon certain volume subscription thresholds. The Distribution Agreement also provides that DISH Network has the right, but not the obligation, to purchase certain broadband equipment from us to support the sale of the HughesNet 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, we and DISH Network 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, we and DISH Network will continue to provide our HughesNet service to the then-current DISH Network 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 we provide, among other things, warranty, operations and maintenance and hosting services of

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

DBSD North America's gateway and ground-based communications equipment. In December 2017, we and DBSD North America amended these agreements, effective as of January 1, 2018, to reduce certain pricing terms through December 31, 2023 and to modify certain termination provisions. DBSD North America has the right to continue to receive operations and maintenance services from us on a quarter-to-quarter basis, unless terminated by DBSD North America upon at least 120 days' written notice to us. In February 2019, we further amended these agreements to provide DBSD North America with the right to continue to receive warranty services from us on a month-to-month basis until December 2023, unless terminated by DBSD North America upon at least 21 days' written notice to us. 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. In addition, DBSD North America generally may terminate any and all such services for convenience, subject to providing us with prior notice and/or payment of termination charges.

**RUS Implementation Agreement.** In September 2010, DISH Network was selected by the Rural Utilities Service ("RUS") of the U.S. Department of Agriculture to receive up to approximately \$14 million in broadband stimulus grant funds. Effective November 2011, we and DISH Network entered into a RUS Implementation Agreement (the "RUS Agreement") pursuant to which we provided certain portions of the equipment and broadband service used to implement DISH Network's RUS program. While the RUS Agreement expired in June 2013 when the broadband stimulus grant funds were exhausted, we are required to continue providing services to DISH Network's customers activated prior to the expiration of the RUS Agreement in accordance with the terms and conditions of the RUS Agreement.

**Hughes Equipment and Services Agreement.** In February 2019, we and DISH Network entered into an agreement pursuant to which we will sell to DISH Network our HughesNet Service and HughesNet equipment that has been modified to meet DISH Network's internet-of-things specifications for the transfer of data to DISH Network's network operations centers. This agreement has an initial term of five years expiring February 2024 with automatic renewal for successive one-year terms unless terminated by DISH Network with at least 180 days' written notice to us or by us with at least 365 days' written notice to DISH Network.

**General and Administrative Expenses — DISH Network**

**Amended and Restated Professional Services Agreement.** In connection with the Spin-off, EchoStar entered into various agreements with DISH Network including a transition services agreement, satellite procurement agreement and services agreement, which all expired in January 2010 and were replaced by a professional services agreement (the "Professional Services Agreement"). In January 2010, EchoStar and DISH Network agreed that EchoStar and its subsidiaries 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 a 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 EchoStar and its subsidiaries to manage the process of procuring new satellite capacity for DISH Network (previously provided under a satellite procurement agreement), receive logistics, procurement and quality assurance services from EchoStar and its subsidiaries (previously provided under a services agreement) and provide other support services. In connection with the consummation of the Share Exchange, EchoStar and DISH amended and restated the Professional Services Agreement (the "Amended and Restated Professional Services Agreement") to provide that EchoStar and its subsidiaries and DISH Network shall have the right to receive additional services that either EchoStar and its subsidiaries or DISH Network may require as a result of the Share Exchange, including access to antennas owned by DISH Network for our use in performing TT&C services and maintenance and support services for our antennas. A portion of these costs and expenses have been allocated to us in the manner described above under the caption "EchoStar." The term of the Amended and Restated Professional Services Agreement is through January 2020 and renews automatically for successive one-year periods thereafter, unless the agreement is terminated earlier by either party upon at least 60 days' notice. However, either party may generally terminate the Amended and Restated Professional Services Agreement in part with respect to any particular service it receives for any reason upon at least 30 days' notice, unless the statement of work for particular services states otherwise. Certain services being provided for under the Amended and Restated Professional Services Agreement may survive the termination of the agreement.

**Real Estate Lease from DISH Network.** Effective March 2017, we sublease from DISH Network certain space at 796 East Utah Valley Drive in American Fork, Utah for a period ending in August 2017. We exercised our option to renew this sublease for a five-year period ending in August 2022. The rent on a per square foot basis for the lease is

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

comparable to per square foot rental rates of similar commercial property in the same geographic area at the time of the lease, and we are responsible for our portion of the taxes, insurance, utilities and maintenance of the premises.

**Collocation and Antenna Space Agreements.** We and DISH Network have entered into an agreement pursuant to which DISH Network provides us with collocation space in El Paso, Texas. This agreement was for an initial period ending in August 2015, and provides us with renewal options for four consecutive years. Effective August 2015, we exercised our first renewal option for a period ending in August 2018, and in April 2018 we exercised our second renewal option for a period ending in August 2021. In connection with the Share Exchange, effective March 2017, we also entered into certain agreements pursuant to which DISH Network provides collocation and antenna space to EchoStar through February 2022 at the following locations: Cheyenne, Wyoming; Gilbert, Arizona; New Braunfels, Texas; Monee, Illinois; Spokane, Washington; and Englewood, Colorado. In August 2017, we and DISH Network also entered into certain other agreements pursuant to which DISH Network provides additional collocation and antenna space to EchoStar in Monee, Illinois and Spokane, Washington through August 2022. We generally may renew our collocation and antenna space agreements for three-year periods by providing DISH Network with prior written notice no more than 120 days but no less than 90 days prior to the end of the then-current term. We may terminate certain of these agreements with 180 days' prior written notice. The fees for the services provided under these agreements depend on the number of racks leased at the location.

**Other Agreements — DISH Network**

**Satellite and Tracking Stock Transaction.** In February 2014, we and EchoStar entered into agreements with DISH Network to implement a transaction pursuant to which, among other things: (i) in March 2014, EchoStar and HSS issued 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 million in cash; and (ii) in March 2014, DISH Network began receiving certain satellite services from us as discussed above on these five satellites (collectively, the "Satellite and Tracking Stock Transaction.") The Tracking Stock was retired in March 2017 and is no longer outstanding and all agreements, arrangements and policy statements with respect to such Tracking Stock terminated and are of no further effect.

**Share Exchange Agreement.** On January 31, 2017, EchoStar and certain of its subsidiaries entered into a share exchange agreement (the "Share Exchange Agreement") with DISH and certain of its subsidiaries, pursuant to which on February 28, 2017, EchoStar and its subsidiaries received all of the shares of the Tracking Stock in exchange for 100% of the equity interests of certain EchoStar subsidiaries that held substantially all of EchoStar's EchoStar Technologies businesses and certain other assets. Following consummation of the Share Exchange on February 28, 2017, EchoStar no longer operates the transferred EchoStar Technologies businesses and the Tracking Stock was retired and is no longer outstanding and all agreements, arrangements and policy statements with respect to such Tracking Stock terminated and are of no further effect. Pursuant to the Share Exchange Agreement, EchoStar transferred certain assets, investments in joint ventures, spectrum licenses and real estate properties and DISH Network assumed certain liabilities relating to the transferred assets and businesses. The Share Exchange Agreement contained customary representations and warranties by the parties, including representations by EchoStar related to the transferred assets, assumed liabilities and the financial condition of the transferred businesses. EchoStar and DISH Network have also agreed to customary indemnification provisions whereby each party indemnifies the other against certain losses with respect to breaches of representations, warranties or covenants and certain liabilities and if certain actions undertaken by EchoStar or DISH causes the transaction to be taxable to the other party after closing. See Note 1 for further information.

**Hughes Broadband Master Services Agreement.** In March 2017, we and DISH Network entered into a master service agreement (the "Hughes Broadband MSA") pursuant to which DISH Network, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for our Hughes service and related equipment and other telecommunication services and (ii) installs Hughes service equipment with respect to activations generated by DISH Network. Under the Hughes Broadband MSA, we and DISH Network make certain payments to each other relating to sales, upgrades, purchases and installation services. The Hughes Broadband MSA has an initial term of five years until March 2022 with automatic renewal for successive one-year terms. Upon expiration or termination of the Hughes Broadband MSA, we will continue to provide our Hughes service to subscribers and make certain payments to DISH Network pursuant to the terms and conditions of the Hughes Broadband MSA. We incurred sales incentives and other costs under the Hughes Broadband MSA totaling \$33 million and \$29 million for the year ended December 31, 2018 and 2017, respectively.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Intellectual Property and Technology License Agreement.** Effective March 2017 in connection with the Share Exchange, EchoStar and one of its other subsidiaries and DISH Network entered into an Intellectual Property and Technology License Agreement (“IPTLA”) pursuant to which we, EchoStar and its other subsidiaries and DISH Network license to each other certain intellectual property and technology. The IPTLA will continue in perpetuity, unless mutually terminated by the parties. Pursuant to the IPTLA, we, EchoStar and its other subsidiaries granted to DISH Network a license to our and their intellectual property and technology for use by DISH Network, among other things, in connection with its continued operation of the businesses acquired pursuant to the Share Exchange, including a limited license to use the “ECHOSTAR” trademark during a transition period. EchoStar retains full ownership of the “ECHOSTAR” trademark. In addition, DISH Network granted a license back to us, EchoStar and its other subsidiaries, among other things, for the continued use of all intellectual property and technology that is used in our, EchoStar and its other subsidiaries’ retained businesses but the ownership of which was transferred to DISH Network pursuant to the Share Exchange.

**Tax Matters Agreement.** Effective March 2017, in connection with the Share Exchange, EchoStar and DISH entered into a tax matters agreement. This agreement governs certain rights, responsibilities and obligations of EchoStar and its subsidiaries with respect to taxes of the transferred businesses pursuant to the Share Exchange. Generally, EchoStar is responsible for all tax returns and tax liabilities for the transferred businesses and assets for periods prior to the Share Exchange and DISH Network is responsible for all tax returns and tax liabilities for the transferred businesses and assets from and after the Share Exchange. Both EchoStar and DISH Network made certain tax-related representations and are subject to various tax-related covenants after the consummation of the Share Exchange. Both EchoStar and DISH Network have agreed to indemnify each other if there is a breach of any such tax representation or violation of any such tax covenant and that breach or violation results in the Share Exchange not qualifying for tax free treatment for the other party. In addition, DISH Network has agreed to indemnify EchoStar if the transferred businesses are acquired, either directly or indirectly (e.g., via an acquisition of DISH Network), by one or more persons and such acquisition results in the Share Exchange not qualifying for tax free treatment. The tax matters agreement supplements the Tax Sharing Agreement outlined below, which continues in full force and effect.

**Tax Sharing Agreement.** Effective December 2007, EchoStar and DISH Network entered into a tax sharing agreement (the “Tax Sharing Agreement”) in connection with the Spin-off. This agreement governs EchoStar and DISH and their respective subsidiaries’ respective rights, responsibilities and obligations after the Spin-off with respect to taxes for the periods ending on or before the Spin-off. Generally, all pre-Spin-off taxes, including any taxes that are incurred as a result of restructuring activities undertaken to implement the Spin-off, are borne by DISH Network, and DISH Network indemnifies EchoStar and its subsidiaries for such taxes. However, DISH Network is not liable for and does not indemnify EchoStar or its subsidiaries 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 or its subsidiaries take or fail to take; or (iii) any action that EchoStar or its subsidiaries take 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 and its subsidiaries 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 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 amount of that includes the federal tax benefit DISH received as a result of our operations.

In August 2018, EchoStar and DISH Network amended the Tax Sharing Agreement and the 2013 agreements (the “Tax Sharing Amendment”). Under the Tax Sharing Amendment, DISH Network is required to compensate EchoStar for certain past and future excess California research and development tax credits generated by EchoStar and its subsidiaries and used by DISH Network.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Caltech.** On October 1, 2013, Caltech Institute of Technology (“Caltech”) filed complaints against us and DISH Network, in the U.S. District Court for the Central District of California alleging infringement of U.S. Patent Nos. 7,116,710; 7,421,032; 7,916,781; and 8,284,833, each of which is entitled “Serial Concatenation of Interleaved Convolutional Codes forming Turbo-Like Codes.” Caltech asserted that encoding data as specified by the DVB-S2 standard infringed each of the asserted patents. Caltech claimed that certain of our satellite broadband products and services, infringed the asserted patents by implementing the DVB-S2 standard. Pursuant to a settlement agreement among us, DISH Network and Caltech, Caltech dismissed with prejudice all of its claims in these actions in May 2016.

### **Other Agreements**

#### **Hughes Systique Corporation (“Hughes Systique”)**

We contract with Hughes Systique for software development services. In addition to our approximately 43.4% ownership in Hughes Systique, Mr. Pradman Kaul, the President of Hughes Communications, Inc. and a member of EchoStar’s board of directors, and his brother, who is the Chief Executive Officer and President of Hughes Systique, in the aggregate, own approximately 25.5%, on an undiluted basis, of Hughes Systique’s outstanding shares as of December 31, 2018. 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 accompanying Consolidated Financial Statements.

#### **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 \$4 million, \$5 million and \$3 million for the years ended December 31, 2018, 2017 and 2016, respectively. As of December 31, 2018 and 2017, we had trade accounts receivable from Deluxe of approximately \$1 million and \$1 million, respectively.

#### **AsiaSat**

We contract with AsiaSat Telecommunications Inc. (“AsiaSat”) for the use of transponder capacity on one of AsiaSat’s satellites. Mr. William David Wade, who joined our board of directors in February 2017, served as the Chief Executive Officer of AsiaSat in 2016 and as a senior advisor to the Chief Executive Officer of AsiaSat through March 2017. We incurred expenses payable to AsiaSat under this agreement of approximately \$0.1 million for the year ended December 31, 2017.

#### **Global IP**

In May 2017, we entered into an agreement with Global-IP Cayman (“Global IP”) providing for the sale of certain equipment and services to Global IP. Mr. William David Wade, a member of EchoStar’s board of directors, serves as a member of the board of directors of Global IP and as an executive advisor to the Chief Executive Officer of Global IP. In August 2018, we and Global IP amended the agreement to (i) change certain of the equipment and services to be provided to Global IP; (ii) modify certain payment terms; (iii) provide Global IP an option to use one of our test lab facilities; and (iv) effectuate the assignment of the agreement from Global IP to one of its wholly-owned subsidiaries. In February 2019, we terminated the agreement as a result of Global IP’s defaults resulting from its failure to make payments to us as required under the terms of the agreement and we reserved our rights and remedies against Global IP under the agreement. We recognized revenue under this agreement of approximately \$9 million and \$0.3 million for the years ended December 31, 2018 and 2017, respectively. As of December 31, 2018 and 2017, we had trade accounts receivable from Global IP of approximately \$7.5 million and nil, respectively.

#### **TerreStar Solutions**

DISH Network owns more than 15% of TerreStar Solutions, Inc. (“TSI”). In May 2018, we and TSI entered into an equipment and services agreement pursuant to which we design, manufacture and install upgraded ground communications network equipment for TSI’s network and provides, among other things, warranty and support services.

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

We recognized revenue of approximately \$6 million for the year ended December 31, 2018. As of December 31, 2018, we had \$2 million trade accounts receivable from TSI.

*Broadband Connectivity Solutions*

In August 2018, we entered into an agreement with Al Yah Satellite Communications Company PrJSC (“Yahsat”) to establish a new entity, Broadband Connectivity Solutions (Restricted) Limited (together with its subsidiaries, “BCS”), to provide commercial Ka-band satellite broadband services across Africa, the Middle East and southwest Asia operating over Yahsat’s Al Yah 2 and Al Yah 3 Ka-band satellites. The transaction was consummated in December 2018 when we invested \$100 million in cash in exchange for a 20% interest in BCS. Under the terms of the agreement, we may also acquire, for further cash investments, additional ownership interests in BCS in the future provided certain conditions are met. We supply network operations and management services and equipment to BCS. We recognized revenue from BCS for such services and equipment of approximately \$0.7 million for the year ended December 31, 2018. As of December 31, 2018, we had \$3 million trade accounts receivable from BCS.

**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 Notes. See Note 10 for further information on our Notes.

In lieu of separate financial statements of the Guarantor Subsidiaries, accompanying condensed consolidating financial information prepared in accordance with Rule 3-10(f) of Regulation S-X is presented below, including the accompanying condensed balance sheet information, the accompanying condensed statement of operations and comprehensive income (loss) information and the accompanying 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 our 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 accompanying condensed consolidating financial information presented below should be read in conjunction with our accompanying condensed 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, 2018**

(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b>Assets</b>					
Cash and cash equivalents	\$ 771,718	\$ 46,353	\$ 29,752	\$ —	\$ 847,823
Marketable investment securities, at fair value	1,608,123	1,073	—	—	1,609,196
Trade accounts receivable and contract assets, net	—	128,831	72,265	—	201,096
Trade accounts receivable - DISH Network, net	—	13,240	310	—	13,550
Inventory	—	58,607	16,772	—	75,379
Advances to affiliates, net	109,433	536,600	27,174	(569,657)	103,550
Other current assets	72	26,331	41,378	(561)	67,220
<b>Total current assets</b>	<b>2,489,346</b>	<b>811,035</b>	<b>187,651</b>	<b>(570,218)</b>	<b>2,917,814</b>
Property and equipment, net	—	2,280,804	301,377	—	2,582,181
Regulatory authorizations	—	465,658	—	—	465,658
Goodwill	—	504,173	—	—	504,173
Other intangible assets, net	—	43,952	—	—	43,952
Investments in unconsolidated entities	—	126,369	—	—	126,369
Investment in subsidiaries	3,362,589	192,370	—	(3,554,959)	—
Advances to affiliates	700	86,280	—	(86,980)	—
Deferred tax asset	54,001	—	3,581	(54,001)	3,581
Other noncurrent assets, net	—	236,675	12,769	—	249,444
<b>Total assets</b>	<b>\$ 5,906,636</b>	<b>\$ 4,747,316</b>	<b>\$ 505,378</b>	<b>\$ (4,266,158)</b>	<b>\$ 6,893,172</b>
<b>Liabilities and Shareholders' Equity</b>					
Trade accounts payable	\$ —	\$ 88,342	\$ 16,409	\$ —	\$ 104,751
Trade accounts payable - DISH Network	—	752	—	—	752
Current portion of long-term debt and capital lease obligations	918,916	39,995	666	—	959,577
Advances from affiliates, net	181,926	282,268	106,331	(569,657)	868
Accrued expenses and other	43,410	147,055	48,307	(561)	238,211
<b>Total current liabilities</b>	<b>1,144,252</b>	<b>558,412</b>	<b>171,713</b>	<b>(570,218)</b>	<b>1,304,159</b>
Long-term debt and capital lease obligations, net	2,385,164	187,002	1,038	—	2,573,204
Deferred tax liabilities, net	—	541,903	834	(54,001)	488,736
Advances from affiliates	—	—	120,418	(86,980)	33,438
Other noncurrent liabilities	—	98,661	2,479	—	101,140
<b>Total HSS shareholders' equity</b>	<b>2,377,220</b>	<b>3,361,338</b>	<b>193,621</b>	<b>(3,554,959)</b>	<b>2,377,220</b>
Noncontrolling interests	—	—	15,275	—	15,275
<b>Total liabilities and shareholders' equity</b>	<b>\$ 5,906,636</b>	<b>\$ 4,747,316</b>	<b>\$ 505,378</b>	<b>\$ (4,266,158)</b>	<b>\$ 6,893,172</b>

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Consolidating Balance Sheet as of December 31, 2017**

(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b>Assets</b>					
Cash and cash equivalents	\$ 1,746,878	\$ 42,373	\$ 33,310	\$ —	\$ 1,822,561
Marketable investment securities, at fair value	454,500	1,102	—	—	455,602
Trade accounts receivable and contract assets, net	—	133,735	63,105	—	196,840
Trade accounts receivable - DISH Network	—	38,286	355	—	38,641
Inventory	—	59,711	23,884	—	83,595
Advances to affiliates, net	119,605	229,488	7,313	(241,548)	114,858
Other current assets	64	98,890	31,788	(401)	130,341
Total current assets	2,321,047	603,585	159,755	(241,949)	2,842,438
Property and equipment, net	—	2,459,703	293,395	—	2,753,098
Regulatory authorizations	—	465,658	—	—	465,658
Goodwill	—	504,173	—	—	504,173
Other intangible assets, net	—	58,582	—	—	58,582
Investments in unconsolidated entities	—	30,587	—	—	30,587
Investment in subsidiaries	3,260,790	204,208	—	(3,464,998)	—
Advances to affiliates	700	80,744	—	(81,444)	—
Deferred tax asset	110,546	—	3,700	(110,546)	3,700
Other noncurrent assets, net	—	185,839	13,275	—	199,114
Total assets	\$ 5,693,083	\$ 4,593,079	\$ 470,125	\$ (3,898,937)	\$ 6,857,350
<b>Liabilities and Shareholders' Equity</b>					
Trade accounts payable	\$ —	\$ 82,300	\$ 20,516	\$ —	\$ 102,816
Trade accounts payable - DISH Network	—	3,769	—	—	3,769
Current portion of long-term debt and capital lease obligations	—	35,886	4,745	—	40,631
Advances from affiliates, net	—	185,161	56,864	(241,548)	477
Accrued expenses and other	43,518	145,362	46,748	(401)	235,227
Total current liabilities	43,518	452,478	128,873	(241,949)	382,920
Long-term debt and capital lease obligations, net	3,365,143	226,997	2,073	—	3,594,213
Deferred tax liabilities, net	—	549,217	960	(110,546)	439,631
Advances from affiliates	—	—	115,159	(81,444)	33,715
Other noncurrent liabilities	—	104,249	3,378	—	107,627
Total HSS shareholders' equity	2,284,422	3,260,138	204,860	(3,464,998)	2,284,422
Noncontrolling interests	—	—	14,822	—	14,822
Total liabilities and shareholders' equity	\$ 5,693,083	\$ 4,593,079	\$ 470,125	\$ (3,898,937)	\$ 6,857,350

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Consolidating Statement of Operations and Comprehensive Income (Loss) For the Year Ended December 31, 2018**  
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b>Revenue:</b>					
Services and other revenue - DISH Network	\$ —	\$ 364,182	\$ 1,973	\$ —	\$ 366,155
Services and other revenue - other	—	1,333,104	230,900	(37,906)	1,526,098
Equipment revenue	—	221,996	29,137	(45,723)	205,410
Total revenue	—	1,919,282	262,010	(83,629)	2,097,663
<b>Costs and expenses:</b>					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	487,997	147,952	(35,736)	600,213
Cost of sales - equipment (exclusive of depreciation and amortization)	—	200,620	21,703	(45,723)	176,600
Selling, general and administrative expenses	—	345,380	54,943	(2,170)	398,153
Research and development expenses	—	27,570	—	—	27,570
Depreciation and amortization	—	498,861	52,555	—	551,416
Impairment of assets	—	—	—	—	—
Total costs and expenses	—	1,560,428	277,153	(83,629)	1,753,952
Operating income	—	358,854	(15,143)	—	343,711
<b>Other income (expense):</b>					
Interest income	56,487	3,806	2,472	(3,661)	59,104
Interest expense, net of amounts capitalized	(229,481)	(29,418)	(4,483)	3,661	(259,721)
Other-than-temporary impairment loss on available-for-sale securities	—	—	—	—	—
Gains (losses) on investments, net	—	187	—	—	187
Equity in earnings of unconsolidated affiliate	—	4,874	—	—	4,874
Equity in earnings (losses) of subsidiaries, net	224,405	(33,525)	—	(190,880)	—
Other, net	(970)	9,155	(12,628)	—	(4,443)
Total other income (expense), net	50,441	(44,921)	(14,639)	(190,880)	(199,999)
Income (loss) before income taxes	50,441	313,933	(29,782)	(190,880)	143,712
Income tax benefit (provision), net	45,060	(89,984)	(1,445)	—	(46,369)
Net income (loss)	95,501	223,949	(31,227)	(190,880)	97,343
Less: Net income attributable to noncontrolling interests	—	—	1,842	—	1,842
Net income (loss) attributable to HSS	\$ 95,501	\$ 223,949	\$ (33,069)	\$ (190,880)	\$ 95,501
<b>Comprehensive income (loss):</b>					
Net income (loss)	\$ 95,501	\$ 223,949	\$ (31,227)	\$ (190,880)	\$ 97,343
<b>Other comprehensive income (loss), net of tax:</b>					
Foreign currency translation adjustments	—	—	(31,938)	—	(31,938)
Unrealized gains (losses) on available-for-sale securities and other	(665)	—	41	—	(624)
Realized gains on available-for-sale securities	(212)	—	—	—	(212)
Equity in other comprehensive income (loss) of subsidiaries, net	(30,508)	(30,508)	—	61,016	—
Total other comprehensive income (loss), net of tax	(31,385)	(30,508)	(31,897)	61,016	(32,774)
Comprehensive income (loss)	64,116	193,441	(63,124)	(129,864)	64,569
Less: Comprehensive income attributable to noncontrolling interests	—	—	453	—	453
Comprehensive income (loss) attributable to HSS	\$ 64,116	\$ 193,441	\$ (63,577)	\$ (129,864)	\$ 64,116

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Consolidating Statement of Operations and Comprehensive Income (Loss) For the Year Ended December 31, 2017**  
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b>Revenue:</b>					
Services and other revenue - DISH Network	\$ —	\$ 432,090	\$ 1,739	\$ —	\$ 433,829
Services and other revenue - other	—	1,056,914	178,857	(32,220)	1,203,551
Equipment revenue	—	255,610	27,205	(43,326)	239,489
Total revenue	—	1,744,614	207,801	(75,546)	1,876,869
<b>Costs and expenses:</b>					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	458,139	131,177	(29,632)	559,684
Cost of sales - equipment (exclusive of depreciation and amortization)	—	218,299	20,318	(43,178)	195,439
Selling, general and administrative expenses	—	293,810	46,517	(2,736)	337,591
Research and development expenses	—	31,745	—	—	31,745
Depreciation and amortization	—	458,483	38,315	—	496,798
Impairment of assets	—	6,000	—	—	6,000
Total costs and expenses	—	1,466,476	236,327	(75,546)	1,627,257
Operating income	—	278,138	(28,526)	—	249,612
<b>Other income (expense):</b>					
Interest income	28,146	96,992	1,986	(95,172)	31,952
Interest expense, net of amounts capitalized	(229,415)	(112,855)	1,620	95,172	(245,478)
Gains (losses) on marketable investment securities, net	—	(1,574)	—	—	(1,574)
Equity in earnings of unconsolidated affiliate	—	7,027	—	—	7,027
Equity in earnings (losses) of subsidiaries, net	471,602	(35,142)	—	(436,460)	—
Other, net	—	(956)	(1,232)	—	(2,188)
Total other income (expense), net	270,333	(46,508)	2,374	(436,460)	(210,261)
Income (loss) before income taxes	270,333	231,630	(26,152)	(436,460)	39,351
Income tax benefit (provision), net	25,637	240,392	(7,827)	—	258,202
Net income (loss)	295,970	472,022	(33,979)	(436,460)	297,553
Less: Net income attributable to noncontrolling interests	—	—	1,583	—	1,583
Net income (loss) attributable to HSS	\$ 295,970	\$ 472,022	\$ (35,562)	\$ (436,460)	\$ 295,970
<b>Comprehensive income (loss):</b>					
Net income (loss)	\$ 295,970	\$ 472,022	\$ (33,979)	\$ (436,460)	\$ 297,553
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	7,196	—	7,196
Unrealized gains (losses) on available-for-sale securities and other	(273)	(2,007)	92	—	(2,188)
Recognition of other-than-temporary loss on available-for-sale securities in net income (loss)	—	3,298	—	—	3,298
Equity in other comprehensive income (loss) of subsidiaries, net	8,170	6,879	—	(15,049)	—
Total other comprehensive income (loss), net of tax	7,897	8,170	7,288	(15,049)	8,306
Comprehensive income (loss)	303,867	480,192	(26,691)	(451,509)	305,859
Less: Comprehensive income attributable to noncontrolling interests	—	—	1,992	—	1,992
Comprehensive income (loss) attributable to HSS	\$ 303,867	\$ 480,192	\$ (28,683)	\$ (451,509)	\$ 303,867

**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
<b>Revenue:</b>					
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	—	265,201	24,859	(42,941)	247,119
Total revenue	—	1,707,228	158,367	(65,802)	1,799,793
<b>Costs and expenses:</b>					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	454,185	101,288	(22,168)	533,305
Cost of sales - equipment (exclusive of depreciation and amortization)	—	210,439	19,512	(40,546)	189,405
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
<b>Other income (expense):</b>					
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 investments, 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
<b>Comprehensive income (loss):</b>					
Net income (loss)	\$ 120,015	\$ 218,504	\$ (3,579)	\$ (213,219)	\$ 121,721
<b>Other comprehensive income (loss), net of tax:</b>					
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 loss 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

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Consolidating Statement of Cash Flows for the Year Ended December 31, 2018**  
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b>Cash flows from operating activities:</b>					
Net income (loss)	\$ 95,501	\$ 223,949	\$ (31,227)	\$ (190,880)	\$ 97,343
Adjustments to reconcile net income (loss) to net cash flows from operating activities	(160,236)	536,404	78,312	190,880	645,360
Net cash flows from operating activities	(64,735)	760,353	47,085	—	742,703
<b>Cash flows from investing activities:</b>					
Purchases of marketable investment securities	(2,063,042)	—	—	—	(2,063,042)
Sales and maturities of marketable investment securities	909,996	—	—	—	909,996
Expenditures for property and equipment	—	(304,376)	(86,689)	—	(391,065)
Refund and other receipts related to capital expenditures	—	77,524	—	—	77,524
Investment in subsidiary	305,669	(50,540)	—	(255,129)	—
Payment for satellite launch services	—	—	(7,125)	—	(7,125)
Expenditures for externally marketed software	—	(31,639)	—	—	(31,639)
Investment in unconsolidated entity	—	(100,991)	—	—	(100,991)
Net cash flows from investing activities	(847,377)	(410,022)	(93,814)	(255,129)	(1,606,342)
<b>Cash flows from financing activities:</b>					
Contribution (distributions) and advances (to) from parent, net	—	(305,669)	50,540	255,129	—
Capital contribution from EchoStar	7,125	—	—	—	7,125
Repayment of Senior Secured Notes and related premium	(70,173)	—	—	—	(70,173)
Repayment of debt and capital lease obligations	—	(35,886)	(5,133)	—	(41,019)
Repayment of in-orbit incentive obligations	—	(4,796)	—	—	(4,796)
Net cash flows from financing activities	(63,048)	(346,351)	45,407	255,129	(108,863)
Effect of exchange rates on cash and cash equivalents	—	—	(2,233)	—	(2,233)
Net increase (decrease) in cash and cash equivalents, including restricted amounts	(975,160)	3,980	(3,555)	—	(974,735)
Cash and cash equivalents, including restricted amounts, at beginning of year	1,746,878	42,373	34,103	—	1,823,354
Cash and cash equivalents, including restricted amounts, at end of year	\$ 771,718	\$ 46,353	\$ 30,548	\$ —	\$ 848,619

**HUGHES SATELLITE SYSTEMS CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

**Consolidating Statement of Cash Flows for the Year Ended December 31, 2017**  
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b>Cash flows from operating activities:</b>					
Net income (loss)	\$ 295,970	\$ 472,022	\$ (33,979)	\$ (436,460)	\$ 297,553
Adjustments to reconcile net income (loss) to net cash flows from operating activities	(206,014)	(74,310)	43,340	436,460	199,476
Net cash flows from operating activities	89,956	397,712	9,361	—	497,029
<b>Cash flows from investing activities:</b>					
Purchases of marketable investment securities	(535,476)	—	—	—	(535,476)
Sales and maturities of marketable investment securities	259,263	—	—	—	259,263
Expenditures for property and equipment	—	(340,197)	(61,341)	—	(401,538)
Refund and other receipts related to capital expenditures	—	4,311	—	—	4,311
Investment in subsidiary	(59,000)	(63,000)	—	122,000	—
Expenditures for externally marketed software	—	(31,331)	—	—	(31,331)
Net cash flows from investing activities	(335,213)	(430,217)	(61,341)	122,000	(704,771)
<b>Cash flows from financing activities:</b>					
Payments of debt issuance costs	(414)	—	—	—	(414)
Proceeds from capital contribution from parent	—	59,000	63,000	(122,000)	—
Repayment of debt and capital lease obligations	—	(32,177)	(4,886)	—	(37,063)
Advances from affiliates	—	—	(36)	—	(36)
Repayment of in-orbit incentive obligations	—	(5,850)	—	—	(5,850)
Other, net	600	—	886	—	1,486
Net cash flows from financing activities	186	20,973	58,964	(122,000)	(41,877)
Effect of exchange rates on cash and cash equivalents	—	—	1,286	—	1,286
Net increase (decrease) in cash and cash equivalents, including restricted amounts	(245,071)	(11,532)	8,270	—	(248,333)
Cash and cash equivalents, including restricted amounts, at beginning of year	1,991,949	53,905	25,833	—	2,071,687
Cash and cash equivalents, including restricted amounts, at end of year	\$ 1,746,878	\$ 42,373	\$ 34,103	\$ —	\$ 1,823,354

**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
<b>Cash Flows from Operating Activities:</b>					
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
<b>Cash Flows from Investing Activities:</b>					
Purchases of marketable investment securities	(396,730)	—	—	—	(396,730)
Sales and maturities of marketable investment securities	453,334	7,500	—	—	460,834
Expenditures of property and equipment	—	(292,427)	(88,860)	—	(381,287)
Changes in restricted cash and cash equivalents	—	—	—	—	—
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)	(112,610)	165,377	(365,821)
<b>Cash Flows from Financing Activities:</b>					
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 debt and capital lease obligations	—	(28,829)	(2,840)	—	(31,669)
Advances from affiliates	—	—	6,982	—	6,982
Repayment of in-orbit incentive obligations	—	(5,499)	—	—	(5,499)
Other, net	14	—	988	340	1,342
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, including restricted amounts	1,691,315	(1,862)	(1,411)	—	1,688,042
Cash and cash equivalents, including restricted amounts, at beginning of year	300,634	55,767	27,244	—	383,645
Cash and cash equivalents, including restricted amounts, at end of year	\$ 1,991,949	\$ 53,905	\$ 25,833	\$ —	\$ 2,071,687

**NOTE 18. SUPPLEMENTAL FINANCIAL INFORMATION**
**Noncash Investing and Financing Activities**

	For the years ended December 31,		
	2018	2017	2016
	(In thousands)		
Property and equipment financed under capital lease obligations	\$ 364	\$ 8,484	\$ 1,130
Increase (decrease) in capital expenditures included in accounts payable, net	\$ 1,566	\$ (2,522)	\$ 1,175
Transfer of launch service contracts from (to) EchoStar	\$ —	\$ (145,114)	\$ 70,300
Contribution of noncash net assets pursuant to Share Exchange Agreement (Note 1)	\$ —	\$ 219,662	\$ —
Noncash net assets exchanged for HSS Tracking Stock (Note 1)	\$ —	\$ (190,221)	\$ —
Capitalized in-orbit incentive obligations	\$ —	\$ 31,000	\$ —
Contribution of EchoStar XIX satellite	\$ —	\$ 514,448	\$ —

**Restricted Cash and Cash Equivalents**

The beginning and ending balances of cash and cash equivalents presented in our Consolidated Statements of Cash Flows included restricted cash and cash equivalents of \$1 million and \$1 million, respectively, for the year ended December 31, 2018 and \$1 million and \$1 million, respectively, for the year ended December 31, 2017. These amounts are included in *Other noncurrent assets, net* in our Consolidated Balance Sheets.

**Foreign Currency**

We recognized net foreign currency transaction losses of \$12 million and \$1 million and de minimis gains for the years ended December 31, 2018, 2017 and 2016, respectively.

**Fair Value of In-Orbit Incentives**

As of December 31, 2018 and 2017, 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 \$95 million and \$99 million, respectively.

**Contract Acquisition and Fulfillment Costs**

Unamortized contract acquisition costs totaled \$104 million as of December 31, 2018 and related amortization expense totaled \$83 million for the year ended December 31, 2018, respectively.

Unamortized contract fulfillment costs totaled \$3 million as of December 31, 2018 and related amortization expense was de minimis for the year ended December 31, 2018.

**Research and Development**

The table below summarizes the research and development costs incurred in connection with customers' orders included in cost of sales and other expenses we incurred for research and development.

	For the years ended December 31,		
	2018	2017	2016
	(In thousands)		
Cost of sales	\$ 23,422	\$ 27,899	\$ 23,663
Research and development	\$ 27,570	\$ 31,745	\$ 31,170

**Capitalized Software Costs**

As of December 31, 2018 and 2017, the net carrying amount of externally marketed software was \$97 million and \$88 million, respectively, of which \$29 million and \$20 million, respectively, is under development and not yet placed in service. We capitalized costs related to the development of externally marketed software of \$32 million, \$31 million and \$23 million for the years ended December 31, 2018, 2017 and 2016, respectively. We recorded amortization expense relating to the development of externally marketed software of \$23 million, \$20 million and \$10 million for the years ended December 31, 2018, 2017 and 2016, respectively. The weighted average useful life of our externally marketed software was approximately three years as of December 31, 2018.

**Advertising Costs**

We incurred advertising expense of \$76 million, \$64 million and \$44 million for the years ended December 31, 2018, 2017 and 2016, respectively.

**HUGHES SATELLITE SYSTEMS CORPORATION  
SCHEDULE II  
VALUATION AND QUALIFYING ACCOUNTS**

Our valuation and qualifying accounts as of December 31, 2018, 2017 and 2016 were as follows:

<b>Allowance for doubtful accounts</b>	<b>Balance at Beginning of Year</b>	<b>Charged to Costs and Expenses</b>	<b>Deductions</b>	<b>Balance at End of Year</b>
	(In thousands)			
<b>For the years ended:</b>				
December 31, 2018	\$ 12,027	\$ 22,184	\$ (17,607)	\$ 16,604
December 31, 2017	\$ 12,752	\$ 9,551	\$ (10,276)	\$ 12,027
December 31, 2016	\$ 11,447	\$ 14,384	\$ (13,079)	\$ 12,752

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER**  
**Section 302 Certification**

I, Michael T. Dugan, certify that:

1. I have reviewed this Amendment No. 1 to the Annual Report on Form 10-K/A 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 27, 2019

*/s/ Michael T. Dugan*

Chief Executive Officer, President and Director

*(Principal Executive Officer)*

**CERTIFICATION OF CHIEF FINANCIAL OFFICER**  
**Section 302 Certification**

I, David J. Rayner, certify that:

1. I have reviewed this Amendment No. 1 to the Annual Report on Form 10-K/A 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 27, 2019

*/s/ David J. Rayner*

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

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

In connection with this Amendment No. 1 to the annual report for the year ended December 31, 2018 on Form 10-K/A (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 27, 2019

*/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.