EchoStar CORP Form 10-K February 24, 2016 Table of Contents

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015

OR

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

Commission file number: 001-33807

EchoStar Corporation

(Exact name of registrant as specified in its charter)

Nevada 26-1232727

(State or Other Jurisdiction of Incorporation or Organization)

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

 ${\bf 100\ Inverness\ Terrace\ East, Englewood, Colorado}$

80112-5308 (Zip Code)

(Address of Principal Executive Offices)

(Zip code)

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

Securities registered pursuant to Section 12(b) of the Act:

Title of each classClass A common stock, \$0.001 par value

Name of each exchange on which registered The NASDAQ Stock Market LLC

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 x No o

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 o No x

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 x No o

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

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

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

Large accelerated filer X

Accelerated filer O

Non-accelerated filer O (Do not check if a smaller reporting company) Smaller reporting company O

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x
As of June 30, 2015, the aggregate market value of Class A common stock held by non-affiliates of the registrant was \$2.16 billion based upon the closing price of the Class A common stock as reported on the Nasdaq Global Select Market as of the close of business on that date.
As of February 16, 2016, the registrant soutstanding common stock consisted of 45,563,639 shares of Class A common stock and 47,687,039 shares of Class B common stock, each \$0.001 par value.
DOCUMENTS INCORPORATED BY REFERENCE
The following documents are incorporated into this Form 10-K by reference:
Portions of the registrant s definitive Proxy Statement to be filed in connection with its 2016 Annual Meeting of Shareholders are incorporated by reference in Part III.

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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. expect, would, can, may and similar terms. These forward-looking statements are based on information available continue, future, could, of the date of this Form 10-K and represent management s current views and assumptions. Forward-looking statements are not guarantees of future performance, events or results and involve potential known and unknown risks, uncertainties and other factors, many of which may be beyond our control and may pose a risk to our operating and financial condition. Accordingly, actual performance, events or results could differ materially from those expressed or implied in the forward-looking statements due to a number of factors including, but not limited to:

- our reliance on our primary customer, DISH Network Corporation and its subsidiaries (DISH Network), for a significant portion of our revenue;
- our ability to implement our strategic initiatives;
- the impact of variable demand and the adverse pricing environment for digital set-top boxes;
- dependence on our ability to successfully manufacture and sell our digital set-top boxes in increasing volumes on a cost-effective basis and with acceptable quality;
- our ability to bring advanced technologies to market to keep pace with our customers and competitors;
- 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;
- significant risks related to the construction, launch and operation of our satellites, such as the risk of material malfunction on one or more of our satellites, changes in the space weather environment that could interfere with the operation of our satellites, and our general lack of commercial insurance coverage on our satellites;

- our failure to adequately anticipate the need for satellite capacity or the inability to obtain satellite capacity for our Hughes segment; and
- the failure of third-party providers of components, manufacturing, installation services and customer support services to appropriately deliver the contracted goods or services.

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 Discussion and Analysis of Financial Condition 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.

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Item 1. BUSINESS

OVERVIEW

EchoStar Corporation (which, together with its subsidiaries, is referred to as EchoStar, the Company, we, us and/or our) is a holding compart that was organized in October 2007 as a corporation under the laws of the State of Nevada. We are a global provider of satellite operations, video delivery solutions, digital set-top boxes, and broadband satellite technologies and services for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments. Our Class A common stock is publicly traded on the Nasdaq Global Select Market (Nasdaq) under the symbol SATS.

We currently operate in the following three business segments:

- *Hughes* which provides satellite broadband internet access to North American consumers and broadband network services and equipment to domestic and international enterprise markets. The Hughes segment also provides managed services to large enterprises and solutions to customers for mobile satellite systems.
- EchoStar Technologies (ETC) which designs, develops and distributes secure end-to-end video technology solutions including digital set-top boxes and related products and technology, primarily for satellite TV service providers and telecommunication companies. Our EchoStar Technologies segment also provides digital broadcast operations, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management, and other services, primarily to DISH Network Corporation and its subsidiaries (DISH Network) and Dish Mexico, S. de R.L. de C.V. (Dish Mexico), a joint venture we entered into in 2008. In addition, we provide our TV Anywhere technology through Slingbox® units directly to consumers via retail outlets and online, as well as to the pay-TV operator market. Beginning in 2015, this segment also includes Move Networks, our over-the-top (OTT), Streaming Video on Demand (SVOD) platform business, which includes assets acquired from Sling TV Holding L.L.C. (formerly DISH Digital Holding L.L.C.) (Sling TV Holding), and primarily provides support services to DISH Network s Sling TV operations. In 2016, we plan to introduce a security and home automation solution provided directly to consumers.
- *EchoStar Satellite Services (ESS)* which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite services on a full-time and occasional-use basis primarily to DISH Network, Dish Mexico, United States (U.S.) government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers.

Our operations also include real estate and other activities that have not been assigned to our operating segments, including, costs incurred in certain satellite development programs and other business development activities, expenses of various corporate departments, and our centralized treasury operations, including, income from our investment portfolio and interest expense on our debt. These activities are accounted for in the All Other and Eliminations column in Note 17 in the notes to consolidated financial statements in Item 15 of this report.

In 2008, DISH Network completed its distribution to us of its digital set-top box business, certain infrastructure, and other assets and related liabilities, including certain of its satellites, uplink and satellite transmission assets, and real estate (the Spin-off). Since the Spin-off, EchoStar and DISH Network have operated as separate publicly-traded companies. However, as a result of the Satellite and Tracking Stock Transaction, described in Note 4 in the notes to consolidated financial statements in Item 15 of this report, DISH Network owns shares of our and our subsidiary s preferred tracking stock representing an aggregate 80.0% economic interest in the residential retail satellite broadband business of our Hughes segment. In addition, a substantial majority of the voting power of the shares of DISH Network and EchoStar is owned beneficially by Charles W. Ergen, our Chairman, and by certain trusts established by Mr. Ergen for the benefit of his family.

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BUSINESS STRATEGIES

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

Expand satellite capacity and related infrastructure. We expect that our expertise in the identification, acquisition and development of satellite spectrum and orbital rights and satellite operations, together with existing or acquired infrastructure, will provide opportunities to enter new international markets. We believe market opportunities exist that will facilitate the acquisition or leasing of additional satellite capacity which will enable us to provide services to a broader customer base, including providers of pay-TV services, satellite-delivered broadband, corporate communications, and government services.

Continue development of S-band and other hybrid spectrum resources. We believe we are in a unique position to deploy a European wide mobile satellite service (MSS)/complementary ground component (CGC) network and maximize the long-term value of our S-band spectrum, in Europe and other regions within the scope of our licenses. We will also continue to explore development of S-band similar spectrum assets in additional international markets,

Exploit our video delivery expertise. With our extensive experience in designing, developing, and operating video delivery systems for satellite direct-to-home (DTH) and internet streaming, we believe we can leverage the broader adoption of advanced technologies such as placeshifting functionality, hybrid internet offerings and other in-home solutions to create opportunities for us. Therefore, we continue to explore opportunities, including partnerships, joint ventures and strategic acquisitions, to expand our existing markets or enter new markets. In addition, we intend to seek opportunities to license our technology to other original equipment manufacturers and pay-TV providers.

Develop improved and new technologies. Our engineering capabilities provide us with the opportunity to develop and deploy cutting edge technologies, license our technologies to others, and maintain a leading technological position in the industries in which we are active. We also intend to develop and launch next generation media and content delivery platforms such as our Move Networks business and our security and home automation products and services.

BUSINESS SEGMENTS

HUGHES SEGMENT

Our Products and Services

Our Hughes segment is a global provider of broadband satellite technologies and services for the home and office, delivering innovative network technologies, managed services, and solutions for consumers, enterprises and governments.

Our Hughes segment uses its two owned satellites, the SPACEWAY 3 satellite and the EchoStar XVII satellite, and additional satellite capacity acquired from multiple third-party providers, to provide satellite broadband internet access to North American consumers, which we refer to as the consumer market, and broadband network services and equipment to domestic and international enterprise markets. Our Hughes segment also provides managed services and equipment to large enterprises and solutions to customers for mobile satellite systems. We incorporate advances in technology to reduce costs and to increase the functionality and reliability of our products and services. Through the usage of advanced spectrally efficient modulation and coding methodologies, proprietary software web acceleration and compression techniques, we continue to improve the efficiency of our networks. We invest in technologies to enhance our system and network management capabilities, specifically our managed services for enterprises. We also continue to invest in next generation technologies that can be applied to our future products and services. Beginning in October 2012, we introduced HughesNet Gen4 satellite broadband internet services to our customers in North America on the EchoStar XVII satellite.

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We continue our efforts in growing our consumer revenue, which depends on our success in adding new subscribers on our Hughes segment s satellite networks. The addition of new subscribers and the performance of our consumer service offering, primarily drive the revenue growth in our consumer business. Service costs related to ongoing support of our direct and indirect customers and partners are typically impacted most significantly by our growth. Long-term trends continue to be influenced primarily by the subscriber growth in our consumer business.

New satellite launches are expected to provide additional capacity for subscriber growth while we manage subscriber growth across our existing satellite platform. In March 2013, we entered into a contract for the design and construction of the EchoStar XIX satellite, which is expected to be launched in the fourth quarter of 2016. The EchoStar XIX satellite is a next-generation, high throughput geostationary satellite that will employ a multi-spot beam, bent pipe Ka-band architecture and will provide additional capacity for the Hughes broadband services to the consumer market in North America, as well as new capacity covering Mexico and other Latin American countries.

We continue our efforts in growing our consumer satellite services business outside of the U.S. In April 2014, we entered into a satellite services agreement pursuant to which Eutelsat do Brasil will provide to us fixed broadband service using the Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite for a 15-year term. We expect the satellite to launch in the first quarter of 2016 and to begin delivering consumer satellite broadband services in Brazil in the second half of 2016. In addition, in September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat Canada (Telesat) will provide to us fixed broadband service into South America using the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 to deliver consumer satellite broadband services into South America as well as create a platform to potentially allow for further development of our business in South America.

Our Customers

Our Hughes segment delivers satellite broadband internet service to North American consumers. It also provides satellite, network products and services and managed network services and equipment to enterprises and broadband service providers worldwide. In addition, our Hughes segment provides satellite ground segment systems and terminals to mobile system operators.

In October 2012, we entered into a distribution agreement (the Distribution Agreement) with dishNET Satellite Broadband L.L.C. (dishNET), a wholly-owned subsidiary of DISH Network, pursuant to which dishNET has the right, but not the obligation, to market, sell and distribute the Hughes satellite internet service (the Hughes service) under the dishNET brand. In February 2014, we amended the Distribution Agreement which, among other things, extended the term of the agreement through March 1, 2024. DISH Network accounted for 7.8%, 8.5% and 9.3% of our total Hughes segment revenue for the years ended December 31, 2015, 2014 and 2013, respectively. See Note 19 in the notes to consolidated financial statements in Item 15 of this report for further discussion of our related party transactions with DISH Network.

As of December 31, 2015, 2014 and 2013, our Hughes segment had approximately 1,035,000, 977,000 and 860,000 broadband subscribers, respectively. These broadband subscribers include customers that subscribe to our HughesNet broadband services through retail, wholesale and small/medium enterprise service channels.

As of December 31, 2015 and 2014, our Hughes segment had approximately \$1.44 billion and \$1.26 billion, respectively, of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue under customer contracts that are non-cancelable,

excluding agreements with customers in our consumer market. Of the total contracted revenue backlog as of December 31, 2015, we expect to recognize approximately \$402.1 million of revenue in 2016.

Our Competition

The network communications industry is highly competitive. As a global provider of data network products and services, our Hughes segment competes with a large number of telecommunications service providers. This increasingly competitive environment has put pressure on prices and margins. To compete effectively, we

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emphasize our network quality, our customization capability, our offering of networks as a turnkey managed service, our position as a single point of contact for products and services and our competitive prices.

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

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

We believe broadband networks generally have an advantage over terrestrial networks where the network must reach many locations over large distances, where the customer has a last mile or a congestion problem that cannot be solved easily with terrestrial facilities or where there is a need for transmission to remote locations or emerging markets. By comparison, ground-based facilities (e.g., fiber optic cables) often have an advantage for carrying large amounts of bulk traffic between a small number of fixed locations. Our relative competitive position is constantly changing as we and our competitors strive to improve our respective positions. While our current competitive position provides us the opportunity to grow our business, we cannot be certain of its continuing effects on our business as our competitors modify or adapt their strategies and service offerings.

Manufacturing

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

ECHOSTAR TECHNOLOGIES SEGMENT

Our Products and Services

Our EchoStar Technologies business segment provides secure end-to-end video and broadcast technology products and services to businesses and directly to consumers.

Video Delivery Products and Related Technologies. Our EchoStar Technologies segment designs, develops and distributes a wide range of video delivery products and related technologies that allow consumers to watch and control their subscription and over-the-air (OTA) TV programming from inside their homes. Our current video delivery products and related technologies include:

• Set-top boxes. Provides consumers with the ability to access the enhanced picture quality and sound of 4K, high-definition (HD) and/or standard definition (SD) content, interactive applications, broadband connectivity and Bluetooth audio streaming, depending on the type of set-top box purchased.

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- *DVR and Whole-Home HD DVR solutions.* Provides customers with the ability to record, replay and store content and multi-room HD content sharing functionality to create a whole-home entertainment experience, including commercial skipping and sideloading technologies.
- TV Anywhere Placeshifting Functionality. Provides customers with the ability to watch and control digital television content on a desktop or mobile device via a broadband internet connection. Customers have these abilities when using our set-top boxes as well as our standalone Slingbox units, which are sold directly to consumers via retail outlets and online, as well as to the pay-TV operator market.

In addition to digital set-top boxes, we design and develop related products such as satellite dishes and remote controls.

Video Broadcast Services. Our EchoStar Technologies segment also provides 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, primarily to DISH Network and Dish Mexico. We operate a number of digital broadcast centers in the U.S. Our principal digital broadcast centers are located in Cheyenne, Wyoming and Gilbert, Arizona. We also have multiple regional and micro digital broadcast centers that allow us to maximize the use of the spot beam capabilities of our satellites and our customers satellites. Programming and other data are received at these centers by fiber optic cable or satellite. The data is processed, compressed, encrypted and then uplinked to our satellites and our customers satellites for transmission to end-users.

Over-the-Top (OTT) Services. Through our Move Networks division, we have developed and launched a comprehensive OTT SVOD and live linear service platform solution currently utilized by DISH Network s Sling TV service, which launched in 2015. We continue to develop and enhance the platform for Sling TV to improve the customer experience. We also continue to explore new ways to leverage this technology for other business opportunities.

Other Products and Services. With our expertise in connectivity, security, and video, we are developing new consumer product and service offerings, including a security and home automation solution that customers can control from their TV or mobile device.

Our Customers

The primary customer of our EchoStar Technologies segment is DISH Network. DISH Network accounted for 87.9%, 88.7% and 90.2% of the EchoStar Technologies segment s revenue for the years ended December 31, 2015, 2014 and 2013, respectively. We expect DISH Network will continue to be the primary customer and the key revenue contributor for our EchoStar Technologies segment. See Note 19 in the notes to

consolidated financial statements in Item 15 of this report for further discussion of our related party transactions with DISH Network. We also currently sell our digital set-top boxes to other international DTH satellite and cable providers, including Bell TV, a DTH satellite services provider in Canada, and Dish Mexico, to whom we also provide video broadcast services.

The number of potential new customers for our set-top box business in our EchoStar Technologies segment is small and may be limited as prospective customers that have been competitors of DISH Network may continue to view us as a competitor due to our common ownership with DISH Network. Our customers face emerging competition from other providers of digital media and potential government action preventing them from using security systems in connection with set-top boxes. In particular, programming offered over the internet has become more prevalent as the speed and quality of broadband networks have improved. As a result, we expect that demand for our satellite television digital set-top boxes from DISH Network and other customers could decline and we may not be able to sustain our current revenue levels.

Our Competition

The video delivery and broadcast, OTT, and security and home automation industries are highly competitive, and market leadership changes frequently as a result of new products, designs and pricing. As we seek to grow our revenue and market share in these industries, we face substantial competition. Many of our primary competitors,

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such as Arris Group, Inc., Cisco Systems, Inc., Samsung Electronics Co., Ltd., and Technicolor S.A., have established longstanding relationships with their customers. In addition, a number of rapidly growing companies have recently entered the market with offerings similar to our existing and contemplated products. The entry of these new competitors may result in increased pricing pressure in the market. In the video delivery industry, we may also face competition from international developers of digital set-top box systems that may be able to develop and manufacture products and services at costs that are substantially lower than our costs. Furthermore, we depend heavily on our ability to successfully bring advanced technologies to the market, including internet delivery of video content and our Slingbox unit s placeshifting functionality.

We believe our use of proprietary technology, together with our in-house engineering expertise, enables us to innovate and bring new features and enhancements quickly to our customers. In addition, our end-to-end video solutions may allow us to provide a more cost-effective solution for a pay-TV operator who may have to negotiate hardware, middleware and a conditional access system separately. We have a long-standing relationship with DISH Network and provide them with technologically advanced set-top boxes, including advanced hybrid satellite and internet protocol over-the-top delivery solutions, Slingbox unit s placeshifting functionality, and whole-home DVR features.

As we develop new products and services for the consumer markets, we will compete with numerous established and developing companies who offer similar products, some who will have longstanding distribution outlets and relationships and established brand awareness. Our success will depend on our ability to create distribution channels and establish consumer awareness.

Our Manufacturers

Although we design, engineer and distribute digital set-top boxes and other products, we are not directly engaged in the manufacturing process. Rather, we outsource the manufacturing of our products to third parties who manufacture our products according to specifications supplied by us. We depend on a few manufacturers, and in some cases a single manufacturer, for the production of digital set-top boxes and related products. Although there can be no assurance, we do not believe that the loss of any single manufacturer would materially impact our business. Sanmina-SCI Corporation, Shanghai DD&TT Electronic Enterprise Co., LTD and Jabil Circuit, Inc. currently manufacture the majority of our digital set-top boxes and accessories.

ECHOSTAR SATELLITE SERVICES SEGMENT

Our Services

Our EchoStar Satellite Services segment operates its business using its owned and leased in-orbit satellites. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network, Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers and private enterprise customers. We also manage satellite operations for several satellites owned by third parties. Our satellite capacity is currently used by our customers for a variety of applications:

• **DTH Services.** We provide satellite capacity to satellite TV providers, broadcasters and programmers who

use our satellites to deliver programming. Our satellites are also used for the transmission of live sporting events, internet access, disaster recovery, and satellite news gathering services.

- Government Services. We provide satellite services and technical services to U.S. government service providers. We believe the U.S. government may increase its use of commercial satellites for homeland security, emergency response, continuing education, distance learning, and training.
- *Network Services*. We provide satellite capacity and terrestrial network services to companies. These networks are dedicated private networks that allow delivery of video and data services for corporate communications. Our satellites can be used for point-to-point or point to multi-point communications.

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Our Customers

We provide satellite capacity on our satellite fleet primarily to DISH Network, Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers and private enterprise customers. For the years ended December 31, 2015, 2014 and 2013, DISH Network accounted for approximately 86.3%, 84.1% and 74.9% of our total EchoStar Satellite Services segment revenue. We have entered into certain commercial agreements with DISH Network pursuant to which we are obligated to provide DISH Network with satellite services at fixed prices for varying lengths of time depending on the satellite. See Note 19 in the notes to consolidated financial statements in Item 15 of this report for further discussion of our related party transactions with DISH Network. While we expect to continue to provide satellite services to DISH Network, its satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch its own satellites. Any termination or reduction in the services we provide to DISH Network may cause us to have unused capacity on our satellites and require that we aggressively pursue alternative sources of revenue for this business. We currently have available satellite capacity. Our other satellite service sales generally are characterized by shorter-term contracts or spot market sales.

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

As of December 31, 2015 and 2014, our EchoStar Satellite Services segment had contracted revenue backlog attributable to satellites currently in orbit of approximately \$1.41 billion and \$1.71 billion, respectively. Of the total contracted revenue backlog as of December 31, 2015, we expect to recognize approximately \$373.2 million of revenue in 2016.

Our Competition

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

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

OTHER BUSINESS OPPORTUNITIES

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

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

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In 2012, we acquired the right to use various frequencies at the 45 degree west longitude orbital location (Brazilian Authorization) from ANATEL, the Brazilian communications regulatory agency. The Brazilian Authorization provides us the rights to utilize Ku-band spectrum for broadcast satellite service (BSS), Ka-band spectrum and S-band spectrum. With regards to the Ku-band BSS spectrum, we continue to pursue various opportunities to support a Brazilian service. We are also exploring options for the Ka-band and S-band spectrums. In April 2014, we entered into an agreement for the construction of the EchoStar XXIII satellite, a high powered BSS satellite, which will use some of the components from CMBStar, a satellite that we suspended construction of in 2008. The EchoStar XXIII satellite is expected to launch in the third quarter of 2016 and will be deployed at the 45 degree west longitude orbital location.

In December 2013, we acquired 100% of Solaris Mobile, which is based in Dublin, Ireland and licensed by the European Union and its member states (EU) to provide MSS and CGC services covering the entire EU using S-band spectrum. Solaris Mobile changed its name to EchoStar Mobile Limited (EchoStar Mobile) in the first quarter of 2015. We are in the process of developing commercial services, expected to begin in the second half of 2016, utilizing the operable transponders we own on the EUTELSAT 10A (also known as W2A) satellite, along with our EchoStar XXI S-band satellite. We are currently constructing and expect to launch the EchoStar XXI satellite in the second quarter of 2016 to provide space segment capacity to EchoStar Mobile. We believe we are in a unique position to deploy a European wide MSS/CGC network and maximize the long-term value of our S-band spectrum in Europe and other regions within the scope of our licenses.

In June 2015, we purchased an equity investment in WorldVu Satellites Limited (OneWeb), a low-earth orbit satellite company. In addition, our Hughes segment entered into an agreement with OneWeb to provide certain equipment and services in connection with the ground system for OneWeb's low-earth orbit satellites.

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OUR SATELLITE FLEET

Our operating satellite fleet consists of both owned and leased satellites detailed in the table below as of December 31, 2015.

de) (In Years)
de) (In Years)
12
15
12
<i>I</i> 12
3
12
12
7
9
7 2
11
15
7 15
10
7

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

⁽²⁾ See Note 19 in the notes to consolidated financial statements in Item 15 of this report 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 4 in the notes to consolidated financial statements in Item 15 of this report).

⁽⁴⁾ Fully depreciated assets.

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

- (6) The Company acquired the S-band payload on this satellite, which prior to the acquisition in December 2013, experienced an anomaly at the time of the launch. As a result, the S-band payload is not fully operational.
- (7) Operating lease expired in February 2016.

Our owned and leased satellites under construction as of December 31, 2015 are presented below.

Satellites	Segment	Expected Launch Date
EUTELSAT 65 West A (1)	Hughes	First quarter of 2016
EchoStar XXI	Other	Second quarter of 2016
EchoStar XXIII	Other	Third quarter of 2016
EchoStar XIX	Other	Fourth quarter of 2016
EchoStar 105/SES-11	ESS	Fourth quarter of 2016
Telesat T19V (63 West) (1)	Hughes	Second quarter of 2018

⁽¹⁾ We entered into satellite services agreements for certain capacity on these satellites once launched, but are not parties to the construction contracts.

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Recent Developments

63 West Agreements. In September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat will provide to us fixed broadband service into South America using the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 to deliver consumer satellite broadband services into South America as well as create a platform to potentially allow for further development of our business in South America.

Satellite Construction Launch Services Costs. In the third quarter of 2015, we mutually agreed with a vendor to cancel an existing launch services agreement for the launch of the EchoStar XIX satellite. Pursuant to the cancellation, we received a refund of prior payments related to the launch services, and credited the refund amount to construction in progress in the third quarter of 2015. Also in the third quarter of 2015, we entered into an agreement with a different vendor to provide for the launch services of the satellite, which is expected to be launched in the fourth quarter of 2016.

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

As a result of anomalies that affected the operation of the AMC-15 and AMC-16 satellites, our monthly recurring payments were reduced under the related capital lease agreements. We have accounted for these lease modifications generally by reducing the carrying amounts of the satellite and related capital lease obligation by the present value of the payment reduction. In such instances where the carrying amount of the satellite had been reduced to zero as a result of accumulated depreciation or impairments, we have recognized the reductions in the capital lease obligations as gains in Other, net in our consolidated statements of operations and comprehensive income (loss). For the years ended December 31, 2015, 2014 and 2013, we recognized such gains of \$4.5 million, zero and \$6.7 million, respectively.

Satellite Anomalies and Impairments

Our satellites may experience anomalies from time to time, some of which may have a significant adverse impact on their remaining useful lives, the commercial operation of the satellites or our operating results. We are not aware of any anomalies with respect to our owned or leased satellites that have had any such material adverse effect during the year ended December 31, 2015. There can be no assurance, however, that anomalies will not have any such adverse impacts in the future. In addition, there can be no assurance that we can recover critical transmission capacity in the event one or more of our in-orbit satellites were to fail. In some instances, anomalies have resulted in impairment losses that

materially affected our operating results. As discussed in Note 9 to our consolidated financial statements, in the second quarter of 2013 we recognized a \$34.7 million impairment loss as a result of anomalies affecting the EchoStar XII satellite.

We generally do not carry in-orbit insurance on our satellites or use commercial insurance to mitigate the potential financial impact of launch or in-orbit failures because we believe that the cost of insurance is uneconomical relative to the risk of such failures. Therefore, we generally bear the risk of any uninsured launch or 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 launch and in-orbit insurance for our SPACEWAY 3, EchoStar XVI, and EchoStar XVII satellites. In addition, although we were not required to maintain in-orbit insurance pursuant to our service agreement with DISH Network for the EchoStar XV satellite, we would have been liable for any damage caused by our use of the satellite and therefore we carried third-party insurance on the EchoStar XV satellite until the termination of our service agreement with DISH Network for the EchoStar XV satellite in November 2015.

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

GOVERNMENT REGULATIONS

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

The following summary of regulations and legislation is not intended to describe all present and proposed government regulation and legislation affecting our business. Government regulations that are currently the subject of judicial or administrative proceedings, draft legislation or administrative proposals could impact us and our industries to varying degrees. The FCC and other regulators from time to time initiate proceedings that could adversely impact our satellite operations, including spectrum usage. Under its Spectrum Frontiers proceeding, the FCC is considering enabling the use of one of our frequency bands, the Ka-band, on a shared basis with 5G services, which could have a material adverse effect on our operations. In addition, potential FCC actions designed to increase competition among set-top box providers and prevent or limit the use of security systems in connection with set-top boxes may result in our customers facing emerging competition from other providers of digital media and lower sales and revenue to us. We cannot predict either the outcome of these proceedings or proposals or any potential impact they might have on the industry or on our operations.

FCC Regulations Applicable to Our Operations

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

- the assignment of satellite radio frequencies and orbital locations to specific services and companies, the licensing of satellites and earth stations, and the granting of related authorizations;
- approval for the relocation of satellites to different orbital locations, the replacement of a satellite with another new or existing satellite, and the authorization of specific earth stations to communicate with such newly

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rei	localeu	Saten	mes.

- ensuring compliance with the terms and conditions of assignments, licenses, authorizations, and approvals;
- avoiding harmful interference with other radio frequency emitters; and
- ensuring compliance with other applicable provisions of the Communications Act and FCC rules and regulations.

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

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FCC Jurisdiction over Set-Top Box Operations. Our digital set-top boxes and similar devices must also comply with FCC technical standards and requirements, including accessibility and other requirements. The FCC has specific Part 15 regulations for television broadcast receivers and television interface devices.

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

State and Local Regulation

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

International Regulation

Foreign Administrations Jurisdiction Over Satellite and Terrestrial Operations. Some of our satellites and earth stations are licensed in foreign jurisdictions. We also have terrestrial authorizations in foreign jurisdictions. In order to provide service to a foreign location from a U.S. satellite, we are required to obtain approvals from the FCC and foreign administrative agencies. The laws and regulations addressing access to satellite and terrestrial systems vary from country to country. In most countries, a license is required to provide our services and to operate satellite earth stations. Such licenses may impose certain conditions, including implementation and operation of the satellite system in a manner consistent with certain milestones (such as for contracting, satellite design, construction, launch, and implementation of service), that the satellite or its launch be procured through a national entity, that the satellite control center be located in national territory, that a license be obtained prior to launching or operating the satellite, or that a license be obtained before interconnecting with the local switched telephone network. Some countries may have restrictions on the services we provide and how we provide them. In addition, certain countries may limit the rates that can be charged for the services we provide or impose other service terms or restrictions.

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

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

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

Export Control Regulation

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

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

Environmental Regulation

We are subject to the requirements of federal, state, local, and foreign environmental and occupational safety and health laws and regulations. These include laws regulating air emissions, water discharge, waste management, hazardous chemicals and product disposal, most significantly

the Resource Conservation and Recovery Act (RCRA) and the Emergency Planning and Community Right-to-Know Act (EPCRA). Under the RCRA, our Hughes segment is considered a small quantity generator.

As required by the EPCRA, we file periodic reports with regulators covering four areas: Emergency Planning, Emergency Release, Hazardous Chemical Storage, and Toxic Chemical Release. We maintain small quantities of hazardous materials on our premises and, therefore, have relatively modest reporting requirements under the EPCRA. We are also subject to the requirements of other environmental and occupational safety and health laws and regulations. Additionally, we review Tier II reporting requirements of the Department of Environmental Quality which requires reporting the storage of hazardous materials in large quantities and if they we changed from year to year. These are state run programs and each state may have slightly different requirements.

Our environmental compliance costs to date have not been material, and we currently have no reason to believe that such costs will become material in the foreseeable future. We do not expect capital or other expenditures for environmental compliance to be material in 2016. However, environmental requirements are complex, change

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frequently, and have become more stringent over time. Accordingly, we cannot provide assurance that these requirements will not change or become more stringent in the future in a manner that could have a material adverse effect on our business.

PATENTS AND TRADEMARKS

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

We believe that our patents are important to our business. We also believe that, in some areas, the improvement of existing products and the development of new products, as well as reliance upon trade secrets and unpatented proprietary know-how, are important in establishing and maintaining a competitive advantage. We believe, to a certain extent, that the value of our products and services are dependent upon our proprietary software, hardware, and other technology remaining trade secrets and/or subject to copyright protection. Generally, we enter into non-disclosure and invention assignment agreements with our employees, subcontractors, and certain customers and other business partners. Please see Item 3. Legal Proceedings of this report for more information.

RESEARCH AND DEVELOPMENT AND ENGINEERING

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

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

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

Costs incurred in research and development activities generally are expensed as incurred. A significant portion of our research and development costs are incurred in connection with the specific requirements of a customer s order. In such instances, the amounts for these customer funded development efforts are included in cost of sales. Cost of sales for the years ended December 31, 2015, 2014 and 2013 includes research and development costs of approximately \$59.2 million, \$68.4 million and \$65.3 million, respectively. In addition, we incurred \$78.3 million, \$60.9 million and \$67.9 million for the years ended December 31, 2015, 2014 and 2013, respectively, for research and development expenses.

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GEOGRAPHIC AREA DATA AND TRANSACTIONS WITH MAJOR CUSTOMERS

For principal geographic area data and transactions with major customers for 2015, 2014 and 2013, see Note 17 in the notes to consolidated financial statements in Item 15 of this report. See Item 1A. Risk Factors for information regarding risks related to our foreign operations.

EMPLOYEES

As of December 31, 2015, we had approximately 4,400 employees and generally consider relations with them to be good. Other than approximately 120 of our employees located in Italy and Brazil, none are represented by a union.

WHERE YOU CAN FIND MORE INFORMATION

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

WEBSITE ACCESS

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

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

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EXECUTIVE OFFICERS OF THE REGISTRANT

(furnished in accordance with Item 401(b) of Regulation S-K, pursuant to General Instruction G(3) of Form 10-K)

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

Name	Age	Position
Charles W. Ergen	62	Chairman
Michael T. Dugan	67	Chief Executive Officer, President and Director
David J. Rayner	58	Executive Vice President, Chief Financial Officer and Treasurer
Mark W. Jackson	55	President, EchoStar Technologies L.L.C.
Anders N. Johnson	58	President, EchoStar Satellite Services L.L.C.
Pradman P. Kaul	69	President, Hughes Communications, Inc. and Director
Kenneth G. Carroll	60	Executive Vice President, Corporate and Business Development
Sandra L. Kerentoff	62	Executive Vice President, Global Human Resources
Kranti K. Kilaru	50	Executive Vice President, Business Systems, IT and Operations
Dean A. Manson	49	Executive Vice President, General Counsel and Secretary

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

Michael T. Dugan. Mr. Dugan has served as our Chief Executive Officer and President since November 2009. Mr. Dugan has also served as a member of our Board of Directors since our formation in 2007. Mr. Dugan served as a senior advisor to EchoStar from January 1, 2008 until November 2009. From May 2004 to December 2007, he was a director of DISH Network, and served DISH Network alternately as Chief Technical Officer and senior advisor from time to time. Mr. Dugan served as a member of the board of directors of Frontier Corporation from October 2006 until November 2009.

David J. Rayner. Mr. Rayner has served as our Executive Vice President, Chief Financial Officer, and Treasurer since December 2012. From November 2011 to November 2012, Mr. Rayner served as Chief Financial Officer of Tendril Networks, Inc., a Boulder, Colorado software company. Mr. Rayner served as our Chief Financial Officer from June 2010 to November 2011 and served as our Chief Administrative Officer from January 2008 to June 2010. Prior to that, Mr. Rayner served as Executive Vice President of Installation and Service Networks of DISH Network and had previously held the position of Chief Financial Officer of DISH Network from December 2004 to September 2006. Before joining DISH Network in December 2004, Mr. Rayner served as Senior Vice President and Chief Financial Officer of Time Warner Telecom in Denver, beginning in June 1998.

Mark W. Jackson. Mr. Jackson has served as President of EchoStar Technologies L.L.C. since 2004 and oversees all day to day operations of our EchoStar Technologies segment. Mr. Jackson served as President of EchoStar Technologies Corporation from June 2004 through December 2007.

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

Pradman P. Kaul. Mr. Kaul has served as President of Hughes Communications, Inc. (Hughes Communications) since its formation in February 2006 and since 2000, as President and Chief Executive Officer of Hughes Network Systems, LLC (HNS and, together with Hughes Communications, Hughes), a wholly owned subsidiary of Hughes Communications. Mr. Kaul has also served as a member of our Board of Directors since August 2011 as

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well as a member of the board of directors of Hughes Communications from February 2006 until June 2011. Previously, Mr. Kaul served as the Chief Operating Officer, Executive Vice President and Director of Engineering of HNS.

Kenneth G. Carroll. Mr. Carroll has served as our Executive Vice President, Corporate and Business Development since December 2012. Mr. Carroll served as our Executive Vice President and Chief Financial Officer from November 2011 to November 2012. Mr. Carroll, a 20-year veteran in the satellite TV and satellite broadband industry, served as Chief Operating Officer of EchoStar Satellite Services from August 2010 to June 2011, and as Executive Vice President, Business Development and International, of EchoStar from June 2011 to November 2011. Prior to joining EchoStar, from 2003 to 2010, Mr. Carroll served as President and Chief Operating Officer of WildBlue Communications, Inc., a nationwide satellite broadband company. In addition, Mr. Carroll previously served as Chief Financial Officer for Liberty Satellite & Technology and DTH satellite TV provider, PrimeStar.

Sandra L. Kerentoff. Ms. Kerentoff has served as our Executive Vice President, Global Human Resources since February 2012, following her appointment as head of Global Human Resources in October 2011. Ms. Kerentoff also has served as Senior Vice President, Administration and Human Resources of HNS since April 2000. Ms. Kerentoff joined HNS in 1977 and, from 1977 to 2000, held various positions of increasing responsibility.

Kranti K. Kilaru. Mr. Kilaru has served as our Executive Vice President, Business Systems, IT, and Operations since July 2013. Mr. Kilaru served as our Senior Vice President of our systems engineering group from April 2005 to July 2013 and was responsible for all broadcast centers and systems engineering. Mr. Kilaru joined EchoStar Technologies L.L.C. in 1989 and, from 1989 to 2005, held various positions of increasing responsibility.

Dean A. Manson. Mr. Manson has served as our Executive Vice President, General Counsel and Secretary since November 2011, and is responsible for all legal and government affairs of EchoStar and its subsidiaries. Mr. Manson joined HNS in 2000 from the law firm of Milbank, Tweed, Hadley & McCloy, where he focused on international project finance and corporate transactions, and was appointed General Counsel of Hughes Communications in 2004.

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

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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 share repurchase program, invest capital in our business or return capital to our shareholders could be materially and adversely affected.

GENERAL RISKS AFFECTING OUR BUSINESS

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

DISH Network accounted for 53.5%, 57.3% and 58.8% of our total revenue for the years ended December 31, 2015, 2014 and 2013, respectively. DISH Network is currently our primary customer of digital set-top boxes, digital broadcast operation services and our satellite services. These products and services are provided pursuant to contracts that expire on December 31, 2016. DISH Network is also a wholesale distributor of the Hughes satellite internet service, and in connection with such wholesale distribution, purchases certain broadband equipment from us to support the sale of the Hughes service. In addition, DISH Network has no obligations to continue to purchase our products and only certain obligations to continue to purchase certain of our services. Therefore, our relationship with DISH Network could be terminated or substantially curtailed with little or no advance notice. Any material reduction in or termination of our sales to DISH Network or reduction in the prices it pays for the products and services it purchases from us could have a material adverse effect on our business, results of operations, and financial position. In addition, regulations designed to increase competition among set-top box providers may result in lower sales to DISH Network.

DISH Network is involved in several legal proceedings relating to products, components and services purchased from us. Adverse decisions against DISH Network in these proceedings could decrease the number of products, components and/or services we provide to DISH Network, which could have a material adverse effect on our business, results of operations, and financial position.

In addition, because a significant portion of our revenue is derived from DISH Network, our success also depends to a significant degree on the continued success of DISH Network in attracting new subscribers and marketing programming packages and other services and features to subscribers that will result in the purchase of new digital set-top boxes, and in particular, new digital set-top boxes at the high-end of our product range that incorporate high-definition, multiple tuners, and other advanced technology.

In addition, the timing of orders for digital set-top boxes from DISH Network could vary significantly depending on equipment promotions offered to its subscribers, changes in technology, and its use of remanufactured digital set-top boxes, which may cause our revenue to vary significantly quarter over quarter and could expose us to the risks of inventory shortages or excess inventory. These inventory risks are particularly acute during product end-of-life transitions in which a new generation of digital set-top boxes is being deployed and inventory of older generation digital set-top boxes is at a higher risk of obsolescence. This in turn could cause our operating results to fluctuate significantly.

There are a relatively small number of potential new customers for our digital set-top boxes and digital broadcast operations, and we expect this customer concentration to continue for the foreseeable future. If we lose DISH Network as a customer, it may be difficult for us to replace, in whole or in part, our historical revenue from DISH Network as we have had limited success in attracting such potential new customers in the past. Furthermore, because of the maturing and competitive nature of the digital set-top box business, the limited number of potential new customers, and the short-term nature of our purchase orders with DISH Network, we have experienced, and could in the future continue to experience, downward pricing pressure on our digital set-top boxes sold to DISH Network, which in turn would adversely affect our gross margins and profitability. Historically, many potential customers 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.

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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 have identified a number of strategic initiatives that we intend to pursue which are discussed in more detail in Item 1. Business of this Annual Report on Form 10-K. The successful implementation of those strategic initiatives requires an investment of time, talent and money and is dependent upon a number of factors some of which are not within our control. Those factors include the ability to execute such initiatives in the market, the response of existing and potential new customers, and the actions or reactions of competitors. We may allocate significant resources for long-term initiatives that may not have a short or medium term or any positive impact on our revenue, results of operations, or cash flow. If we fail to properly execute or deliver products or services that address customers expectations, it may have an adverse effect on our ability to retain and attract customers and may increase our costs and reduce our revenue. Similarly, competitive actions or reactions to our initiatives or advancements in technology or competitive products or services could impair our ability to execute those strategic initiatives or advancements. In addition, new strategic initiatives may face barriers to entering existing markets with established competitors. There can be no assurance that we will successfully implement these strategic initiatives or that, if successfully pursued, they will have the desired effect on our business or results of operations.

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

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

- The digital set-top box market is intensely competitive, and market leadership changes frequently as a result of new products, designs, pricing and regulations. We currently face competition from well-established companies, from new, rapidly growing companies, and from digital video providers who have developed their own digital set-top boxes, and in the future we may face competition from new and existing companies that do not currently compete in the market for set-top boxes. If we do not distinguish our products, particularly our retail products, through distinctive, technologically advanced features and design, as well as build and strengthen our brand recognition, our business could be harmed as we may not be able to effectively compete on price alone against new low cost market entrants. Increased pricing pressure may also make it particularly difficult for us to make profitable sales in international markets where new competitors are present and in which we have not previously made sales of set-top boxes. In addition, it can be difficult to acquire additional market share in the digital set-top box market because gaining additional market share would require displacing well-established companies who have had long-term contracts with major cable operators in the U.S., which results in relatively high costs for cable operators to change set-top box providers making it more difficult for us to displace potential customers from their current relationships with our competitors. In addition, regulations designed to increase competition among set-top box providers may result in lower sales and revenue. Any of these competitive threats, alone or in combination with others, could significantly harm our business, operating results and financial condition.
- Our EchoStar Satellite Services segment competes against larger, well-established satellite service companies, such as Intelsat, SES, Telesat, and Eutelsat. Because the satellite services industry is relatively mature,

our growth strategy depends largely on our ability to displace current incumbent providers, which often have the benefit of long-term contracts with customers. These long-term contracts and other factors result in relatively high costs for customers to change service providers, making it more difficult for us to displace customers from their current relationships with our competitors. In addition, the supply of satellite capacity available in the market has increased in recent years, which makes it more difficult for us to sell our services in certain markets and to price our capacity at acceptable levels. Competition may cause downward pressure on prices and further reduce the utilization of our capacity, both of which could have an adverse effect on our financial performance. Our EchoStar Satellite Services 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.

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- In our consumer market, we face competition primarily from DSL, fiber and cable internet service providers. Also, other telecommunications, satellite and wireless broadband companies have launched or are planning the launch of consumer internet access services in competition with our service offerings in North America. Some of these competitors offer consumer services and hardware at lower prices than ours. In addition, terrestrial alternatives do not require our external dish, which may limit customer acceptance of our products. We may be unsuccessful in competing effectively against DSL, fiber and cable internet service providers and other satellite broadband providers, which could harm our business, operating results and financial condition.
- In our enterprise network communications market, we face competition from providers of terrestrial-based networks, such as fiber, DSL, cable modem service, multiprotocol label switching and internet protocol-based virtual private networks, which may have advantages over satellite networks for certain customer applications. Although we also sell terrestrial services to this market, we may not be as cost competitive and it may become more difficult for us to compete. The network communications industry is characterized by competitive pressures to provide enhanced functionality for the same or lower price with each new generation of technology. Terrestrial-based networks are offered by telecommunications carriers and other large companies, many of which have substantially greater financial resources and greater name recognition than us. As the prices of our products decrease, we will need to sell more products and/or reduce the per-unit costs to improve or maintain our results of operations. The costs of a satellite network may exceed those of a terrestrial-based network or other networks, especially in areas that have experienced significant DSL and cable internet build-out. It may become more difficult for us to compete with terrestrial and other providers as the number of these areas increases and the cost of their network and hardware services declines. Terrestrial networks also have a competitive edge because of lower latency for data transmission.

The average selling price and gross margins of our digital set-top boxes have been decreasing and may decrease even further, which could negatively impact our financial position and results of operations.

The average selling price and gross margins of our digital set-top boxes have been decreasing and may decrease even further due to, among other things, an increase in the sales of lower-priced digital set-top boxes to DISH Network and increased competitive pricing pressure and production costs. Furthermore, our ability to increase the average selling prices of our digital set-top boxes is limited and our average selling price may decrease even further in response to competitive pricing pressures, new product introductions by us or our competitors, lack of demand for our new product introductions or other factors. If we are unable to increase or at least maintain the average selling prices of our digital set-top boxes, or if such selling prices further decline, and we are unable to respond in a timely manner by developing and introducing new products and continually reducing our product costs, our revenue and gross margin may be negatively affected, which will harm our financial position and results of operations.

If significant numbers of television viewers are unwilling to pay for pay-TV services that utilize digital set-top boxes, we may not be able to sustain our current revenue level.

We are substantially dependent upon the ability of our customers to promote the delivery of pay-TV services, including, among others, premium programming packages and services that utilize technology incorporated into our digital set-top boxes, such as HD technology and IPTV, to generate future revenue. Our customers face emerging competition from other providers of digital media and potential government action

preventing them from using security systems in connection with set-top boxes. In particular, programming offered over the internet has become more prevalent as the speed and quality of broadband networks have improved.

As a result, our customers may be unsuccessful in promoting value-added services or may promote alternative packages, such as free programming packages, in lieu of promoting packages that utilize our high-end digital set-top box offerings. If our customers are unable to develop and effectively market compelling reasons for their subscribers to continue to purchase their pay-TV services that utilize our more advanced digital set-top boxes, it will be difficult for us to sustain our historical revenue. Furthermore, as technologies develop, other means of delivering information and entertainment to television viewers have evolved and contributed to, and will likely continue to evolve and contribute to, increasing consumer demand for online platforms that provide for the distribution and viewing of movies, television and other video programming that competes with our customers pay-TV services. To

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the extent that these online platforms and other new technologies compete successfully against our customers for viewers, the ability of our existing customer base to attract and retain subscribers may be adversely affected. As a result, demand for our satellite television digital set-top boxes could decline, and we may not be able to sustain our current revenue levels.

We may have available satellite capacity in our EchoStar Satellite Services segment, and our results of operations may be materially adversely affected if we are not able to lease this capacity to third parties, including DISH Network.

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

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

Our Hughes segment has made substantial contractual commitments for satellite capacity based on our existing customer contracts and backlog. If our existing customer contracts were to be terminated prior to their respective expiration dates, we may be committed to maintaining excess satellite capacity for which we will have insufficient revenue to cover our costs, which would have a negative impact on our margins and results of operations. Alternatively, we may not have sufficient satellite capacity to meet demand. We have satellite capacity commitments, generally for two to five year terms, with third parties to cover different geographical areas or support different applications and features; therefore, we may not be able to quickly or easily adjust our capacity to changes in demand. We generally only purchase satellite capacity based on existing contracts and bookings. Therefore, capacity for certain types of coverage in the future may not be readily available to us, and we may not be able to satisfy certain needs of our customers, which could result in a loss of possible new business and could negatively impact the margins for those services. At present, until the launch and operation of additional satellites, there is limited availability of capacity on the frequencies we use in North America, including within our own fleet of satellites. In addition, the FSS industry has seen consolidation in the past decade, and today, the main FSS providers in North America and a number of smaller regional providers own and operate the current satellites that are available for our capacity needs. The failure of any of these FSS providers to replace existing satellite assets at the end of their useful lives or a downturn in their industry as a whole could reduce or interrupt the satellite capacity available to us. If we are not able to renew our capacity leases at economically viable rates, or if capacity is not available due to problems experienced by these FSS providers, our business and results of operations could be

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.

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- Commodity Price Risk. Fluctuations in pricing of raw materials can affect our product costs. To the extent that component pricing does not decline or increases, whether due to inflation, increased demand, decreased supply or other factors, we may not be able to pass on the impact of increasing raw materials prices, component prices or labor and other costs, to our customers, and we may not be able to operate profitably. Such changes could have an adverse impact on our product costs.
- *Manufacturing*. While we develop and manufacture prototypes for certain of our products, we use contract manufacturers to produce a significant portion of our hardware. If these contract manufacturers fail to provide products that meet our specifications in a timely manner, then our customer relationships and revenue may be harmed.
- Installation and customer support services. Some of our products and services, such as our North American and international operations, utilize a network of third-party installers to deploy our hardware. In addition, a portion of our customer support and management is provided by offshore call centers. A decline in levels of service or attention to the needs of our customers could adversely affect our reputation, renewal rates and ability to win new business.
- 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. 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 expose us to regulatory risks and restrictions not present in our domestic operations.

Our sales outside the U.S. accounted for approximately 14.6%, 14.1% and 14.1% of our revenue for the years ended December 31, 2015, 2014 and 2013, respectively. Collectively, we expect our foreign operations to represent a significant portion of our business. Over the last 10 years, we have sold products in over 100 countries. Our foreign operations involve varying degrees of risk and uncertainties inherent in doing business abroad. Such risks include:

• Complications in complying with restrictions on foreign ownership and investment and limitations on repatriation. We may not be permitted to own our operations in some countries and may have to enter into partnership or joint venture relationships. Many foreign legal regimes restrict our repatriation of earnings to the U.S. from our subsidiaries and joint venture entities. Applicable law in such foreign countries may also limit our ability to distribute or access our assets in certain circumstances. In such event, we will not have access to the cash flow and assets of our subsidiaries and joint ventures.

- Difficulties in following a variety of laws and regulations related to foreign operations. Our international operations are subject to the laws of many different jurisdictions that may differ significantly from U.S. law. For example, local political or intellectual property law may hold us responsible for the data that is transmitted over our network by our customers. In addition, we are subject to the Foreign Corrupt Practices Act and similar anti-bribery laws in other jurisdictions that generally prohibit companies and their intermediaries from making improper payments or giving or promising to give anything of value to foreign officials and other individuals for the purpose of obtaining or retaining business or gaining a competitive advantage. Our policies mandate compliance with these laws. However, we operate in many parts of the world that have experienced corruption to some degree. Compliance with these laws may lead to increased operations costs or loss of business opportunities. Violations of these laws could result in fines or other penalties or sanctions, which could have a material adverse impact on our business, financial condition, and results of operations.
- Restrictions on space station landing/terrestrial rights. Satellite market access and landing rights and terrestrial wireless rights are dependent on the national regulations established by foreign governments, including, but not limited to obtaining national authorizations or approvals and meeting other regulatory, coordination and registration requirements for satellites. Because regulatory schemes vary by country, we may be subject to laws or regulations in foreign countries of which we are not presently aware. Non-compliance with these requirements may result in the loss of the authorizations and licenses to conduct business in these countries, as well as fines or other financial and non-financial penalties for non-

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compliance with regulations. If that were to be the case, we could be subject to sanctions and/or other actions by a foreign government that could materially and adversely affect our ability to operate in that country. There is no assurance that any current regulatory approvals held by us are, or will remain, sufficient in the view of foreign regulatory authorities, or that any additional necessary approvals will be granted on a timely basis or at all, in all jurisdictions in which we wish to operate new satellites, or that applicable restrictions in those jurisdictions will not be unduly burdensome. Violations of laws or regulations may result in various sanctions including fines, loss of authorizations and the denial of applications for new authorizations or for the renewal of existing authorizations, and the failure to obtain or comply with the authorizations and regulations governing our international operations could have a material adverse effect on our ability to generate revenue and our overall competitive position.

- Financial and legal constraints and obligations. Operating pursuant to foreign licenses subjects us to certain financial constraints and obligations, including, but not limited to: (a) tax liabilities that may or may not be dependent on revenue; (b) the burden of creating and maintaining additional entities, branches, facilities and/or staffing in foreign jurisdictions; and (c) legal regulations requiring that we make certain satellite capacity available for free, which may impact our revenue. In addition, if we need to pursue legal remedies against our customers or our business partners located outside of the U.S., it may be difficult for us to enforce our rights against them.
- Compliance with applicable export control laws and regulations in the U.S. and other countries. We must comply with all applicable export control laws and regulations of the U.S. and other countries. U.S. laws and regulations applicable to us include the Arms Export Control Act, ITAR, EAR and the trade sanctions laws and regulations administered by OFAC. The export of certain hardware, technical data and services relating to satellites is regulated by BIS under EAR. Other items are controlled for export by the DDTC under ITAR. We cannot provide services to certain countries subject to U.S. trade sanctions unless we first obtain the necessary authorizations from OFAC. Violations of these laws or regulations could result in significant sanctions including fines, more onerous compliance requirements, debarments from export privileges, or loss of authorizations needed to conduct aspects of our international business. A violation of ITAR or the other regulations enumerated above could materially adversely affect our business, financial condition and results of operations.
- Changes in exchange rates between foreign currencies and the U.S. dollar. We conduct our business and incur cost in the local currency of a number of the countries in which we operate. Accordingly, our applicable results of operations are reported in the relevant local currency and then translated to U.S. dollars at the applicable currency exchange rate for inclusion in our financial statements. In addition, we sell our products and services and acquire supplies and components from countries that historically have been, and may continue to be, susceptible to recessions or currency devaluation. These fluctuations in currency exchange rates, recessions and currency devaluations have affected, and may in the future affect, revenue, profits and cash earned on international sales.
- Greater exposure to the possibility of economic instability, the disruption of operations from labor and political disturbances, expropriation or war. As we conduct operations throughout the world, we could be subject to regional or national economic downturns or instability, acts of terrorism, labor or political disturbances or conflicts of various sizes, including wars. Any of these disruptions could detrimentally affect our sales in the affected region or country or lead to damage to, or expropriation of, our property or danger to our personnel.

- Competition with large or state-owned enterprises and/or regulations that effectively limit our operations and favor local competitors. Many of the countries in which we conduct business have traditionally had state owned or state granted monopolies on telecommunications services that favor an incumbent service provider. We face competition from these favored and entrenched companies in countries that have not deregulated. The slower pace of deregulation in these countries, particularly in Asia and Latin America, has adversely affected the growth of our business in these regions.
- *Customer credit risks*. Customer credit risks are exacerbated in foreign operations because there is often little information available about the credit histories of customers in certain of the foreign countries in which we operate.

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We may experience loss from some of our customer contracts.

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

We may experience significant financial losses on our existing investments.

We have entered into certain strategic transactions and investments. These investments involve a high degree of risk and could diminish our financial condition or our ability to fund a share repurchase program, invest capital in our business or return capital to our shareholders. 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 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 other businesses or technologies or partner with other companies that could complement, enhance or expand our current business, services or products or that may otherwise offer us growth opportunities. We may pursue acquisitions, joint ventures or other business combination activities to complement or expand our business. Any such acquisitions, transactions or investments that we are able to identify and complete which may become substantial over time, involve a high degree of risk, including, but not limited to, the following:

- the diversion of our management s attention from our existing business to integrate the operations and personnel of the acquired or combined business or joint venture;
- the ability and capacity of our management team to carry out all of our business plans, including with respect to our existing businesses and any businesses we acquire or embark on in the future;

 possible adverse effects on our and our targets and partners business, financial condition or operating results during the integration process; exposure to significant financial losses if the transactions and/or the underlying ventures are not successful; and/or we are unable to achieve the intended objectives of the transaction; the inability to obtain in the anticipated time frame, or at all, any regulatory approvals required to complete proposed acquisitions, transactions or investments; the risks associated with complying with regulations applicable to the acquired business which may cause us to incur substantial expenses; the inability to realize anticipated benefits or synergies from an acquisition; and the disruption of relationships with employees, vendors or customers. New acquisitions, joint ventures and other transactions may require the commitment of significant capital that may otherwise be directed to investments in our existing businesses or be distributed to shareholders. Commitment of 		
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New acquisitions, joint ventures and other transactions may require the commitment of significant capital that may otherwise be directed to	•	the inability to realize anticipated benefits or synergies from an acquisition; and
	•	the disruption of relationships with employees, vendors or customers.

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this capital may cause us to defer or suspend any share repurchases or capital expenditures that we otherwise may have made.

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

Hughes Satellite Systems Corporation (HSS), our subsidiary that, together with its subsidiaries, operates our Hughes segment and our EchoStar Satellite Services segment, has incurred significant indebtedness. HSS currently has outstanding \$990.0 million of senior secured notes (the Secured Notes) and \$900.0 million of senior unsecured notes (the Unsecured Notes and, together with the Secured Notes, the Notes), which are due in 2019 and 2021, respectively. HSS ability to make payments on or to refinance its indebtedness and to fund its operations will depend on its ability to generate cash in the future, which is subject in part to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. We may need to raise additional debt in order to fund ongoing operations or to capitalize on business opportunities. We may not be able to generate sufficient cash flow from operations and future borrowings may not be available in amounts sufficient to enable us to service HSS indebtedness or to fund operations or other liquidity needs. If HSS is unable to generate sufficient cash, it may be forced to take actions such as revising or delaying its strategic plans, reducing or delaying capital expenditures, selling assets, restructuring or refinancing its debt or seeking additional equity capital. HSS may not be able to implement any of these actions on satisfactory terms, or at all. The indentures governing the Notes also limit HSS ability to dispose of assets and use the proceeds from such dispositions. Therefore, HSS may not be able to consummate those dispositions on satisfactory terms, or at all, or to use those proceeds in a manner it may otherwise prefer.

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

Covenants in HSS indentures restrict its business in many ways.

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

- pay dividends or make distributions on HSS capital stock or repurchase HSS capital stock;
- 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; and
• distribut	allow to exist certain restrictions on the ability of certain subsidiaries of HSS to pay dividends, make ions, make other payments, or transfer assets to HSS or its subsidiaries.
which cou and is con declare all	comply with these and certain other financial covenants, if not cured or waived, may result in an event of default under the indentures, ld have a material adverse effect on HSS business, financial condition, results of operations or prospects. If an event of default occurs tinuing under the respective indenture, the trustee under that indenture or the requisite holders of the Notes under that indenture may such Notes to be immediately due and payable and, in the case of the indenture governing the Secured Notes, could proceed against ral that secures the Secured Notes. HSS and certain of its subsidiaries have pledged a significant portion of their assets as collateral

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under the indenture governing the Secured Notes. If HSS does not have enough

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cash to service its debt or fund other liquidity needs, it may be required to take actions such as requesting a waiver from the holders of the Notes, reducing or delaying capital expenditures, selling assets, restructuring or refinancing all or part of the existing debt, or seeking additional equity capital. We cannot assure you that any of these remedies can be implemented on commercially reasonable terms or at all, which could result in the trustee declaring the Notes to be immediately due and payable and/or foreclosing on the collateral.

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

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

Pursuant to the terms of our preferred tracking stock and related agreements and policies, we could be required to use assets attributed to one group to pay liabilities attributed to the other group.

Even though we attribute, for financial reporting purposes, all of our consolidated assets, liabilities, revenue, expenses and cash flows to either the EchoStar Group or the Hughes Retail Group (see Note 4 in the notes to consolidated financial statements in Item 15 of this report for definitions and a further discussion of the preferred tracking stock, the EchoStar Group and the Hughes Retail Group) and prepare separate attributed financial information for the Hughes Retail Group, we retain legal title to all of our assets and our capitalization will not limit our legal responsibility, or that of our subsidiaries, for the liabilities included in our financial statements and such attributed financial information. As such, the assets attributed to one group are potentially subject to the liabilities attributed to the other group, even if those liabilities arise from lawsuits, contracts or indebtedness that are attributed to such other group. Although the policy statement (the Policy Statement) regarding the relationships between the EchoStar Group and the Hughes Retail Group with respect to matters such as the attribution and allocation of costs, tax liabilities and benefits, attribution of assets, corporate opportunities and similar items generally requires that all changes in the attribution of assets from one group to the other group will be made on a fair value basis as determined in accordance with certain guiding principles, these policies and our articles of incorporation generally do not prevent us from satisfying liabilities of one group with assets of the other group, and our creditors are not limited by our tracking stock capitalization from proceeding against any assets they could have proceeded against if we did not have a tracking stock capitalization.

RISKS RELATED TO OUR SATELLITES

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

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

operating satellites in the harsh environment of space.

Although we work closely with the satellite manufacturers to determine and eliminate the cause of anomalies in new satellites and provide for redundancies of many critical components in the satellites, we may not be able to prevent anomalies from occurring and may experience anomalies in the future, whether of the types described above or arising from the failure of other systems or components.

Any single anomaly or series of anomalies could materially and adversely affect our ability to utilize the satellite, our operations and revenue as well as our relationships with current customers and our ability to attract new customers. In particular, future anomalies may result in the loss of individual transponders/beams on a satellite, a group of transponders/beams on that satellite or the entire satellite, depending on the nature of the anomaly.

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Anomalies may also reduce the expected capacity or useful life of a satellite, thereby reducing the revenue that could be generated by that satellite, or create additional expenses due to the need to provide replacement or back-up satellites or satellite capacity.

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

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

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

We generally do not carry in-orbit insurance on any of our satellites and often do not use commercial insurance to mitigate the potential financial impact of launch or in-orbit failures because we believe that the cost of insurance is uneconomical relative to the risk of such failures. If one or more of our in-orbit uninsured satellites fail, we could be required to record significant impairment charges for the satellite.

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

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

In 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. Such relocation would require FCC approval. We cannot be certain that we could obtain such FCC approval. In addition, we cannot guarantee that another satellite will be available for use as a replacement for a failed or lost satellite, or that such relocation can be accomplished without a substantial utilization of fuel. Any such utilization of fuel would reduce the operational life of the replacement satellite.

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

Satellite construction and launch are subject to significant risks, including delays, launch failure and incorrect orbital placement. Certain launch vehicles that may be used by us have either unproven track records or have experienced launch failures in the past. The risks of launch delay and failure are usually greater when the launch vehicle does not have a track record of previous successful flights. Launch failures 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

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to obtain other launch opportunities. Such significant delays could materially and adversely affect our operations and our revenue and our ability to provide services to customers as capacity becomes full on existing satellites. In addition, significant delays 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 failure would reduce our contracted backlog and our ability to generate revenue. One of our launch services providers is a Russian Federation state-owned company. Recent ongoing political events, including the imposition of sanctions, have created uncertainty as to the stability of U.S. and Russian Federation relations. This could add to risks relative to scheduling uncertainties and timing. Historically, we have not always carried launch insurance for the launch of our satellites; if a launch failure were to occur, it could have a material adverse effect on our ability to fund future satellite procurement and launch opportunities, preclude us from pursuing new business opportunities and undermine our ability to implement our business strategy. In addition, the occurrence of launch failures, whether on our satellites or those of others, may significantly reduce our ability to place launch insurance for our satellites or make launch insurance uneconomical.

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

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

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

We may face interference from other services sharing satellite spectrum.

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

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

There are a limited number of manufacturers that are able to design and build satellites according to the technical specifications and standards of quality we require, including Airbus Defence and Space, Boeing Satellite Systems, Lockheed Martin, SS/L and Thales Alenia Space. There are

also a limited number of launch service providers that are able to launch such satellites, including International Launch Services, Arianespace, Lockheed Martin Commercial Launch Services, Space Exploration and Sea Launch Company. The loss of any of our manufacturers or launch service providers could increase the cost and result in the delay of the design, construction or launch of our satellites. Even if alternate suppliers for such services are available, we may have difficulty identifying them in a timely manner or we may incur significant additional expense in changing suppliers, and this could result in difficulties or delays in the design, construction or launch of our satellites. Any delays in the design, construction or launch of our satellites could have a material adverse effect on our business, financial condition and results of operations.

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RISKS RELATED TO OUR PRODUCTS AND TECHNOLOGY

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

Our business and the markets in which we operate are characterized by rapid technological changes, evolving industry standards and frequent product and service introductions and enhancements. If we or our suppliers are unable to properly respond to or keep pace with technological developments, fail to develop new technologies, or if our competitors obtain or develop proprietary technologies that are perceived by the market as being superior to ours, our existing products and services may become obsolete and demand for our products and services may decline. Even if we keep up with technological innovation, we may not meet the demands of the markets we serve. Furthermore, after we have incurred substantial research and development costs, one or more of the technologies under our development, or under development by one or more of our strategic partners, could become obsolete prior to its introduction. If we are unable to respond to or keep pace with technological advances on a cost-effective and timely basis, or if our products, applications or services are not accepted by the market, then our business, financial condition and results of operations would be adversely affected.

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

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

Our 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 Ultra HDTV, 3D TV, whole-home HD DVR features, mobile internet delivery of video content and broadband internet connectivity, and on digital television operators developing and building infrastructure to provide these advanced technologies. 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 limited.

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

We rely on our patents, copyrights, trademarks and trade secrets, as well as licenses and other agreements with our vendors and other parties, to use our technologies, conduct our operations and sell our products and services. Legal challenges to our intellectual property rights and claims by third parties of intellectual property infringement could require that we enter into royalty or licensing agreements on unfavorable terms, incur

substantial monetary liability or be enjoined preliminarily or permanently from further use of the intellectual property in question or from the continuation of our businesses as currently conducted, which could require us to change our business practices or limit our ability to compete effectively or could otherwise have an adverse effect on our business, financial condition, results of operations or prospects. Even if we believe any such challenges or claims are without merit, they can be time-consuming and costly to defend and may divert management s attention and resources away from our business.

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

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

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

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

We cannot estimate the extent to which we may be required in the future to obtain licenses with respect to intellectual property rights held by others and the availability and cost of any such licenses. Those costs, and their impact on our results of operations, could be material. Damages in patent infringement cases can be substantial, and in certain circumstances, can be trebled. To the extent that we are required to pay unanticipated royalties to third parties, these increased costs of doing business could negatively affect our liquidity and operating results. We are currently defending multiple patent infringement actions and may assert our own actions against parties we suspect of infringing our patents and trademarks. We cannot be certain the courts will conclude these companies do not own the rights they claim, that these rights are not valid, or that our products and services do not infringe on these rights. We also cannot be certain that we will be able to obtain licenses from these persons on commercially reasonable terms or, if we were unable to obtain such licenses, that we would be able to redesign our products and services to avoid infringement. The legal costs associated with defending patent suits and pursuing patent claims against others may be borne by us if we are not awarded reimbursement through the legal process. See further discussion under Item 1. - Business Patents and Trademarks and Item 3. - Legal Proceedings of this Annual Report on Form 10-K.

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

We may become involved in lawsuits, regulatory inquiries, consumer claims and governmental and other legal proceedings arising from of our business, including new products and services that we may offer. Some of these proceedings may raise difficult and complicated factual and legal issues and can be subject to uncertainties and complexities. The timing of the final resolutions to lawsuits, regulatory inquiries, and governmental and other legal proceedings is typically uncertain. Additionally, the possible outcomes of, or resolutions to, these proceedings could

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include adverse judgments, settlements or liabilities, any of which could require substantial payments or have other adverse impacts on our revenue, results of operations or cash flow.

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 control access to their programming content and 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 signal 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 programming content. As a result, sales of our products may decline and we may incur additional costs in the future if security of our customers system is compromised.

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

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

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

The products and the networks we deploy are highly complex, and some may contain defects when first introduced or when new versions or enhancements are released, despite testing and our quality control procedures. For example, our products may contain software bugs that can unexpectedly interfere with their operation. Defects may also occur in components and products that we purchase from third parties. In addition, many of our products and network services are designed to interface with our customers existing networks, each of which has different

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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. For instance, under its Spectrum Frontiers proceeding, the FCC is considering enabling the use of one of our frequency bands, the Ka-band, on a shared basis with 5G services, which could have a material adverse effect on our operations. These regulations are subject to the administrative and political process and do change, for political and other reasons, from time to time. Moreover, a substantial number of foreign countries in which we have, or may in the future make, an investment, regulate, in varying degrees, the ownership of satellites and other telecommunication facilities/networks and foreign investment in telecommunications companies. Violations of laws or regulations may result in various sanctions including fines, loss of authorizations and the denial of applications for new authorizations or for the renewal of existing authorizations. Further material changes in law and regulatory requirements may also occur, and there can be no assurance that our business and the business of our affiliates will not be adversely affected by future legislation, new regulation or deregulation. The failure to obtain or comply with the authorizations and regulations governing our operations could have a material adverse effect on our ability to generate revenue and our overall competitive position and could result in our suffering serious harm to our reputation.

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

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

In addition, third parties have or may oppose some of our license applications and pending and future requests for extensions, modifications, waivers and approvals of our licenses. Even if we have fully complied with all of the required reporting, filing and other requirements in connection with our authorizations, it is possible a regulator

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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.

Our ability to sell our digital set-top boxes to certain operators depends on our ability to obtain licenses to use the conditional access systems utilized by these operators.

Our commercial success in selling our digital set-top boxes to cable television and other operators depends significantly on our ability to obtain licenses to use the conditional access systems deployed by these operators in our digital set-top boxes. In many cases, the intellectual property rights to these conditional access systems are owned by the set-top box manufacturer that currently provides the system operator with its set-top boxes. We cannot assure you that we will be able to obtain required licenses on commercially favorable terms, or at all. If we do not obtain the necessary licenses, we may be delayed or prevented from pursuing the development of some potential products with cable or other television operators. Our failure to obtain a license to use the conditional access systems that we may require to develop or commercialize our digital set-top boxes with cable television or other operators, in turn, would harm our ability to grow our customer base and our financial condition, revenue and results of operation.

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.

OTHER RISKS

We are controlled by one principal stockholder who is our Chairman.

Charles W. Ergen, our Chairman, beneficially owns approximately 30.2% of our total equity securities (assuming conversion of only the Class B common stock held by Mr. Ergen into Class A common stock) and possesses approximately 51.6% of the total voting power of all classes of shares (assuming no conversion of the Class B common stock and no conversion of the preferred tracking stock). Mr. Ergen s beneficial ownership excludes 1,640 shares of our Class A common stock and 20,883,001 shares of our Class A common stock issuable upon conversion of shares of our Class B common stock, in each case, currently held by certain trusts established by Mr. Ergen for the benefit of his family. These trusts beneficially own approximately 22.4% of our total equity securities (assuming conversion of only the Class B common stock held by such trusts into Class A common stock) and possess approximately 39.9% of our total voting power (assuming no conversion of the Class B common stock). Thus, Mr. Ergen has the ability to elect a majority of our directors and to control all other matters requiring the approval of our

stockholders. As a result of Mr. Ergen s voting power, we are a controlled company as defined in the Nasdaq listing rules and, therefore, are not subject to Nasdaq requirements that would otherwise require us to have (i) a majority of independent directors; (ii) a nominating committee composed solely of independent directors; (iii) compensation of our executive officers determined by a majority of the independent directors or a compensation committee composed solely of independent directors; and (iv) director nominees selected, or recommended for the Board s selection, either by a majority of the independent directors or a nominating committee composed solely of independent directors.

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We have potential conflicts of interest with DISH Network due to our 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 certain overlap in our directors and Chairman position with DISH Network, which may lead to conflicting interests. Our board of directors includes persons who are members of the board of directors of DISH Network, including Charles W. Ergen, who serves as the Chairman of and is employed by both companies. Our Chairman and the members of our board of directors who overlap with DISH Network also have fiduciary duties to DISH Network s shareholders. Therefore, these individuals may have actual or apparent conflicts of interest with respect to matters involving or affecting each company. For example, there is potential for a conflict of interest when we or DISH Network look at acquisitions and other corporate opportunities that may be suitable for both companies. In addition, many of our directors and officers own DISH Network stock and options to purchase DISH Network stock, certain of which they acquired or were granted prior to the Spin-off, including Mr. Ergen. Furthermore, DISH Network holds shares of preferred tracking stock in us and HSS that in the aggregate represents an 80.0% economic interest in our residential retail satellite broadband business. These ownership interests could create actual, apparent or potential conflicts of interest when these individuals are faced with decisions that could have different implications for our company and DISH Network.
- Intercompany agreements with DISH Network. We have entered into various agreements with DISH Network. Pursuant to certain agreements, DISH Network provides us certain professional services, for which we pay DISH Network an amount equal to DISH Network s cost plus a fixed margin. Certain other intercompany agreements cover matters such as tax sharing and our responsibility for certain liabilities previously undertaken by DISH Network for certain of our businesses. We have also entered into certain commercial agreements with DISH Network. The terms of certain of these agreements were established while we were 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 us under the separation and ancillary agreements we entered into with DISH Network did not necessarily reflect what two unaffiliated parties might have agreed to. Had these agreements been negotiated with unaffiliated third parties, their terms may have been more favorable, or less favorable, to us. In addition, DISH Network or its affiliates will continue to enter into transactions with us or our subsidiaries or other affiliates. Although the terms of any such transactions will be established based upon negotiations between DISH Network and us and, when appropriate, subject to the approval of audit committee and committee of the non-interlocking directors or in certain instances non-interlocking management, there can be no assurance that the terms of any such transactions will be as favorable to us or our subsidiaries or affiliates as may otherwise be obtained in negotiations between unaffiliated third parties.
- Competition for business opportunities. DISH Network retains its interests in various companies that have subsidiaries or controlled affiliates that own or operate domestic or foreign services that may compete with services offered by our businesses. In addition, pursuant to a distribution agreement, DISH Network has the right, but not the

obligation, to market, sell and distribute our Hughes segment statellite broadband internet service under the dishNET brand which could compete with sales by our Hughes segment. DISH Network also has a distribution agreement with ViaSat, a competitor of our Hughes segment, to sell services similar to those offered by our Hughes segment. We may also compete with DISH Network when we participate in auctions for spectrum or orbital slots for our satellites.

We may not be able to resolve any potential conflicts of interest with DISH Network and, even if we do so, the resolution may be less favorable to us than if we were dealing with an unaffiliated party.

Except for certain arrangements with Sling TV Holding L.L.C. (Sling TV Holding, formerly DISH Digital Holding L.L.C.) that we entered into with DISH Network, which, subject to certain exceptions, limits DISH Network s and our ability to operate an IPTV service other than that operated by Sling TV Holding, we do not have any agreements with DISH Network that would prevent us from competing with each other. 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

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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).

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

Certain provisions of our articles of incorporation and bylaws may discourage, delay or prevent a change in control of our company that a shareholder may consider favorable. These provisions include the following:

- a capital structure with multiple classes of common stock: a Class A that entitles the holders to one vote per share; a Class B that entitles the holders to ten votes per share; a Class C that entitles the holders to one vote per share, except upon a change in control of our company in which case the holders of Class C are entitled to ten votes per share and a non-voting Class D; and a class of preferred stock, the Hughes Retail Tracking Stock, that entitles the holders to one-tenth of one vote per share;
- a provision that authorizes the issuance of blank check preferred stock, which could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt;
- a provision limiting who may call special meetings of shareholders; and
- a provision establishing advance notice requirements for nominations of candidates for election to our board of directors or for proposing matters that can be acted upon by shareholders at shareholder meetings.

In addition, Charles W. Ergen owns a majority of our common stock, including Class B common stock, which results in Mr. Ergen having the power to elect all of our directors and control shareholder decision on matters on which all classes of our common stock vote together.

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

Our preferred tracking stock capital structure could give rise to occasions when the interests of holders of stock of one group might diverge or appear to diverge from the interests of holders of stock of the other group and our board of directors or officers could make

decisions that could adversely affect only one group of holders. Nevada law requires that our board of directors and officers act in good faith and with a view to the interest of the company and are not required to consider, as a dominant factor, the effect of a proposed corporate action upon any particular group of stockholders. Decisions deemed to be in the interest of our company may not always align with the best interest of a particular group of our stockholders when considered independently. Examples include, but are not limited to:

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

In addition, as our preferred tracking stock is currently held by DISH Network, questions relating to conflicts of interest may also arise between

DISH Network and us due to our common ownership and Chairman.

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Provisions of Nevada law and our articles of incorporation may protect decisions of our board of directors and officers that have a disparate impact on one group of holders. Our stockholders may have limited or no legal remedies under Nevada law with respect to such decisions even if the actions of our directors or officers adversely affect the market value of our common stock.

Our board of directors has the ability to change our attribution policies at any time without a vote of our common stockholders.

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

In addition, pursuant to our articles of incorporation we have a significant amount of authorized and unissued stock that would allow our board 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.

The preferred tracking stock results in, and may result in further, vote dilution for existing holders of common stock.

Each share of preferred tracking stock is entitled to one-tenth (1/10th) of one vote per share. This voting right will cause a reduction in the relative voting power of our exiting common stock holders. Additionally, we may be required to register some or all of the outstanding shares of the preferred tracking stock. Following such registration, these shares of preferred tracking stock may be converted or exchanged into shares of EchoStar Class A common stock. Such conversion may result in further reducing the relative voting power of our existing common stock holders. As a result of the dilutive effect of the preferred tracking stock, the ability of existing holders of common stock to elect our directors or to control all other matters requiring the approval of our stockholders may be reduced.

We generally may dispose of assets of the Hughes Retail Group without shareholder approval.

Nevada law requires stockholder approval only for a sale or other disposition of all or substantially all of the assets of the Company, taken as a whole, and our amended articles of incorporation do not require a separate class vote in the case of a sale of a significant amount of assets of any of our groups. As long as the assets attributed to the Hughes Retail Group proposed to be disposed of represent less than substantially all of our assets, we may approve sales and other dispositions of any amounts of the assets of such group without any shareholder approval. Based on the current composition of the Hughes Retail Group and our Company, we believe that a sale of all or substantially all of the assets of the Hughes Retail Group would not be considered a sale of substantially all of our assets requiring stockholder approval. Our board of directors would determine how best to proceed in any such sale consistent with its fiduciary duties to all of our shareholders. Ultimately, however, our board of directors is not required under Nevada law to select the option that would result in the highest value to any particular group of stockholders.

The market value of our common stock could be adversely affected by events involving the assets and businesses attributed to only the Hughes Retail Group.

Because we are the issuer of common stock and preferred tracking stock, events relating to the assets and businesses attributed to the Hughes Retail Group, such as earnings announcements or announcements of new products or services, or acquisitions or dispositions that the market does not view favorably, may cause an adverse reaction to our common stock. This could occur even if the triggering event is not material to us as a whole.

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

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Our principal executive offices are located at 100 Inverness Terrace East, Englewood, Colorado 80112-5308 and our telephone number is (303) 706-4000. The following table sets forth certain information concerning our principal properties related to our Hughes segment (Hughes), EchoStar Technologies segment (ETC), EchoStar Satellite Services segment (ESS) and to our other operations and administrative functions (Other) as of December 31, 2015. We operate various facilities in the U.S. and abroad. We believe that our facilities are well maintained and are sufficient to meet our current and projected needs.

Location (3) (4)	Segment(s)	Leased/ Owned	Function
San Diego, California	Hughes	Leased	Engineering and sales offices
Gaithersburg, Maryland	Hughes	Leased	Manufacturing and testing facilities, engineering and logistics and administrative offices
Southfield, Michigan (1)	Hughes	Leased	Shared hub
Las Vegas, Nevada (1)	Hughes	Leased	Shared hub, antennae yards, gateway, backup network operation and control center for Hughes corporate headquarters
Barueri, Brazil (1)	Hughes	Leased	Shared hub and warehouse
Sao Paulo, Brazil	Hughes	Leased	Hughes Brazil corporate headquarters, sales offices, and warehouse
Griesheim, Germany (1) (5)	Hughes	Leased	Shared hub, operations, administrative offices and warehouse
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
American Fork, Utah	Hughes/ETC	Leased	Office space, engineering and operations
Germantown, Maryland (1)	Hughes	Owned	Hughes corporate headquarters, engineering offices, network operations and shared hubs
Foster City, California	ETC	Leased	Engineering offices
Superior, Colorado	ETC	Leased	Engineering offices
Atlanta, Georgia	ETC	Leased	Engineering offices
Kharkov, Ukraine	ETC	Leased	Engineering office
Bangalore, India	ETC/Hughes	Leased	Engineering office and office space
Gilbert, Arizona (1)	ETC/ESS	Owned	Digital broadcast operations center
Mustang Ridge, Texas (1)	ETC/ESS	Owned	Micro digital broadcast operations center
Cheyenne, Wyoming (1)	ETC/ESS	Owned	Digital broadcast operations center
	Hughes/ESS	Owned	Spacecraft autotrack operations center

Black Hawk, South Dakota			
(1)			
Englewood, Colorado	Hughes/ETC/ ESS/Other	Owned	Corporate headquarters, engineering offices, gateways

- (1) We perform network services and customer support functions 24 hours a day, 365 days a year at these locations.
- (2) These properties are used by subsidiaries that are less than wholly-owned by the Company.
- (3) In addition to the above properties, we have multiple gateways throughout the Western part of the U.S. that support the SPACEWAY 3, EchoStar XVII, and EchoStar XIX satellites as well as multiple regional broadcast operations centers.
- (4) In addition to the above properties, we lease rack and roof top space in 210 designated market areas throughout the U.S. as well as San Juan, Puerto Rico to collect and broadcast local channels that are used by the ETC segment.
- (5) We purchased this property in January 2016.

Item 3. LEGAL PROCEEDINGS

For a discussion of legal proceedings, see Note 16 in the notes to consolidated financial statements in Item 15 of this report.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters

Market Information. Our Class A common stock is quoted on the Nasdaq Global Select Market (Nasdaq) under the symbol SATS. The high and low closing sale prices of our Class A common stock during 2015 and 2014 on Nasdaq (as reported by Nasdaq) are set forth below.

2015	High	Low
First Quarter	55.31	\$ 49.36
Second Quarter	52.70	\$ 47.95
Third Quarter	\$ 49.29	\$ 41.93
Fourth Quarter	46.39	\$ 36.63

2014	High	Low
First Quarter	\$ 51.61	\$ 46.49
Second Quarter	\$ 53.59	\$ 44.80
Third Quarter	\$ 52.49	\$ 48.35
Fourth Quarter	\$ 53.88	\$ 43.88

Holders. As of February 16, 2016, there were approximately 9,366 holders of record of our Class A common stock, not including stockholders who beneficially own Class A common stock held in nominee or street name. As of February 16, 2016, 26,804,038 of the 47,687,039 outstanding shares of our Class B common stock were held by Charles W. Ergen, our Chairman, and the remaining 20,883,001 were held in trusts established for the benefit of Mr. Ergen s family. There is currently no established trading market for our Class B common stock.

Dividends. We have not paid any cash dividends on our common stock in the past two years. We currently do not intend to declare dividends on our common stock. Payment of any future dividends will depend upon our earnings, capital requirements, and other factors the board of directors considers appropriate. We currently intend to retain our earnings, if any, to support future growth and expansion although we expect to repurchase shares of our common stock from time to time. See further discussion under Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources in this Annual Report on Form 10-K.

Securities Authorized for Issuance Under Equity Compensation Plans. See Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters in this Annual Report on Form 10-K.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Pursuant to a stock repurchase program approved by our board of directors, we are authorized to repurchase up to \$500.0 million of our outstanding shares of Class A common stock through December 31, 2016. For the years ended December 31, 2015, 2014 and 2013, we did not repurchase any common stock under this program.

Item 6. SELECTED FINANCIAL DATA

The accompanying consolidated financial statements for 2015 have been prepared in accordance with generally accepted accounting principles in the United States (GAAP) included in our consolidated financial statements in Item 15 of this report. Certain prior period amounts have been reclassified to conform to the current period presentation.

The following tables present selected information relating to our consolidated financial condition and results of operations for the past five years. The selected financial data should be read in conjunction with our consolidated financial statements and related notes thereto, and Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this report.

					he Year	rs Ended Decen	iber 3	,		
Statements of Operations Data:		2015		2014 (2)		2013		2012		2011 (1)
m . 1	Φ.	2 1 12 71 1	Φ.			except per share			Φ.	0.5(1.401
Total revenue	\$	3,143,714	\$	3,445,578	\$	3,282,452	\$	3,121,704	\$	2,761,431
Total costs and expenses		2,787,681		3,117,488		3,178,865		3,021,818		2,680,593
Operating income	\$	356,033	\$	328,090	\$	103,587	\$	99,886	\$	80,838
Maria de la compansión										
Net income attributable to EchoStar	ф	162.700	ф	165.069	ф	2.525	ф	211 040	ф	2 (20
common stock	\$	163,700	\$	165,268	\$	2,525	\$	211,048	\$	3,639
Dagie vysiahted ayong a common shanes										
Basic weighted-average common shares		02.207		01 100		90.405		97.150		96 222
outstanding		92,397		91,190		89,405		87,150		86,223
Diluted weighted-average common shares		93,466		92,616		90,952		87,959		87,089
outstanding	¢		¢	,	φ	/	φ		φ	
Basic earnings per share	\$	1.77	\$ \$	1.81	\$	0.03	\$	2.42	\$	0.04
Diluted earnings per share	\$	1.75	3	1.78	\$	0.03	\$	2.40	\$	0.04
					A &	D 21				
Ralanca Shoot Data		2015		2014 (2)	As of	December 31,		2012		2011
Balance Sheet Data:		2015		2014 (2)		2013		2012		2011
		2015		2014 (2)		,		2012		2011
Balance Sheet Data: Cash, cash equivalents and current marketable securities	\$		\$	` `	(In	2013 thousands)	\$		\$	
Cash, cash equivalents and current marketable securities	\$	1,536,578	\$ \$	1,688,156	(In	2013 thousands) 1,620,652		1,547,565	\$ \$	1,696,442
Cash, cash equivalents and current marketable securities Total assets (3)	\$	1,536,578 7,240,762	\$	1,688,156 7,253,998	(In	2013 thousands) 1,620,652 6,701,963	\$	1,547,565 6,600,233	\$	1,696,442 6,543,737
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations	\$ \$	1,536,578 7,240,762 2,223,641		1,688,156 7,253,998 2,367,687	(In \$ \$ \$	2013 thousands) 1,620,652 6,701,963 2,422,388		1,547,565 6,600,233 2,488,499		1,696,442 6,543,737 2,528,654
Cash, cash equivalents and current marketable securities Total assets (3)	\$	1,536,578 7,240,762	\$ \$	1,688,156 7,253,998	(In \$ \$	2013 thousands) 1,620,652 6,701,963	\$ \$	1,547,565 6,600,233	\$ \$	1,696,442 6,543,737
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations	\$ \$	1,536,578 7,240,762 2,223,641	\$ \$	1,688,156 7,253,998 2,367,687	(In \$ \$ \$	2013 thousands) 1,620,652 6,701,963 2,422,388	\$ \$	1,547,565 6,600,233 2,488,499	\$ \$	1,696,442 6,543,737 2,528,654
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations	\$ \$	1,536,578 7,240,762 2,223,641	\$ \$	1,688,156 7,253,998 2,367,687 3,623,638	(In \$ \$ \$	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231	\$ \$ \$	1,547,565 6,600,233 2,488,499	\$ \$	1,696,442 6,543,737 2,528,654
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations Total stockholders equity	\$ \$	1,536,578 7,240,762 2,223,641 3,781,642	\$ \$ \$	1,688,156 7,253,998 2,367,687 3,623,638	(In \$ \$ \$	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231 Ended Decemb	\$ \$ \$	1,547,565 6,600,233 2,488,499 3,150,227	\$ \$	1,696,442 6,543,737 2,528,654 3,051,626
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations	\$ \$	1,536,578 7,240,762 2,223,641	\$ \$ \$	1,688,156 7,253,998 2,367,687 3,623,638	(In	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231	\$ \$ \$	1,547,565 6,600,233 2,488,499	\$ \$	1,696,442 6,543,737 2,528,654
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations Total stockholders equity	\$ \$	1,536,578 7,240,762 2,223,641 3,781,642	\$ \$ \$	1,688,156 7,253,998 2,367,687 3,623,638	(In	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231 Ended December 2013	\$ \$ \$	1,547,565 6,600,233 2,488,499 3,150,227	\$ \$	1,696,442 6,543,737 2,528,654 3,051,626
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations Total stockholders equity Cash Flow Data:	\$ \$	1,536,578 7,240,762 2,223,641 3,781,642	\$ \$ \$	1,688,156 7,253,998 2,367,687 3,623,638	(In	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231 Ended December 2013	\$ \$ \$	1,547,565 6,600,233 2,488,499 3,150,227	\$ \$	1,696,442 6,543,737 2,528,654 3,051,626
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations Total stockholders equity Cash Flow Data: Net cash flows from:	\$ \$ \$	1,536,578 7,240,762 2,223,641 3,781,642 2015	\$ \$ \$	1,688,156 7,253,998 2,367,687 3,623,638 For the	(In \$ \$ \$ \$ • Years	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231 Ended December 2013 thousands)	\$ \$ \$ per 31,	1,547,565 6,600,233 2,488,499 3,150,227	\$ \$	1,696,442 6,543,737 2,528,654 3,051,626
Cash, cash equivalents and current marketable securities Total assets (3) Total debt and capital lease obligations Total stockholders equity Cash Flow Data: Net cash flows from: Operating activities	\$ \$ \$	1,536,578 7,240,762 2,223,641 3,781,642 2015	\$ \$ \$	1,688,156 7,253,998 2,367,687 3,623,638 For the 2014 (2)	(In \$ \$ \$ \$ \$ \$ Years	2013 thousands) 1,620,652 6,701,963 2,422,388 3,226,231 Ended December 2013 thousands)	\$ \$ \$ per 31,	1,547,565 6,600,233 2,488,499 3,150,227 2012	\$ \$ \$	1,696,442 6,543,737 2,528,654 3,051,626 2011

On June 8, 2011, we completed the acquisition of Hughes Communications, Inc. and its subsidiaries (the Hughes Acquisition). As a result, Hughes became a new segment and our historical financial statements on and after

June 9, 2011 give effect to the Hughes Acquisition. Therefore, our results of operations for the years ended December 31, 2015, 2014, 2013 and 2012 are not comparable to our results of operations for the year ended December 31, 2011.

- (2) In March 2014, we issued preferred tracking stock to DISH Network in exchange for five satellites and \$11.4 million in cash. Please see Note 4 in our consolidated financial statements in Item 15 of this report. As a result, our results of operations for the years ended December 31, 2015 and 2014 are not comparable to our results of operations for the years ended December 31, 2013, 2012 and 2011.
- (3) In 2015 we prospectively adopted Accounting Standard Update No. 2015-17, Balance Sheet Classification of Deferred Taxes. As a result, our total assets as of December 31, 2015 is not comparable to our total assets as reported in prior years.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Unless the context indicates otherwise, as used herein, the terms we, us, EchoStar, the Company and our refer to EchoStar Corporation and its subsidiaries. References to \$ are to United States dollars. The following management s discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and notes to our financial statements included elsewhere in this Annual Report on Form 10-K. This management s discussion and analysis is intended to help provide an understanding of our financial condition, changes in our financial condition and our results of operations. Many of the statements in this management s discussion and analysis are forward-looking statements that involve assumptions and are subject to risks and uncertainties that are often difficult to predict and beyond our control. Actual results could differ materially from those expressed or implied by such forward-looking statements. See Disclosure Regarding Forward-Looking Statements in this Annual Report on Form 10-K for further discussion. For a discussion of additional risks, uncertainties and other factors that could impact our results of operations or financial condition, see the caption Risk Factors in Item 1A of this Annual Report on Form 10-K. Further, such forward-looking statements speak only as of the date of this Annual Report on Form 10-K and we undertake no obligation to update them.

EXECUTIVE SUMMARY

EchoStar is a global provider of satellite operations, video delivery solutions, digital set-top boxes, and broadband satellite technologies and services for the home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments. We currently operate in three business segments, which are differentiated primarily by their operational focus: Hughes, EchoStar Technologies, and EchoStar Satellite Services. These segments are consistent with the way decisions regarding the allocation of resources are made, as well as how operating results are reviewed by our chief operating decision maker (CODM), who for EchoStar is the Company s Chief Executive Officer.

Our segment operating results do not include real estate and other activities, costs incurred in certain satellite development programs and other business development activities, expenses of various corporate departments, and our centralized treasury operations, including income from our investment portfolio and interest expense on our debt. These activities are accounted for in All Other and Eliminations.

Highlights from our financial results are as follows:

Consolidated Results of Operations for the Year Ended December 31, 2015

- Revenue of \$3.14 billion
- Operating income of \$356.0 million
- Net income attributable to EchoStar common stock of \$163.7 million and basic earnings per share of common stock of \$1.77

• EBITDA of \$865.4 million (see reconciliation of this non-GAAP measure in Note 17 to the consolidated financial statements in Item 15 of this report)

Consolidated Financial Condition as of December 31, 2015

- Total assets of \$7.24 billion
- Total liabilities of \$3.46 billion
- Total stockholders equity of \$3.78 billion
- Cash, cash equivalents and current marketable investment securities of \$1.54 billion

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

Hughes Segment

Our Hughes segment is a global provider of broadband satellite technologies and services for the home and office, delivering innovative network technologies, managed services, and solutions for consumers, enterprises and governments.

We continue our efforts in growing our consumer revenue, which depends on our success in adding new subscribers on our Hughes segment s satellite networks. The addition of new subscribers and the performance of our consumer service offering, primarily drive the revenue growth in our consumer business. Service costs related to ongoing support of our direct and indirect customers and partners are typically impacted most significantly by our growth. Long-term trends continue to be influenced primarily by the subscriber growth in our consumer business.

New satellite launches are expected to provide additional capacity for subscriber growth while we manage subscriber growth across our existing satellite platform. In March 2013, we entered into a contract for the design and construction of the EchoStar XIX satellite, which is expected to be launched in the fourth quarter of 2016. The EchoStar XIX satellite is a next-generation, high throughput geostationary satellite that will employ a multi-spot beam, bent pipe Ka-band architecture and will provide additional capacity for the Hughes broadband services to the consumer market in North America, as well as new capacity covering Mexico and other Latin American countries. Capital expenditures associated with the construction and launch of the EchoStar XIX satellite are included in All Other and Eliminations in our segment reporting.

Our Hughes segment also provides managed services, hardware, and satellite services to large enterprises. In addition, we provide gateway and terminal equipment to customers for mobile satellite systems. The fixed pricing nature of our long-term enterprise contracts minimizes significant quarter to quarter fluctuations; however, the growth of our enterprise business relies heavily on global economic conditions. We continue to monitor the competitive landscape for pricing in relation to our competitors and alternative technologies.

We continue our efforts in growing our consumer satellite services business outside of the U.S. In April 2014, we entered into a satellite services agreement pursuant to which Eutelsat do Brasil will provide to us fixed broadband service using the Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite for a 15-year term. We expect the satellite to launch in the first quarter of 2016 and to begin delivering consumer satellite broadband services in Brazil in the second half of 2016. In addition, in September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat Canada (Telesat) will provide to us fixed broadband service into South America using the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 to deliver consumer satellite broadband services into South America as well as create a platform to potentially allow for further development of our business in South America.

As of December 31, 2015, 2014 and 2013, our Hughes segment had approximately 1,035,000, 977,000 and 860,000 broadband subscribers, respectively. These broadband subscribers include customers that subscribe to our HughesNet broadband services through retail, wholesale and small/medium enterprise service channels. Gross subscriber additions decreased for the year ended December 31, 2015 compared to the same period in 2014 and our average monthly subscriber churn for the year ended December 31, 2015 increased as compared to the same period in 2014. As a result, for the year ended December 31, 2015, net subscriber additions of approximately 56,000 were lower than for the year ended

December 31, 2014 primarily due to satellite beams servicing certain areas reaching capacity and the increase in churn on the larger base of subscribers. Subscriber additions excludes small/medium enterprise service channels.

As of December 31, 2015 and 2014, our Hughes segment had approximately \$1.44 billion and \$1.26 billion, respectively, of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue under customer contracts that are non-cancelable, excluding agreements with customers in our consumer market. The increase in contracted revenue backlog is primarily due to an increase in customer contracts from our international markets as a result of future commitments to provide satellite services and gateway and network management services on the EchoStar XIX satellite. Of the total contracted revenue backlog as of December 31, 2015, we expect to recognize approximately \$402.1 million of revenue in 2016.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

EchoStar Technologies Segment

Our EchoStar Technologies segment designs, develops and distributes secure end-to-end video technology solutions including digital set-top boxes and related products and technology, primarily for satellite TV service providers and telecommunication companies. The primary customer for our digital set-top boxes is DISH Network Corporation and its subsidiaries (DISH Network), and we also our sell digital set-top boxes to Bell TV, a direct-to-home satellite service provider in Canada, Dish Mexico, S. de R.L. de C.V. (Dish Mexico), a joint venture that we entered into in 2008, and other international customers. We depend on DISH Network for a substantial portion of our EchoStar Technologies segment revenue and we expect that DISH Network will continue to be the primary source of revenue for our EchoStar Technologies segment. In addition, our equipment revenue from DISH Network depends on the timing of orders for set-top boxes and related accessories from DISH Network based on its actual and projected subscriber growth. Therefore, the results of operations of our EchoStar Technologies segment are, and are likely to continue to be, closely linked to the performance of DISH Network s pay-TV service.

Our EchoStar Technologies segment also provides digital broadcast operations, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management, and other services, primarily to DISH Network and Dish Mexico. In addition, we provide our TV Anywhere technology through Slingbox units directly to consumers via retail outlets and online, as well as to the pay-TV operator market.

Prior to 2015, Move Networks, our over-the-top (OTT), Streaming Video on Demand (SVOD) platform business, including certain assets that were distributed to us in August 2014 in connection with the Exchange Agreement with DISH Digital Holding L.L.C. (Sling TV Holding), (see Notes 6, 10 and 19 in our notes to consolidated financial statements in Item 15 of this report), was managed separately from our operating segments and was reported within All Other and Eliminations. In the first quarter of 2015, we assigned management responsibility for our Move Networks business to our EchoStar Technologies segment. We have retrospectively adjusted our segment reporting to reflect our Move Networks business as part of the EchoStar Technologies segment in prior periods (see Note 17 in our notes to the consolidated financial statements in Item 15 of this report).

During the second quarter of 2015, our EchoStar Technologies segment contributed several of its European subsidiaries to SmarDTV SA (SmarDTV), a Swiss subsidiary of Kudelski SA that offers set-top boxes and conditional access modules, in exchange for a 22.5% interest in the equity and subordinated debt of SmarDTV. We and SmarDTV also entered into a services agreement pursuant to which our EchoStar Technologies segment purchases certain engineering services from SmarDTV.

We continue to focus on building and strengthening our brand recognition by providing unique and technologically advanced features and products. Products containing new technologies and features typically have higher initial selling prices, margins and volumes. As products mature and new products are in the late stages of development, volumes typically decrease as our customers, primarily DISH Network, increase deployment of refurbished set-top boxes as opposed to purchasing new units from us. The market for our digital set-top boxes, like other electronic products, has also been characterized by regular reductions in selling prices and production costs. Our ability to sustain or increase profitability also depends in large part on our ability to control or reduce our costs of producing digital set-top boxes. Based on our experience, we expect our cost of manufacturing a specific set-top box model to decline over time as our contract manufacturers generate efficiencies with scale of production and engineering cost reductions. Overall, our success depends heavily on our ability to bring advanced technologies to

market to continue to be a market leader and innovator.

The number of potential new customers for our set-top box business in our EchoStar Technologies segment is small and may be limited as prospective customers that have been competitors of DISH Network may continue to view us as a competitor due to our common ownership with DISH Network. Our customers face emerging competition from other providers of digital media and potential government action preventing them from using security systems in connection with set-top boxes. In particular, programming offered over the internet has become more prevalent as the speed and quality of broadband networks have improved. As a result, we expect that demand for our satellite television digital set-top boxes from DISH Network and other customers could decline and we may not be able to sustain our current revenue levels.

With our expertise in connectivity, security, and video, we are developing new consumer product and service offerings, including a security and home automation solution, along with other products intended to grow our EchoStar Technologies segment revenue over time.

EchoStar Satellite Services Segment

Our EchoStar Satellite Services segment operates its business using its owned and leased in-orbit satellites. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network, Dish Mexico, U.S. government service providers, internet service providers, broadcast news organizations, programmers and private enterprise customers.

We depend on DISH Network for a significant portion of the revenue for our EchoStar Satellite Services segment, and we expect that DISH Network will continue to be the primary source of revenue for our EchoStar Satellite

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

Services segment. Therefore, the results of operations of our EchoStar Satellite Services segment are linked to long-term changes in DISH Network s satellite capacity requirements. We continue to pursue expanding our business offerings by providing value added services such as telemetry, tracking and control services to third parties.

In August 2014, we entered into: (i) a construction contract with Airbus Defence and Space SAS for the construction of the EchoStar 105/SES-11 satellite with C-band, Ku-band and Ka-band payloads; (ii) an agreement with SES Satellite Leasing Limited for the procurement of the related launch services; and (iii) an agreement with SES Americom Inc. (SES) pursuant to which we will transfer the title to the C-band and Ka-band payloads to SES Satellite Leasing Limited at launch and transfer the title to the Ku-band payload to SES following in-orbit testing of the satellite. Simultaneously, SES will provide to us satellite service on the entire Ku-band payload on the EchoStar 105/SES-11 satellite for an initial ten-year term, with an option for us to renew the agreement on a year-to-year basis.

Revenue growth in our EchoStar Satellite Services segment is a function of available satellite capacity to sell. Our EchoStar 105/SES-11 satellite is currently under construction and will replace the capacity currently leased on the AMC-15 satellite. Once launched, which is expected in the fourth quarter of 2016, and placed into operation, we expect revenue from the satellite to exceed the revenue currently serviced by the AMC-15 satellite. Any factors that interfere with the construction and launch schedule of the EchoStar 105/SES-11 satellite could impact our expected revenue. In addition, any disruption in planned renewals of our service arrangements could impact customer commitments and have an impact on our revenue and financial performance. Technical issues, regulatory and licensing issues, manufacturer performance/stability and availability of capital to continue to fund our programs also are factors in achieving our business plans for this segment.

As of December 31, 2015 and 2014, our EchoStar Satellite Services segment had contracted revenue backlog attributable to satellites currently in orbit of approximately \$1.41 billion and \$1.71 billion, respectively. The decrease is primarily driven by the fixed-term nature of the satellite services agreements with DISH Network. Of the total contracted revenue backlog as of December 31, 2015, we expect to recognize approximately \$373.2 million of revenue in 2016.

New Business Opportunities

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

We are selectively exploring opportunities to pursue partnerships, joint ventures and strategic acquisition opportunities, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets, broaden our portfolio of products and intellectual property, and strengthen our relationships with our customers. We may allocate significant resources for long-term initiatives

that may not have a short or medium term or any positive impact on our revenue, results of operations, or cash flow.

In 2012, we acquired the right to use various frequencies at the 45 degree west longitude orbital location (Brazilian Authorization) from ANATEL, the Brazilian communications regulatory agency. The Brazilian Authorization provides us the rights to utilize Ku-band spectrum for broadcast satellite service (BSS), Ka-band spectrum and S-band spectrum. With regards to the Ku-band BSS spectrum, we continue to pursue various opportunities to support a Brazilian service. We are also exploring options for the Ka-band and S-band spectrums. In April 2014, we entered into an agreement with Space Systems Loral, LLC (SS/L) for the construction of the EchoStar XXIII satellite, a high powered BSS satellite, which will use some of the components from CMBStar, a satellite that we suspended construction of in 2008. The EchoStar XXIII satellite is expected to launch in the third quarter of 2016 and will be deployed at the 45 degree west longitude orbital location.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

In December 2013, we acquired 100% of Solaris Mobile, which is based in Dublin, Ireland and licensed by the European Union and its member states (EU) to provide mobile satellite services (MSS) and complementary ground component (CGC) services covering the entire EU using S-band spectrum. Solaris Mobile changed its name to EchoStar Mobile Limited (EchoStar Mobile) in the first quarter of 2015. We are in the process of developing commercial services, expected to begin in the second half of 2016, utilizing the operable transponders we own on the EUTELSAT 10A (also known as W2A) satellite, along with our EchoStar XXI S-band satellite. We are currently constructing, and expect to launch, the EchoStar XXI satellite in the second quarter of 2016 to provide space segment capacity to EchoStar Mobile. We believe we are in a unique position to deploy a European wide MSS/CGC network and maximize the long-term value of our S-band spectrum in Europe and other regions within the scope of our licenses.

In June 2015, we purchased an equity investment in WorldVu Satellites Limited (OneWeb), a low-earth orbit satellite company. In addition, our Hughes segment entered into an agreement with OneWeb to provide certain equipment and services in connection with the ground system for OneWeb s low-earth orbit satellites.

Capital expenditures associated with the construction and launch of the EchoStar XXIII and EchoStar XXI satellites are included in All Other and Eliminations in our segment reporting.

RESULTS OF OPERATIONS

Basis of Presentation

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

Prior to 2015, our Move Networks business, including certain assets distributed to us in August 2014 in connection with the Exchange Agreement with Sling TV Holding (see Notes 6, 10 and 19 to the consolidated financial statements in Item 15 of this report), was managed separately from our existing operating segments and was reported within All Other and Eliminations. In the first quarter of 2015, we assigned management responsibility for our Move Networks business to our EchoStar Technologies segment, where it continues to be managed and reported as a separate reporting unit. All prior period amounts have been retrospectively adjusted to present operations of our Move Networks business in our EchoStar Technologies segment.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

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

		For the					
		Ended Dec	ember	,		Variance	~
Statements of Operations Data (1)		2015		2014		Amount	%
Revenue:				(Dollars in tho	usanas	5)	
Equipment revenue - DISH Network	\$	763,184	\$	1,145,979	\$	(382,795)	(33.4)
Equipment revenue - other	φ	358,301	Ф	374,049	φ	(15,748)	(4.2)
Services and other revenue - DISH Network		918,301		828,612		89,689	10.8
Services and other revenue - other		1,103,928		1,096,938		6,990	0.6
Total revenue		3,143,714		3,445,578		(301,864)	(8.8)
Costs and Expenses:		3,143,714		3,443,376		(301,004)	(6.6)
Cost of sales - equipment		948,655		1,288,998		(340,343)	(26.4)
% of Total equipment revenue		84.6%		84.8%		(340,343)	(20.4)
Cost of sales - services and other		856,065		838,918		17,147	2.0
% of Total services and other revenue		42.3%		43.6%		17,147	2.0
		374,116		372.010		2,106	0.6
Selling, general and administrative expenses % of Total revenue		11.9%		10.8%		2,100	0.0
Research and development expenses		78,287		60.886		17,401	28.6
% of Total revenue		2.5%		1.8%		17,401	28.0
						(20 510)	(5.1)
Depreciation and amortization		528,158		556,676		(28,518)	(5.1)
Impairment of long-lived asset		2,400		2 117 400		2,400	
Total costs and expenses		2,787,681		3,117,488		(329,807)	(10.6)
Operating income		356,033		328,090		27,943	8.5
Other Income (Expense):							
Interest income		10,429		9,102		1,327	14.6
Interest expense, net of amounts capitalized		(122,066)		(171,349)		49,283	(28.8)
Loss from partial redemption of debt		(5,044)		(171,549)		(5,044)	(20.0)
Gains (losses) and impairment on marketable		(3,044)				(5,044)	
investment securities, net		(17,669)		41		(17,710)	*
Equity in earnings of unconsolidated affiliates, net		1,895		8,198		(6,303)	(76.9)
		(2,006)		4,251			(70.9)
Other, net Total other expense, net		(/ /		(149,757)		(6,257) 15,296	
Income (loss) before income taxes		(134,461)		. , ,		43,239	(10.2)
• •		221,572		178,333		,	Z4.Z *
Income tax provision, net		(72,201)		(30,784)		(41,417)	
Net income		149,371		147,549		1,822	1.2
Less: Net loss attributable to noncontrolling		(5 (02)		(6.714)		1 111	(16.5)
interest in HSS Tracking Stock		(5,603)		(6,714)		1,111	(16.5)
Less: Net income attributable to other		1.617		1 200		220	16.4
noncontrolling interests	Ф	1,617	Ф	1,389	Ф	228	16.4
Net income attributable to EchoStar	\$	153,357	\$	152,874	\$	483	0.3
Other Data:							
EBITDA	\$	865,353	\$	902,581	\$	(37,228)	(4.1)
Subscribers, end of period	Ŧ	1,035,000	*	977,000	7	58,000	5.9
, I				,		*	

Equipment revenue DISH Network. Equipment revenue DISH Network totaled \$763.2 million for the year ended December 31, 2015, a decrease of \$382.8 million, or 33.4%, compared to the same period in 2014.

Equipment revenue DISH Network from our Hughes segment for the year ended December 31,2015 decreased by \$21.2 million, or 66.3%, to \$10.8 million compared to the same period in 2014. The decrease was primarily due to the decrease in the volume of unit sales of broadband equipment to dishNET Satellite Broadband L.L.C. (dishNET). Sales of broadband equipment to dishNET have been decreasing as a

^{*} Percentage is not meaningful.

⁽¹⁾ An explanation of our key metrics is included on pages 67 and 68 under the heading Explanation of Key Metrics and Other Items.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

result of a decrease in the unit sales of broadband equipment to dishNET.

Equipment revenue DISH Network from our EchoStar Technologies segment for the year ended December 31, 2015 decreased by \$361.6 million, or 32.5%, to \$752.4 million compared to the same period in 2014. Our EchoStar Technologies segment offers multiple set-top boxes with different price points depending on their capabilities and functionalities. The revenue and associated margins we earn on sales are determined largely through a receiver agreement we entered into with DISH Network which could result in prices reflecting, among other things, the set-top boxes and other equipment that meet DISH Network s current sales and marketing priorities, the product and service alternatives available from other equipment suppliers, our ability to respond to DISH Network s requirements, and our ability to differentiate ourselves from other equipment suppliers on bases other than pricing. In addition, products containing new technologies and features typically have higher initial prices, which reduce over time as a result of manufacturing efficiencies. Volume of unit sales could reduce over time as a result of demand decreases or as DISH Network increases the deployment of refurbished units as opposed to new units purchased from us. The decrease in revenue for the year ended December 31, 2015 was primarily due to a decrease in the sales of set-top boxes and related accessories. The decrease in revenue of set-top boxes was due to a 41.8% decrease in the volume of unit sales and a 2.1% decrease in the weighted average price of the set-top boxes sold. The decrease in revenue of related accessories was due to a 10.1% decrease in the volume of unit sales and an 8.6% decrease in the weighted average price of related accessories sold.

Equipment revenue other. Equipment revenue other totaled \$358.3 million for the year ended December 31, 2015, a decrease of \$15.7 million or 4.2%, compared to the same period in 2014.

Equipment revenue other from our Hughes segment for the year ended December 31, 2015 increased by \$0.9 million, or 0.4%, to \$211.7 million compared to the same period in 2014. The increase was mainly due to an increase of \$5.8 million in sales of broadband equipment to our international customers and domestic enterprise market, partially offset by a decrease of \$5.5 million in sales of broadband equipment to our domestic consumer market and government projects.

Equipment revenue other from our EchoStar Technologies segment for the year ended December 31, 2015 decreased by \$16.5 million, or 10.1%, to \$146.6 million compared to the same period in 2014. The decrease was attributable to an 11.4% decrease in the volume of unit sales of related accessories, a 7.5% decrease in the weighted average price of set-top boxes sold primarily to our international customers and a 6.7% decrease in the weighted average price of related accessories.

Services and other revenue DISH Network. Services and other revenue DISH Network totaled \$918.3 million for the year ended December 31, 2015, an increase of \$89.7 million or 10.8%, compared to the same period in 2014.

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

receiving services pursuant to our Distribution Agreement with dishNET.

Services and other revenue DISH Network from our EchoStar Technologies segment for the year ended December 31, 2015 increased by \$59.6 million, or 18.1%, to \$389.0 million compared to the same period in 2014. The increase was primarily due to an increase of \$57.0 million in revenue earned for engineering services related to Sling TV Holding and other projects and satellite uplink/downlink services.

Services and other revenue DISH Network from our EchoStar Satellite Services segment for the year ended December 31, 2015 increased by \$16.2 million, or 4.0%, to \$423.5 million compared to the same period in 2014. The increase was mainly due to an increase of \$26.9 million in revenue recognized from certain satellite services provided to DISH Network for the five satellites transferred to us from DISH Network as part of the Satellite and Tracking Stock Transaction. See Note 4 in the notes to consolidated financial statements in Item 15 of this report for further discussion related to the Satellite and Tracking

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

Stock Transaction. The increase was partially offset by a decrease of \$9.0 million in services provided to DISH Network on the EchoStar VIII and EchoStar XII satellites.

Services and other revenue other. Services and other revenue other totaled \$1.10 billion for the year ended December 31, 2015, an increase of \$7.0 million, or 0.6%, compared to the same period in 2014.

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

Services and other revenue other from our EchoStar Technologies segment for the year ended December 31, 2015 decreased by \$10.6 million, or 51.1%, to \$10.2 million compared to the same period in 2014. The decrease was primarily attributable to a decrease of \$6.1 million in revenue from system integration services and \$4.7 million in revenue from certain non-recurring engineering projects and services.

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

Cost of sales equipment. Cost of sales equipment totaled \$948.7 million for the year ended December 31, 2015, a decrease of \$340.3 million, or 26.4%, compared to the same period in 2014.

Cost of sales equipment from our Hughes segment for the year ended December 31, 2015 decreased by \$13.9 million, or 6.6%, to \$195.1 million compared to the same period in 2014. The decrease was primarily attributable to a decrease in equipment costs related to the decrease in sales volume of broadband equipment to DISH Network related to our Distribution Agreement with dishNET, partially offset by an increase in the cost of sales of broadband equipment to our domestic enterprise market.

Cost of sales equipment from our EchoStar Technologies segment for the year ended December 31, 2015 decreased by \$326.4 million, or 30.2%, to \$753.5 million compared to the same period in 2014. The decrease was primarily attributable to a decrease in equipment costs related to the decrease in the volume of sales of set-top boxes and related accessories sold to DISH Network and a decrease in the volume of sales of set-top boxes and related accessories to our international customers.

Cost of sales services and other. Cost of sales services and other totaled \$856.1 million for the year ended December 31, 2015, an increase of \$17.1 million, or 2.0%, compared to the same period in 2014.

Cost of sales services and other from our Hughes segment for the year ended December 31, 2015 decreased by \$26.7 million, or 5.5%, to \$456.7 million compared to the same period in 2014. The decrease was primarily attributable to a decrease of \$19.2 million in service costs of our broadband services provided to our international customers primarily due to lower in-country costs denominated in local currency and a decrease of \$3.7 million in the cost of sales related to our domestic broadband services due to the decrease of third party space segment costs as customers either terminated services or migrated to our platform.

Cost of sales services and other from our EchoStar Technologies segment for the year ended December 31, 2015 increased by \$35.8 million, or 14.5%, to \$282.2 million compared to the same period in 2014. The increase was primarily due to an increase in support costs related to engineering and uplink services provided in 2015 compared to the same period in 2014.

Cost of sales services and other from our EchoStar Satellite Services segment for the year ended December 31, 2015 increased by \$13.5 million, or 23.8%, to \$70.2 million compared to the same period in

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

2014. The increase was primarily due to an increase in cost of sales related to the commencement of the AMC-15 and AMC-16 satellite operating leases in the fourth quarter of 2014 and the first quarter of 2015, respectively.

Research and development expenses. Research and development expenses totaled \$78.3 million for the year ended December 31, 2015, an increase of \$17.4 million, or 28.6%, compared to the same period in 2014. The increase was primarily related to an increase in research and development expense of \$6.2 million and \$11.2 million in our Hughes segment and EchoStar Technologies segment, respectively. The Company s research and development activities vary based on the activity level and scope of other engineering and customer related development contracts.

Depreciation and amortization. Depreciation and amortization expenses totaled \$528.2 million for the year ended December 31, 2015, a decrease of \$28.5 million, or 5.1%, compared to the same period in 2014. The decrease was primarily attributable to a decrease of \$15.0 million in amortization expense from certain of our fully amortized other intangible assets, a decrease in depreciation expense of \$18.5 million relating to the fully depreciated EchoStar VIII and EchoStar XII satellites and a decrease in depreciation expense of \$3.5 million relating to the expiration of the capital lease for the AMC-15 satellite in December 2014. The decreases were partially offset by increases in depreciation of \$7.9 million from our EchoStar Satellite Services segment, primarily due to the depreciation of the five satellites we received from DISH Network as part of the Satellite and Tracking Stock Transaction.

Impairment of long-lived assets. Impairment of long-lived assets totaled \$2.4 million for the year ended December 31, 2015, an increase of \$2.4 million compared to the same period in 2014, due to the impairment of certain building and equipment in our EchoStar Technologies segment.

Interest expense, net of amounts capitalized. Interest expense, net of amounts capitalized totaled \$122.1 million for the year ended December 31, 2015, a decrease of \$49.3 million, or 28.8%, compared to the same period in 2014. The decrease was primarily due to higher capitalized interest of \$40.0 million related to the construction of the EchoStar XIX, EchoStar XXII, EchoStar XXIII, EchoStar 105/SES-11 and EUTELSAT 65 West A satellites, and a decrease in interest expense of \$7.7 million relating to the partial redemption of \$110.0 million of the principal amount of HSS 6 1/2% Senior Secured Notes due 2019 (the Senior Secured Notes) in the second quarter of 2015, the expiration of capital leases for the AMC-15 and AMC-16 satellites, and interest expense relating to two of our satellites that are accounted for as capital leases.

Loss from partial redemption of debt. Loss from partial redemption of debt totaled \$5.0 million for the year ended December 31, 2015, which was due to the loss recorded on the partial redemption of the Senior Secured Notes in the

second quarter of 2015. The \$5.0 million loss from the partial redemption of the Senior Secured Notes included a \$3.3 million redemption premium and a \$1.7 million write off of related unamortized financing costs.

Gains (losses) and impairment on marketable investment securities, net. Gains (losses) and impairment on marketable investment securities, net totaled \$17.7 million in losses for the year ended December 31, 2015, an increase in loss of \$17.7 million compared to the same period in 2014. The increase in loss was primarily due to other than temporary impairment losses of \$11.2 million on certain strategic equity securities in our marketable investment securities and an increase of \$6.5 million in losses on our trading securities.

Equity in earnings of unconsolidated affiliates, net. Equity in earnings of unconsolidated affiliates, net totaled \$1.9 million in earnings for the year ended December 31, 2015, a decrease of \$6.3 million, or 76.9%, compared to the same period in 2014. The decrease in earnings is primarily due to a \$10.3 million non-recurring adjustment to increase our equity in earnings of unconsolidated affiliates to reflect an increase from 24.0% to 49.0% in our interest in Dish Mexico s inception-to-date net income in 2014 and a net decrease of \$6.2 million in our equity of earnings of certain unconsolidated affiliates in 2015. The decreases were partially offset by a \$10.2 million equity in the net loss of Sling TV Holding in 2014. See Note 6 in the notes to consolidated financial statement in Item 15 of this report for further discussion of the agreement.

Other, net. Other, net totaled \$2.0 million in expenses for the year ended December 31, 2015 compared to \$4.3 million in income for the same period in 2014. The decrease of \$6.3 million was primarily related to a loss of

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

\$6.8 million attributable to Federal Communications Commission (FCC) regulatory fees, a gain of \$5.8 million in 2014 related to our investment in TerreStar Networks Inc. (TerreStar), an increase of \$4.7 million in foreign exchange losses and a loss of \$2.6 million related to the deconsolidation of certain of our European subsidiaries in connection with our investment in SmarDTV. The decrease was partially offset by a \$4.8 million gain on an instrument related to our trading securities, a \$4.5 million reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites in the first quarter of 2015 and a gain of \$1.7 million on the exchange of accounts receivable for certain trading securities in the second quarter of 2015.

Earnings before interest, taxes, depreciation and amortization (EBITDA). EBITDA was \$865.4 million for the year ended December 31, 2015, a decrease of \$37.2 million, or 4.1%, compared to the same period in 2014. Gross margin, which we define as total revenue less total cost of sales, increased by \$21.3 million. There was also a \$4.8 million gain on an instrument related to our trading securities, as well as a \$4.5 million reduction of the capital lease obligation for the AMC-15 and AMC-16 satellites in the first quarter of 2015. These increases in EBITDA were more than offset by increases in R&D expenses of \$17.4 million, \$16.1 million of non-recurring gains from 2014, an other-than-temporary impairment loss of \$11.2 million on certain strategic equity securities, a loss of \$6.8 million attributable to FCC regulatory fees, an increase of \$4.7 million in foreign exchange losses, and a loss of \$5.0 million from the partial redemption of the Senior Secured Notes. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items below. The following table reconciles EBITDA to Income before income taxes, the most directly comparable GAAP measure in the accompanying financial statements.

	For the	Years					
	Ended Dec	ember	31,		Variance		
	2015		2014		Amount	%	
			(Dollars in the	ousands	s)		
EBITDA	\$ 865,353	\$	902,581	\$	(37,228)	(4.1)	
Interest income and expense, net	(111,637)		(162,247)		50,610	(31.2)	
Depreciation and amortization	(528,158)		(556,676)		28,518	(5.1)	
Net loss attributable to noncontrolling interest							
in HSS							
Tracking Stock and other noncontrolling							
interests	(3,986)		(5,325)		1,339	(25.1)	
Income before income taxes	\$ 221,572	\$	178,333	\$	43,239	24.2	

Income tax provision, net. Income tax expense was \$72.2 million for the year ended December 31, 2015, compared to \$30.8 million for the same period in 2014. Our effective income tax rate was 32.6% for the year ended December 31, 2015 compared to 17.3% for the same period in 2014. The variation in our current year effective tax rate from the U.S. federal statutory rate was primarily due to research and experimentation tax credits. For the same period in 2014, the variation in our effective tax rate from the U.S. federal statutory rate was primarily due to research and experimentation tax credits and a lower state effective tax rate.

Net income attributable to EchoStar. Net income attributable to EchoStar was \$153.4 million for the year ended December 31, 2015, an increase of \$0.5 million, or 0.3%, compared to the same period in 2014. The increase was primarily due to a decrease in interest expense of \$49.3 million related to capitalization of interest expense associated with the construction of certain of our satellites, the partial redemption of the Senior Secured Notes, the expiration of capital leases for the AMC-15 and AMC-16 satellites, and interest expense relating to two of our satellites that are accounted for as capital leases, and an increase in operating income, including depreciation and amortization, of \$27.9 million. The increases were partially offset by an increase of \$41.4 million in income tax expense, an other-than-temporary impairment loss of \$11.2 million on certain strategic equity securities in our marketable investment securities, offset partially by a \$4.8 million gain on an instrument related to our trading securities, a \$10.3 million non-recurring adjustment to increase our equity in earnings of unconsolidated affiliates to reflect an increase from 24.0% to 49.0% in our interest in Dish Mexico s inception-to-date net income in 2014, a loss of \$6.8 million attributable to FCC regulatory fees, a gain of \$5.8 million in 2014 related to our investment in TerreStar and a loss of \$5.0 million from the partial redemption of the Senior Secured Notes.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

Segment Operating Results and Capital Expenditures

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

	Hughes		EchoStar Technologies		EchoStar Satellite Services (In thousands)		All Other and Eliminations		Consolidated Total	
For the Year Ended December 31,										
<u>2015</u>										
Total revenue	\$	1,347,340	\$	1,298,198	\$	490,591	\$	7,585	\$	3,143,714
Capital expenditures	\$	285,499	\$	50,593	\$	101,215	\$	266,213	\$	703,520
EBITDA	\$	396,684	\$	106,745	\$	412,607	\$	(50,683)	\$	865,353
For the Year Ended December 31,										
2014										
Total revenue	\$	1,327,718	\$	1,627,366	\$	484,455	\$	6,039	\$	3,445,578
Capital expenditures	\$	218,607	\$	48,616	\$	28,734	\$	384,069	\$	680,026
EBITDA	\$	356,871	\$	154,786	\$	419,442	\$	(28,518)	\$	902,581

Hughes Segment

	For the Years En	ded Dec	ember 31,	Variance						
	2015		2014		Amount	%				
			(Dollars in thousands)							
Total revenue	\$ 1,347,340	\$	1,327,718	\$	19,622	1.5				
Capital expenditures	\$ 285,499	\$	218,607	\$	66,892	30.6				
EBITDA	\$ 396,684	\$	356,871	\$	39,813	11.2				

Revenue

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

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

EBITDA

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

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

EchoStar Technologies Segment

	For the Years En	ded Dec	ember 31,	, Variance			
	2015		2014		Amount	%	
			(Dollars in the	ousands)			
Total revenue	\$ 1,298,198	\$	1,627,366	\$	(329,168)	(20.2)	
Capital expenditures	\$ 50,593	\$	48,616	\$	1,977	4.1	
EBITDA	\$ 106,745	\$	154,786	\$	(48,041)	(31.0)	

Revenue

EchoStar Technologies segment total revenue for the year ended December 31, 2015 decreased by \$329.2 million, or 20.2%, compared to the same period in 2014, primarily resulting from a decrease of \$361.6 million in equipment revenue from DISH Network, a decrease of \$16.5 million in equipment revenue – other and a decrease of \$10.6 million in service revenue – other, partially offset by an increase of \$59.6 million in service revenue from DISH Network.

Capital Expenditures

EchoStar Technologies segment capital expenditures for the year ended December 31, 2015 increased by \$2.0 million, or 4.1%, compared to the same period in 2014, primarily due to increased expenditures related to the support of our Move Networks business of \$5.3 million and engineering services of \$0.7 million, partially offset by a decrease in expenditures related to our digital broadcast centers of \$5.0 million.

EBITDA

EchoStar Technologies segment EBITDA for the year ended December 31, 2015 was \$106.7 million, a decrease of \$48.0 million, or 31.0%, compared to the same period in 2014. The decrease in EBITDA for our EchoStar Technologies segment was primarily driven by a decrease of \$38.6 million in gross margin primarily as a result of the decrease in sales of set-top boxes and related accessories to DISH Network. The decrease in EBITDA was also the result of an increase of \$11.2 million in research and development expense, a loss of \$2.6 million related to the deconsolidation of certain of our European subsidiaries in connection with our investment in SmarDTV and an impairment loss of \$2.4 million on certain building and equipment. The decreases were partially offset by a \$9.4 million decrease in selling, general and administrative expenses.

EchoStar Satellite Services Segment

	For the Years En	ded Dec	ember 31,						
	2015		2014		Amount	%			
	(Dollars in thousands)								
Total revenue	\$ 490,591	\$	484,455	\$	6,136	1.3			
Capital expenditures	\$ 101,215	\$	28,734	\$	72,481	*			
EBITDA	\$ 412,607	\$	419,442	\$	(6,835)	(1.6)			

Revenue

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

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Continued

Capital Expenditures

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

EBITDA

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

All Other and Eliminations

All Other and Eliminations accounts for certain items and activities in our consolidated financial statements that have not been assigned to our operating segments. These include without limitation real estate and other activities, costs incurred in satellite development programs and other business development activities, expenses of various corporate departments, and our centralized treasury activities, including without limitation income from our investment portfolio and interest expense on our debt.

		For the Years Ended December 31,				Variance	
		2015		2014		Amount	%
	(Dollars in thousands)						
Total revenue	\$	7,585	\$	6,039	\$	1,546	25.6
Capital expenditures	\$	266,213	\$	384,069	\$	(117,856)	(30.7)
EBITDA	\$	(50,683)	\$	(28,518)	\$	(22,165)	77.7

Capital Expenditures

For the year ended December 31, 2015, All Other and Eliminations capital expenditures decreased by \$117.9 million, or 30.7%, compared to the same period in 2014, primarily related to a \$105