

DISH Network CORP
Form 10-K
February 21, 2018
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM TO .

Commission file number: 0-26176

DISH Network Corporation

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(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of incorporation or organization)

88-0336997
(I.R.S. Employer Identification No.)

9601 South Meridian Boulevard
Englewood, Colorado 80112
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (303) 723-1000

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

Title of each class	Name of each exchange on which registered
Class A common stock, \$0.01 par value	The Nasdaq Stock Market L.L.C.

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

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

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

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

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Emerging growth company

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

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

As of June 30, 2017, the aggregate market value of Class A common stock held by non-affiliates of the registrant was \$13.8 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 the last trading day of the month.

As of February 7, 2018, the registrant's outstanding common stock consisted of 228,040,482 shares of Class A common stock and 238,435,208 shares of Class B common stock, each \$0.01 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 2018 Annual Meeting of Shareholders are incorporated by reference in Part III.

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DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

Unless otherwise required by the context, in this report, the words “DISH Network,” the “Company,” “we,” “our” and “us” refer to DISH Network Corporation and its subsidiaries, “EchoStar” refers to EchoStar Corporation and its subsidiaries, and “DISH DBS” refers to DISH DBS Corporation, a wholly-owned, indirect subsidiary of DISH Network, and its subsidiaries.

This Annual Report on Form 10-K contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including, in particular, statements about our plans, objectives and strategies, growth opportunities in our industries and businesses, our expectations regarding future results, financial condition, liquidity and capital requirements, our estimates regarding the impact of regulatory developments and legal proceedings, and other trends and projections. Forward-looking statements are not historical facts and may be identified by words such as “future,” “anticipate,” “intend,” “plan,” “goal,” “seek,” “believe,” “estimate,” “expect,” “predict,” “will,” “would,” “could,” and similar terms. These forward-looking statements are based on information available to us as of the date of this Annual Report on 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 known and unknown risks, uncertainties and other factors, which may be beyond our control. 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, the following:

Competition and Economic Risks

- As the pay-TV industry has matured and bundled offers combining video, broadband and/or wireless services have become more prevalent and competitive, we face intense and increasing competition from providers of video, broadband and/or wireless services, which may require us to further increase subscriber acquisition and retention spending or accept lower subscriber activations and higher subscriber churn.
- Changing consumer behavior and competition from digital media companies that provide or facilitate the delivery of video content via the Internet may reduce our subscriber activations and may cause our subscribers to purchase fewer services from us or to cancel our services altogether, resulting in less revenue to us.
- Economic weakness and uncertainty may adversely affect our ability to grow or maintain our business.
- Our competitors may be able to leverage their relationships with programmers to reduce their programming costs and/or offer exclusive content that will place them at a competitive advantage to us.
-

Our over-the-top (“OTT”) Sling TV Internet-based services face certain risks, including, among others, significant competition.

- If government regulations relating to the Internet change, we may need to alter the manner in which we conduct our Sling TV business, and/or incur greater operating expenses to comply with those regulations.
- Changes in how network operators handle and charge for access to data that travels across their networks could adversely impact our business.
- We face increasing competition from other distributors of unique programming services such as foreign language, sports programming, and original content that may limit our ability to maintain subscribers that desire these unique programming services.

Operational and Service Delivery Risks

- If our operational performance and customer satisfaction were to deteriorate, our subscriber activations and our subscriber churn rate may be negatively impacted, which could in turn adversely affect our revenue.
- If our subscriber activations continue to decrease, or if our subscriber churn rate, subscriber acquisition costs or retention costs increase, our financial performance will be adversely affected.

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- Programming expenses are increasing and may adversely affect our future financial condition and results of operations.
- We depend on others to provide the programming that we offer to our subscribers and, if we fail to obtain or lose access to this programming, our subscriber activations and our subscriber churn rate may be negatively impacted.
- We may not be able to obtain necessary retransmission consent agreements at acceptable rates, or at all, from local network stations.
- We may be required to make substantial additional investments to maintain competitive programming offerings.
- Any failure or inadequacy of our information technology infrastructure and communications systems, including without limitation those caused by cyber-attacks or other malicious activities, could disrupt or harm our business.
- We currently depend on EchoStar to provide the vast majority of our satellite transponder capacity and other related services to us. Our business would be adversely affected if EchoStar ceases to provide these services to us and we are unable to obtain suitable replacement services from third parties.
- Technology in the pay-TV industry changes rapidly, and our success may depend in part on our timely introduction and implementation of, and effective investment in, new competitive products and services and more advanced equipment, and our failure to do so could cause our products and services to become obsolete and could negatively impact our business.
- We rely on a single vendor or a limited number of vendors to provide certain key products or services to us such as information technology support, billing systems, and security access devices, and the inability of these key vendors to meet our needs could have a material adverse effect on our business.
- We rely on a few suppliers and in some cases a single supplier for many components of our new set-top boxes, and any reduction or interruption in supplies or significant increase in the price of supplies could have a negative impact on our business.
- Our programming signals are subject to theft, and we are vulnerable to other forms of fraud that could require us to make significant expenditures to remedy.
- We depend on independent third parties to solicit orders for our DISH TV services that represent a meaningful percentage of our total gross new DISH TV subscriber activations.

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- We have limited satellite capacity and failures or reduced capacity could adversely affect our DISH TV services.
- Our owned and leased satellites are subject to construction, launch, operational and environmental risks that could limit our ability to utilize these satellites.
- We generally do not carry commercial launch or in-orbit insurance on any of the satellites that we use, other than certain satellites leased from third parties, and could face significant impairment charges if any of our owned satellites fail.
- We may have potential conflicts of interest with EchoStar due to our common ownership and management.
- We rely on key personnel and the loss of their services may negatively affect our business.

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Acquisition and Capital Structure Risks

- We have made substantial investments to acquire certain wireless spectrum licenses and other related assets. In addition, we have made substantial non-controlling investments in the Northstar Entities and the SNR Entities related to AWS-3 wireless spectrum licenses.
- We face certain risks related to our non-controlling investments in the Northstar Entities and the SNR Entities, which may have a material adverse effect on our business, results of operations and financial condition.
- To the extent that we commercialize our wireless spectrum licenses, we will face certain risks entering and competing in the wireless services industry and operating a wireless services business.
- Our wireless spectrum licenses are subject to certain interim and final build-out requirements and the failure to meet such build-out requirements may have a material adverse effect on our business, results of operations and financial condition.
- We rely on highly skilled personnel for our wireless business and, if we are unable to hire and retain key personnel or hire qualified personnel then our wireless business may be adversely affected.
- We may pursue acquisitions and other strategic transactions to complement or expand our business that may not be successful, and we may lose up to the entire value of our investment in these acquisitions and transactions.
- We may need additional capital, which may not be available on acceptable terms or at all, to continue investing in our business and to finance acquisitions and other strategic transactions.
- We have substantial debt outstanding and may incur additional debt.
- The conditional conversion features of our 3 3/8% Convertible Notes due 2026 (the “Convertible Notes due 2026”) and our 2 3/8% Convertible Notes due 2024 (the “Convertible Notes due 2024,” and collectively with the Convertible Notes due 2026, the “Convertible Notes”), if triggered, may adversely affect our financial condition.
- The convertible note hedge and warrant transactions that we entered into in connection with the offering of the Convertible Notes due 2026 may affect the value of the Convertible Notes due 2026 and our Class A common stock.
- We are subject to counterparty risk with respect to the convertible note hedge transactions.

- From time to time a portion of our investment portfolio may be invested in securities that have limited liquidity and may not be immediately accessible to support our financing needs, including investments in public companies that are highly speculative and have experienced and continue to experience volatility.
- It may be difficult for a third party to acquire us, even if doing so may be beneficial to our shareholders, because of our ownership structure.
- We are controlled by one principal stockholder who is also our Chairman.

Legal and Regulatory Risks

- The rulings in the Telemarketing litigation requiring us to pay up to an aggregate amount of \$341 million and imposing certain injunctive relief against us, if upheld, would have a material adverse effect on our cash, cash equivalents and marketable investment securities balances and our business operations.
- Our business may be materially affected by the Tax Cuts and Jobs Act of 2017 (the “Tax Reform Act”). Negative or unexpected tax consequences could adversely affect our business, financial condition and results of operations.

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- Our business depends on certain intellectual property rights and on not infringing the intellectual property rights of others.
- We are, and may become, party to various lawsuits which, if adversely decided, could have a significant adverse impact on our business, particularly lawsuits regarding intellectual property.
- Our ability to distribute video content via the Internet, including our Sling TV services, involves regulatory risk.
- Changes in the Cable Act of 1992 (“Cable Act”), and/or the rules of the Federal Communications Commission (“FCC”) that implement the Cable Act, may limit our ability to access programming from cable-affiliated programmers at nondiscriminatory rates.
- The injunction against our retransmission of distant networks, which is currently waived, may be reinstated.
- We are subject to significant regulatory oversight, and changes in applicable regulatory requirements, including any adoption or modification of laws or regulations relating to the Internet, could adversely affect our business.
- Our business depends on FCC licenses that can expire or be revoked or modified and applications for FCC licenses that may not be granted.
- We are subject to digital high-definition (“HD”) “carry-one, carry-all” requirements that cause capacity constraints.
- Our business, investor confidence in our financial results and stock price may be adversely affected if our internal controls are not effective.
- We may face other risks described from time to time in periodic and current reports we file with the Securities and Exchange Commission (“SEC”).

Other factors that could cause or contribute to such differences include, but are not limited to, those discussed under the caption “Risk Factors” in Part I, Item 1A in this Annual Report on Form 10-K, those discussed in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” herein and those discussed in other documents we file with the SEC. All cautionary statements made or referred to herein should be read as being applicable to all forward-looking statements wherever they appear. Investors should consider the risks and uncertainties described or referred to herein and should not place undue reliance on any forward-looking statements. The forward-looking statements speak only as of the date made, and we expressly disclaim any obligation to update these forward-looking statements.

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PART I

Item 1. BUSINESS

OVERVIEW

DISH Network Corporation was organized in 1995 as a corporation under the laws of the State of Nevada. We started offering the DISH® branded pay-TV service in March 1996 and are the nation's fourth largest pay-TV provider. Our common stock is publicly traded on the Nasdaq Global Select Market under the symbol "DISH." Our principal executive offices are located at 9601 South Meridian Boulevard, Englewood, Colorado 80112 and our telephone number is (303) 723-1000.

DISH Network Corporation is a holding company. Its subsidiaries operate two primary business segments.

Pay-TV

We offer pay-TV services under the DISH® brand and the Sling® brand (collectively "Pay-TV" services). The DISH branded pay-TV service consists of, among other things, Federal Communications Commission ("FCC") licenses authorizing us to use direct broadcast satellite ("DBS") and Fixed Satellite Service ("FSS") spectrum, our owned and leased satellites, receiver systems, broadcast operations, customer service facilities, a leased fiber optic network, in-home service and call center operations, and certain other assets utilized in our operations ("DISH TV"). The Sling branded pay-TV services consist of, among other things, live, linear streaming over-the-top ("OTT") Internet-based domestic, international and Latino video programming services ("Sling TV"). As of December 31, 2017, we had 13.242 million Pay-TV subscribers in the United States, including 11.030 million DISH TV subscribers and 2.212 million Sling TV subscribers.

In addition, we have historically offered broadband services under the dishNET™ brand, which includes satellite broadband services that utilize advanced technology and high-powered satellites launched by Hughes Communications, Inc. ("Hughes") and ViaSat, Inc. ("ViaSat") and wireline broadband services. However, as we move our broadband business focus from wholesale to authorized representative arrangements, we are generally no longer marketing dishNET broadband services and our broadband subscribers will decline through customer attrition. Generally, under these authorized representative arrangements, we will receive certain payments for each broadband service activation generated and installation performed, and we will not incur subscriber acquisition costs for these activations. For example, during the first quarter 2017, we transitioned our wholesale arrangement with Hughes to an authorized representative arrangement and entered into a master service agreement (the "MSA") with

Hughes Network Systems, LLC (“HNS”), a wholly-owned subsidiary of Hughes. See “Hughes Broadband Master Services Agreement” in Note 18 to our Consolidated Financial Statements in this Annual Report on Form 10-K on our Related Party Transactions with EchoStar for further information.

As a result of the completion of the Share Exchange with EchoStar, described below, we also design, develop and distribute receiver systems and provide digital broadcast operations, including satellite uplinking/downlinking, transmission and other services to third-party pay-TV providers. See Note 2 and 18 to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

Wireless

Since 2008, we have directly invested over \$11 billion to acquire certain wireless spectrum licenses and related assets and made over \$10 billion in non-controlling investments in certain entities, for a total of over \$21 billion. In March 2017, we notified the FCC that we plan to deploy a next-generation 5G-capable network, focused on supporting narrowband Internet of Things (“IoT”). The first phase of our network deployment will be completed by March 2020, with subsequent phases to be completed thereafter. We may also determine that additional wireless spectrum licenses may be required to commercialize our wireless business and to compete with other wireless service providers.

These wireless spectrum licenses are subject to certain interim and final build-out requirements. We will need to make significant additional investments or partner with others to, among other things, commercialize, build-out, and integrate these licenses and related assets, and any additional acquired licenses and related assets; and comply with regulations

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applicable to such licenses. Depending on the nature and scope of such commercialization, build-out, integration efforts, and regulatory compliance, any such investments or partnerships could vary significantly. In addition, as we consider our options for the commercialization of our wireless spectrum, we will incur significant additional expenses and will have to make significant investments related to, among other things, research and development, wireless testing and wireless network infrastructure. See Note 14 “Commitments and Contingencies – Wireless – DISH Network Spectrum” in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

Business Strategy – Pay-TV

Our business strategy is to be the best provider of video services in the United States by providing products with the best technology, outstanding customer service, and great value. We promote our Pay-TV services as providing our subscribers with a better “price-to-value” relationship than those available from other subscription television service providers.

- **Products with the Best Technology.** We offer a wide selection of local and national HD programming and are a technology leader in our industry, offering award-winning DVRs (including our Hopper® whole-home HD DVR), multiple tuner receivers, 1080p video on demand, and external hard drives. We offer several Sling TV services, including Sling Orange (our single-stream Sling domestic service), Sling Blue (our multi-stream Sling domestic service), Sling International, Sling Latino, among others, as well as add-on extras, pay-per-view events and a cloud based DVR service.
- **Outstanding Customer Service.** We strive to provide outstanding customer service by improving the quality of the initial installation of subscriber equipment, improving the reliability of our equipment, better educating our customers about our products and services, and resolving customer problems promptly and effectively when they arise.
- **Great Value.** We have historically been viewed as the low-cost provider in the pay-TV industry in the United States because we seek to offer the lowest everyday prices available to consumers after introductory promotions expire. For example, during the third quarter 2016, we launched our Flex Pack skinny bundle with a core package of programming consisting of more than 50 channels and the choice of one of eight themed add-on channel packs, which include local broadcast networks and kids, national and regional sports and general entertainment programming. Subscribers can also add or remove additional channel packs to best suit their entertainment needs. As another example, our Sling Orange service and our Sling Blue service are two of the lowest priced live-linear online streaming services in the industry.

Products and Services

DISH TV services. We offer a wide selection of video services under the DISH TV brand, with access to hundreds of channels depending on the level of subscription. Our standard programming packages generally include programming provided by national broadcast networks, local broadcast networks and national and regional cable networks. We also offer programming packages that include regional and specialty sports channels, premium movie channels and Latino and international programming. Our Latino and international programming packages allow subscribers to choose from over 270 channels in 28 languages.

In addition, we offer our DISH TV subscribers streaming access through DISH On Demand® to thousands of movies and TV shows via their TV or Internet-connected tablets, smartphones and computers.

Our DISH TV subscribers also have the ability to use dishanywhere.com and our mobile applications for smartphones and tablets to view authorized content, search program listings and remotely control certain features of their DVRs. Dishanywhere.com and our mobile applications provide access to thousands of movies and television shows.

Sling TV services. We market our Sling TV services primarily to consumers who do not subscribe to traditional satellite and cable pay-TV services. Our Sling TV services require an Internet connection and are available on multiple streaming-capable devices including streaming media devices, TVs, tablets, computers, game consoles and smart phones. We offer Sling International, Sling Latino and Sling domestic video programming services. Our domestic Sling TV services have a

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single-stream service branded Sling Orange and a multi-stream service branded Sling Blue, which includes, among other things, the ability to stream on up to three devices simultaneously. We also offer add-on extras, pay-per-view events and a cloud based DVR service.

Technology. Our DISH TV subscribers receive programming via equipment that includes a small satellite dish, digital set-top receivers, and remote controls. Our Hopper and Joey® whole-home DVR promotes a suite of integrated features and functionality designed to maximize the convenience and ease of watching TV anytime and anywhere. It also has several innovative features that a consumer can use, at his or her option, to watch and record television programming, through their televisions, Internet-connected tablets, smartphones and computers. During the first quarter 2016, we made our next generation Hopper, the Hopper 3, available to customers nationwide. Among other things, the Hopper 3 features 16 tuners, delivers an enhanced 4K Ultra HD experience, and supports up to seven TVs simultaneously. In December 2016, Sling TV launched a cloud DVR program available for customers who subscribe to Sling Orange and/or Sling Blue using multiple streaming-capable devices. In January 2017, we launched AirTV Player, a new 4K Android TV-based streaming device, and AirTV Pro Install, a service that offers expertise, installation and setup of over-the-air (“OTA”) antennas. We also design, develop and distribute a wide range of video delivery products and related technologies to third parties.

Broadband. In addition to our wide selection of pay-TV programming and award-winning technology, we have historically marketed broadband services under the dishNET™ brand. This service utilizes advanced technology and high-powered satellites launched by Hughes and ViaSat to provide broadband coverage nationwide and wireline broadband services as a competitive local exchange carrier to consumers in certain areas. However, as we move our broadband business focus from wholesale to authorized representative arrangements, we are generally no longer marketing dishNET broadband services and our broadband subscribers will decline through customer attrition. Generally, under these authorized representative arrangements, we will receive certain payments for each broadband service activation generated and installation performed, and we will not incur subscriber acquisition costs for these activations. For example, during the first quarter 2017, we transitioned our wholesale arrangement with Hughes to an authorized representative arrangement and entered into the MSA with HNS, a wholly-owned subsidiary of Hughes, pursuant to which we, among other things: (i) have the right, but not the obligation, to market, promote and solicit orders for the Hughes broadband satellite service and related equipment; and (ii) install Hughes service equipment with respect to activations generated by us. For example, HNS will make certain payments to us for each Hughes service activation generated and installation performed by us, and we will not incur subscriber acquisition costs for these subscribers. See Note 18 to our Consolidated Financial Statements in this Annual Report on Form 10-K on our Related Party Transactions with EchoStar for further information.

Business Strategy – Wireless

Wireless

Since 2008, we have directly invested over \$11 billion to acquire certain wireless spectrum licenses and related assets and made over \$10 billion in non-controlling investments in certain entities, for a total of over \$21 billion, as described further below. In March 2017, we notified the FCC that we plan to deploy a next-generation 5G-capable network, focused on supporting narrowband Internet of Things (“IoT”). The first phase of our network deployment will be completed by March 2020, with subsequent phases to be completed thereafter. We may also determine that additional wireless spectrum licenses may be required to commercialize our wireless business and to compete with other wireless service providers.

DISH Network Spectrum

We have directly invested over \$11 billion to acquire certain wireless spectrum licenses and related assets. These wireless spectrum licenses are subject to certain interim and final build-out requirements. We will need to make significant additional investments or partner with others to, among other things, commercialize, build-out, and integrate these licenses and related assets, and any additional acquired licenses and related assets; and comply with regulations applicable to such licenses. Depending on the nature and scope of such commercialization, build-out, integration efforts, and regulatory compliance, any such investments or partnerships could vary significantly. In addition, as we consider our options for the commercialization of our wireless spectrum, we will incur significant additional expenses and will

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have to make significant investments related to, among other things, research and development, wireless testing and wireless network infrastructure. See Note 14 “Commitments and Contingencies – Wireless – DISH Network Spectrum” in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

DISH Network Non-Controlling Investments in the Northstar Entities and the SNR Entities Related to AWS-3 Wireless Spectrum Licenses

Through our wholly-owned subsidiaries American AWS-3 Wireless II L.L.C. (“American II”) and American AWS-3 Wireless III L.L.C. (“American III”), we have made over \$10 billion in certain non-controlling investments in Northstar Spectrum, LLC (“Northstar Spectrum”), the parent company of Northstar Wireless, LLC (“Northstar Wireless,” and collectively with Northstar Spectrum, the “Northstar Entities”), and in SNR Wireless HoldCo, LLC (“SNR HoldCo”), the parent company of SNR Wireless LicenseCo, LLC (“SNR Wireless,” and collectively with SNR HoldCo, the “SNR Entities”), respectively. On October 27, 2015, the FCC granted certain AWS-3 wireless spectrum licenses (the “AWS-3 Licenses”) to Northstar Wireless and to SNR Wireless, respectively, which are recorded in “FCC authorizations” on our Consolidated Balance Sheets. Under the applicable accounting guidance in Accounting Standards Codification 810, Consolidation (“ASC 810”), Northstar Spectrum and SNR HoldCo are considered variable interest entities and, based on the characteristics of the structure of these entities and in accordance with the applicable accounting guidance, we consolidate these entities into our financial statements. See Note 2 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

The AWS-3 Licenses are subject to certain interim and final build-out requirements. We may need to make significant additional loans to the Northstar Entities and to the SNR Entities, or they may need to partner with others, so that the Northstar Entities and the SNR Entities may commercialize, build-out and integrate these AWS-3 Licenses, comply with regulations applicable to such AWS-3 Licenses, and make any potential payments related to the re-auction of AWS-3 Licenses retained by the FCC. Depending upon the nature and scope of such commercialization, build-out, integration efforts, regulatory compliance, and potential re-auction payments, any such loans or partnerships could vary significantly. There can be no assurance that we will be able to obtain a profitable return on our non-controlling investments in the Northstar Entities and the SNR Entities.

See Note 14 “Commitments and Contingencies – Wireless – DISH Network Non-Controlling Investments in the Northstar Entities and the SNR Entities Related to AWS-3 Wireless Spectrum Licenses” in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

New Business Opportunities

From time to time we evaluate opportunities for strategic investments or acquisitions that may complement our current services and products, enhance our technical capabilities, improve or sustain our competitive position, or

otherwise offer growth opportunities.

Content Delivery

Digital Broadcast Operations Centers. Our principal digital broadcast operations facilities are located in Cheyenne, Wyoming and Gilbert, Arizona. We also have multiple regional and micro digital broadcast operations facilities that allow us to maximize the use of the spot beam capabilities of certain satellites. Programming content is delivered to these facilities by fiber or satellite and processed, compressed, encrypted and then uplinked to satellites for delivery to consumers.

Satellites. Our DISH TV programming is primarily delivered to customers using satellites that operate in the “Ku” band portion of the microwave radio spectrum. The Ku-band is divided into two spectrum segments. The portion of the Ku-band that allows the use of higher power satellites (12.2 to 12.7 GHz over the United States) is known as the Broadcast Satellite Service band, which is also referred to as the DBS band. The portion of the Ku-band that utilizes lower power satellites (11.7 to 12.2 GHz over the United States) is known as the FSS band.

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Most of our DISH TV programming is currently delivered using DBS satellites. To accommodate more bandwidth-intensive HD programming and other needs, we continue to explore opportunities to expand our satellite capacity through the acquisition of additional spectrum, the launching of more technologically advanced satellites, and the more efficient use of existing spectrum via, among other things, better compression technologies.

We own or lease capacity on 12 satellites in geostationary orbit approximately 22,300 miles above the equator. For further information concerning these satellites and satellite anomalies, please see the table and discussion under “Satellites” below.

Conditional Access System. Our conditional access system secures our programming content using encryption so that only authorized customers can access our programming. We use microchips embedded in credit card-sized access cards, called “smart cards,” or security chips in our DBS receiver systems for our DISH TV services to control access to authorized programming content (“Security Access Devices”).

Our signal encryption 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 Security Access Device replacement programs and 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 and that we remain susceptible to additional signal theft. We expect that future replacements of our Security Access Devices may be necessary to keep our system secure. We cannot ensure that we will be successful in reducing or controlling theft of our programming content and we may incur additional costs in the future if our system’s security is compromised.

For our Sling TV services, we encrypt programming content and use digital rights management software to, among other things, prevent unauthorized access to our programming content.

Content Delivery Networks. The majority of Sling TV programming content is delivered to our backhaul and uplink facilities via the internet, fiber or satellite for processing and encryption. Our Sling TV programming content is distributed from our backhaul and uplink facilities, or directly from the content provider, to content delivery network providers for delivery to consumers via the internet.

Internet Connection. Our Sling TV services require an Internet connection and are available through multiple streaming-capable devices. Certain of our digital set-top boxes require an internet connection to enable full functionality, including streaming access through DISH On Demand, access to dishanywhere.com and other applications.

Distribution Channels

While we offer receiver systems and programming through direct sales channels, a meaningful percentage of our gross new DISH TV subscriber activations are generated through independent third parties such as small satellite retailers, direct marketing groups, local and regional consumer electronics stores, nationwide retailers, and telecommunications companies. In general, we pay these independent third parties a mix of upfront and monthly incentives to solicit orders for our services and provide customer service. In addition, we offer our Sling TV services through direct sales channels and third-party marketing agreements.

Competition

Our business has historically focused on providing pay-TV services. We face substantial competition from established pay-TV providers and broadband service providers and increasing competition from companies providing/facilitating the delivery of video content via the Internet to computers, televisions, and other streaming and mobile devices, including wireless service providers. In recent years, the traditional pay-TV industry has matured, and industry consolidation and convergence has created competitors with greater scale and multiple product/service offerings. These developments, among others, have contributed to intense and increasing competition, and we expect such competition to continue.

Our Pay-TV services continue to face intense competition from traditional satellite television providers, cable companies and large telecommunication companies such as AT&T Inc. (“AT&T”), Comcast Corp. (“Comcast”), Charter Communications, Inc. (“Charter”), Verizon Communications, Inc. (“Verizon”) and others, some of whom have greater financial, marketing and other resources than we do. Some of these companies also have significant investments in companies that provide programming content. In recent years, mergers and acquisitions, joint ventures and alliances

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among cable television providers, telecommunications companies and others have created, among other things, greater scale and financial leverage for the combined companies and increased the availability of bundled offerings combining video, broadband and/or wireless services. For example, in 2015 AT&T acquired DirecTV, our direct competitor and the largest satellite TV provider in the United States, which has an OTT service, DirecTV Now, that competes directly with our Sling TV services. Furthermore, AT&T's acquisition of DirecTV, among other things, allows DirecTV access to AT&T's nationwide platform for wireless mobile video, and the ability to more seamlessly bundle its video services with AT&T's broadband Internet access and wireless services. In some cases, certain competitors have been able to potentially subsidize the price of video services with the price of other bundled services, particularly broadband services.

We also face increasing competition from content providers and other companies who distribute video directly to consumers over the Internet. These content providers and other companies, as well as traditional satellite television providers, cable companies and large telecommunication companies, are rapidly increasing their Internet-based video offerings. Programming offered over the Internet has become more prevalent and consumers are spending an increasing amount of time accessing video content via the Internet on their mobile devices. In particular, consumers have shown increased interest in viewing certain video programming in any place, at any time and/or on any broadband-connected device they choose. Video content distributed over the Internet includes services with live linear television programming such as DirecTV Now, Sony PlayStation Vue, YouTube TV, Fubo TV and Philo TV single programmer offerings such as HBO GO, CBS All Access, STARZ and SHOWTIME and offerings of large libraries of on-demand content, including in certain cases original content, by companies such as Netflix, Hulu, Apple, Amazon, Alphabet and Verizon.

In addition to the traditional competition we have faced, new technologies have been, and will likely continue to be, developed that further increase the number of companies with whom we compete for video subscribers. For example, we face increasing competition from wireless telecommunications providers who offer mobile video offerings, other telephone companies who are finding ways to deliver video programming services over their wireline facilities or in a bundle with other multichannel video programming distributors ("MVPDs"), including among others, AT&T, and fiber-based networks including Google Fiber.

For further information see "Item 1A – Risk Factors – Competition and Economic Risks – As the pay-TV industry has matured and bundled offers combining video, broadband and/or wireless services have become more prevalent and competitive, we face intense and increasing competition from providers of video, broadband and/or wireless services, which may require us to further increase subscriber acquisition and retention spending or accept lower subscriber activations and higher subscriber churn." and "Changing consumer behavior and competition from digital media companies that provide or facilitate the delivery of video content via the Internet may reduce our gross new subscriber activations and may cause our subscribers to purchase fewer services from us or to cancel our services altogether, resulting in less revenue to us."

Acquisition of New Subscribers

We incur significant upfront costs to acquire subscribers, including advertising, independent third-party retailer incentives, equipment, installation services and new customer promotions. Certain customer promotions to acquire new subscribers result in less programming revenue to us over the promotional period. While we attempt to recoup these upfront costs over the lives of their subscriptions, there can be no assurance that we will be successful in achieving that objective. With respect to our DISH TV services, we employ business rules such as minimum credit requirements for prospective customers and contractual commitments. We strive to provide outstanding customer service to increase the likelihood of customers keeping their Pay-TV service over longer periods of time. Subscriber acquisition costs for Sling TV subscribers are significantly lower than those for DISH TV subscribers. Our subscriber acquisition costs may vary significantly from period to period.

Advertising. We use print, radio, television and Internet media, on a local and national basis to motivate potential subscribers to contact DISH TV and Sling TV, visit our websites or contact independent third-party retailers.

Retailer Incentives. In general, we pay independent third-party retailers an upfront incentive for each new DISH TV subscriber they bring to DISH TV that results in the activation of qualified programming and generally pay independent third-party retailers small monthly incentives for up to 60 months; provided, among other things: (i) the independent third-party retailer continuously markets, promotes and solicits orders for DISH TV products and services; (ii) the

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independent third-party retailer continuously provides customer service to our DISH TV subscribers; and (iii) the customer continuously subscribes to qualified programming.

Third-Party Marketing Agreements. We have agreements with third parties to market, promote and solicit orders for our Sling TV services generally in connection with the purchase of a streaming-capable device. We pay a fee for each Sling TV subscriber activated under these agreements.

Equipment. We incur significant upfront costs to provide our new DISH TV subscribers with in-home equipment, including advanced HD and DVR receivers, which most of our new DISH TV subscribers lease from us. While we seek to recoup these upfront equipment costs mostly through monthly fees, there can be no assurance that we will be successful in achieving that objective. In addition, upon deactivation of a subscriber we may refurbish and redeploy their equipment which lowers future upfront costs. However, our ability to capitalize on these cost savings may be limited as technological advances and consumer demand for new features may render the returned equipment obsolete.

Installation Services. We incur significant upfront costs to install satellite dishes and receivers in the homes of our new DISH TV subscribers.

New Customer Promotions. We often offer our new DISH TV subscribers certain programming at no additional charge and/or promotional pricing during a commitment period. We often offer our new Sling TV subscribers free trials and/or streaming-capable devices at no additional charge and/or promotional pricing. While such promotional activities have an economic cost and reduce our subscriber-related revenue, they are not included in our definitions of subscriber acquisition costs or the DISH TV SAC metric.

Customer Retention

We incur significant costs to retain our existing DISH TV customers, mostly by upgrading their equipment to HD and DVR receivers and by providing retention credits. As with our subscriber acquisition costs, our retention upgrade spending includes the cost of equipment and installation services. In certain circumstances, we also offer programming at no additional charge and/or promotional pricing for limited periods for existing customers in exchange for a contractual commitment to receive service for a minimum term. A component of our retention efforts includes the re-installation of equipment for customers who move. Our subscriber retention costs may vary significantly from period to period. As our Sling TV services have no contract or commitment period, we have generally not provided Sling TV subscribers with retention credits, promotional pricing, special offers or discounts. Our retention efforts for Sling TV customers generally focuses on customer engagement and increased quality of our Sling TV services.

Customer Service

Customer Service Centers. We use both internally-operated and outsourced customer service centers to handle calls, chat messages and e-mails from prospective and existing customers. We strive to answer customer calls, chat messages and e-mails promptly and to resolve issues effectively on the first call, chat session or e-mail. We also use the Internet and other applications to provide our customers with self-service capabilities.

Installation and Smart Home Service Operations. High-quality installations, upgrades, and Smart Home services and repairs are critical to providing DISH TV subscribers with quality customer service. Such services and repairs are performed by both DISH Network employees and a network of independent contractors and includes, among other things, TV mounting, appliance repair, set-up and installation of wireless networks, surround sound systems and home theaters, priority technical support, replacement equipment, cabling and power surge repairs, and installation and setup of OTA antennas.

Subscriber Management. We presently use, and depend on, software systems for subscriber billing and related functions, including, among others, CSG Systems International, Inc.'s software system used for the DISH TV services and dishNET branded broadband services and Recurly, Inc.'s software system for the Sling TV services.

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Relationship with EchoStar

On January 1, 2008, we completed the distribution of our technology and set-top box business and certain infrastructure assets (the “Spin-off”) into a separate publicly-traded company, EchoStar. DISH Network and EchoStar operate as separate publicly-traded companies and neither entity has any ownership interest in the other. However, a substantial majority of the voting power of the shares of both 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. EchoStar provides the vast majority of our satellite transponder capacity and is a key supplier of other related services to us. Furthermore, we have an authorized representative arrangement with Hughes, a wholly-owned subsidiary of EchoStar, under the MSA which offers satellite broadband Internet services to customers. See “Item 1A. Risk Factors” and Note 18 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

Share Exchange. On February 28, 2017, we and EchoStar and certain of our respective subsidiaries completed the transactions contemplated by the Share Exchange Agreement (the “Share Exchange Agreement”) that was previously entered into on January 31, 2017 (the “Share Exchange”). Pursuant to the Share Exchange Agreement, among other things, EchoStar transferred to us certain assets and liabilities of the EchoStar technologies and EchoStar broadcasting businesses, consisting primarily of the businesses that design, develop and distribute digital set-top boxes, provide satellite uplinking services and develop and support streaming video technology, as well as certain investments in joint ventures, spectrum licenses, real estate properties and EchoStar’s ten percent non-voting interest in Sling TV Holding L.L.C. (the “Transferred Businesses”), and in exchange, we transferred to EchoStar the 6,290,499 shares of preferred tracking stock issued by EchoStar (the “EchoStar Tracking Stock”) and 81.128 shares of preferred tracking stock issued by Hughes Satellite Systems Corporation, a subsidiary of EchoStar (the “HSSC Tracking Stock,” and together with the EchoStar Tracking Stock, collectively, the “Tracking Stock”), that tracked the residential retail satellite broadband business of HNS. In connection with the Share Exchange, we and EchoStar and certain of its subsidiaries entered into certain agreements covering, among other things, tax matters, employee matters, intellectual property matters and the provision of transitional services. As the Share Exchange was a transaction between entities that are under common control, accounting rules require that our Consolidated Financial Statements include the results of the Transferred Businesses for all periods presented, including periods prior to the completion of the Share Exchange. See Note 18 to our Consolidated Financial Statements in this Annual Report on Form 10-K on our Related Party Transactions with EchoStar for further information.

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SATELLITES

Pay-TV Satellites. Most of our DISH TV programming is currently delivered using DBS satellites. We continue to explore opportunities to expand our available satellite capacity through the use of other available spectrum. Increasing our available spectrum is particularly important as more bandwidth intensive HD programming is produced and to address new video and data applications consumers may desire in the future. We currently utilize 12 satellites in geostationary orbit approximately 22,300 miles above the equator as detailed in the table below.

Satellites	Launch Date	Degree Orbital Location	Estimated Useful Life (Years) / Lease Termination Date
Owned:			
EchoStar XV	July 2010	61.5	15
EchoStar XVIII	June 2016	61.5	15
Leased from EchoStar (1):			
EchoStar VII (2)	February 2002	119	June 2018
EchoStar IX	August 2003	121	Month to month
EchoStar X (2)	February 2006	110	February 2021
EchoStar XI (2)	July 2008	110	September 2021
EchoStar XIV (2)	March 2010	119	February 2023
EchoStar XVI (3)	November 2012	61.5	January 2023
Nimiq 5	September 2009		