

REFINITIV

DELTA REPORT

10-K

ECHOSTAR CORP

10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS	14310
CHANGES	80
DELETIONS	3822
ADDITIONS	10408

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON,

Washington, D.C. 20549

FORM

Form 10-K

(Mark One)

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

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

FOR THE FISCAL YEAR ENDED DECEMBER 31 2022., 2023

OR

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

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

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EchoStar Corporation

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation or organization)

26-1232727

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

100 Inverness Terrace East,

Englewood,

Colorado

80112-5308

9601 South Meridian Boulevard

Englewood, Colorado

(Address of principal executive offices)

80112

(Zip Code)

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

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

(303) 706-4000

Not Applicable

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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, 2022 June 30, 2023, the aggregate market value of Class A common stock held by non-affiliates of the registrant was \$646.8 million \$585.3 million based upon the closing price of the Class A common stock as reported on the NASDAQ Nasdaq Global Select Market as of the close of business on that date. the last trading day of the month.

As of February 6, 2023 February 20, 2024, the registrant's outstanding common stock consisted of 35,594,333 140,170,052 shares of Class A common stock and 47,687,039 131,348,468 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 2023 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 “EchoStar,” the “Company,” “we,” “our” and “us” refer to EchoStar Corporation and its subsidiaries, “DISH Network” refers to DISH Network Corporation, our wholly owned subsidiary, 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 (“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 in particular, statements about our estimates, expectations, future developments, plans, objectives and strategies, growth opportunities in our industries and businesses, our expectations regarding future results, financial condition, expected liquidity and capital requirements, our estimates regarding the 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 projections. Forward-looking statements other than statements of are not historical facts and may be forward-looking statements. Forward-looking statements may also be identified by words such as “future,” “anticipate,” “intend,” “plan,” “goal,” “seek,” “believe,” “estimate,” “expect,” “predict,” “project,” “continue,” “future,” “will,” “would,” “could,” “can,” “may” “may,” 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 based on past experience and trends, current economic and industry conditions, expected future developments and other relevant factors. assumptions. Forward-looking statements are not guarantees of future performance, events or results and involve potential known and unknown risks, uncertainties including the impact of the coronavirus pandemic (COVID-19), and other factors, many of which may be beyond our control and may pose a risk to our operating and financial condition both the near- and long-term. 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: to, those summarized below:

SUMMARY OF RISK FACTORS

Risks Related to the Integration

- Although we expect that the Merger will result in synergies and other benefits, those synergies and benefits may not be realized in the amounts anticipated, or may not be realized within the expected timeframe, or at all, and risks associated with the foregoing may also result from any extended delay in the Integration.
- The market price for shares of our common stock may be affected by factors different from, or in addition to, those that historically affected the market prices of shares of DISH Network Class A Common Stock and EchoStar Class A Common Stock.

Competition and Economic Risks

- We face intense and increasing competition from providers of video, broadband and/or wireless services. Changing consumer behavior and new technologies in our Pay-TV and/or Wireless business 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.
- We face certain risks competing in the wireless services industry and operating a facilities-based wireless services business.
- Our pay-TV 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.
- Through the MNSA and the NSA, we depend on T-Mobile and AT&T to provide network services to our Wireless subscribers. Our failure to effectively manage these relationships, including without limitation, our minimum commitments, any system failure in their wireless networks, interruption in the services provided to us, and/or the termination of the MNSA or the NSA could have a material adverse effect on our business, financial condition and results of operations.
- We compete with the MNOs whose networks we rely on to provide wireless services to our customers, and they may seek to limit, reduce or terminate our network access to the extent that it becomes competitively advantageous to do so.
- If we are unable to take advantage of technological developments on a timely basis, or at all, we may experience a decline in demand for our services or face challenges in implementing or evolving our business strategy.

Operational and Service Delivery Risks

- Any deterioration in our operational performance, subscriber activations and churn rate and subscriber satisfaction could adversely affect our business, financial condition and results of operations.
- We depend on others to provide the programming that we offer to our Pay-TV subscribers and, if we fail to obtain or lose access to certain programming, our Pay-TV subscriber activations and our subscriber churn rate may be negatively impacted.
- We have limited satellite capacity and any failures or reduced capacity, caused by, among other things, operational and environmental risks, could adversely affect our business, financial condition and results of operations.
- Extreme weather may result in risk of damage to our infrastructure and therefore our ability to provide services, and may lead to changes in federal, state and foreign government regulation, all of which could materially and adversely affect our business, results of operations and financial condition.
- We rely on a single vendor or a limited number of vendors to provide certain key products or services to us, and the inability of these key vendors to meet our needs could have a material adverse effect on our business.
- We depend on independent third parties to solicit orders for our services that represent a meaningful percentage of our total gross new subscriber activations.

Risks Related to our ability to operate and control our satellites, operational and environmental risks related Human Capital

- We rely on highly skilled personnel for our business, and any inability to hire and retain key personnel or to hire qualified personnel may negatively affect our business, financial condition and results of operations.
- Our business growth and customer retention strategies rely in part on the work of technically skilled employees.

Risks Related to our owned Products and leased satellites, Technology

- 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.
- 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.

Risks Related to Cybersecurity

- We have experienced and may experience in the future consistent cyber-attacks and attempts to gain unauthorized access to our systems and any failure or inadequacy of our information technology infrastructure and communications systems or those of third parties that we use in our operations could disrupt or harm our business.
- The confidentiality, integrity, and availability of our services and products depends on the continuing operation of our information technology and other enabling systems.

Acquisition and risks related to our satellites under construction; Capital Structure Risks

- We have substantial debt outstanding and may incur additional debt and covenants in our Indentures could limit our ability to undertake certain types of activities and adversely affect our liquidity.
- We may pursue acquisitions, dispositions, capital expenditures, the development, acquisition and launch of new satellites and other strategic initiatives 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 ability and the ability Table of third parties with whom we engage to operate our business as a result of the COVID-19 pandemic, including regulatory and competitive considerations; Contents

- We have made substantial investments to acquire certain wireless spectrum licenses and other related assets, and may be unable to realize a return on these assets.
- We will need additional capital, which may not be available on favorable terms, to fund current obligations, continue investing in our business and to finance acquisitions and other strategic transactions.
- We are controlled by one principal stockholder who is our Chairman.

legal proceedings relating

Risks Related to the BSS Transaction or other matters that could result in substantial costs and material adverse effects to our business; Regulation of Our Business

- Our services depend on FCC licenses that can expire or be revoked or modified and applications for FCC licenses that may not be granted.

risks related to our foreign operations and other uncertainties associated with doing business internationally;

- risks related to our dependency upon third-party providers, including supply chain disruptions and inflation;
- risks related to cybersecurity incidents; and
- risks related to our human capital resources.

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. Risk Factors and Item 7. Management's 1A in this Annual Report on Form 10-K, those discussed in "Management's Discussion and Analysis of Financial Condition and Results of Operations of this Form 10-K Operations" herein and those discussed in other documents we file with the Securities and Exchange Commission ("SEC").

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. We do not undertake, The forward-looking statements speak only as of the date made, and specifically we expressly disclaim any obligation to publicly release the results of any revisions that may be made to any update these forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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

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

PART I

ITEM

Item 1. BUSINESS

OVERVIEW

EchoStar Corporation (which, together with its subsidiaries, is referred to as "EchoStar," the "Company," "we," "us" and "our") is a holding company that was organized in October 2007 as a corporation under the laws of the State of Nevada. A substantial majority of its subsidiaries (which together with EchoStar Corporation are referred to as "EchoStar," the voting power of "Company," "we," "us" and/or "our," unless otherwise required by the shares of EchoStar is owned beneficially by Charles W. Ergen, our Chairman, and by certain entities established for the benefit of his family. context). Our Class A common stock is publicly traded on the NASDAQ Global Select Market ("NASDAQ") under the symbol "SATS." During Our principal executive offices are located at 9601 South Meridian Boulevard, Englewood, Colorado 80112 and our telephone number is (303) 723- 1000.

Recent Developments

Merger with DISH Network

On December 31, 2023, we completed the acquisition of DISH Network pursuant to the Amended and Restated Agreement and Plan of Merger, dated as of October 2, 2023 (the "Amended Merger Agreement"), by and among us, EAV Corp., a Nevada corporation and our wholly owned subsidiary ("Merger Sub"), and DISH Network, pursuant to which we acquired DISH Network by means of the merger of Merger Sub with and into DISH Network (the "Merger"), with DISH Network surviving the Merger as our wholly owned subsidiary.

On the terms and subject to the conditions set forth in the Amended Merger Agreement, on December 31, 2023, at 11:59 p.m. ET (the "Effective Time"), each share of DISH Network Class A common stock, par value \$0.01 per share ("DISH Network Class A Common Stock") and DISH Network Class C common stock, par value \$0.01 per share ("DISH Network Class C Common Stock") outstanding immediately prior to the Effective Time, was converted into the right to receive a number of validly issued, fully paid and non-assessable shares of EchoStar Class A common stock, par value \$0.001 per share ("EchoStar Class A Common Stock") equal to 0.350877 (the "Exchange Ratio"). On the terms and subject to the conditions set forth in the Amended Merger Agreement, at the Effective Time, each share of DISH Network Class B common stock, par value \$0.01 per share ("DISH Network Class B Common Stock" and, together with DISH Network Class A Common Stock and DISH Network Class C Common Stock, "DISH Network Common Stock"), outstanding immediately prior to the Effective Time was converted into the right to receive a number of validly issued, fully paid and non-assessable shares of EchoStar Class B common stock, par value \$0.001 per share (the "EchoStar Class B Common Stock" and, together with the EchoStar Class A Common Stock, the "EchoStar Common Stock"), equal to the Exchange Ratio.

Any shares of DISH Network Common Stock that were held in DISH Network's treasury or held directly by us or Merger Sub immediately prior to the Effective Time were cancelled and cease to exist and no consideration was paid in respect thereof. All shares of the DISH Network Class A Common Stock were delisted from the Nasdaq Global Select Market ("NASDAQ") and deregistered under the Securities Exchange Act of 1934, as amended.

The EchoStar Common Stock issued to the Ergen DISH Stockholders (as defined in the Amended Merger Agreement) as Merger consideration was issued through a private placement exemption from registration under the Securities Act of 1933, as amended (the "Securities Act"). At the Effective Time, each share of DISH Network Class A Common Stock owned by the Ergen DISH Stockholders immediately prior to the Effective Time was converted into the right to receive a number of shares of EchoStar Class A Common Stock equal to the Exchange Ratio, and (b) each share of DISH Network Class B Common Stock owned by the Ergen DISH Stockholders immediately prior to the Effective Time was converted into the right to receive a number of shares of EchoStar Class B Common Stock equal to the Exchange Ratio.

Concurrently with the entry into the Amended Merger Agreement, the Ergen EchoStar Stockholders (as defined in the Amended Merger Agreement), the Ergen DISH Stockholders (collectively, the "Ergen Stockholders"), we and DISH Network entered into an amended and restated support agreement (the "Amended Support Agreement").

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In connection with the completion of the Merger, and pursuant to the Amended and Restated Support Agreement, the Ergen Stockholders, we and DISH Network, on December 31, 2023, we and the Ergen Stockholders entered into a registration rights agreement (the "Registration Rights Agreement"). The Registration Rights Agreement provides the Ergen Stockholders, and their affiliates who become parties thereto, with certain registration rights relating to the shares of EchoStar Common Stock, which they beneficially own, including: (i) the right to demand shelf registration as well as registration on long and short form registration statements and; (ii) "piggyback" registration rights to be included in future registered offerings by us of our equity securities, in each case, subject to certain requirements and customary conditions. The Registration Rights Agreement sets forth customary registration procedures, including an agreement by us to make appropriate officers available to participate in roadshow presentations and cooperate as reasonably requested in connection with any underwritten offerings. We also agreed to indemnify the Ergen Stockholders and their affiliates with respect to liabilities resulting from untrue statements or omissions in any registration statement used in any such registration, other than untrue statements or omissions based on or contained in information furnished to us for use in a registration statement by a participating stockholder.

For more information and a copy of the Amended Merger Agreement, the Amended Support Agreement and the Registration Rights Agreement, see the Form 8-K of EchoStar Corporation filed on October 3, 2023 and the Form 8-K of EchoStar Corporation filed on January 2, 2024.

With the Merger complete, we are currently focused on the process of integrating our and DISH Network's business in a manner that facilitates synergies, cost savings, growth opportunities and achieves other anticipated benefits (the "Integration").

Segments

EchoStar Corporation is a holding company. Its subsidiaries operate four primary business segments: (1) Pay-TV; (2) Retail Wireless; (3) 5G Network Deployment; and (4) Broadband and Satellite Services.

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, a leased fiber optic network, in-home service and call center operations, and certain other assets utilized in our operations ("DISH TV"). 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. The SLING branded pay-TV services consist of, among other things, multichannel, live-linear and on-demand streaming over-the-top ("OTT") Internet-based domestic, international, Latino and Freestream video programming services ("SLING TV"). As of December 31, 2023, we had 8.526 million Pay-TV subscribers in the United States, including 6.471 million DISH TV subscribers and 2.055 million SLING TV subscribers.

Retail Wireless

We offer nationwide prepaid and postpaid retail wireless services to subscribers primarily under our Boost Mobile®, Boost postpaid and Gen Mobile® brands ("Retail Wireless" services), as well as a competitive portfolio of wireless devices. Prepaid wireless subscribers generally pay in advance for monthly access to wireless talk, text, and data services. Postpaid wireless subscribers are qualified to pay after receiving wireless talk, text, and data services, and may also qualify for financing arrangements for wireless devices.

We are currently operating our Retail Wireless segment primarily as a mobile virtual network operator ("MVNO") as we continue our 5G Network Deployment and commercialize our 5G Network, as defined below. We are transitioning our Retail Wireless segment to a mobile

network operator ("MNO") as our 5G Network becomes commercially available and we are currently activating subscribers onto our 5G Network in markets where we have reached voice over new radio ("VoNR").

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As an MVNO, today we depend on T-Mobile and AT&T to provide us with network services under the amended Master Network Services Agreement ("MNSA") and Network Services Agreement (the "NSA"), respectively. Under the NSA, we expect AT&T will become our primary network services provider. As of December 31, 2023, we had 7.378 million Wireless subscribers.

5G Network Deployment

We have invested a total of over \$30 billion in Wireless spectrum licenses, which includes over \$10 billion in initial noncontrolling investments in certain entities. The \$30 billion of investments related to Wireless spectrum licenses does not include \$9 billion of capitalized interest related to the carrying value of such licenses. See Note 2 and Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information. We plan to commercialize our Wireless spectrum licenses through the completion of the nation's first cloud-native, Open Radio Access Network ("O-RAN") based 5G network (our "5G Network Deployment").

We have committed to deploy a facilities-based 5G broadband network (our "5G Network") capable of serving increasingly larger portions of the U.S. population at different deadlines, including 20% of the U.S. population by June 2022, Hamid Akhavan joined and 70% of the Company U.S. population by June 2023.

On June 14, 2022, we announced we had successfully reached our 20% population coverage requirement. In addition, we announced and certified to the FCC that as its Chief Executive Officer of June 14, 2023, we offer 5G broadband service to over 73% of the U.S. population, or more than 246 million Americans nationwide. On September 29, 2023, the FCC confirmed we have met all of our June 14, 2023 band-specific 5G deployment commitments, and President.

two of our three nationwide 5G commitments. The single remaining 5G commitment, that at least 70% of the U.S. population has access to average download speeds equal to 35 Mbps, will be confirmed using the drive test methodology agreed to and approved by the FCC. We have six months from September 29, 2023 to complete this drive test. We now have the largest commercial deployment of 5G VoNR in the world reaching approximately 200 million Americans and 5G broadband service reaching approximately 250 million Americans.

Broadband and Satellite Services

We are an industry leader in both networking technologies and services, innovating to deliver the global solutions that power a connected future for people, enterprises and things everywhere. We provide internet broadband services to consumer customers, which include home and small to medium-sized businesses, and businesses. We also provide satellite and multi-transport technologies and managed network services to enterprise customers, telecommunications providers, aeronautical service providers, civilian and defense government entities, and other enterprise customers.

Our EchoStar XXIV satellite began service in December 2023, bringing additional broadband capacity to North and South America. We will leverage EchoStar XXIV to serve the unserved and underserved consumer markets in the Americas as well as enterprise and government entities, markets.

We also design, provide and install gateway and terminal equipment to customers for other satellite systems. In addition, we design, develop, construct and provide telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and other enterprise customers. We also offer a robust suite of integrated, multi-transport solutions to enable airline and airline service providers to deliver reliable in-flight network connectivity serving both commercial and business aviation.

PAY-TV

Business Strategy – Pay-TV

Our Pay-TV segment 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 by providing our subscribers with a better “price-to-value” relationship and experience than those available from other subscription television service providers. We market our SLING TV services to consumers who do not subscribe to traditional satellite and cable pay-TV services, as well as to current and recent traditional pay-TV subscribers who desire a lower cost alternative.

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- **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, 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), International, Latino and Freestream, among others, as well as add-on extras, direct to consumer services, pay-per-view events and a cloud-based DVR service.
- **Outstanding Customer Service.** We strive to provide outstanding customer service by, among other things, 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. However, today with DISH TV, we are focused on a message of Service, Value and Technology. We also offer a differentiated customer experience with our award-winning Hopper® platform that integrates voice control powered by Google Assistant, access to apps including Netflix, Prime Video and YouTube, and the ability to watch live, recorded and On Demand content anywhere with the DISH Anywhere mobile application. 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 – Pay-TV

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 cable networks. We also offer programming packages that include local broadcast networks, specialty sports channels, premium movie channels and Latino and international programming. Our Latino and international programming packages allow subscribers to choose from over 300 channels in over 20 languages.

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

Our DISH TV subscribers also have the ability to use dishanywhere.com and our DISH Anywhere® mobile applications on Internet-connected devices to view authorized content, search program listings and remotely control certain features of their DVRs. Dishanywhere.com and our DISH Anywhere mobile applications provide access to thousands of movies and television shows.

SLING TV services. Our SLING TV services require an Internet connection and are available on multiple streaming-capable devices including, among others, streaming media devices, TVs, tablets, computers, game consoles and phones. We offer domestic, International, Latino and Freestream video programming services. We offer domestic SLING TV services as a 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, direct to consumer services, pay-per-view events and a cloud-based DVR service.

Distribution Channels – Pay-TV

We operate in the consumer market in the United States and 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. 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.

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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 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. We offer our SLING TV services through direct sales channels and third-party marketing agreements.

We incur significant upfront costs to provide our new DISH TV subscribers with in-home equipment, which most of our new DISH TV subscribers lease from us. We also incur significant upfront costs to install satellite dishes and receivers in the homes of our new DISH TV subscribers.

Competition – Pay-TV

Competition has intensified in recent years as the pay-TV industry has matured. We and our competitors increasingly must seek to attract a greater proportion of new subscribers from each other's existing subscriber bases rather than from first-time purchasers of 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, 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.

We incur significant costs to retain our existing DISH TV subscribers, generally as a result of upgrading their equipment to next generation receivers, primarily including our Hopper® receivers, and by providing retention credits. Our DISH TV subscriber retention costs may vary significantly from period to period.

Many of our competitors have been especially aggressive by offering discounted programming and services for both new and existing subscribers, including, but not limited to, bundled offers combining broadband, video and/or wireless services and other promotional offers. Certain competitors have been able to subsidize the price of video services with the price of broadband and/or wireless services.

Our Pay-TV services also face increased competition from programmers and other companies who distribute video directly to consumers over the Internet, as well as traditional satellite television providers, cable companies and large telecommunications companies that are increasing their Internet-based video offerings. We also face competition from providers of video content, many of which are providers of programming content to us, that distribute content over the Internet including services with live-linear television programming, as well as single programmer offerings and offerings of large libraries of on-demand content, including in certain cases original content. These product offerings include, but

are not limited to, Netflix, Hulu, Apple+, Prime Video, YouTube TV, Disney+, ESPN+, Paramount+, Max, STARZ, Peacock, Fubo, Philo and Tubi and certain bundles of these offerings.

Significant changes in consumer behavior regarding the means by which consumers obtain video entertainment and information in response to digital media competition could have a material adverse effect on our business, results of operations and financial condition or otherwise disrupt our business.

In particular, consumers have shown increased interest in viewing certain video programming in any place, at any time and/or on any broadband or Internet-connected device they choose. Online content providers may cause our subscribers to disconnect our DISH TV services ("cord cutting"), downgrade to smaller, less expensive programming packages ("cord shaving") or elect to purchase through these online content providers a certain portion of the services that they would have historically purchased from us.

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Mergers and acquisitions, joint ventures and alliances among cable television providers, telecommunications companies, programming providers and others may result in, among other things, greater scale and financial leverage and increase the availability of offerings from providers capable of bundling video, broadband and/or wireless services in competition with our services and may exacerbate the risks described in our public filings. These transactions may affect us adversely by, among other things, making it more difficult for us to obtain access to certain programming networks on nondiscriminatory and fair terms, or at all.

For further information see "Item 1A – Risk Factors – Competition and Economic Risks – 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."

RETAIL WIRELESS

Business Strategy - Retail Wireless

We offer nationwide prepaid and postpaid Retail Wireless services to subscribers primarily under our Boost Mobile, Boost postpaid and Gen Mobile brands, as well as a competitive portfolio of wireless devices. We offer customers value by providing choice and flexibility in our Retail Wireless services. Prepaid wireless subscribers generally pay in advance for monthly access to wireless talk, text, and data services. Postpaid wireless subscribers are qualified to pay after receiving wireless talk, text, and data services, and may also qualify for financing arrangements for wireless devices.

Boost postpaid. In the fourth quarter of 2022, we launched our Boost postpaid wireless service, to a limited number of customers who had signed up for early registration. During 2023, we launched our nationwide expansion of our Boost postpaid wireless service, and at the end of the third quarter of 2023, we began offering the iPhone 15 on our 5G Network and expanded our Boost postpaid offering through a distribution partnership with Amazon.

We are currently operating our Retail Wireless segment primarily as an MVNO as we continue our 5G Network Deployment and commercialize and grow customer traffic on our 5G Network. We are transitioning our Retail Wireless segment to an MNO as our 5G Network becomes commercially available. We are currently activating Boost Mobile and Boost postpaid subscribers with compatible devices onto our 5G Network in markets where we have launched 5G voice services. Within our MVNO operations, today we depend on T-Mobile and AT&T to provide us with network services under MNSA and NSA, respectively. Under the NSA, we expect AT&T will become our primary network services provider.

Our Retail Wireless business strategy is to expand our current target segments and profitably grow our subscriber base by acquiring and retaining high quality subscribers while we continue our 5G Network Deployment. We intend to acquire high quality subscribers by providing competitive offers, choice and outstanding customer service that better meet those subscribers' needs and budget.

Products and Services - Retail Wireless

Currently, we offer Wireless subscribers competitive consumer plans with no annual service contracts and monthly service plans including high-speed data and unlimited talk and text. We also offer a variety of value-added services, including device payment and protection plans.

Distribution Channels - Retail Wireless

We operate in the consumer market in the United States and use, among other things, print, radio, television and Internet media, on a local and national basis to motivate potential subscribers to contact us, visit our websites or contact independent third party retailers.

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We have both an indirect sales channel, which includes third-party owned retail stores and big box stores, and a direct sales channel, which services customers online. Through the indirect sales channel, we use direct distribution partners to facilitate product delivery to the third-party retailers. We currently market and distribute our products and services indirectly through third-party owned Boost-branded stores, multi-branded stores, national retail stores (such as Target, Best Buy, and Walmart stores) and other stores (such as convenience and grocery stores).

We have relationships with most large manufacturers of wireless devices. We can incur significant upfront costs to subsidize wireless devices offered under promotional pricing to consumers.

Competition - Retail Wireless

The Boost Mobile and Gen Mobile brands operate within the prepaid wireless industry segment and the Boost postpaid brand operates within the postpaid wireless industry segment. Retail wireless is a mature market with moderate year over year organic growth. Competitors include, among others, providers who offer similar communication services, such as talk, text and data. Competitive factors within the wireless communications services industry include, but are not limited to, pricing, market saturation, service and product offerings, customer experience and service quality. We compete with a number of national wireless carriers, including Verizon, AT&T and T-Mobile, all of which are significantly larger than us, serve a significant percentage of all wireless subscribers and enjoy scale advantages compared to us. Verizon, AT&T, and T-Mobile are currently the only nationwide MNOs in the United States.

Primary competitors to our Retail Wireless segment include, but are not limited to, Metro PCS (owned by T-Mobile), Cricket Wireless (owned by AT&T), Visible (owned by Verizon), Tracfone Wireless (owned by Verizon), and other MVNOs such as Consumer Cellular, Mint Mobile (T-Mobile has reached an agreement to acquire) and Xfinity Mobile.

5G NETWORK DEPLOYMENT

Business Strategy – 5G Network Deployment

We have invested a total of over \$30 billion in Wireless spectrum licenses, which includes over \$10 billion in initial noncontrolling investments in certain entities. The \$30 billion of investments related to Wireless spectrum licenses does not include \$9 billion of capitalized interest related

to the carrying value of such licenses. See Note 2 and Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

We will need to raise additional capital in the future, which may not be available on favorable terms, to fund the efforts described below, as well as, among other things, make any potential Northstar Re-Auction Payment and SNR Re-Auction Payment for the AWS-3 licenses retained by the FCC. There can be no assurance that we will be able to profitably deploy these Wireless spectrum licenses, which may affect the carrying amount of these assets and our future financial condition or results of operations. See Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

DISH Network Spectrum

We have invested a total of over \$30 billion to acquire certain Wireless spectrum licenses. These Wireless spectrum licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements. Our 5G Network Deployment segment strategy is to commercialize our Wireless spectrum licenses through the completion of the nation's first cloud-native, Open Radio Access Network ("O-RAN") based 5G network (our "5G Network Deployment"). We have committed to deploy our 5G Network capable of serving increasingly larger portions of the U.S. Department population at different deadlines, including 20% of Defense, the U.S. population by June 2022 and 70% of the U.S. population by June 2023. If by June 2023, we are offering 5G broadband service to at least 50% of the U.S. population but less than 70% of the U.S. population, the 70% June 2023 deadline will be extended automatically to June 2025; however, as a result, we may, under certain circumstances, potentially be subject to certain penalties. On June 14, 2022, we announced we had successfully reached our 20% population coverage requirement. In addition, we announced and certified to the FCC that as of June 14, 2023, we offer 5G broadband service to over 73% of the U.S. population, or more than 246 million Americans nationwide.

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Our industry continues

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On September 29, 2023, the FCC confirmed we have met all of our June 14, 2023 band-specific 5G deployment commitments, and two of our three nationwide 5G commitments. The single remaining 5G commitment, that at least 70% of the U.S. population has access to evolve average download speeds equal to 35 Mbps, will be confirmed using the drive test methodology agreed to and approved by the FCC. We have six months from September 29, 2023 to complete this drive test. We now have the largest commercial deployment of 5G VoNR in the world reaching approximately 200 million Americans and 5G broadband service reaching approximately 250 million Americans.

As a result of us providing 5G broadband service to over 50% of the U.S. population by June 14, 2023, the final build-out deadlines have been extended automatically to June 14, 2025 for us to offer 5G broadband service to at least 70% of the population in each Economic Area for the 700 MHz Licenses and AWS-4 Licenses and at least 75% of the population in each Economic Area for the H Block Licenses.

We may need to make significant additional investments or partner with others to, among other things, continue our 5G Network Deployment and further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly. In addition, as we continue our 5G Network Deployment, we have and may continue to incur significant additional expenses related to, among other things, research and development, wireless testing and ongoing upgrades to the wireless network infrastructure, software and third-party integration. As a result of these investments, among other factors, we plan to raise additional capital, which may not be available on favorable terms. We may also determine that additional wireless spectrum licenses may be required for our 5G Network Deployment and to compete effectively with other wireless service providers. See Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

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

During 2015, 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 initially made over \$10 billion in certain noncontrolling investments in Northstar Spectrum, LLC ("Northstar

Spectrum”), the parent company of Northstar Wireless, L.L.C. (“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 “Regulatory authorizations, net” 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 (“VIEs”) and, based on the characteristics of the structure of these entities and in accordance with the increasing worldwide applicable accounting guidance, we consolidate these entities into our financial statements. On October 12, 2023, the FCC consented to the sale of Northstar Manager, LLC’s (“Northstar Manager”) ownership interests in Northstar Spectrum, which we purchased for a total of approximately \$109 million. This purchase resulted in the elimination of all of our redeemable noncontrolling interest as it related to Northstar Spectrum as of the purchase date and we continue to consolidate the Northstar Entities as wholly-owned subsidiaries. Subsequent to December 31, 2023, the FCC consented to the sale of SNR Wireless Management, LLC’s (“SNR Management”) ownership interests in SNR HoldCo, which was purchased by our direct wholly-owned subsidiary EchoStar SNR HoldCo LLC for a total of approximately \$442 million on February 16, 2024. This purchase resulted in the elimination of all of our redeemable noncontrolling interest as it related to SNR HoldCo as of the purchase date and we continue to consolidate the SNR Entities as wholly-owned subsidiaries. See Note 2 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

BROADBAND AND SATELLITE SERVICES

Business Strategy – Broadband and Satellite Services

Our overall business objective is to maintain and improve our leadership position and competitive advantage through development of leading-edge technologies and services marketed to selected sectors within the consumer, enterprise and government markets globally.

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We expect demand for broadband internet access, for information, entertainment connectivity, networking and commerce. In addition to fiber and wireless systems, technologies such as geostationary high throughput satellites, low-earth orbit (“LEO”) networks, medium-earth orbit (“MEO”) systems and multi-transport networks using combinations of technologies are expected to related value-added services will continue to play significant roles in enabling global connectivity, networks grow across all major end-user sectors – consumer, businesses, enterprises and services. We intend government. Our strategic objective is to use maintain our leadership position and grow our competitive advantage by using our satellite assets, expertise, technologies, capital, investments, global presence, relationships, spectrum assets, and other capabilities for development of leading-edge technologies and services marketed to targeted sectors within these markets globally.

Our strategy consists of the following key aspects:

- **Leverage the capabilities of our industry leading EchoStar XXIV satellite.** We continue to provide focus on delivering broadband internet systems, equipment, networks services to the unserved and managed services for information, underserved markets in the internet-of-things, entertainment, education, remote-connectivity Americas, with a vertical integration strategy. Following the service launch of the EchoStar XXIV satellite in December 2023, which provides us with additional capabilities and commerce across industries capacity, we have introduced new higher speed, higher data Hughesnet® service plans, including a new Hughesnet Fusion® offering.
- **Invest in high growth segments within our enterprise business.** We have a strong focus on growing our global enterprise business by leveraging our network connectivity solutions, managed services portfolio and internally-developed technologies and products.

- o Our strategy is to grow managed services by offering the provision and management of advanced services, such as software-defined wide area network ("SD-WAN") and cybersecurity, to enterprises and businesses that are seeking to outsource management. We believe that the demand for such services will remain high due to the challenges that many businesses face in managing these services internally.
 - o We will continue improving operational scale and reducing operational cost through the specialized use of artificial intelligence for IT operations ("AIOps"), automation, and process efficiencies.
 - o We intend to continue our growth in the in-flight connectivity market by providing a robust suite of integrated multi-transport solutions enabling airlines to deliver WiFi solutions to their passengers. We will leverage multi-orbit, i.e., Low Earth Orbit ("LEO"), Medium Earth Orbit ("MEO") and Geosynchronous Equatorial Orbit ("GEO") solutions incorporating our own and partners' satellite assets as well as our state-of-the-art antenna and other technologies.
 - o We intend to exploit fixed access and wireless technologies for enterprise and government customers by leveraging our expertise in wireless and managed services.
 - o We intend to continue leadership in the satellite technology platform market by focusing on development of advanced ground segments for next generation satellite systems, such as LEOs and flexible payload satellites.
- **Continued focus on growing our business and communities globally for consumer cash-generation.** We intend to focus on growing our business while improving efficiency, particularly on profitable growth and cash generation through increased discipline in capital expenditure and selling, general, and administrative spend. We continue to execute our strategy of maximizing financial returns by focusing on higher economic value enterprise customers. We are closely tracking and government applications in the developments in next-generation satellite businesses, U.S. and we are seeking to utilize our services, technologies, licenses and expertise to find new commercial Latin America as well as by more selective customer screening.
 - **Continue development of emerging Non-Terrestrial-Networks ("NTN") opportunities.** The adoption of NTN as a part of the worldwide wireless 3rd Generation Partnership Project ("3GPP") standards has created significant opportunities for our business, industry by combining satellite networks with terrestrial 5G networks. We believe our combination of resources, investments, know-how, and partnerships are second to none and intend to capitalize on this opportunity as described below:
 - o **Spectrum Assets:** We hold certain high priority S-band International Telecommunication Union ("ITU") rights, and mobile satellite service ("MSS") authorizations in the US, Canada, Europe, Mexico and Chile. We are in the process of applying for and receiving additional authorizations globally. We have positioned ourselves to continue to develop the S-band spectrum globally by acquiring Sirion Global Pty Ltd., which we have renamed EchoStar Global Australia Pty Ltd ("EchoStar Global"). EchoStar Global has brought into use the ITU global S-band non-geostationary satellite spectrum rights for MSS.

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All amounts presented in this Form 10-K are expressed in thousands of U.S. dollars, except share and per share amounts and unless otherwise noted.

BUSINESS SEGMENTS

We currently operate in two business segments: our Hughes segment and our EchoStar Satellite Services segment ("ESS segment"). These business segments are consistent with the way we make decisions regarding the allocation of resources, as well as how operating results are reviewed by our chief operating decision maker ("CODM"), who is the

Company's Chief Executive Officer.

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

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HUGHES SEGMENT

o In February of 2023, we announced an agreement with Astro Digital US, Inc. ("Astro Digital"), a designer, manufacturer and operator of small satellite systems, for the construction of a global S-band MSS network. Under the agreement, Astro Digital will manufacture the satellites for the constellation, which we expect will deliver [global] [check this] Internet of Things, machine-to-machine and other data services beginning in 2025.

- o Expertise and operational infrastructure in satellite and 5G. We believe we are at the forefront of the industry with deep expertise and capabilities in satellite technologies and services as well as 5G networks and services.
- o Partnerships and Ecosystem: We have relationships with leading service providers and operators globally, and this ecosystem delivers added value to our customers.

• **Continue to explore attractive new domestic and international strategic initiatives.** We intend to continue selective exploration of opportunities to pursue investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and

transactions, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets, and acquire new customers through the use of multi-transport technologies, increase our satellite capacity, broaden our portfolio of services, products and intellectual property and strengthen our relationships with our customers.

Our

- **Develop new and improved technologies.**

We believe that our engineering capabilities enable us 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.

Products and Services

Our Hughes segment provides – Broadband and Satellite Services

We provide broadband satellite technologies and broadband internet products and services to consumer customers. We provide broadband network technologies, managed services, equipment, hardware, satellite services and communications solutions

to government and enterprise customers. We also design, provide and install gateway and terminal equipment to customers for other satellite systems. In addition, we design, develop, construct and provide telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and our enterprise customers.

Our Hughes Broadband and Satellite Services segment incorporates advances in technology to advancements that reduce costs and to increase the functionality and reliability of our products and services. Through, among other things, advanced and proprietary methodologies, technologies, software and techniques, we continue to improve the efficiency of our networks. We invest in technologies to enhance our system and network management capabilities, specifically our managed services for enterprises. We also continue to invest in next generation technologies that can be applied to our future products and services. In addition, we are also providing wireline and wireless capacity to utilize in markets that include residential, community WiFi, backhaul, and other enterprise broadband and multi-transport services.

Our Hughes Broadband and Satellite Services segment currently uses capacity from our owned and leased satellites including additional satellite capacity leased from third-party providers to provide services to our customers. We also use other multi-transport capacity that includes cable, fiber, 5G, and 4G/LTE. In most areas of the U.S. we are nearing or have reached capacity, which has resulted in our consumer subscriber base becoming increasingly limited. Our Latin America consumer subscriber base in certain areas has also become capacity constrained. These constraints are expected to be addressed by the Long-Term Evolution ("LTE"). The launch of the EchoStar XXIV satellite.

In May 2019, we entered into an agreement with Bharti Airtel Limited ("BAL") and its subsidiary, Bharti Airtel Services Limited (together with BAL, "Bharti"), pursuant to which Bharti agreed to contribute its very small aperture terminal ("VSAT") telecommunications services and hardware business in India to Hughes Communications India Private Limited ("HCIPL") and its subsidiaries, our less than wholly owned Indian subsidiaries, that conduct our VSAT services and hardware business in India. On January 4, 2022, this joint venture was formed (the "India JV") and subsequent to the formation of the India JV, we hold a 67% ownership interest and Bharti holds a 33% ownership interest in

HC IPL. The India JV combines the VSAT businesses of both companies to offer flexible and scalable enterprise networking solutions using satellite connectivity for primary transport, back-up and hybrid implementation in India. The results of operations related to the India JV have been included in these Consolidated Financial Statements and the accompanying notes (collectively, the "Consolidated Financial Statements") from the date of formation. The costs associated with the closing of the India JV were not material and were expensed as incurred.

In August 2017, we entered into a long-term contract for the design and construction of the EchoStar XXIV satellite a next-generation, high throughput geostationary satellite. In service in December 2020, we entered into an agreement with a launch provider for the launch of EchoStar XXIV. The EchoStar XXIV satellite is primarily intended 2023, brings to provide market additional broadband capacity for our HughesNet satellite internet service ("HughesNet service") in across North Central and South America as well as enterprise broadband services. Following delays of over two years, in November 2022 we negotiated an amendment to our contract with the manufacturer to provide for additional compensation for past delays and a realignment of remedies. The contract now provides relief to us on certain payments, including approximately \$14.0 million in payments through orbit-raising, and \$44.5 million, plus 6% interest on such amounts, in deferred in-orbit

incentive payments. Additionally, the contract now requires the payment of additional liquidated damages to us in the event of further delay, and provides for our right to terminate beginning January 1, 2024 if the satellite has not yet been delivered. In addition, the Company and the manufacturer will enter into an agreement under which the Company will provide certain products and/or services during 2023. The EchoStar XXIV satellite is expected to be launched an integral part of our satellite service business.

Customers – Broadband and Satellite Services

Our consumer customers consist of home and small to medium-sized business in the second quarter of 2023. Delay Americas. We provide broadband satellite technologies and broadband internet products and services to these customers. In addition, we are also providing wireline and wireless capacity to utilize in the availability of the EchoStar XXIV satellite could have a material adverse impact on our business operations, future revenues, financial position markets that include residential, community WiFi, and prospects, and our planned expansion of satellite broadband services throughout North, South and Central America. Capital expenditures associated with the construction and launch of the EchoStar XXIV satellite are included in our Corporate and

Other segment in our
segment reporting.

backhaul.

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Our Customers

Our enterprise customers include, but are not limited to, lottery agencies, gas station operators, retailers, financial institutions, aircraft connectivity providers, lottery agencies, and companies with multi-branch networks that rely on satellite or terrestrial networks for critical communication across wide geographies, geographies, as well as the U.S government. Most of our enterprise customers have long-term contracts with us for the services they purchase. Our Hughes Broadband and Satellite Services segment also designs, provides and installs gateway and terminal equipment to customers for other satellite systems and provides satellite ground segment systems and terminals for other satellite systems, including mobile system operators. Developments toward the launch of next-

generation satellite systems, including LEO, MEO and geostationary systems, as well as other multi-transport technologies, could provide additional opportunities to drive the increase demand for our equipment, hardware, technology and services.

Our satellite capacity is currently used by our enterprise customers for a variety of applications, including:

- **Fixed Satellite Services (“FSS”).** We provide satellite services to internet service providers, broadcast news organizations, and content providers who use our satellites to deliver programming and internet.
- **Enterprise Services and Solutions.** We provide satellite and technical services, as well as integrated solutions to various enterprise customers.
- **Network Services.** We provide satellite services to companies for private networks that allow delivery of video and data services for corporate communications.
- **NTN and IOT Services.** We provide services enabling

enterprises and organizations to deploy Internet of Things ("IOT") to remotely collect and transmit sensor data.

Competition

– Broadband and Satellite Services

Our industry is highly competitive. As a global provider of network technologies, products and services, our Hughes segment Broadband and Satellite Segment competes with a large number of telecommunications service providers, which puts pressure on prices and margins. To compete effectively, we emphasize, among other things, our network quality, customization capability, offering of networks as a turnkey managed service, position as a single point of contact for products and services and competitive prices.

In our consumer broadband satellite technologies and internet services markets, we compete against traditional telecommunications and wireless carriers, other satellite internet providers, as well as fiber optic, cable, and wireless internet service providers offering competitive services in the markets we seek to serve. Cost, providers. Customers consider cost, speed and accessibility are to be key determining factors in the selection of

a service provider by the consumer. provider. In addition, government subsidies, such as the Federal Communication Commission's ("FCC") Rural Development Opportunity Fund, can have the effect of subsidizing the growth of our wired, wireless and satellite competitors. Our primary satellite competitors in our the North American consumer market are ViaSat Communications, Inc., which is owned by ViaSat, Inc. ("ViaSat"), and Space Exploration Technologies Corp. ("SpaceX"). Both ViaSat and SpaceX have also entered the South and Central American consumer markets. We seek to differentiate ourselves based on the ubiquitous availability of our service, quality, proprietary technology, and distribution channels.

In our enterprise markets, we compete against multiple categories of providers. In the managed services area, we compete against providers of satellite-based and terrestrial-based networks, including fiber optic, cable, wireless internet service, multiprotocol label switching (MPLS) and internet protocol-based virtual private networks. networks (VPN), which vary by region. In the in-flight connectivity market, we compete against direct and indirect providers of passenger WiFi services, such as ViaSat and SpaceX.

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To compete effectively, we emphasize our network quality, customization capability, ability to offer networks as a turnkey managed service, position as a single point of contact for products and services and competitive prices. Our principal competitors for the supply of VSAT satellite networks technology platforms are Gilat Satellite Networks Ltd, ViaSat, and ST Engineering iDirect, Inc. 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.

Our

In the emerging NTN market, we expect to compete with several companies targeting this area, with technology approaches that may be similar to us or in some cases different. We will compete on the basis of our strong spectrum position, expertise in satellite and 5G technologies and our global industry relationships.

Manufacturing

– Broadband and Satellite Services

Certain products in our Hughes Broadband and Satellite Services segment are assembled at our facilities in Maryland, and we outsource a portion of the manufacturing of our other products to third parties. We believe that the our manufacturing facilities used by our Hughes segment have sufficient capacity to handle current demand. We adjust our capacity based on, among other things, our production requirements. We also work with certain 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.

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ESS SEGMENT

Our Services

Our ESS segment provides satellite services on a full-time and/or occasional-use basis to U.S. government service providers, internet service providers, broadcast news organizations, content providers and private enterprise customers. We operate our ESS business using primarily the EchoStar IX satellite and the EchoStar 105/SES-11 satellite and related infrastructure. Revenue in our ESS segment depends largely on our ability to

continuously make use of our available satellite capacity with existing customers and our ability to enter into commercial relationships with new customers.

Our Customers

Our satellite capacity is currently used by our customers for a variety of applications, including:

Fixed Satellite Services (“FSS”). We provide satellite services to broadcast news organizations, internet service providers and content providers who use our satellites to deliver programming and internet. 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 and technical services to U.S. government service providers.

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

Our Competition

Our ESS segment competes against larger, well-established satellite service companies, such as Intelsat S.A., SES S.A., Telesat and Eutelsat Communications S.A., in an industry that is characterized by long-term contracts and high costs for customers to change service providers. Several of our competitors maintain key North American and other international orbital slots that may further limit our ability to compete and offer competitive pricing.

NEW BUSINESS STRATEGIES

OPPORTUNITIES

Focus on optimization of operations and product offerings. Currently and until the launch of our EchoStar XXIV satellite, our main focus is on optimizing the use of existing assets and services with primary attention on capacity yield. During this period efforts are directed towards the most scalable and profitable regions. The introduction of HughesNet Fusion was announced in September 2022 and is a low-latency satellite internet offering which connects mobile and landline technologies with satellites. The introduction of HughesNet Fusion is a growth opportunity that allows us to expand our service delivery options. Also, we are looking for additional opportunities for cross-functional collaboration within our organization, leading to simplification and centralization of structure to achieve greater efficiencies.

- **Monetize our EchoStar XXIV satellite.** Following the launch of our EchoStar XXIV satellite, which will provide additional capacity and ability to offer higher speed service plans, our focus will be on monetizing it. We are planning not only for the launch itself but for the introduction of our related services with new higher speed plans, including a new higher speed HughesNet Fusion offering. We believe that the kind of services we will be offering are in demand, and we expect to be able to effectively market a highly competitive set of services once EchoStar XXIV enters service.

- **Strong focus on our enterprise business.** We also have a strong focus on growing our global enterprise business by leveraging our business connectivity, managed service portfolio, hybrid business solutions, and our own manufactured products. Increased participation in this vast market segment is a key element of our diversification strategy. During this period, we will also focus on improving operational scale with potential small acquisitions.

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- **Continue development of S-band and other hybrid spectrum resources.** We hold S-band mobile satellite service (“MSS”) and terrestrial authorizations in Europe, Mexico and Chile, and are in the process of applying for and receiving additional authorizations. We have positioned ourselves to continue to develop the S-band spectrum globally by acquiring Sirion Global Pty Ltd., which we have renamed

EchoStar Global Australia Pty Ltd ("EchoStar Global"). EchoStar Global has brought into use the International Telecommunication Union ("ITU") global S-band non-geostationary satellite spectrum rights for MSS. In February of 2023, we announced an agreement with Astro Digital US, Inc. ("Astro Digital"), a designer, manufacturer and operator of small satellite systems, for the construction of a global S-band MSS network. Under the agreement, Astro Digital will manufacture the satellites for the constellation, which will deliver global Internet of Things, machine-to-machine and other data services beginning in 2024. EchoStar Global will operate this constellation. In addition, we believe we remain in a unique position to develop a stand-alone as well as a hybrid MSS and complementary ground component network service.

▪ **Continue to diversify our business by selectively exploring new domestic and international strategic initiatives.** We intend to continue to selectively explore opportunities to pursue investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets, and acquire new customers through the use of multi-transport technologies, increase our satellite capacity, broaden our portfolio of services, products and intellectual property and strengthen our relationships with our customers.

▪ **Develop improved and new technologies.** We believe that 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.

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OUR SATELLITE FLEET

As of December 31, 2022, our satellite fleet consisted of ten geosynchronous ("GEO") satellites, seven of which are owned and three of which are leased. They are all in geosynchronous orbit, approximately 22,300 miles above the equator. Our owned S-band LEO nano-satellites are not included in the table below.

The following table presents our GEO satellite fleet as of December 31, 2022:

GEO Satellite	Segment	Launch Date	Nominal Degree Orbital Location (Longitude)	Depreciable Life (In Years)
Owned:				
SPACEWAY 3 ⁽¹⁾	Hughes	August 2007	95 W	10
EchoStar XVII	Hughes	July 2012	107 W	15
EchoStar XIX	Hughes	December 2016	97.1 W	15
Al Yah 3 ⁽²⁾	Hughes	January 2018	20 W	7
EchoStar IX ^{(3) (4)}	ESS	August 2003	121 W	12
EUTELSAT 10A ("W2A") ⁽⁵⁾	Corporate and Other	April 2009	10 E	-
EchoStar XXI	Corporate and Other	June 2017	10.25 E	15
Finance leases:				
Eutelsat 65 West A	Hughes	March 2016	65 W	15
Telesat T19V	Hughes	July 2018	63 W	15
EchoStar 105/SES-11	ESS	October 2017	105 W	15

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

(2) Upon consummation of our joint venture with Al Yah Satellite Communications Company PrJSC ("Yahsat") in Brazil in November 2019, we acquired the Brazilian Ka-band payload on this satellite. Depreciable life represents the remaining useful life as of November 2019.

(3) We own the Ka-band and Ku-band payloads on this satellite.

(4) EchoStar IX is approaching its end of station-kept life. The Company placed the satellite in an inclined-orbit in the first quarter of 2023. Inclined-orbit will extend its life to enable further revenue generating opportunities.

(5) We acquired the S-band payload on this satellite in December 2013. Prior to acquisition, the S-band payload experienced an anomaly at the time of launch and, as a result, is not fully operational.

Our EchoStar XXIV satellite is included in construction in progress as of December 31, 2022. The satellite is expected to be launched in the second quarter of 2023.

Satellite Anomalies and Impairments

Our satellites may experience anomalies from

From time to time some of which we evaluate opportunities for strategic investments or acquisitions that may have a significant adverse effect on their remaining useful lives, the commercial operation of the satellites complement our current services and products, enhance our technical capabilities, improve or sustain our operating results competitive position, or financial position. We are not aware of any anomalies with respect to our owned or leased satellites that have had any such significant adverse effect during the year ended December 31, 2022. During the first quarter of 2023, we lost contact with our third nano-satellite ("EG-3"), which was launched in the second quarter of 2021 and brought into use our Sirion-1 ITU filing in the third quarter of 2021. We are continuing attempts to reestablish contact with EG-3, and in the event we are unable to do so, we will have three years to place a new S-band spacecraft at the altitude prescribed in our Australian ITU filing. We expect the first group of S-band satellites recently ordered from Astro Digital to be launched well in advance of the three year replacement timeline. We are not aware of any other anomalies with respect to our owned or leased satellites as of the date of these Consolidated Financial Statements. There can be no assurance, however, that anomalies will not have a significant adverse effect in the future. In addition, there can be no assurance that we can recover critical transmission capacity in the event one or more of our satellites were to fail.

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We generally do not carry in-orbit insurance on our satellites or payloads because we have assessed that the cost of insurance is not economical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures. Pursuant to the terms of our joint venture agreement with Yahsat, we are required to maintain insurance for the Al Yah 3 Brazilian payload during the commercial in-orbit service of such payload, subject to certain limitations on coverage. We have obtained certain insurance for our EchoStar XXIV satellite covering launch plus the first year of operations. We will continue to assess circumstances going forward and make insurance-related decisions on a case-by-case basis.

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

otherwise offer growth opportunities.

GOVERNMENT REGULATIONS

Our operations, particularly our global satellite operations, Pay-TV operations, our Retail Wireless services and 5G Network Deployment and Broadband and Satellite Services businesses and our Wireless spectrum licenses are subject to significant government regulation and oversight, primarily by the FCC and, to a certain extent, by Congress, other federal agencies and international, foreign, state and local authorities. We are subject to telecommunications regulation by a number of regulatory bodies including the FCC, other U.S. federal and state regulators and government agencies, the ITU and regulators and governments in other countries and regions where we hold licenses including the E.U., the U.K., India, Australia and several Latin American countries. 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. In addition, in the U.S. and some other countries we are subject to country specific approvals of our products.

Depending upon the circumstances, non-compliance 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, penalties, any of which could have a material adverse effect on our business, financial condition and results of operations. These governmental authorities could also adopt regulations or take other actions that would adversely affect our business prospects.

Furthermore, any government policy changes, which may be substantial, could increase regulatory uncertainty. The adoption or modification of laws or regulations relating to video programming distribution, satellite services,

wireless telecommunications, broadband, the Internet or other areas of our business could limit or otherwise adversely affect the manner in which we currently conduct our business. In addition, the manner in which regulations or legislation in these areas may be interpreted and enforced cannot be precisely determined, which in turn could have an adverse effect on our business, financial condition and results of operations.

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As detailed below, our Pay-TV operations are subject to FCC jurisdiction, including, without limitation, the FCC's rules for satellite licensing, placement of satellites, interference avoidance, spectrum sharing, and coordination with other satellite systems. We must comply with FCC rules promulgating public interest requirements for DBS providers, security functionality for video providers, technology standards, media ownership, carriage of cable programming, and net neutrality. In addition, the Copyright Act of 1976 (the "Copyright Act") and the Communications Act of 1934 (the "Communications Act") govern our carriage of broadcast signals.

Our 5G Network Deployment services and our Wireless spectrum licenses are subject to regulation by the FCC and, depending on the jurisdiction, other federal, state and local, as well as international, governmental authorities and regulatory agencies, including, among other things, regulations governing the licensing, construction, operation, sale and interconnection arrangements of wireless telecommunications systems. In particular, the FCC imposes significant regulation on licensees of wireless spectrum with respect to how radio spectrum is used by licensees, the nature of the services that licensees may offer and how the services may be offered, and resolution of issues of interference between spectrum bands. The FCC grants wireless licenses for terms of generally 10-12 years that are subject to renewal or revocation. There can be no assurances that our Wireless spectrum licenses will be renewed. Failure to comply with FCC build-out requirements in a given license area may result in acceleration of other build-out requirements or in the modification, cancellation, or non-renewal of licenses. For further information related to our licenses and build-out requirements related to our Wireless spectrum licenses see Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K.

Our Pay-TV and 5G Network Deployment operations are subject to federal, state, and international laws relating to the collection, use, retention, security, and transfer of personally identifiable information. The regulatory framework for privacy and security issues worldwide is rapidly evolving and as a result implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future. Any failure by us, our suppliers, or other parties with whom we do business to comply with these standards and practices or with other federal, state, or international regulations could result in proceedings against us by governmental entities or others. In many jurisdictions, enforcement actions and consequences for noncompliance are rising. In the United States, these include enforcement actions in response to rules and regulations promulgated under the authority of federal agencies and state attorneys general and legislatures and consumer protection agencies.

The following summary of regulations regulatory developments and legislation in the United States is not intended to describe all present and proposed government regulation and legislation affecting our business, the video programming distribution, satellite services, wireless telecommunications, broadband, and Internet industries. Government regulations that are currently the subject of judicial or administrative proceedings, draft legislation legislative hearings or administrative proposals could impact us and our change these industries to varying degrees. The FCC and other regulators from time to time initiate proceedings that could adversely impact our satellite operations, including spectrum usage. We cannot predict either the outcome of these such proceedings or proposals or any potential impact they might have on the industry these industries or on our operations.

FCC Regulations Applicable to Our Operations

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

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

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• the assignment Table 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; Contents

approval for the relocation of satellites to different orbital locations, the replacement of a satellite with another new or existing satellite and the authorization of specific earth stations to communicate with such newly relocated satellites;

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

All satellite licenses issued by the FCC are subject to expiration unless extended by the FCC. Our U.S. FSS licenses generally have 15 year terms. We hold licenses and authorizations for satellite and earth stations as well as other 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

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technical and ongoing due diligence obligations, maintaining bonds, payment of annual regulatory fees and various reporting requirements.

FCC Jurisdiction over our DBS Operations. The Communications Act gives the FCC broad authority to regulate the operations of satellite companies. Specifically, the Communications Act gives the FCC regulatory jurisdiction over the following areas relating to communications satellite operations:

- assignment of satellite radio frequencies and orbital locations, the licensing of satellites and earth stations, the granting of related authorizations, and the evaluation of the fitness of a company to be a licensee;
- approval for the relocation of satellites to different orbital locations or the replacement of an existing satellite with a new satellite;
- ensuring compliance with the terms and conditions of such assignments, licenses, authorizations and approvals, including required timetables for construction and operation of satellites;
- avoiding interference with other radio frequency emitters; and
- ensuring compliance with other applicable provisions of the Communications Act and FCC rules and regulations.

To obtain FCC satellite licenses and authorizations, satellite operators must satisfy strict legal, technical and financial qualification requirements. Once issued, these licenses and authorizations are subject to a number of conditions including, among other things, satisfaction of ongoing due diligence obligations, construction milestones, and various reporting requirements. Necessary federal approval of these applications may not be granted, may not be granted in a timely manner, or may be granted subject to conditions that may be cumbersome.

Overview of our DBS Satellites, Authorizations and Contractual Rights for Satellite Capacity. Our satellites are located in orbital positions, or slots, that are designated by their western longitude. An orbital position describes both a physical location and an assignment of spectrum in the applicable frequency band. Each DBS orbital position has 500 MHz of available Ku-band spectrum that is divided into 32 frequency channels. Several of our satellites also include spot-beam technology that enables us to increase the number of markets where we provide local channels, but reduces the number of video channels that could otherwise be offered across the entire United States.

The FCC has licensed us to operate a total of 82 DBS frequency channels at the following orbital locations:

- 21 DBS frequency channels at the 119 degree orbital location, capable of providing service to the continental United States ("CONUS"); and
- 29 DBS frequency channels at the 110 degree orbital location, capable of providing service to CONUS; and
- 32 DBS frequency channels at the 61.5 degree orbital location, capable of providing service to most of the United States – of these 32 channels, 30 are licensed to us and we are authorized to use the additional two channels under a grant of Special Temporary Authority.

In addition, we currently lease or have entered into agreements to lease capacity on satellites using the following spectrum at the following orbital locations:

- 500 MHz of Ku-band FSS spectrum that is divided into 18 frequency channels at the 118.7 degree orbital location, which is a Canadian FSS slot that is capable of providing service to CONUS, Alaska and Hawaii;
- 32 DBS frequency channels at the 129 degree orbital location, which is a Canadian DBS slot that is capable of providing service to most of the United States. As of July 2023, we no longer lease this satellite; and
- 32 DBS frequency channels at the 72.7 degree orbital location, which is a Canadian DBS slot that is capable of providing service to CONUS.

Duration of our DBS Licenses. Generally speaking, all of our satellite licenses are subject to expiration unless renewed by the FCC. The term of each of our DBS licenses is ten years. Our licenses are currently set to expire at various times. In addition, at various times we have relied on special temporary authorizations for our operations. A special temporary authorization is granted for a period of only 180 days or less, subject again to possible renewal by the FCC. From time to time, we apply for authorizations to use new satellites at our existing orbital locations. Generally, our FCC licenses and special temporary authorizations have been renewed, and our applications for new satellites at our existing orbital locations have been approved, by the FCC on a routine basis, but there can be no assurance that the FCC will continue to do so.

Opposition and Other Risks to our Licenses. Several third parties have opposed in the past, and we expect these or other parties to oppose in the future, some of our FCC satellite authorizations and pending and future requests to the FCC for extensions, modifications, waivers and approvals of our licenses. In addition, we must comply with numerous FCC reporting, filing and other requirements in connection with our satellite authorizations. Consequently, it is possible the FCC could revoke, terminate, condition or decline to extend or renew certain of our authorizations or licenses.

4.5 Degree Spacing “Tweener” Satellites. The FCC has proposed to allow so-called “tweener” DBS operations – DBS satellites operating at orbital locations 4.5 degrees (half of the usual nine degrees) away from other DBS satellites. The FCC granted authorizations to EchoStar and Spectrum Five for tweener satellites at the 86.5 and 114.5 degree orbital locations, respectively. These authorizations were subsequently cancelled because the FCC determined that the licensees did not meet certain milestone requirements. Tweener operations close to our licensed orbital locations could cause harmful interference to our service and constrain our future operations. In September 2019, the FCC completed its 2006 rulemaking on the operating and service rules for tweener satellites. As a result, among other things, the FCC will now accept new applications for tweener slots, and the applicant must show that either no other U.S. DBS operations would be affected or that it has successfully coordinated with affected parties. We cannot predict whether any parties will file for tweener slots and whether we will face interference or other operational constraints as a result.

Interference from Other Services Sharing Satellite Spectrum. Non-geostationary orbit (“NGSO”) FSS satellites are permitted to operate on a co-primary basis in the same frequency band as our DBS and geostationary orbit (“GSO”) FSS satellites. The FCC has also authorized the use of multichannel video distribution and data service (“MVDDS”) licenses in the DBS band. MVDDS licenses were auctioned in 2004. MVDDS systems have been commercially deployed in a few markets. We have MVDDS licenses in 82 out of 214 geographical license areas, including Los Angeles, New York City, Chicago and several other major metropolitan areas. Despite regulatory provisions intended 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. Space Exploration Corporation (“SpaceX”), OneWeb LLC (“OneWeb”) and others have obtained FCC authority to launch and operate, or provide service from, NGSO satellite systems using a variety of spectrum bands, including the 12.2-12.7 GHz band, which we use for our DBS service, and where we also have certain licenses to provide one-way terrestrial MVDDS service. These systems are in the early stages of launch and deployment. If fully deployed by SpaceX, OneWeb and others, there will be tens of thousands of NGSO satellites in orbit sharing our spectrum. There can be no assurance that they will not interfere with our DBS operations and adversely affect our business or that they will not hinder our ability to provide MVDDS service.

Satellite Competition from Additional Slots and Interference. DirecTV has obtained FCC authority to provide service to the United States from a Canadian DBS orbital slot, and we have obtained authority to provide service to the United States from a Canadian DBS orbital slot. The possibility that the FCC will allow service to the United States from additional foreign slots may permit additional competition against us from other satellite providers. It may also provide a means by which to increase our available satellite capacity in the United States. In addition, a number of administrations, such as Great Britain and the Netherlands, have requested authority to add orbital locations serving the United States close to our licensed slots. Such operations could cause harmful interference to our satellites and constrain our future operations.

Public Interest Requirements. The FCC imposes certain public interest obligations on our DBS licenses. These obligations require us to set aside four percent of our channel capacity exclusively for noncommercial

programming for which we must charge programmers below-cost rates and for which we may not impose additional charges on subscribers. The Satellite Television Extension and Localism Act of 2010 ("STELA") required the FCC to decrease this set-aside to 3.5 percent for satellite carriers who provide retransmission of state public affairs networks in 15 states and are otherwise qualified. The FCC, however, has not yet determined whether we qualify for this decrease in set-aside.

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The obligation to provide noncommercial programming may displace programming for which we could earn commercial rates and could adversely affect our financial results. We cannot be sure that, if the FCC were to review our methodology for processing public interest carriage requests, computing the channel capacity we must set aside or determining the rates that we charge public interest programmers, it would find them in compliance with the public interest requirements.

Retransmission Consent. The Copyright Act generally gives satellite companies a statutory copyright license to retransmit local broadcast channels by satellite back into the market from which they originated, subject to obtaining the retransmission consent of local network stations that do not elect "must carry" status, as required by the Communications Act. If we fail to reach retransmission consent agreements with such broadcasters, we cannot carry their signals. This could have an adverse effect on our strategy to compete with cable and other satellite companies that provide local signals. While we have been able to reach retransmission consent agreements with most of these local network stations, from time to time, there are stations with which we have not been able to reach an agreement. We cannot be sure that we will secure these agreements or that we will secure new agreements on acceptable terms, or at all, upon the expiration of our current retransmission consent agreements, some of which are short-term.

In recent years, the rates we are charged for retransmitting local channels have been increasing substantially and may exceed our ability to increase our prices to our customers, which could have a material adverse effect on our business, financial condition, and results of operations. The broadcast stations' demands for higher rates have resulted in more frequent negotiating impasses and programming interruptions. During these programming interruptions, our subscribers in the affected markets lack access to popular programming and may switch to another multichannel distributor that may be able to provide them with such programming. In addition, the national broadcasters have used their ownership of certain local broadcast stations to require us to carry additional cable programming in exchange for retransmission consent of their local broadcast stations. These requirements may place constraints on available capacity on our satellites for other programming.

The STELA Reauthorization Act of 2014 ("STELAR") prohibits television stations from coordinating or engaging in joint retransmission consent negotiations with any other local television stations, unless the stations are "directly or indirectly under common de jure control," expanding a previous FCC ruling prohibiting joint negotiations only among the top four stations in a market. In addition, STELAR prohibits a local television station from limiting an MVPD's ability to carry other television signals that have been deemed by the FCC to be "significantly viewed" or to carry any other television signal the MVPD is otherwise entitled to carry under the Communications Act, unless such stations are "directly or indirectly under common de jure control" pursuant to FCC regulations. We cannot predict if these restrictions on broadcasters will result in more effective retransmission consent negotiations.

Early Termination Fees. In December 2023, the FCC released a Notice of Proposed Rulemaking seeking comment on proposals that would prohibit pay-TV providers from imposing early termination fees on consumers, and from practices that require customers who cancel service mid-billing cycle to pay for a complete cycle. If

adopted, such prohibitions could impact our pricing and packages. We cannot predict the timing or outcome of this proceeding.

Blackout Rebates. In January 2024, the FCC released a Notice of Proposed Rulemaking seeking comment on a proposal that would require MVPDs to issue rebates to subscribers during programming blackouts on both broadcast and non-broadcast networks that result from failed negotiations. If adopted, such requirements could negatively impact our carriage negotiations. We cannot predict the timing or outcome of this proceeding.

ATSC 3.0. In April 2016, the broadcast industry petitioned the FCC to authorize the use of the "Next Generation TV" broadcast television standard, ATSC 3.0. In November 2017, the FCC authorized television broadcasters to deploy the ATSC 3.0 standard on a voluntary basis. We cannot predict the effect that supporting this new standard could have on equipment costs, carriage obligations or the retransmission consent process.

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Media Ownership Rules. Also in 2016, the broadcast industry petitioned the FCC to relax its media ownership rules, which, among other things, limit the number of commonly owned TV stations per market and restrict newspaper/broadcast cross-ownership and radio/TV cross-ownership. In November 2017, the FCC voted to: (i) eliminate the newspaper/broadcast cross-ownership rule; (ii) eliminate the radio/television cross-ownership rule; (iii) relax the local television ownership rules to eliminate certain restrictions and modify others; and (iv) eliminate the attribution rule for television joint-sales agreements (collectively, the "2017 Order"). Additionally, in December 2017, the FCC initiated a rulemaking proceeding seeking comment on changes to the national television multiple-ownership rule, including changes that could relax or eliminate the current limits that prevent entities from owning or controlling television stations that, in the aggregate, reach more than 39 percent of the television households in the country. If the FCC were to relax or eliminate some or all of the national television multiple-ownership rule, it could increase the negotiating leverage that broadcasters hold in retransmission consent negotiations.

In December 2018, the FCC initiated a rulemaking proceeding to commence its periodic review of media ownership rules. In 2019, the U.S. Court of Appeals for the Third Circuit vacated the 2017 Order. Pursuant to this decision in *Prometheus Radio Project v. FCC*, on December 20, 2019, the FCC amended its rules to reverse the 2017 Order and reinstate the rules as they existed prior to the 2017 Order. The FCC, though, petitioned for a writ of certiorari with the Supreme Court of the United States (the "Supreme Court") to reverse the Third Circuit's decision. On April 1, 2021, in *FCC v. Prometheus Radio Project*, the Supreme Court reversed the Third Circuit, finding that "the FCC's analysis was reasonable and reasonably explained for purposes of the APA's deferential arbitrary and capricious standard." On June 4, 2021, the FCC released an Order reinstating the rule changes from the 2017 Order.

In December 2023, the FCC concluded its 2018 quadrennial proceeding and issued an Order that, among other things, retained the FCC's general prohibition on a broadcaster owning two or more of the top four stations in a market and added language intended to prevent broadcasters from circumventing this rule by acquiring a top four affiliation and placing it on a multicast or low power television signal on a going forward basis. We cannot predict whether there will be additional challenges to this rule or whether the FCC may address media ownership issues going forward, either through the imposition of new rules or the relaxation of remaining ownership restrictions.

Digital HD Carry-One, Carry-All Requirement. To provide any full-power local broadcast signal in any market, we are required to retransmit all qualifying broadcast signals in that market ("carry-one, carry-all"), including the

carriage of full-power broadcasters' HD signals in markets in which we elect to provide local channels in HD. The carriage of additional HD signals on our DISH TV services could cause us to experience significant capacity constraints and prevent us from carrying additional popular national channels and/or carrying those national channels in HD.

Distant Signals. Pursuant to STELA, we obtained a waiver of a court injunction that previously prevented us from retransmitting certain distant network signals under a statutory copyright license. Because of that waiver, we may provide distant network signals to eligible subscribers. To qualify for that waiver, we are required to provide local service in all 210 local markets in the United States on an ongoing basis. This condition poses a significant strain on our capacity. Moreover, we may lose that waiver if we are found to have failed to provide local service in any of the 210 local markets. If we lose the waiver, the injunction could be reinstated. Furthermore, depending on the severity of the failure, we may also be subject to other sanctions, which may include, among other things, damages.

Cable Act and Program Access. We purchase a large percentage of our programming from cable-affiliated programmers. Pursuant to the Cable Act, cable providers had been prohibited from entering into exclusive contracts with cable-affiliated programmers. On October 5, 2012, the FCC allowed this prohibition to expire. As a result of the expiration of this prohibition on exclusivity, we may be limited in our ability to obtain access on nondiscriminatory terms, or at all, to programming from programmers that are affiliated with cable system operators. In addition, any other changes in the Cable Act, and/or the FCC's rules that implement the Cable Act, that currently limit the ability of cable-affiliated programmers to discriminate against competing businesses such as ours, could adversely affect our ability to acquire cable-affiliated programming at all or to acquire programming on nondiscriminatory terms. In addition, affiliates of certain cable providers have denied us access to sports programming that they supply to their cable systems terrestrially, rather than by satellite. The FCC has held that new denials of such service are unfair if they have the purpose or effect of significantly hindering us from providing programming to consumers. However, we cannot be sure that we can prevail in a complaint related to such programming and gain access to it. Our continuing failure to access such programming could materially and adversely affect our ability to compete in regions serviced by these cable providers.

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Open Internet (also known as "Net Neutrality"). In 2015, the FCC adopted Open Internet rules, which applied to both fixed and mobile broadband access providers and prohibited them, among other things, from blocking or throttling traffic, from paid prioritization, and from unreasonably interfering with, or disadvantaging, consumers' or content providers' access to the Internet. In addition, because the FCC reclassified broadband access providers as common carriers, these providers were subject to the general common carrier requirements of reasonableness and nondiscrimination. The rules were affirmed by a panel of the U.S. Court of Appeals for the D.C. Circuit. A number of broadband access providers and their associations have filed a petition for certiorari with the United States Supreme Court. In December 2017, the FCC reversed course and voted to reclassify broadband access providers as information service providers, instead of common carriers. The FCC also voted to eliminate the majority of the Open Internet rules, leaving only certain ISP transparency requirements in place. In October 2019, the U.S. Court of Appeals for the D.C. Circuit upheld the FCC's authority to eliminate certain Open Internet protections, while vacating the FCC's attempt to preempt state or local Open Internet protections and remanding on three other issues. In October 2023, the FCC adopted a Notice of Proposed Rulemaking seeking comment on rules to reestablish the FCC's authority over broadband internet access services. We cannot predict the timing or outcome of this proceeding or the impact of any new rules on DISH's wireless offerings.

To the extent that network operators implement usage-based pricing, including, but not limited to, meaningful bandwidth caps, or otherwise try to monetize access to their networks by data providers, we could incur greater operating expenses and our Pay TV subscriber count could be negatively impacted. Furthermore, to the extent network operators create tiers of Internet access service and either charge us for or prohibit us from being available through these tiers, our Pay TV business could be negatively impacted. We cannot predict with any certainty the impact to our Pay TV business resulting from changes in how network operators handle and charge for access to data that travels across their networks.

Definition of MVPD. In December 2014, the FCC issued a Notice of Proposed Rulemaking regarding the definition of an MVPD. Among other things, the FCC is considering whether the definition of an MVPD should apply to Internet-based streaming services, thus making such services subject to the same regulations as an MVPD. The FCC is also considering the appropriate treatment of purely Internet-based linear video programming services that cable operators and DBS providers offer in addition to their traditional video services. We cannot predict the timing or outcome of this rulemaking or other related rulemaking proceedings.

Federal Trade Commission. The Federal Trade Commission ("FTC") and other federal agencies also have jurisdiction over some consumer protection and elimination and prevention of anticompetitive business practices.

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, which 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, 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 towers for wireless operations and VSAT and other consumer satellite dishes, our businesses business nonetheless are may be 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. antennas or build out wireless telecommunications networks. In addition, in order to obtain universal service funding, we are subject to being an eligible telecommunications carrier in certain all 50 states.

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International Regulation

We are subject to regulation by the International Telecommunication Union ("ITU"). The orbital location and frequencies for certain of 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 broadcast satellite services plan regarding the allocation of orbital locations and frequencies are not granted by the ITU, we will have to operate the applicable satellite(s) on a non-interference basis, which could have an adverse impact on our business operations. If we cannot do so, we may have to cease operating such satellite(s) at the affected orbital locations. 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.

Certain of our satellite services also must conform to the ITU service plans for Region 2 (which includes the United States). If any of our operations are not consistent with this plan, the ITU will only provide authorization on a non-interference basis pending successful modification of the plan or the agreement of all affected administrations to the non-conforming operations. Certain of our satellites are not presently entitled to any interference protection from other satellites that are in conformance with the plan. Accordingly, unless and until the ITU modifies its service plans to include the technical parameters of our non-conforming operations, our non-conforming satellites, along with those of other non-conforming satellite operators, must not cause harmful electrical interference with other assignments that are in conformance with the ITU service plans.

The ITU also endeavors to standardize frequency allocations globally, which has led it to work on standards for terrestrial services as well as satellite operations. Combined with the work of international industry-led standards bodies such as 3GPP, these efforts could have a significant effect on the development of our Wireless services.

Foreign Administrations' Jurisdiction Over Satellite and Terrestrial Operations. Some Certain 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 our U.S. satellites, 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 systems and 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 and we may be subject to penalties or fines for failing to meet such conditions. Additionally, some countries may have restrictions on the services we provide and how we provide them and/or may limit the rates that can be charged for the services we provide or impose other service terms or restrictions. Furthermore, foreign countries in which we currently, or may in the future, operate may not authorize us access to all of the spectrum that we need to provide service in a particular country.

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 broadcast satellite services plan regarding the allocation of orbital locations and frequencies are not granted by the ITU, we will have to operate the applicable satellite(s) on a non-interference basis, which could have an adverse impact on our business operations. If we cannot do so, we may have to cease operating such satellite(s) at the affected orbital locations. 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,

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coordination of our operations in accordance with the relevant ITU Radio Regulations and responses to relevant ITU inquiries.

Registration in the United Nations ("UN") UN Registry of Space Objects. Objects

The U.S. United States and other jurisdictions in which we license satellites are generally parties to the UN United Nations ("UN") Convention on the Registration of Objects Launched into Outer Space which ("The UN Convention"). The UN Convention requires a satellite's launching state to register the satellite as a space object. object with an UN Registry of Space Objects. The act of registration carries liability for the registering country in the event that the satellite causes third party 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. There is no guarantee that we will be able to procure such authorizations even if we already possess a frequency authorization.

Export Control and Foreign Corrupt Practices Act

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. Among other things, we are required to obtain import and export licenses from the United States government to receive and deliver certain components of direct-to-home satellite television systems. 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 under the ITAR and are subject to strict export control and prior approval requirements government (including prohibitions on the sharing of certain satellite-related goods and services with China). 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 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 government officials and other individuals for the purpose of obtaining or retaining business or gaining a competitive advantage.

Non-U.S. Telecommunications Regulation. Regulation

Many of the services we provide are also subject to 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

Regulations Governing our Wireless Operations

The FCC regulates many aspects of our business, we must comply with all applicable export control, Retail Wireless and trade sanctions laws 5G Network Deployment operations. Generally, the FCC has jurisdiction over the construction, operation, acquisition and regulations transfer of wireless communications systems. All wireless services require use of radio frequency spectrum, the U.S. assignment and other countries. Applicable U.S. laws distribution of which is subject to FCC oversight. The FCC can also determine what services can be offered and regulations include how they can be offered over certain frequency bands. For more information regarding our FCC Licenses, see discussion above and Note 15 in the Arms Export Control Act, Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K.

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Additionally, the International Traffic in Arms Regulations ("ITAR"), the Export Administration Regulations ("EAR") FCC and the trade sanctions laws Federal Aviation Administration regulate the siting, lighting and regulations administered by the U.S. Department construction of the Treasury's Office of Foreign Assets Control ("OFAC").

The export of certain hardware, technical data, transmitter towers and services relating to satellites antennae. Tower siting 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 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 construction are also subject to, among other things, state and local zoning, as well as federal statutes regarding environmental and historic preservation. The future costs to comply with all relevant regulations are to some extent unknown and changes to regulations, or the Foreign Corrupt Practices Act applicability of regulations, could result in higher operating and similar anti-bribery laws capital expenses, or reduced revenues in other jurisdictions that generally prohibit companies the future. Furthermore, the FCC has also imposed certain specific mandates on wireless carriers, including, but not limited to, construction and their intermediaries from making improper payments or giving or promising to give anything geographic coverage requirements, technical operating standards, provision of value to foreign government officials enhanced 911 services, roaming obligations and requirements for wireless tower and antenna facilities.

The FTC and other individuals federal agencies also have jurisdiction over some consumer protection and elimination and prevention of anticompetitive business practices with respect to the provision of non-common carrier services.

Meanwhile, our 5G Network Deployment will involve significant deployment of certain equipment and therefore increase the need for local permitting processes that allow for the purpose placement of obtaining equipment on reasonable timelines and terms. While the Communications Act generally preempts state and local governments from regulating the entry of, or retaining business the rates charged by, wireless communications services providers, certain state and local governments regulate other terms and conditions of wireless service, including, but not limited to, billing, termination of service arrangements and the imposition of early termination fees, advertising, network outages, the use of devices while driving, zoning and land use. The Communications Act also does not prohibit states from regulating the other

"terms and conditions" of wireless service. For example, some states attempt to regulate wireless customer billing matters and impose reporting requirements. Several states also have laws or gaining regulations that address safety issues (e.g., use of wireless handsets while driving) and taxation matters. In addition, wireless tower and antenna facilities are often subject to state and local zoning and land use regulation, and securing approvals for new or modified facilities is often a competitive advantage.

Environmental Regulation
lengthy and expensive process.

ENVIRONMENTAL REGULATIONS

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

As required by the EPCRA, we file annual reports with regulatory agencies covering four areas: Emergency Planning, Emergency Release, Hazardous Chemical Storage and Toxic Chemical Release Inventory. We maintain small quantities of hazardous materials on our premises and, 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 the Superfund Amendments and Reauthorization Act Title III regulatory requirements and annually report quantities of onsite material storage using Tier II, state DEQ (Department of Environmental Quality) reporting systems.

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Our environmental compliance costs, capital and other expenditures to date have not been material, and we do not expect them to be material in 2023, 2024 or 2025. However, environmental requirements are complex, change frequently and have become more stringent over time. Accordingly, we cannot provide assurance that these requirements will not change or become more stringent in the future in a manner that could have a material adverse effect on our business and/or environmental compliance costs, capital or other expenditures.

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PATENTS AND TRADEMARKS

We currently rely on OTHER INTELLECTUAL PROPERTY

Many entities, including, but not limited to, some of our competitors, have or may in the future obtain patents and other intellectual property rights that cover or affect products or services that we offer or that we may offer in the future. In general, if 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 court determines that one or more of our products and services. The duration of each of our U.S. patents is generally 20 years or services infringe intellectual property rights held by others, we may be required to cease developing or marketing those products or services, to obtain licenses from the earliest filing date holders of the intellectual property rights at a material cost, or to redesign those products or services in such a way as to avoid

infringing any patent claims. If those intellectual property rights are held by a competitor, we may be unable to obtain the intellectual property rights at any price, which could adversely affect our competitive position.

We may not be aware of all intellectual property rights that our products or services may potentially infringe. In addition, patent applications in the United States 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 claim of infringement is valid 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 intellectual property licenses or the availability and cost of any such licenses. Those costs, and their impact on our results of operations, could be material. Damages in patent **has priority** 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 **have granted** are currently defending multiple patent infringement actions. We cannot be certain the courts will conclude these companies do not own the rights they claim, that our products do not infringe on these rights and/or that these rights are not valid. Furthermore, we cannot be certain that we would be able to obtain licenses from these persons on commercially reasonable terms or, if we were unable to **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 **obtain such** licenses, that **among other things, require that** we would be able to redesign our products to avoid infringement.

SEGMENT REPORTING DATA AND GEOGRAPHIC AREA DATA

For segment reporting data and principal geographic area data for 2023, 2022 and 2021, see Note 16 in the **software source code be maintained as confidential information and that prohibit any reverse-engineering of that code.** Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K.

HUMAN CAPITAL

We believe that our **patents are important** future success will depend to a significant extent upon the performance of Charles W. Ergen, our **business.** Chairman, and certain other executives. The loss of Mr. Ergen or of certain other key executives could have a material adverse effect on our business, financial condition and results of operations. Although all of our executives have executed agreements with certain non-competition restrictions that apply if they leave us, we generally do not have employment agreements with them.

We **also** believe that **in some areas,** our Wireless business, including our ability to complete our 5G Network Deployment, is dependent on our ability to identify, hire, develop, motivate, and retain a team of highly skilled personnel with knowledge of the **improvement** wireless industry. Our Wireless business will be adversely affected if we fail to effectively identify, hire, develop, motivate, and retain highly skilled personnel with knowledge 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 Form 10-K 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. 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 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. **industry.**

GEOGRAPHIC AREA DATA AND TRANSACTIONS WITH MAJOR CUSTOMERS

For principal geographic area data and transactions with major customers for 2022, 2021 and 2020, see Note 22 in our Consolidated Financial Statements. See Item 1A. Risk Factors for information regarding risks related to our foreign operations.

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HUMAN CAPITAL RESOURCES

Our Human Capital

As of December 31, 2022, we

We had approximately 2,300 15,300 employees globally; at December 31, 2023, majority of which approximately 1,700 whom were located in the U.S. United States and approximately 600 internationally. We generally consider relations with our employees to be good. Other than Approximately 35 employees in one of our field offices have voted to have a union represent them in their employment relations with DISH Network. In June of 2022, we signed a collective bargaining agreement with the union. The agreement is effective from February 21, 2022 to February 20, 2024. We began collective bargaining regarding a potential new contract on February 15, 2024. Until any agreement is reached, the terms of the original collective bargaining agreement will remain in force. The current number of union employees at the site is 5. In addition, approximately 200 400 of our employees located in Italy and Brazil none are represented by a union. Our mission is to be a global connectivity provider for people, enterprises and things.

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Employee Training and Development

We have a robust ongoing training and development program to enable employees to further refine and develop their skills. These training and development programs include technical programs meant to keep our employees abreast of the latest developments in our industry as well as courses to assist employees in developing their business communications and management skills.

Worker Health and Safety

Our commitment is to provide a safe, healthy and reliable workplace. We provide access to a variety of innovative, flexible, and convenient health and wellness programs. Due to the COVID-19 pandemic, we have taken a number of steps to prioritize health and safety of our employees including enabling employees to work from home as required or appropriate. We also implemented precautions at various sites around the world in compliance with local government requirements and Centers for Disease Control and Prevention guidelines.

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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 our annual report reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and other information with the SEC. Our As an electronic filer, our public filings are also maintained on the SEC's internet Internet site at <http://www.sec.gov>, which 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 reports 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, also may also be accessed free of charge through our website at <http://www.echostar.com> 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 <https://ir.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 principal and senior financial officer, principal accounting officer and controller, officers, in accordance with Section 406 of 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>. <https://www.echostar.com>. ir.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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INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Furnished

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

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	69	Chairman
	70	
	61	President,
	62	Chief Executive Officer and
Hamid Akhavan		President
	69	Chief Operating Officer,
	70	
Paul Gaske		Hughes
	56	Chief Legal Officer and
	57	
Dean A. Manson		Secretary
Adrian Morris	68	Chief
Paul W. Orban	55	Technology Officer
Michelle Pearre		
	54	Chief Human Resources Officer
Ramesh Ramaswamy	63	Executive Vice President - International and Chief Financial Officer, DISH

Gary Schanman 53 Executive
Vice
President and
Group
President,
Video
Services

John W. 46 President,
Swieringa Technology
and Chief
Operating
Officer

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 Corporation ("DISH") since its formation and, during the past five years, has held executive officer and director positions with DISH and its subsidiaries (together with DISH, "Dish Network") most recently serving as the Chief Executive Officer of DISH from March 2015 to December 2017.

Hamid Akhavan. Mr. Akhavan has served as our Chief Executive Officer and President since April 2022. Following the announcement of the Amended Merger Agreement, Mr. Akhavan served as the DISH Network's Chief Executive Officer from November 2023 to December 2023. Prior to joining EchoStar, Mr. Akhavan has accumulated extensive leadership experience at major telecommunications and technology companies, including Chief Executive Officer of Unify, Inc, and Chief Executive Officer of T-Mobile International, where he also served as a member of the Board of Management of Deutsche Telekom. In recent years, Akhavan has been active in private equity and investing serving on the board of directors of several public and private companies.

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Paul Gaske.Mr. Gaske became Chief Operating Officer, Hughes effective January 1, 2023, reporting to the Company's Chief Executive Officer.Prior to becoming the Chief Operating Officer, Mr. Gaske was the Executive President and General Manager of the North American Division of Hughes Network Systems, LLC since 1999. Mr. Gaske also oversees Hughes manufacturing.

Dean A. Manson. Mr. Manson has served as our Chief Legal Officer and Secretary since November 2011 and is responsible for all our legal, government affairs and corporate information security. Mr. Manson joined our subsidiary Hughes Network Systems, LLC in 2000 and was appointed its General Counsel in 2004. He was previously with the law firm of Milbank, Tweed, Hadley & McCloy LLP, where he focused on international project finance and corporate transactions.

Adrian Morris.Paul W. Orban. Mr. Morris Orban has served as our Chief Technology Officer since January 2023 leading our engineering team at EchoStar and its subsidiaries. Mr. Morris' career began at our subsidiary, Hughes Network Systems, in 1982 as an engineer and he served as an Executive Vice President Engineering, and Chief Financial Officer, DISH since December 2023 and is responsible for all

aspects of Hughes Network Systems since 2006.

Michelle Pearre. Ms. Pearre DISH Network's finance, accounting, tax, treasury, internal audit and supply chain departments. Mr. Orban has served as our Executive Vice President and Chief Human Resources Financial Officer of DISH Network since 2017. She July 2019 and has had responsibility for Human Resources, Administration, Facilities, Real Estate all aspects of DISH Network's finance, accounting, tax, treasury, internal audit and Physical Security supply chain departments. Mr. Orban served as Senior Vice President and Chief Accounting Officer from December 2015 to July 2019, Senior Vice President and Corporate Controller from September 2006 to December 2015 and as Vice President and Corporate Controller from September 2003 to September 2006. He also served as EchoStar's Senior Vice President and Corporate Controller from 2008 to 2012 pursuant to a management services agreement between DISH Network and EchoStar. Since joining Hughes DISH Network Systems in 1998, Ms. Pearre 1996, Mr. Orban has held various other positions of increasing responsibility in human resources, our accounting department. Prior to DISH Network, Mr. Orban was an auditor with Arthur Andersen LLP.

Ramesh Ramaswamy, Gary Schanman. Mr. RamaswamySchanman has served as our Executive Vice President International and Group President, Video Services since 2021 December 2023 and is responsible for the DISH TV and SLING TV businesses, including product, media sales, marketing and programming. Mr. Schanman previously served as Executive Vice President and Group

President, Video Services for DISH Network since July 2023. Mr. Schanman previously served as Executive Vice President and Group President, SLING TV since April 2022 and has had responsibility for all aspects of the SLING TV business. Prior to EchoStar, Mr. Schanman was our the Founder and President of GB Monday, while also acting as Chief Product and Technology Officer for Common Sense Networks and its kids streaming service, Sensical from July 2020 to April 2022. Prior to that, from March 2014 to March 2020, he served as Senior Vice President International of Spectrum Video Products at Charter Communications.

John W. Swieringa. Mr. Swieringa has served as President of Technology and Chief Operating Officer since 2017. He oversees December 2023 and is responsible for all the technology and operational aspects of our international, mobile satellite business. Mr. Swieringa previously served as the President of Technology and Chief

Table Operating Officer of DISH Network since August 2023. Mr. Swieringa previously served as President and Chief Operating Officer of Contents EchoStar Global businesses. Mr. Ramaswamy joined Hughes Network Systems in 1985 as a software engineer DISH Network's Wireless business segment from January 2022 to August 2023 and has held positions had responsibility for all operational aspects of increasing DISH Network's Wireless business segment. Mr. Swieringa previously served as Executive Vice President and Chief Operating Officer of DISH Network since December 2017 and as Group President, Retail Wireless since July 2020 and has had responsibility for all aspects of DISH Network's Retail Wireless segment. Mr. Swieringa previously served as Executive Vice President, Operations from

December 2015 to December 2017, as Senior Vice President and Chief Information Officer from March 2014 to December 2015 and as Vice President of Information Technology Customer Applications from March 2010 to March 2014. Mr. Swieringa joined DISH Network in engineering, operations, marketing and sales.

December 2007 serving in our finance department.

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.

ITEM

Item 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones facing us. If any of the following events occur or evolve in a way different than expected, our business, financial condition, results of operation prospects or ability to fund a share or debt repurchase program, invest capital in or otherwise run our business, execute on our strategic plans or return capital to our shareholders could be materially and adversely affected.

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RISKS RELATED TO OUR BUSINESS OPERATIONS

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We may pursue acquisitions, dispositions, capital expenditures, Risks Related to the development, acquisition and launch of new satellites Integration

Although we expect that the Merger will result in synergies and other strategic initiatives to complement or expand our business, which benefits, those synergies and benefits may not be successful realized in the amounts anticipated, or may not be realized within the anticipated timeframe, or at all, and we risks associated with the foregoing may lose also result from any extended delay in the Integration of the companies.

Our ability to realize the anticipated benefits of the Merger will depend, to a portion or all of our investment.

Our success may depend large extent, on the existence of, and our ability to capitalize integrate our and DISH Network's business in a manner that facilitates growth opportunities and achieves the anticipated benefits. In addition, some of the anticipated synergies are not expected to occur for a significant time period following the completion of the Merger and will require substantial capital expenditures to achieve. There can be no guarantee we will achieve any of these benefits on opportunities the anticipated timeframe or at all.

The combination of two separate companies is complex, costly and time-consuming and may require significant management attention and resources which may divert attention from our business and operations. The failure to acquire meet the challenges involved in combining the two companies and to realize the anticipated benefits of the Merger could, among other things, cause an interruption of, or develop a loss of momentum in, our activities and

could adversely affect our results of operations. The overall combination of the two companies may also result in, among other businesses or technologies or partner with things, material unanticipated problems, expenses, liabilities, competitive responses and loss of customer and other companies that business relationships. The difficulties of combining our operations include, among others:

- diversion of management and employee attention to Integration matters;
- difficulties in integrating operations and systems, including, but not limited to, communications systems, administrative and information technology infrastructure, financial reporting and internal control systems;
- challenges in conforming standards, controls, procedures and accounting and other policies, business cultures and compensation structures between the two companies;
- difficulties in integrating employees and teams of the respective businesses and attracting and retaining key personnel;
- challenges in retaining and obtaining customers, suppliers and other commercial relationships;
- difficulties in managing the expanded operations of a larger and more complex company; and
- potential unknown liabilities, adverse consequences and unforeseen increased expenses associated with the Integration.

Many of these factors are outside of our control and any of them could complement, enhance or expand our current business, services or products or that may otherwise offer us growth opportunities. We may pursue a number of strategic initiatives to complement or expand our

business. Any such strategic initiatives may involve a high degree of risk, including, but not limited to, the following:

- the risks associated with developing result in lower revenues, higher costs and constructing new satellites;
- the diversion of our management's attention away from our existing business onto a strategic initiative;
- possible adverse effects on our management time and energy, which could materially impact our targets' and partners' business, financial condition or operating and results during the integration process;
- exposure to significant financial losses of operations. In addition, even if the strategic initiatives operations of the companies are integrated successfully, the full benefits of the Merger may not successful;
- be realized, including, among others, the inability to obtain regulatory approvals in synergies, cost savings or sales or growth opportunities that are expected. These benefits may not be achieved within the anticipated time frame or at all; all. As a result, it cannot be assured that the Integration will result in the realization of the full benefits expected from the Merger within the anticipated time frames, or at all.

The market price for shares of our common stock may be affected by factors different from, or in addition to, those that historically affected the market prices of shares of DISH Network Class A Common Stock and EchoStar Class A Common Stock.

Upon consummation of the Merger, DISH Network Class A Stockholders became holders of EchoStar Class A Common Stock. The businesses of DISH Network and its subsidiaries are different from those of EchoStar and its subsidiaries. Accordingly, after the consummation of the Merger, our results of operations are affected by some factors that are different from those that historically affected the results of operations of EchoStar and/or DISH Network. The results of operations of each company may also be affected by factors different from those that currently affect or have historically affected either company.

Competition and Economic Risks

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.

Our Pay-TV business faces 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, but not limited to, wireless service providers. In recent years, the traditional pay-TV industry has matured, and industry consolidation and convergence have created competitors with greater scale and multiple product/service offerings. Some of these services charge nominal or no fees for access to their content, which could adversely affect demand for our Pay-TV services. Moreover, new technologies have been, and will likely continue to be, developed that further increase the number of competitors we face with respect to video services, including, but not limited to, competition from piracy-based video offerings. These developments, among others, have contributed to intense and increasing competition, which we expect to continue.

We 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. See *"Item 1. Business – Overview – Competition"* and *"Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Trends in our Pay-TV Segment"* in this Annual Report on Form 10-K for further information.

Mergers and acquisitions, joint ventures and alliances among cable television providers, telecommunications companies, programming providers and others may result in, among other things, greater scale and financial leverage and increase the availability of offerings from

providers capable of bundling video, broadband and/or wireless services in competition with our services, and may exacerbate the risks described herein. Such providers may be able to, among other things, utilize their increased leverage over third-party content owners and programmers to withhold online rights from us and reduce the price they pay for programming at the expense of other MVPDs, including us; thwart our ability to compete in the wireless market, by, among other things, refuse to enter into data roaming agreements; underutilize key orbital spectrum resources that could be more efficiently used by us; foreclose or degrade our online video offerings at various points in the broadband pipe; and impose data caps on consumers who access our online video offerings. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Trends in our Pay-TV Segment – Programming" in this Annual Report on Form 10-K for further information.

We believe that the availability and extent of programming, including, but not limited to, unique programming services such as foreign language, sports programming and original content, and other value-added services such as access to video via mobile devices, continue to be significant factors in consumers' choice among pay-TV providers. Other pay-TV providers may have more successfully marketed and promoted their programming packages and value-added services and may also be better equipped and have greater resources to increase their programming offerings and value-added services to respond to increasing consumer demand. We may be required to make substantial additional investments

in infrastructure to respond to competitive pressure to deliver enhanced programming and other value-added services, and there can be no assurance that we will be able to compete effectively with offerings from other pay-TV providers.

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Furthermore, this increasingly competitive environment may require us to increase subscriber acquisition and retention spending or accept lower subscriber activations and higher subscriber churn. Increasingly, we must seek to attract a greater proportion of new subscribers from our competitors' existing subscriber bases rather than from first-time purchasers of pay-TV services. In addition, because other pay-TV providers may be seeking to attract a greater proportion of their new subscribers from our existing subscriber base, we may be required to increase retention spending and/or provide greater discounts or credits to acquire and retain subscribers who may spend less on our services. Our SLING TV subscribers on average purchase lower-priced programming services than do DISH TV subscribers. Accordingly, an increase in SLING TV subscribers has a negative impact on our Pay-TV average monthly revenue per subscriber ("Pay-TV ARPU").

If our Pay-TV ARPU decreases or does not increase commensurate with increases in programming or other costs, our margins may be

reduced and the long-term value of a subscriber would then decrease and could have a material adverse effect on our business, results of operations and financial condition.

In addition, as a result of this increased competitive environment and the maturation of the pay-TV industry, future growth opportunities of our DISH TV business may be limited and our margins may be reduced, which could have a material adverse effect on our business, results of operations and financial condition. Our gross new DISH TV subscriber activations continue to be negatively impacted by stricter subscriber acquisition policies (including, but not limited to, a focus on attaining higher quality subscribers) and increased competitive pressures, including, but not limited to, aggressive marketing, more aggressive retention efforts, bundled discount offers combining broadband, video and/or wireless services and other discounted promotional offers. In addition, we face increased competitive pressures 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 and direct-to-consumer exclusive and non-exclusive content. There can be no assurance that our gross new DISH TV subscriber activations, net DISH TV subscriber additions, and DISH TV churn rate will not continue to be negatively impacted and that the pace of such negative impact will not accelerate. In the event that our DISH TV subscriber base continues to decline or such decline accelerates, it could have a material adverse effect on our

business, results of operations and financial condition.

Changing consumer behavior and new technologies in our Pay-TV business 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.

New technologies, products and services are driving rapid changes in consumer behavior as consumers seek more control over when, where and how they consume content and access communication services. In particular, through technological advancements and with the large increase in the number of consumers with broadband service, a significant amount of video content has become available through online content providers for users to stream and view on their personal computers, televisions, phones, tablets, video game consoles and other devices, in some cases without a fee required to access the content. While our subscribers can use their traditional video subscription to access mobile programming, an increasing number of subscribers are also using mobile devices as the sole means of viewing video, and an increasing number of non-traditional video providers is developing content and technologies to satisfy that demand. For example, these technological advancements, changes in consumer behavior, and the increasing number of choices available to consumers regarding the means by which consumers obtain video content may cause DISH TV subscribers to disconnect our services ("cord cutting"), downgrade to smaller, less expensive programming packages ("cord shaving") or elect to purchase through online content

providers a certain portion of the services that they would have historically purchased from us.

These technological advancements and changes in consumer behavior and/or our failure to effectively anticipate or adapt to such changes, could reduce our gross new Pay-TV subscriber activations and increase our subscriber churn rate and could have a material adverse effect on our business, results of operations and financial condition.

New technologies could also create new competitors for us. For instance, we face increasing consumer demand for the delivery of digital video services via the Internet. We expect to continue to face increased competition from companies who use the Internet to deliver digital video services as the speed and quality of broadband and wireless networks continue to improve.

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We face certain risks competing in the wireless services industry and operating a facilities-based wireless services business.

As a result of certain acquisitions we have entered the retail wireless business. We have made substantial investments to acquire certain wireless spectrum licenses. We plan to commercialize our Wireless spectrum licenses through the completion of our 5G Network Deployment. A Wireless services business presents certain risks.

Any of the following risks, among others, may have a material adverse effect on our future business, results of operations and financial condition.

- **The wireless services industry is dominated by incumbents.** We have limited experience in the wireless services industry, which is an industry with increasing subscriber demands for data services that require increasing capital resources to maintain a robust network. The wireless services industry has incumbent and established competitors such as Verizon, AT&T and T-Mobile with substantial market share. These companies have, among other things, greater financial, marketing and other resources than us, and have existing cost and operational advantages that we lack. Market saturation is expected to continue to cause subscriber growth rates in the wireless services industry to moderate in comparison to historical growth rates, leading to increased competition for subscribers. As the industry matures, competitors increasingly must seek to attract a greater proportion of new subscribers from each other's existing subscriber bases rather than from first-time purchasers of wireless services. Furthermore, the cost of attracting a new subscriber is generally higher than the cost associated with **complying** retaining an existing subscriber. In addition, we face increasing competition from wireless telecommunications providers who offer mobile video offerings or partner with **regulations applicable** others to create bundled offerings. Wireless mobile video offerings have become more prevalent in the **acquired** marketplace as wireless telecommunications providers have expanded the fifth generation of wireless communications. As previously noted, mergers and acquisitions, joint ventures and alliances among cable

television providers, telecommunications companies, programming providers and others may result in, among other things, greater scale and financial leverage and increase the availability of offerings from providers capable of bundling video, broadband and/or developed wireless services in competition with our services. Such companies may be able to, among other things, pressure third-party content owners and programmers to withhold online rights from us; utilize their increased leverage over third-party content owners and programmers to reduce the price they pay for programming at the expense of other MVPDs, including us; thwart our ability to compete in the wireless market, by, among other things, refusing to enter into data roaming agreements with us; foreclose or degrade our online video offerings at various points in the broadband pipe; and impose data caps on consumers who access our online video offerings. See "Item 1. Business – Overview – Business Strategy – Retail Wireless" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Wireless – Retail Wireless" in this Annual Report on Form 10-K for further information.

- **Our ability to compete effectively in the wireless services industry is dependent on a number of factors.** Our ability to compete effectively in the wireless services industry depends on, among other things, our network quality, capacity and coverage; the pricing of our products and services; the quality of subscriber service; our development of new and enhanced products and services; the reach and quality of our sales and distribution channels; our ability to predict and adapt to future changes in technologies and changes in consumer demands; and our capital resources. It also depends on how successfully we anticipate and respond to

various competitive factors affecting the industry, including, among others, new technologies and business or technologies models, products and services that may be introduced by competitors, changes in consumer preferences, the demand for and usage of data, video and other voice and non-voice services, demographic trends, economic conditions, and discount pricing and other strategies that may be implemented by competitors. It may be difficult for us to differentiate our products and services from other competitors in the industry, which may cause us limit our ability to incur substantial expenses;

- the disruption of relationships with employees, vendors or customers; attract and
- the risks associated with foreign retain subscribers. Our success also may depend on our ability to access and international operations and/or investments or dispositions.

New strategic initiatives may require the commitment of significant capital that would otherwise have been directed deploy adequate spectrum, deploy new technologies and offer attractive products and services to investments in our existing businesses or distributed to shareholders.

We subscribers. For example, we may not be able to successfully develop obtain and execute offer certain technologies, features or services that are subject to competitor patents or other exclusive arrangements. Our success and financial results also depend on, among other factors, our S-band ability to achieve a lower cost structure in our 5G Network Deployment and commercialization of our network. As we complete our 5G Network Deployment and transition a portion of our business strategy to a MNO from an MVNO, our results of

operations and financial performance will depend in part on our ability to offer wireless services more cost effectively than we are able to do so through the use of our current MVNO agreements.

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- ***We depend on certain third parties to provide us with infrastructure and products and services.*** We depend on various key suppliers and vendors to provide us, directly or through other suppliers, with infrastructure, equipment and services, such as switch and network equipment, handsets and other devices and equipment that we would need in order to operate a wireless services business and provide products and services to our subscribers. For example, handset and other device suppliers often rely on one vendor for the manufacture and supply of critical components, such as chipsets, used in their devices. If these suppliers or vendors fail to provide equipment or services on a timely basis, or at all, or fail to meet performance expectations, we may be unable to provide products and services as and when expected by our subscribers. Any difficulties experienced with these suppliers and vendors could result in additional expense and/or delays in operating our Wireless services. Our efforts involve significant expense and require strategic management decisions on, and timely implementation of, among other things, equipment choices, network deployment and management, and service offerings. In

addition, these suppliers and vendors may also be subject to litigation with respect to technology on which we depend, including, but not limited to, litigation involving claims of patent infringement. In addition, our 5G Network Deployment utilizes an O-RAN architecture, which is designed to, among other things, incorporate components sourced from various third-party suppliers. Generally, these third-party suppliers do not ensure that their products will integrate with components provided by other third-party suppliers. As a result, we generally serve as the overall system integrator. Failure of these products to, among other things, effectively interoperate with one another could adversely affect our financial performance, including, but not limited to, our ability to complete our 5G Network Deployment on a cost-effective or timely basis or at all.

- ***Wireless services and our Wireless spectrum licenses are subject to government regulation.*** Wireless services and our Wireless spectrum licenses are subject to regulation by the FCC and other federal, state and local, as well as international, governmental authorities. These governmental authorities could adopt regulations or take other actions that would adversely affect our business prospects, making it more difficult and/or expensive to complete our 5G Network Deployment and to further commercialize our Wireless spectrum licenses or acquire additional licenses. The licensing, construction, operation, sale and interconnection arrangements of wireless telecommunications systems are regulated by the FCC and, depending on the jurisdiction, other federal and international, state and local regulatory agencies. In particular, the FCC imposes significant regulation on licensees of wireless spectrum with respect to, among other things, how radio spectrum is used by licensees, the nature

of the services that licensees may offer and how the services may be offered, and resolution of issues of interference between spectrum bands. The FCC grants wireless licenses for terms of generally 10-12 years that are subject to renewal or revocation based on certain factors depending on the license including, among others, public interest considerations, level and quality of services and/or operations provided by the licensee, frequency and duration of any interruptions or outages of services and/or operations provided by the licensee, and the extent to which service is provided to, and/or operation is provided in, rural areas and tribal lands. There can be no assurances that our Wireless spectrum licenses will be renewed or that we will be able to obtain additional licenses. Failure to comply with FCC requirements in a given license area could result in revocation of the license for that license area. In addition, the FCC uses its transactional "spectrum screen" to identify prospective wireless transactions that may require additional competitive scrutiny. If a proposed transaction would exceed the spectrum screen threshold, the FCC undertakes a more detailed analysis of relevant market conditions in the impacted geographic areas to determine whether the transaction would reduce competition without offsetting public benefits. If a proposed spectrum acquisition exceeds the spectrum screen trigger, such additional review could extend the duration of the regulatory review process and there can be no assurance that such proposed spectrum acquisition would ultimately be completed, in whole or in part.

Our pay-TV 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.

The cost of programming represents the largest percentage of our overall Pay-TV costs. Certain of our competitors own directly, partner with, and/or are affiliated with companies that own programming content that may enable them to obtain lower programming costs or offer exclusive programming that may be attractive to prospective subscribers. Unlike our larger cable and satellite competitors, some of which also provide internet or broadband based pay-TV services, we have not made significant investments in programming providers. In addition, certain programmers have begun offering a greater amount of their content on a direct-to-consumer basis, including, but not limited to, exclusive and non-exclusive content. As a result, it may be more difficult for us to obtain access to such programming networks on nondiscriminatory and fair terms, or at all. See "Item 1. Business – Government Regulations – FCC Regulations Governing our Pay-TV Operations – Cable Act and Program Access" in this Annual Report on Form 10-K for further information.

Through the MNSA and the NSA, we depend on T-Mobile and AT&T to provide network services to our Wireless subscribers. Our failure to effectively manage these relationships, including without

limitation, our minimum commitments, any system failure in their wireless networks, interruption in the services provided to us, and/or the termination of the MNSA or the NSA could have a material adverse effect on our business, financial condition and results of operations.

In July 2021, we entered into the NSA with AT&T to provide us with wireless network services. Under the NSA, we expect AT&T will become our primary network services provider. In addition, under the NSA, we have committed to activate on AT&T a minimum percentage of certain of our Wireless subscribers and to utilize AT&T's network for a minimum specified percentage of our domestic roaming data usage. We have agreed to pay AT&T at least \$5 billion over the course of the 10-year term of the NSA, subject to certain terms and conditions. In 2020 in connection with the Asset Purchase Agreement, we entered into a master network services agreement with T-Mobile to provide us with wireless network services for a period of seven years (the "Prior MNSA"). In June 2022, we and T-Mobile entered into the MNSA, which amended the Prior MNSA. Under the MNSA, we agreed to a minimum purchase commitment to T-Mobile of \$3.3 billion over the course of the MNSA, subject to certain terms and conditions.

As a result, failure to meet the minimum commitments to AT&T or T-Mobile could have a material adverse effect on our business, financial condition and results of operations. For example, failure to meet our minimum commitments would result in, among other things, the acceleration of financial commitments and potential

termination of the NSA or the MNSA, respectively.

As we continue our 5G Network Deployment, we currently depend on T-Mobile and AT&T to provide us with network services pursuant to the MNSA and the NSA, respectively, to offer Retail Wireless services. We rely on T-Mobile and AT&T to, among other things, maintain their wireless facilities and government authorizations and to comply with government policies and regulations. If T-Mobile or AT&T fails to do so, our subscriber activations and churn rate could be negatively impacted, which in turn could have a material adverse effect on our business, financial condition and results of operations. As a result, failure to manage these relationships, including, but not limited to, effectively activating subscribers on the optimal network, transitioning subscribers to a different network, managing the existing subscriber base and vendor relationships and meeting certain minimum commitments could have a material adverse effect on our business, financial condition and results of operations.

In the event that a termination under the NSA or the MNSA were to occur, our Wireless subscribers may need to obtain a new device, a new SIM card or receive a software update to continue receiving Wireless services from us. These required measures would cause significant disruption to our Wireless subscriber base which could materially result in, among other things, a significant increase in our churn rate. A termination of either the NSA or the MNSA, respectively, could result in significant financial and operational challenges to mitigate such termination, and there can be no assurances that any attempts to mitigate a termination event

would be successful on an acceptable timeframe or at all.

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We compete with the MNOs whose networks we rely on to provide wireless services to our customers, and they may seek to limit, reduce or terminate our network access to the extent that it becomes competitively advantageous to do so.

We are able to offer wireless services to our customers through the 5G Network, and through our existing agreements with AT&T and T-Mobile, both of whom are competitors of ours. While our agreements with AT&T and T-Mobile currently have ten and seven-year terms from the date of signing, respectively, to the extent that either network service provider experiences, among other things, network capacity challenges, it is possible that our subscribers could be de-prioritized for access to those networks. Further, AT&T and/or T-Mobile may decide not to renew their agreements with us at acceptable rates, or at all. Any reduction in, or loss of, access to those networks in the future could significantly impact our ability to provide services to our subscribers and in turn have a material adverse effect on our business, financial condition and results of operations.

Changes in how network operators handle and charge for access to data that travels across their networks could

adversely impact our Pay-TV business.

With respect to our Pay-TV business, we rely upon the ability of consumers to access our SLING TV services and certain DISH TV functionality through the Internet. If network operators block, restrict, slow-down or throttle or otherwise impair access to our services over their networks, our business could be negatively affected. To the extent that network operators implement usage-based pricing including, but not limited to, meaningful bandwidth caps, or otherwise try to monetize access to their networks by data providers, we could incur greater operating expenses and our SLING TV subscriber count could be negatively impacted. Furthermore, to the extent network operators create tiers of Internet access service and either charge us for or prohibit us from being available through these tiers, our SLING TV business could be negatively impacted.

In addition, many network operators that provide consumers with broadband service also provide these consumers with video programming, and these network operators may have an incentive to use their network infrastructure in a manner adverse to our continued growth and success. These risks may be exacerbated to the extent network operators are able to provide preferential treatment to their data, including, for example, by offering wireless subscribers access to owned video content over the Internet without counting against a subscriber's monthly data caps, which may give an unfair advantage to the network operator's own video content.

We cannot predict with any certainty the impact to our business that may result from

changes in how network operators handle and charge for access to data that travels across their networks.

Economic weakness and uncertainty may adversely affect our ability to grow or maintain our business.

Our ability to grow or maintain our business may be adversely affected by economic weakness and uncertainty, which could result in the following:

- Fewer subscriber activations and increased subscriber churn rate.** We could face fewer subscriber activations and increased subscriber churn rate due to, among other things: (i) certain economic factors that impact consumers, including, among others, inflation, rising interest rates, a potential downturn in the housing market in the United States (including a decline in housing starts) and higher unemployment, which could lead to a lack of consumer confidence and lower discretionary spending; (ii) increased price competition for our products and services; and (iii) the potential loss of independent third-party retailers, who generate a meaningful percentage of our gross new DISH TV and Wireless subscriber activations, because many of them are small businesses that are more susceptible to the negative effects of economic weakness. In particular, our DISH TV churn rate and Wireless churn rate may increase with respect to subscribers who purchase our lower tier programming packages and Retail Wireless services, and who may be more sensitive to economic weakness, including, among others, our pay-in-advance subscribers.
- Higher subscriber acquisition and retention costs.** Our profits may be adversely affected by increased subscriber acquisition and retention costs necessary to attract and retain high-quality subscribers during a period of economic weakness.

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We are also subject to inflationary cost pressures, and if inflation continues or worsens, it could negatively impact us by increasing, among other things, our operating expenses. Inflation may lead to cost increases in multiple areas across our business, for example, rises in the prices of raw materials and manufactured goods, increased energy rates, as well as increased wage pressures and other expenses related to our labor, programming and other costs. While we attempt to increase our revenue and our business.

Our future revenue and business growth partially depends on the successful development and execution of our S-band strategy. We may not be able to maintain or further develop our existing S-band spectrum rights. Additionally, offset increases in order to successfully develop and execute our S-band strategy, we will likely need to reach collaborative agreements with other relevant players in the S-band eco-system. We may not be able to reach such agreements with some of the relevant players, or at all, or may not be able to agree on economic terms that would provide the desired economic benefits to the Company. In addition, costs, there can be is no assurance that even if we are able to successfully develop our S-band strategy, we will be able to attract and retain do so on an acceptable timeline or at all. Therefore, costs could rise faster than associated revenue, thereby resulting in a customer base sufficiently large to be profitable. If we do not execute negative impact on our S-band business strategy as planned, our business and operating results, could be materially adversely affected.

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cash flows and liquidity.

We are facing increasing competition which could impact demand for, and result in increasing pricing pressures with respect to, our products and services.

Our **business** Broadband and Satellite Services segment operates in an intensely competitive, consumer- and enterprise-driven and rapidly changing environment and competes with a growing number of companies that provide similar products and services to consumer and enterprise customers. There can be no assurance that we will be able to effectively compete against our competitors due to, among other factors, their significant resources and operating history. Material competitive risks to our business include, but are not limited to, the following:

- Competition from new or different technology compared to our offerings;
- Competition from existing or new competitors entering the same markets we serve;
- Government funding for competing products and services, reducing demand for our products and services; and
- Competitive pressures to provide enhanced functionality for the same or lower price with each new generation of technology.

- Competition from existing or new competitors entering the same markets we serve;
- Government funding for competing products and services, reducing demand for our products and services; and
- Competitive pressures to provide enhanced functionality for the same or lower price with each new generation of technology.

Our business will be negatively impacted if we fail to adequately anticipate our satellite capacity needs or are unable to obtain satellite capacity.

We have 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 have insufficient revenue to cover our satellite capacity costs. On the other hand, we may not have sufficient satellite capacity available to meet increases in demand and we may not be able to quickly or easily adjust our capacity to such changes in demand. At present, until the launch and operation of additional satellites that our systems can utilize, there is limited additional capacity in North America and in certain areas of Latin America, including within our own fleet of satellites, which could materially and adversely affect our ability to provide services to customers and grow our revenue and business. Our business could be adversely affected if we are not able to renew our capacity leases at economically viable rates, or if sufficient capacity is not available to us.

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.

Our dependence upon third-party providers causes certain risks to our business, 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. We do not generally maintain long-term agreements with our suppliers or subcontractors for our products. If we change or lose suppliers, we could experience a delay in manufacturing our products. In addition, if either our current suppliers or any new suppliers increase prices beyond what we currently pay, we may be unable to produce our products at competitive prices and we may be unable to satisfy demand from our customers.
- **Commodity Price Risk.** Fluctuations in pricing of raw materials can affect our product costs and we may not be able to pass on the increased costs to our customers. Additionally, we are seeing increasing inflationary price pressure and where we have fixed-price customer contracts, we may have to absorb the increased costs.
- **Manufacturing.** While we develop and manufacture prototypes for certain of our products, we use contract manufacturers to produce a portion of our hardware. If these contract manufacturers fail to provide products that meet our specifications in a timely manner or at all, our business could be adversely impacted.
- **Installation, customer support, and other services.** Some of our

products and services utilize a network of third-party service providers. The costs incurred for these services may increase due to a shortage of experienced workers and higher salaries required to recruit and retain a skilled third-party workforce. A decline in levels of service or attention to the needs of our customers could adversely affect our reputation,

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renewal rates and ability to win and retain customers. In addition, if the agreements for the provision of these services are terminated or not renewed, we could face difficulties replacing these service providers.

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

Our sales outside the U.S. accounted for 23.7%, 21.4% and 19.6% of our revenue for the years ended December 31, 2022, 2021 and 2020, respectively. We expect our foreign operations to represent a significant and growing portion of our business. 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 of earnings.*** We may not be permitted to be the sole owner of our operations in some countries and may have to enter into partnership or joint venture relationships. Many foreign legal

regimes and/or our contractual arrangements restrict our repatriation of earnings to the U.S. from our subsidiaries and joint venture entities. Applicable law in such foreign countries may also limit our ability to distribute or access our assets or offer our products and services in certain circumstances. In such event, we will not have unrestricted access to the cash flow and assets of our subsidiaries and joint ventures.

- **Regulatory restrictions.** Satellite market access, landing rights and terrestrial wireless rights are dependent on the national regulations established by foreign governments and international non-governmental bodies. 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, penalties, or other sanctions.

- **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 regulatory requirements associated with maintaining such licenses, which may be subject to interpretation by foreign courts and regulatory bodies; (c) the burden of creating and maintaining additional entities, branches, facilities and/or staffing in foreign jurisdictions; and (d) regulations requiring

that we make certain satellite capacity available for “free” or available at reduced rates.

- **Compliance with applicable export control laws and regulations in the U.S. and other countries.** We must comply with all applicable export control and trade sanctions laws and regulations of the U.S. and other countries. A violation any export or trade-related regulations could materially adversely affect our business.

- **Changes in exchange rates between foreign currencies and the U.S. dollar.** Fluctuations in currency exchange rates, recessions and currency devaluations have affected, and may in the future affect, revenue, profits and cash earned from our international businesses.

- **Regulations may favor state-owned enterprises or local service providers.** 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 liberalized.

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

As of December 31, 2022, our total indebtedness was \$1.5 billion. Our ability to make payments on or to refinance our indebtedness and to fund our operations will depend on our ability to generate cash in the future. If we are unable to generate sufficient cash, take advantage of technological developments on a timely basis, or

at all, we may be forced experience a decline in demand for our services or face challenges in implementing or evolving our business strategy.

In order to take actions such as revising or delaying our strategic plans, reducing or delaying capital expenditures and/or the development, design, acquisition grow and construction of new satellites, selling assets, restructuring or refinancing our debt or seeking additional equity capital. We may remain competitive, we will need to adapt to changes in available technology, including, but not be able limited to, implement any of these actions on satisfactory terms, or at all.

Covenants artificial intelligence and machine learning, continually invest in our indentures restrict 5G Network Deployment, increase 5G Network capacity, enhance our business in many ways.

The indentures governing the Hughes Satellite Systems Corporation ("HSSC") 5.250% Senior Secured Notes due August 1, 2026 existing service offerings and 6.625% Senior Unsecured Notes due August 1, 2026 contain various covenants, introduce new offerings to meet our current and potential subscribers' changing service demands. Enhancing our 5G Network, including, but not limited to, our ongoing 5G Network Deployment, is subject to certain exceptions, that limit HSSC's ability and/or certain of its subsidiaries' ability risks related to, among other things:

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- incur additional debt;
- pay dividends or make distributions on HSSC's capital stock or repurchase HSSC's capital stock;
- allow things, equipment choices, network

deployment and management, and service offerings. In addition, our 5G Network Deployment utilizes an O-RAN architecture, which is designed to, exist certain restrictions on such subsidiaries' ability to pay dividends, make distributions, make among other payments, or transfer assets; things, incorporate components sourced from various third-party suppliers. Generally, these third-party suppliers do not ensure that their products will integrate with components provided by other third-party suppliers. Therefore, we generally serve as the overall system integrator.

make certain investments;

- create liens or enter into sale

As a result, adopting new and leaseback transactions;

- enter into transactions with affiliates;
- merge or consolidate with another company; and
- transfer and sell assets.

Failure to comply with these and certain other financial covenants, if not cured or waived, sophisticated technologies may result in implementation issues, such as scheduling and supplier delays, unexpected or increased costs, technological constraints, regulatory permitting issues, actual or perceived subscriber dissatisfaction and other issues that could cause delays in launching new technological capabilities, which in turn could result in significant costs or reduce the anticipated benefits of the upgrades. If our new services fail to retain or gain acceptance in the marketplace or if costs associated with these services are higher than anticipated, this could have a material adverse effect on our operating results.

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Operational and Service Delivery Risks

Any deterioration in our operational performance and subscriber satisfaction could adversely affect our business, financial condition and results of operations.

If our operational performance and subscriber satisfaction with respect to our Pay-TV, Wireless, and/or Broadband and Satellite Services businesses were to deteriorate, we may experience a decrease in subscriber activations and an event of default under the indentures, increase in our subscriber churn rate, which could have a material adverse effect on our business, financial condition and results of operations. To improve our operational performance, we continue to make investments in staffing, training, information systems and other initiatives, primarily in our call center and in-home service operations, and our Broadband and Satellite Service and Retail Wireless business operations. These investments are intended to, among other things, help combat inefficiencies introduced by the increasing complexity of our business, improve subscriber satisfaction, reduce subscriber churn, increase productivity and allow us to scale better over the long run. We cannot, however, be certain that our spending will ultimately be successful in improving our operational

performance, and if unsuccessful, we may have to incur higher costs to improve our operational performance. While we believe that such costs will be outweighed by longer-term benefits, there can be no assurance when or prospects. if we will realize these benefits at all.

If certain events our subscriber activations decrease, or if our subscriber churn rate, subscriber acquisition costs or retention costs increase, our financial performance will be adversely affected.

We may incur increased costs to acquire new subscribers and retain existing subscribers to same or all of default occur our Pay-TV, Wireless or Broadband and are continuing under the respective indenture, the trustee under that indenture or the requisite holders of the notes under that indenture may declare all such notes Satellite Services businesses. For example, with respect to our Pay-TV business, our gross new DISH TV subscriber activations, net DISH TV subscriber additions, and DISH TV churn rate continue to be immediately due negatively impacted by stricter subscriber acquisition and payable retention policies for our DISH TV subscribers. Retention costs with respect to our DISH TV services may be driven higher by, among other things, increased upgrades of existing subscribers' equipment.

Although we expect to continue to incur expenses, such as providing retention credits and other subscriber acquisition and retention expenses, to attract and retain subscribers there can be no assurance that our efforts will generate new subscribers or result in a lower churn rate.

For our Retail Wireless business, we are currently in the case process of the indenture governing integrating our secured notes, could proceed against the collateral Retail Wireless operations and making certain operational changes to enhance profitability. We are working to ensure that secures the secured notes. If certain subscribers we acquire and retain are profitable under our MVNO economics. As an example, certain subscribers that use high amounts of data may be profitable for a MNO but are not profitable under a MVNO. This has caused our net Wireless subscriber additions to be negatively impacted. In addition, as we transition from a MVNO to a MNO, our subscriber acquisition costs may increase due to, among other events of default occur, the indentures factors, certain differences between prepaid and postpaid subscribers.

Although we expect to continue to incur expenses, such as providing retention credits and other subscriber acquisition and retention expenses, including, but not limited to, devices subsidy and upgrade discounts, to attract and retain subscribers, there can be no assurance that our efforts will become immediately due generate new subscribers or result in a lower churn rate. Our subscriber acquisition costs and payable. Certain of our subsidiaries have pledged a significant portion of our assets as collateral subscriber retention costs can vary significantly from period to secure the 5.250% Senior Secured Notes due August 1, 2026.

A natural disaster could diminish our ability to provide service period and can cause material variability to our customers.net income (loss) and free cash flow. Any material increase in subscriber acquisition or retention costs from current levels could have a

material adverse effect on our business, financial condition and results of operations.

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Natural disasters could damage or destroy our ground equipment and facilities, resulting in a disruption of our other equipment and facilities.

With respect to our customers, Pay-TV business, programming expenses are increasing, which may adversely affect our business. future financial condition and results of operations.

Our programming costs represent a significant component of our total expense and we expect these costs to continue to increase on a per subscriber basis. The pay-TV industry has continued to experience an increase in the cost of programming, especially local broadcast channels and sports programming. In addition, certain programming costs are rising at a much faster rate than wages or inflation. These factors may be exacerbated by, among other factors, the increasing trend of consolidation in the media industry, partnerships between companies that offer pay-TV services and programmers and increased direct-to-consumer offerings of both exclusive and non-exclusive content, which may further increase our programming expenses. Our ability to compete successfully will depend, among other things, on our ability to continue to obtain desirable programming and deliver it to our subscribers at competitive prices.

In addition, increases in programming costs cause us to increase the rates that we charge our Pay-TV subscribers, which could in turn cause our existing Pay-TV subscribers to disconnect service. Therefore, we may be unable to pass increased programming costs on to our subscribers, which could have a material adverse effect on our business, financial condition and results of operations.

We depend on others to provide the programming that we offer to our Pay-TV subscribers and, if we fail to obtain or lose access to certain programming, our Pay-TV subscriber activations and our subscriber churn rate may be negatively impacted.

We depend on certain third parties to provide us with programming services. Our programming agreements have remaining terms ranging from less than one to up to several years and contain various renewal, expiration and/or termination provisions. We may not be able to renew these agreements on acceptable terms or at all, and these agreements may be terminated prior to expiration of their original terms. In addition, our ability to provide services under these agreements and negotiate acceptable terms depends on, among other things, the number of Pay-TV subscribers we have, our actual, perceived or anticipated financial condition and our negotiating power against each programmer, which can vary depending on the size and scale of such programmer.

Negotiations over programming carriage contracts are generally contentious, and certain programmers have, in the past, limited our access to their programming in connection with those negotiations and the

scheduled expiration of their programming carriage contracts with us. In recent years, our net Pay-TV subscriber additions have been negatively impacted as a result of programming interruptions and threatened programming interruptions in connection with the scheduled expiration of programming carriage contracts with content providers. In addition, certain content providers have begun making a greater percentage of their content available as a stand-alone product available direct-to-consumer and acceleration of this trend may result in lower net Pay-TV subscriber additions, higher net Pay-TV subscriber losses and increased DISH TV churn rate.

We cannot predict with any certainty the impact to our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate resulting from programming interruptions or threatened programming interruptions that may occur in the future. As a result, we may at times suffer from periods of lower net Pay-TV subscriber additions or higher net Pay-TV subscriber losses.

We typically have a few programming contracts with major content providers up for renewal each year and if we are unable to renew any of these agreements on acceptable terms or at all, or the other parties terminate the agreements, there can be no assurance that we would be able to obtain substitute programming, or that such substitute programming would be comparable in quality or cost to our existing programming. In addition, failure to obtain access to certain programming or loss of access to programming, particularly programming provided by major content providers and/or programming popular with our

subscribers, could have a material adverse effect on our business, financial condition and results of operations, including, among other things, our net Pay-TV subscriber additions.

Our programming signals in our Pay-TV business are subject to theft, and we are vulnerable to other forms of fraud that could require significant expenditures to remedy. Increases in theft of our signal or our competitors' signals could, in addition to reducing gross new DISH TV subscriber activations, also cause our DISH TV churn rate to increase.

RISKS RELATED TO OUR HUMAN CAPITAL

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We may not be able to obtain necessary retransmission consent agreements at acceptable rates, or at all, from local network stations.

The Copyright Act generally gives satellite companies a statutory copyright license to retransmit local broadcast channels by satellite back into the market from which they originated, subject to obtaining the retransmission consent of local broadcast television stations that do not elect "must carry" status, as required by the Communications Act. If we fail to reach retransmission consent agreements with such broadcasters, we cannot carry their signals. This could have an adverse effect on our strategy to

compete with cable and other satellite companies that provide local signals. While we have generally been able to reach retransmission consent agreements with most of these local network stations, from time to time there are stations with which we have not been able to reach an agreement, resulting in the removal of their channels primarily from our DISH TV lineup. There can be no assurance that we will secure these agreements or that we will secure new agreements on acceptable terms, or at all, upon the expiration of our current retransmission consent agreements, some of which are short-term.

In recent years, national broadcasters have used their ownership of certain local broadcast stations to require us to carry additional cable programming in exchange for retransmission consent of their local broadcast stations. These requirements may place constraints on available capacity on our satellites for other programming. Furthermore, the rates we are charged for retransmitting local channels have been increasing substantially and may exceed our ability to increase our prices to our subscribers, which could have a material adverse effect on our business, financial condition and results of operations.

We have limited satellite capacity and failures or reduced capacity could adversely affect our business, financial condition and results of operations.

Operation of our Pay-TV and Broadband and Satellite Services businesses requires that we have adequate satellite transmission capacity for the programming and services we offer. While we

generally have had in-orbit satellite capacity sufficient to transmit our existing channels and provide satellite internet coverage and some backup capacity to recover the transmission of certain critical programming and coverage, our backup capacity is limited.

Our ability to earn revenue from our Pay-TV and Broadband and Satellite Services businesses depends on, among other things, the usefulness of our owned and leased 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 construction, the durability of their component parts, the ability to continue to maintain proper orbits and control over the satellites' functions, the efficiency of the launch vehicles used, and the remaining on-board fuel following in-orbit insertion. Generally, the minimum design life of each of our owned and leased satellites ranges from 12 to 15 years. We can provide no assurance, however, as to the actual useful lives of any of these satellites. Our operating results could be adversely affected if the useful life of any of our owned or leased satellites was significantly shorter than the minimum design life.

See "Item 1A. Risk Factors – Risks Related to our Satellites" in this Annual Report on Form 10-K for further information.

Extreme weather may result in risk of damage to our infrastructure and therefore our ability to provide services, and may lead to changes in federal, state and foreign government regulation, all of which could materially and adversely affect our business, results of operations and financial condition.

Extreme weather has the potential to directly damage our network facilities and other infrastructure and/or disrupt our ability to build and maintain portions of our network, and could potentially disrupt suppliers' ability to, among other things, provide the products and services we require to support our operations. Any such disruption could delay our 5G Network Deployment plans, interrupt service for our customers, increase our costs and have a negative effect on our operating results. The potential physical effects of extreme weather, such as storms, floods, fires, freezing conditions, sea-level rise and other adverse weather events could negatively affect our operations and infrastructure and, as a result, our financial results. Operational impacts resulting from extreme weather, such as, among other things, damage to our network infrastructure, could result in increased costs and loss of revenue. We could be required to incur significant costs to improve the resiliency of our infrastructure and otherwise prepare for, respond to and mitigate such weather events. It is impossible to accurately predict the materiality of any potential losses or costs associated with extreme weather.

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Our failure to effectively invest in, introduce, and implement new competitive products and services could cause our products and services to become obsolete and could negatively impact our business.

Technology in the pay-TV, wireless and broadband and satellite services industries changes rapidly as new technologies are developed, which could cause our products and services to become obsolete. We and our suppliers may not be able to keep pace with technological developments. Our operating results are dependent to a significant extent upon our ability to continue to introduce new products and services, to upgrade existing products and services on a timely basis, and to reduce costs of our existing products and services. We may not be able to successfully identify new product or service opportunities or develop and market these opportunities in a timely or cost-effective manner.

The research and development of new, technologically advanced products is a complex and uncertain process requiring high levels of innovation and investment. The success of new product and service development depends on many factors, including among others, the following:

- the difficulties and delays in the development, production, timely completion, testing and marketing of products and services;
- the cost of the products and services;
- the proper identification of subscriber need and subscriber acceptance of products and services;
- the development of, approval of and compliance with industry standards;
- the amount of resources we must devote to the development of new technologies; and
- the ability to differentiate our products and services and compete with other companies in the same markets.

If the new technologies on which we focus our research and development investments fail to achieve acceptance in the marketplace, our competitive position could be negatively impacted, causing a reduction in our revenues and earnings. For example, our competitors could use proprietary technologies that are perceived by the market as being superior. In addition, delays in the delivery of components or other unforeseen problems associated with our technology may occur that could materially and adversely affect our ability to generate revenue, offer new products and services and remain competitive. Furthermore, after we have incurred substantial costs, one or more of the products or services under our development, or under development by one or more of our strategic partners, could become obsolete prior to it being widely adopted.

If our products and services are not competitive, our business could suffer and our financial performance could be negatively impacted. Our products and services may also experience quality problems, including, but not limited to, outages and service slowdowns, from time to time. If the quality of our products and services does not meet our subscribers' expectations, then our business, and ultimately our reputation, could be negatively impacted.

We rely on a single vendor or a limited number of vendors to provide certain key products or services to us, and the inability of these key vendors to meet our needs could have a material adverse effect on our business.

Historically, we have contracted with and 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, security access devices, and many components that we provide to subscribers in order to deliver services from our Pay-TV, Wireless and Broadband or Satellite Services businesses. We also rely on a limited number of vendors to supply our wireless devices and wireless network equipment used in connection with our 5G Network Deployment. If these vendors are unable to meet our needs because, among other things, they fail to perform adequately, are no longer in business, are experiencing shortages or supply chain issues or discontinue a certain product or service we need, our business, financial condition and results of operations may be adversely affected.

We have experienced in the past and may continue to experience shortages driven by raw material availability (which may be negatively impacted by, among other things, COVID-19 policies, trade protection policies such as tariffs and or/escalating trade tensions, particularly with countries in Asia), manufacturing capacity, labor shortages, industry allocations, natural disasters, logistical delays and significant changes in the financial or business conditions of its suppliers that negatively impact our operations.

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While alternative sources for these products and services exist, we

may not be able to develop these alternative sources quickly and cost-effectively, or at all, which could materially impair our ability to timely deliver our products to our subscribers or operate our business. Furthermore, our vendors may request changes in pricing, payment terms or other contractual obligations between the parties, which could require us to make substantial additional investments.

We depend on independent third parties to solicit orders for our services that represent a meaningful percentage of our total gross new subscriber activations.

While we offer products and services through direct sales channels, a meaningful percentage of our total gross new subscriber activations are generated through independent third parties such as small retailers, direct marketing groups, local and regional consumer electronics stores, nationwide retailers, and telecommunications companies. Most of our independent third-party retailers are not exclusive to us and some of our independent third-party retailers may favor our competitors' products and services over ours based on the relative financial arrangements associated with marketing our products and services and those of our competitors. Furthermore, most of these independent third-party retailers are significantly smaller than we are and may be more susceptible to economic weaknesses that make it more difficult for them to operate profitably. From time to time, we may adjust the economic terms of agreements with our independent third-party retailers to, among other things, further align our interests with theirs. It may be difficult to better align our interests

with our independent third-party retailers because of their capital and liquidity constraints. In addition, any changes we may make may not result in the intended benefits and as a result, negatively affect our operating results. Loss of these relationships could have an adverse effect on our subscriber base and certain of our other key operating metrics because we may not be able to develop comparable alternative distribution channels.

Risks Related to our Human Capital

We rely on highly skilled personnel for our business, and any inability to hire and retain key personnel and the loss of their services or to hire qualified personnel may negatively affect our businesses.

business, financial condition and results of operations.

We believe that our future success depends to a significant extent upon the performance of Mr. Charles W. Ergen, our Chairman, and certain other key executives. The loss of Mr. Ergen or certain other key executives, the ability to effectively provide for the succession of our senior management, or the ability of Mr. Ergen or such other key executives to devote sufficient time and effort to our business businesses could have a material adverse effect on our business, financial condition and results of operations. Although some of our key executives may have agreements relating to their equity compensation that limit their ability to work for or consult with competitors, we generally do not have employment agreements with them. To

In addition, the extent Mr. Ergen is performing services for both DISH

Network and us, his attention may be diverted away from success of the Integration will depend in part on the retention of personnel critical to our business and therefore adversely affect operations due to, for example, their technical skills or management expertise. Competition for qualified personnel can be intense and qualified personnel can be in high demand. Current and prospective employees may experience uncertainty about their future role until strategies regarding these employees are announced or executed, which may impair our business, ability to attract, retain and motivate key management, technical and other personnel following the Merger. If we are unable to attract and retain personnel, including key management, who are critical to the successful Integration and future operations of the companies, we could face, among other risks, disruptions in their operations, loss of existing customers, loss of key information, expertise or know-how and unanticipated additional recruitment and training costs. In addition, the loss of key personnel could diminish the anticipated benefits of the Merger.

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Our business growth and customer retention strategies rely in part on the work of technically skilled employees.

Our response to technological developments depends, to a significant degree, on the work of technically skilled employees. In addition, we have made and will continue to make significant investments in, among other things, research, development and marketing for new products, services, satellites and related technologies, as well as entry into new business areas. Investments in new technologies, satellites and business areas are inherently dependent on these technically skilled employees as well. Competition for the services of such employees has become more intense as demand for these types of employees grows. We compete with other companies for these employees and although we strive to attract, retain, motivate and retain manage these employees, we may not succeed in these respects. Additionally, if we were to lose certain key technically skilled employees, the loss of knowledge and intellectual capital might have an adverse impact on our business.

Table Furthermore, we believe that our Wireless business, including, but not limited to, our ability to complete our 5G Network Deployment, is dependent on our ability to identify, hire, develop, motivate and retain a team of Contents

Restrictions on immigration or increased enforcement highly skilled personnel with knowledge of immigration laws could limit our access the wireless industry. Our Wireless business will be adversely affected if we fail to qualified effectively hire, develop, motivate and retain highly skilled professionals, increase our cost personnel with knowledge of doing business or otherwise disrupt our operations. the wireless industry.

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

RISKS RELATED TO OUR SATELLITES

Our ability

Risks Related to operate and control our satellites is subject to risks related to DISH Network's operation and third-parties' operation of satellite operations centers.

In September 2019, we transferred our satellite operation centers, which are used to monitor and control our satellites, to DISH Network in connection with our 2019 transfer to DISH of our broadband satellite services and certain related businesses and assets (the "BSS Transaction"). Therefore, we now are subject to the inherent risks of having a related party operate, maintain and manage these satellite operations centers. In addition, certain of our satellites are operated, maintained and managed by third parties.

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, but are not limited to, malfunctions, commonly referred to as anomalies, which have occurred and may occur in the future in our satellites and the satellites of other operators. Any single anomaly could materially and adversely affect our ability to utilize the satellite. Anomalies may also reduce, among other things, the expected capacity, commercial operation and/or useful life of a satellite, thereby reducing the revenue that could be generated by that satellite, or create additional expenses due to the need to provide replacement or back-up satellites or satellite capacity earlier than planned and could have a material adverse effect on our business. We may not be able to prevent or mitigate the impacts of anomalies in the future.

Meteoroid events, decommissioned satellites, and increased solar activity and other adverse events also pose a potential threat to all in-orbit 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.

Generally, the minimum design life of each of our satellites is 15 years. We can provide no assurance, however, as to the actual operational lives of our satellites, which may be shorter or

longer than their design lives. Our ability to earn revenue depends on the continued operation of our satellites, each of which has a limited useful life.

We generally do not carry in-orbit insurance on our satellites or payloads because we have assessed that the cost of insurance is not economical relative to the risk of failures. If one or more of our in-orbit uninsured satellites or payloads fail, we could be required to record significant impairment charges for the satellite or payload.

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Our satellites under construction including the EchoStar XXIV satellite, are subject to risks related to, among other things, construction, technology, regulations and launch that could limit our ability to utilize these satellites, increase costs and adversely affect our business.

Satellite construction and launch are subject to significant risks, including, but not limited to, manufacturing and delivery delays, anomalies, launch failure and incorrect orbital placement. The technologies in our satellite designs are very complex and difficulties in constructing our designs could result in delays in the deployment of our satellites or

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increased or unanticipated costs. For example, we have seen delays in the delivery calendar for EchoStar XXIV. There can be no assurance that the technologies in our existing satellites or in new satellites that we design, acquire and build will work as we expect, will not become obsolete, that we will realize any or all of the anticipated benefits of our satellite designs or our new satellites, and/or that we will obtain all regulatory approvals required to operate our new or acquired satellites on an acceptable timeline or at all. Launch anomalies and failures can result in significant delays in the deployment of satellites because of the need both to construct replacement satellites, which can take significant amounts of time, and to obtain other launch opportunities. Such significant delays have and could in the future materially affect, among other things, our business, our ability to meet regulatory or contractual required milestones, the availability and our use of other or replacement satellite resources and our ability to provide services to customers. In addition, significant delays in a satellite program could give customers who have purchased or reserved capacity on that satellite a right to terminate their service contracts relating to the satellite. We may not be able to accommodate affected customers on other satellites until a replacement satellite is available. In addition, we may generally do not be able to obtain launch or carry in-orbit insurance on reasonable economic terms our satellites or at all, payloads because we have assessed that the cost of insurance is not economical relative to the risk of failures. If we do obtain launch or in-orbit insurance, it may not cover the full cost of constructing and launching or replacing a satellite nor fully cover our losses in the event of a

launch failure or significant degradation.

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

Satellite operators are required to enter into international spectrum coordination agreements with other affected satellite operators and must be approved by the relevant governments. If a required agreement cannot be concluded, we may have to operate the applicable satellite(s) in a manner that does not cause harmful radio frequency interference with the affected satellite. If we cannot do so, we may have to cease operating such satellite(s) at the affected orbital locations.

We may face interference from other services sharing satellite spectrum.

The FCC and other national, state, local and international regulators have adopted rules or may adopt rules in the future that require us to share spectrum on a basis with other radio services. There can be no assurance that these operations would not interfere with our operations and adversely affect our business.

RISKS RELATED TO OUR PRODUCTS AND TECHNOLOGY
Our future growth depends on growing demand for In the event that the FCC and/or another regulator determines that our services.

Future demand and effective delivery for our products and services will depend significantly on the growing demand for our services, such as broadband internet connectivity. If the deployment of, spectrum interferes with another service, we may be required to, among other things, find or demand for, our services is not as widespread or as rapid

as develop a solution. We cannot make any assurance that we or our customers expect, our revenue growth will be negatively impacted, able to do so on an acceptable timeline or at all, or that such solution will not adversely affect our business.

Risks Related to our Products and Technology

Our business depends on certain intellectual property rights and on not infringing the intellectual property rights of others.

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 business, operations and sell our products and services. Legal challenges to our intellectual property rights and claims of intellectual property infringement by third parties could result in significant require that we enter into royalty or licensing agreements on unfavorable terms, incur substantial monetary liability and or be enjoined preliminarily or permanently from further use of the intellectual property in question or from the continuation of our business as currently conducted, which could require us to change our business practices or limit our ability to compete effectively or could otherwise have a material an adverse effect on our business, results of operations.

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Even if we believe any such challenges or claims prove to be are without merit, they can be time-consuming time consuming and costly to defend and may divert management's attention and resources away from our business. Moreover, because of the rapid pace of technological change, we rely in part on technologies developed by or licensed by from third parties. If parties, and if we are unable to obtain or retain continue to obtain licenses or other required intellectual property rights from these third parties on reasonable terms or at all, our business, financial condition and results of operations could be adversely affected.

In addition, we work with certain third parties such as vendors, contractors and suppliers for the development and manufacture of components that are integrated into our products and services, and our products and services may contain technologies provided to us by these suppliers, third parties or other third parties. We may have little or no ability to determine in advance whether any such technology infringes the intellectual property rights of others, or whether such suppliers have obtained or continue to obtain the appropriate licenses or other intellectual property rights to use such technology, others. Our vendors, contractors and suppliers may not be required to indemnify us in the event that if a claim of infringement is asserted against us, license the potential infringing technology from other third parties or they may be required to indemnify us only up

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to a maximum amount, 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, services 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. Furthermore, our digital content offerings depend in part on effective digital rights management technology to control access to digital content. If the digital rights management technology that we use is compromised or otherwise malfunctions, content providers may be unwilling to provide access to their content. Changes in the copyright laws or how such laws may be interpreted could impact our ability to deliver content and provide certain features and functionality, particularly over the Internet.

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

We are, and may become, subject to various legal proceedings and claims which arise in the ordinary course of business, including, among other things, intellectual property disputes. Many entities, including some of our competitors, have or may in the future obtain patents and other intellectual property rights that may 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 on intellectual property 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 infringing the intellectual property. If those intellectual property rights are held by a competitor, we may be unable to obtain the intellectual property at any price, which could adversely affect our competitive position. See further discussion under "Item 1. Business — Patents and Trademarks Other Intellectual Property" in this Annual Report on Form 10-K for further information. We may not be aware of all intellectual property rights that our services or the products used in connection with our services may potentially infringe. In addition, patent applications in the United States are confidential until the Patent and Trademark Office either publishes the application or issues a patent (whichever arises first). Therefore, it is difficult to evaluate the extent to which our services or the products used in connection with our services may infringe claims contained in pending patent applications. Furthermore, it is sometimes not possible to determine definitively whether a claim of this Form 10-K. **Litigation or governmental proceedings could result in material adverse consequences.** We are involved in lawsuits, regulatory inquiries, audits, consumer claims and governmental and other legal proceedings. 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 **infringement** is typically uncertain. Additionally, the possible outcomes of, or resolutions to, these proceedings could include adverse judgments, settlements, injunctions or liabilities, any of which could require substantial payments or have other adverse impacts on our business.

valid.

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

Our 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. Defects may also occur in components and products that we purchase from third parties. In addition, many of our products and network services are designed to interface with our customers' existing networks, each of which has different specifications and utilizes 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. sell, in a timely manner or at all. The occurrence of, and failure to remedy, any defects, errors or failures in our products or network services could materially affect our business.

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RISKS RELATED TO CYBERSECURITY

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Risks Related to Cybersecurity

Any failure or inadequacy of our information technology infrastructure and communications systems or those of third parties that we use in our operations, including, without limitation, those caused by cyber-attacks or other malicious activities, could disrupt or harm our business.

The capacity, reliability and security of our information technology hardware and software infrastructure (including, but not limited to, our billing systems) and communications systems, or those of third parties that we use in our operations, are important to the operation of our business, which has in the past and would in the future suffer in the event of system failures or cyber-attacks. Likewise, our ability to expand and update our information technology infrastructure in response to, among other things, our growth and changing needs is important to the continued implementation of our new service offering initiatives. Our inability to expand or upgrade our technology infrastructure could have adverse consequences, which could include, among other things, the delayed implementation of new service offerings, service or billing interruptions, and the diversion of management and developmental resources.

We rely on certain third parties for developing key components of our information technology and communications systems and ongoing service, all of which affect our Pay-TV, Wireless, and Broadband and Satellite Services businesses. Some of our key systems and operations, including, but not limited to, those supplied by certain third-party providers, are not fully redundant, and our

disaster recovery planning cannot account for all eventualities. Interruption and/or failure of any of these systems could, among other things, disrupt our operations, interrupt our services, result in significant financial expenditures and damage our reputation, thus adversely impacting our ability to provide our services, retain our current subscribers and attract new Pay-TV, Wireless, and Broadband and Satellite Services subscribers and complete our 5G Network Deployment.

In addition, although we take protective measures designed to secure our information technology systems and endeavor to modify such protective measures as circumstances warrant, our information technology hardware and software infrastructure and communications systems, or those of third parties that we use in our operations, may be vulnerable to a variety of interruptions, including, without limitation, natural disasters, terrorist attacks, telecommunications failures, cyber-attacks and other malicious activities such as unauthorized access, physical or electronic break-ins, misuse, computer viruses or other malicious code, computer denial of service attacks and other events that could disrupt or harm our business. These protective measures may not be sufficient for all eventualities and may themselves be vulnerable to hacking, malfeasance, system error or other irregularities.

For example, certain parties may attempt to fraudulently induce employees or subscribers into disclosing usernames, passwords or other sensitive information, which may in turn be used to access our information technology systems. In addition, third-party providers of some of our key systems may also experience interruptions to their information

technology hardware and software infrastructure and communications systems that could adversely impact us and over which we may have limited or no control. We may obtain certain confidential, proprietary and personal information about our subscribers, personnel and vendors, and may provide this information to third parties in connection with our business. If one or more of such interruptions or failures occur to us or our third-party providers, it potentially could jeopardize such information and other information processed and stored in, and transmitted through, our or our third-party providers' information technology hardware and software infrastructure and communications systems, or otherwise cause interruptions or malfunctions in our operations, which could result in, among other things, lawsuits, government claims, investigations or proceedings, significant losses or reputational damage. Due to the fast-moving pace of technology, it may be difficult to detect, contain and remediate every such event on an acceptable timeline or at all.

Our 5G Network Deployment utilizes an O-RAN architecture, which is designed to, among other things, incorporate components sourced from various third-party suppliers. Generally, these third-party suppliers do not ensure that their products will integrate with components provided by other third-party suppliers. As a result, we generally serve as the overall system integrator. We may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures, and we may be subject to financial losses. In addition, this may divert management's attention and resources away from our business, and therefore adversely affect our business. Furthermore, the

amount and scope of insurance we maintain may not cover all expenses related to such activities or all types of claims that may arise.

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As a result of the increasing awareness concerning the importance of safeguarding personal information, the potential misuse of such information and legislation that has been adopted or is being considered regarding the protection, privacy and security of personal information, the potential liability associated with information-related risks is increasing, particularly for businesses like ours that handle personal subscriber data. The occurrence of any network or information system related events or security breaches could have a material adverse effect on, among other things, our reputation, business, financial condition and results of operations. Significant incidents could result in a disruption of our operations, subscriber dissatisfaction, damage to our reputation or a loss of subscribers and revenues.

We have experienced and may experience in the future cyber-attacks and other attempts to gain unauthorized access to our systems on a consistent basis.

We have experienced and may experience in the future security issues, whether due to, among other things, insider error or malfeasance or system errors or vulnerabilities in our or our third

parties' systems, which could result in, among other things, substantial legal and financial exposure, government inquiries and enforcement actions, litigation, diversion of management time and attention from our existing businesses and unfavorable media coverage. We may be unable to anticipate or detect attacks or vulnerabilities or implement adequate preventative measures on an acceptable timeframe or at all. Attacks and security issues could also compromise trade secrets and other sensitive information. In February 2023, we disclosed that our systems were subject to a cyber-security incident that compromised certain data. During the first quarter of 2023, we incurred certain cyber-security-related expenses, including, but not limited to, costs to remediate the incident and provide additional customer support. Subsequent to the first quarter of 2023, we have not incurred material expenses resulting from the cyber-security incident and do not expect to incur material expenses in future periods.

We are subject to persistent cyber-security incidents and threats to our networks and systems. Although we take protective measures designed to secure our information technology systems and endeavor to modify such protective measures as circumstances warrant, our information technology hardware and software infrastructure and communications systems, or those of third parties that we use in our operations, may be vulnerable to a variety of interruptions, including, without limitation, natural disasters, terrorist attacks, telecommunications failures, cyber-attacks and other malicious activities such as unauthorized access, physical or electronic break-ins, misuse, computer viruses or other malicious code,

computer denial of service attacks and other events that could disrupt or harm our business. The protective measures we take may not be sufficient for all eventualities and may themselves be vulnerable to hacking, malfeasance, system error, or other irregularities. For example, certain parties may attempt to fraudulently induce employees or subscribers into disclosing usernames, passwords or other sensitive information, which may in turn be used to access our information technology systems.

The confidentiality, integrity, and availability of our services and products depends on the continuing operation of our information technology and other enabling systems.

Our systems are vulnerable to damage, intrusion, or disruption from, among other things, criminal and/or terrorist attacks, telecommunications failures, computer viruses, ransomware attacks, digital denial of service attacks, phishing, and/or other attempts to injure or maliciously access our systems. Some of our systems are not fully redundant, and disaster recovery planning cannot account for all possibilities. In addition, our products and services are highly technical and complex and may contain errors or vulnerabilities, which could result in interruptions in or failure of our services or systems.

Failure to respond, mitigate and/or remedy any cyber-attack or other information technology failure on a timely basis or at all, could materially affect our business.

Our international businesses expose us to additional risks that could harm our business.

Our international operations in our Broadband and Satellite Services businesses continue to grow. In addition to risks described elsewhere in this segment, herein, the different regions and countries in which we operate our businesses outside of the U.S. expose us to increased risks due to different privacy and cyber-related laws in each of these locations. The same cyber-related issue could have different consequences depending on, among other factors, the region or country of occurrence, the laws applicable in each case and the different levels of enforcement by regulatory and governmental authorities in each jurisdiction. These risks include, but are not limited to, the following:

Data privacy and security concerns relating to our technology and our practices could damage our reputation, cause us to incur significant liability, and deter current and potential users or customers from using our products and services.

- b. Software bugs or defects, security breaches, and attacks on our systems could result in the improper disclosure of our user data which could harm our business reputation.
- c. Concerns about our practices about the collection, use, disclosure, or security of personal information or other data-privacy-related matters, even if unsubstantiated, could harm our reputation and financial condition. Our policies and practices may change over time as expectations regarding privacy and data change.

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We experience cyber-attacks and other attempts to gain unauthorized access to our systems on a consistent basis.

We have experienced and may experience in the future security issues, whether due to insider error or malfeasance or system errors or vulnerabilities in our or our 3rd parties' systems, which could result in substantial legal and financial exposure, government inquiries and enforcement actions, litigation, and unfavorable media coverage. We may be unable to anticipate or detect attacks or vulnerabilities or implement adequate preventative measures. Attacks and security issues could also compromise trade secrets and other sensitive information.

- Data privacy and security concerns relating to our technology and practices could, among other things, damage our reputation, cause us to incur significant liability, and deter current and potential users or customers from using our products and services;
- Software bugs or defects, security breaches, and attacks on our systems could result in the improper disclosure of our user data which could harm, among other things, our business reputation and result in legal and/or government action;
- Concerns about our practices about the collection, use, disclosure, or security of personal information or other data-privacy-related matters, even if unsubstantiated, could harm our reputation and financial condition. Our policies and practices may change over time as expectations regarding privacy and data change.

Our ongoing investments in security will likely continue to identify new vulnerabilities within our services and products.

In addition to our efforts to, among other things, mitigate cyber-attacks and improve our products and services, we are making significant investments to assure that our products are resistant to compromise. As a result of these efforts, we could discover new vulnerabilities within our products and systems that would be undesirable for our users and customers. We have discovered and remediated, and may not discover all such new vulnerabilities due to the scale of activities on our platforms, and may not be able to mitigate or fix such vulnerabilities on acceptable timeframes or at all, due to other factors, including, but not limited to, issues outside of our control such as natural disasters/climate change such as sea level rise, drought, flooding, wildfires, increased storm severity, pandemics like COVID-19 and power loss, and we may be notified of such vulnerabilities via third parties. Any of the foregoing developments may, among other things, negatively affect user and customer trust, harm our reputation and brands, and adversely affect our business and financial results.

Any such developments may also subject us to litigation and regulatory inquiries, which could result in monetary penalties and damages, distract management's time and attention, and lead to enhanced regulatory oversight.

Acquisition and Capital Structure Risks

We have substantial debt outstanding and may incur additional debt.

As of December 31, 2023, our total long-term debt and finance lease obligations (including current portion) outstanding, including the debt of our subsidiaries, was \$22.764 billion. Our debt levels could have significant consequences, including, but not limited to;

- making it more difficult to satisfy our obligations;
- a dilutive effect on our outstanding equity capital or future earnings;
- increasing our vulnerability to general adverse economic conditions, including, but not limited to, changes in interest rates;

- requiring us to devote a substantial portion of our cash to make interest and principal payments on our debt, thereby reducing the amount of cash available for other purposes. As a result, we would have limited financial and operating flexibility to changing economic and competitive conditions;
- limiting our ability to raise additional debt because it may be more difficult for us to obtain debt financing on attractive terms or at all; and
- placing us at a disadvantage compared to our competitors that are less leveraged.

In addition, we will incur additional debt in the future. The terms of the indentures relating to our senior notes, senior secured notes and our Convertible Notes permit us to incur additional debt. If new debt is added to our current debt levels, the risks we now face could intensify.

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Compliance with data privacy laws

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We have made substantial investments to acquire certain wireless spectrum licenses and other related assets, and may be costly, unable to realize a return on these assets.

We have invested a total of over \$30 billion to acquire certain Wireless spectrum licenses. we may need to make significant additional investments or partner with others to, among other things, complete the 5G Network Deployment and non-compliance further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such laws licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly. In addition, as we complete our

5G Network Deployment, we have and will continue to incur significant additional expenses related to, among other things, research and development, wireless testing, and ongoing upgrades to the wireless network infrastructure, software, and third-party integration. As a result of these investments, among other factors, we plan to raise additional capital, which may not be available on favorable terms. We may also determine that additional wireless spectrum licenses may be required to complete our 5G Network Deployment and to compete effectively with other wireless service providers.

We may need to make significant additional investments or partner with others to, among other things, complete our 5G Network Deployment and further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly.

There is no assurance that the FCC will find our 5G Network Deployment sufficient to meet the build-out requirements to which our Wireless spectrum licenses are subject. Failure to comply with FCC build-out requirements and/or renewal requirements in a given license area could result in, among other things, revocation of the license for that license area. The revocation of a material portion of our Wireless spectrum licenses would have a significant material adverse effect on our 5G Network Deployment and our future business, results of operations and financial condition.

We will need to raise additional capital in the future, which may not be available on favorable terms, to fund the efforts described above, as well as, among other things, make any potential Northstar Re-Auction Payment and SNR Re-Auction Payment for the AWS-3 licenses retained by the FCC. There can be no assurance that we will be able to profitably deploy these Wireless spectrum licenses, which may affect the carrying amount of these

assets and our future financial condition or results of operations.

Furthermore, the fair values of wireless spectrum licenses may vary significantly in the future. In particular, valuation swings could occur if:

- the consolidation in the wireless industry allows or requires wireless carriers to sell significant portions of their wireless spectrum holdings, which could in turn reduce the value of our spectrum holdings;
- the sale of spectrum by one or more wireless providers occurs;
- the FCC pursues certain policies designed to increase the number of wireless spectrum licenses available in each of our markets; or
- the FCC conducts additional wireless spectrum auctions.

If the fair value of our Wireless spectrum licenses were to decline significantly, the value of these licenses could be subject to impairment charges. We assess potential impairments to our indefinite-lived intangible assets annually or more often if indicators of impairment arise to determine whether there is evidence that indicates an impairment condition may exist.

We capitalize our interest expense associated with the acquisition or construction of certain assets including, among others, our Wireless spectrum licenses. As the carrying amount of these licenses exceeds the carrying value of our long-term debt, substantially all of our interest expense is being capitalized. This capitalized interest increases the carrying amount of these licenses for purposes of impairment testing, under which we consider whether it is more likely than not that the fair value of these licenses exceeds the carrying amount of these licenses. An increase in the carrying amount of these licenses combined with other changes in circumstances and/or market conditions could result in an increased risk of an impairment of these licenses in the future, and an impairment of these assets may have a material adverse effect on our business, results of operations and financial condition.

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We may pursue acquisitions, dispositions, capital expenditures, the development, acquisition and launch of new satellites and other strategic initiatives 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 opportunities to buy or otherwise invest in other businesses or technologies that could complement, enhance or expand our current business or products or that might otherwise offer us growth opportunities. To pursue this strategy successfully, we must identify attractive acquisition or investment opportunities and successfully complete transactions, some of which may be large and complex. We may not be able to identify or complete attractive acquisition or investment opportunities due to, among other things, the intense competition for these transactions. If we are not able to identify and complete such acquisition or investment opportunities, our future results of operations and financial condition may be adversely affected.

We may be unable to obtain in the anticipated time frame, or at all, any regulatory approvals required to complete proposed acquisitions and other strategic transactions. Furthermore, the conditions imposed for obtaining any necessary approvals could delay the completion of such transactions for a significant period of time or prevent them from occurring at all. We may not be able to complete such transactions, and such transactions, if executed, pose significant risks and could have a negative effect on our operations. Any transactions that we are able to identify and complete may involve a number of risks, including, but not limited to:

- the risks associated with developing and constructing new satellites;
- the diversion of management's attention from our existing business onto a strategic initiative;
- the possible adverse effects on our and our targets' and partners' business, financial condition or operating results during the Integration process;
- the high degree of risk inherent in these transactions, which could become substantial over time, and higher exposure to significant financial losses if the underlying ventures are not successful on an acceptable timeline or at all;
- the possible inability to achieve the intended objectives of the transaction; and
- the risks associated with complying with contractual provisions and regulations applicable to the acquired business, which may cause us to incur substantial expenses;
- the disruption of relationships with employees, vendors or customers; and
- the risks associated with foreign and international operations and/or investments or dispositions.

In addition, we may not be able to successfully or profitably integrate, operate, maintain and manage our newly acquired operations or employees on an acceptable timeline or at all. We may not be able to maintain uniform standards, controls, procedures and policies, and this may lead to, among other things, operational inefficiencies. In addition, the Integration process may strain our financial and managerial controls and reporting systems and procedures.

New acquisitions, joint ventures and other transactions may require the commitment of significant capital that would otherwise be directed to investments in our existing business. To pursue acquisitions and other strategic transactions, we may need to raise additional capital in the future, which may not be available on favorable terms, or at all.

In addition to committing capital to complete the acquisitions, substantial capital may be required to operate the acquired businesses following their acquisition. These

acquisitions may result in significant liability, financial losses if the intended objectives of the transactions are not achieved. Some of the businesses that we have acquired have experienced significant operating and financial challenges in their recent history, which in some cases resulted in these businesses commencing bankruptcy proceedings prior to our acquisition. We may acquire similar businesses in the future.

There is no assurance that we will be able to successfully address the challenges and risks encountered by these businesses following their acquisition. If we are unable to successfully address these challenges and risks, our business, financial condition and/or results of operations may suffer.

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The personal information

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We will need additional capital, which may not be available on favorable terms, to fund current obligations, continue investing in our business and data to finance acquisitions and other strategic transactions.

We do not currently have the necessary cash on hand and/or projected future cash flows to fund the November 2024 debt maturity and subsequent interest on our outstanding debt. To address our capital needs, we process are in active discussions with funding sources to raise additional capital and store is increasingly subject to data security and data privacy laws of many jurisdictions. These laws impose a significant compliance burden and complying with them has required refinance our outstanding debt. We cannot provide assurances that we will be successful in obtaining such new financing and/or refinancing the existing debt obligations necessary for us to change have sufficient

liquidity. If we are not successful in these endeavors, then capital expenditures to meet future FCC build out requirements and wireless customer growth initiatives will be adversely affected.

Weakness in the equity markets could make it difficult for us to raise equity financing without incurring substantial dilution to our business practices existing shareholders. Adverse changes in the credit markets including, but not limited to, rising interest rates and macro-economic conditions, could increase our borrowing costs and/or the functionality make it more difficult for us to obtain financing for our operations or for us to refinance existing indebtedness on favorable terms.

Continued rising interest rates could increase our cost of capital and require us to devote a higher percentage of our products and services. Privacy laws and regulations are becoming more complex and onerous, and a data privacy breach cash flow to interest payments, which could have a material adverse effect on our business financial results.

In addition, economic weakness, weak results of operations or other factors may limit our ability to, among other things, generate sufficient internal cash to fund investments, capital expenditures, acquisitions and other strategic transactions, as well as to fund ongoing operations and service our debt. We may be unable to generate cash flows from operating activities sufficient to pay the principal, premium, if any, and interest on our debt and other obligations. If we are unable to service our debt and other obligations from cash flows from operating activities, we may need to refinance or restructure all or a portion of such obligations prior to maturity.

Any refinancing or restructuring could have a material adverse effect on our business, results of operations and/or financial condition. In addition, we cannot guarantee that any refinancing or restructuring would sufficiently meet any debt or other obligations then due. If we do not pay interest or otherwise fulfill our debt obligations when due, our business, cash

flows, results of operations and financial condition would be materially adversely impacted. In addition, the going concern qualification issued by our auditors could adversely impact investors as well as our relationships with employees and suppliers.

Furthermore, our borrowing costs can be affected by short and long-term debt ratings assigned by independent rating agencies, which are based, in significant part, on, among other factors, our performance as measured by their credit metrics. A decrease in these ratings would likely increase our cost of borrowing and/or make it more difficult for us to obtain financing.

A severe disruption in the global financial markets could impact some of the financial institutions with which we do business, and such instability could also affect our access to financing. As a result, these conditions could 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.

The conditional conversion features of our Convertible Notes, if triggered, may adversely affect our financial condition.

In the event the conditional conversion features of the Convertible Notes are triggered, holders of the Convertible Notes will be entitled to convert the Convertible Notes at any time during specified periods at their option. If one or more holders elect to convert their Convertible Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock, we would be required to make cash payments to satisfy all or a portion of our conversion obligation based on the conversion rate, which could adversely affect our liquidity.

In addition, even if holders do not elect to convert their Convertible Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Convertible Notes as a current rather than long-term liability, which could result in a material reduction of our net working capital.

RISKS RELATED TO THE REGULATION OF OUR BUSINESS

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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.

In connection with the offering of the Convertible Notes due 2026, we entered into convertible note hedge transactions with certain option counterparties (each an "option counterparty"). The convertible note hedge transactions are expected generally to reduce the potential dilution upon conversion of the Convertible Notes due 2026 and/or offset any cash payments we are required to make in excess of the principal amount of converted Convertible Notes due 2026, as the case may be. We also entered into warrant transactions with each option counterparty. The warrant transactions could separately have a dilutive effect on our Class A common stock to the extent that the market price per share of our Class A common stock exceeds the strike price of the warrants, unless we elect to settle the warrants in cash. In connection with establishing its initial hedge of the convertible note hedge and warrant transactions, each option counterparty or an affiliate thereof may have entered into various derivative transactions with respect to our Class A common stock concurrently with or shortly after the pricing of the Convertible Notes due 2026.

This activity could increase (or reduce the size of any decrease in) the market price of our Class A common stock or the Convertible Notes due 2026 at that time. In

addition, each option counterparty or an affiliate thereof may modify its hedge position by entering into or unwinding various derivatives with respect to our Class A common stock and/or purchasing or selling our Class A common stock or other securities of ours in secondary market transactions prior to the maturity of the Convertible Notes due 2026 (and is likely to do so during any observation period related to a conversion of the Convertible Notes due 2026). This activity could also cause or avoid an increase or a decrease in the market price of our Class A common stock or the Convertible Notes due 2026.

In addition, if any such convertible note hedge and warrant transactions fail to become effective, each option counterparty may unwind its hedge position with respect to our Class A common stock, which could adversely affect the value of our Class A common stock and the value of the Convertible Notes due 2026.

We are subject to counterparty risk with respect to the convertible note hedge transactions.

Each option counterparty to the convertible note hedge transactions is a financial institution, and we will be subject to the risk that it might default under the convertible note hedge transaction. Our exposure to the credit risk of an option counterparty will not be secured by any collateral. Global economic conditions have from time to time resulted in the actual or perceived failure or financial difficulties of many financial institutions, including, but not limited to, the bankruptcy filing by Lehman Brothers Holdings Inc. and its various affiliates. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under our transactions with the option counterparty. Our exposure will depend on many factors but, generally, the increase in our exposure will be correlated to the increase in the market price and in the volatility of our Class A common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our

Class A common stock. We can provide no assurances as to the financial stability or viability of any option counterparty.

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.

From time to time a portion of our investment portfolio may be invested in strategic investments, and as a result, a portion of our portfolio may have restricted liquidity. If the credit ratings of these securities deteriorate or there is a lack of liquidity in the marketplace, we may be required to record impairment charges. Moreover, the uncertainty of domestic and global financial markets can greatly affect the volatility and value of our marketable investment securities. In addition, a portion of our investment portfolio may include strategic and financial investments in debt and equity securities of public companies that are highly speculative and that may experience volatility. Typically, these investments are concentrated in a small number of companies. The fair value of these investments can be significantly impacted by the risk of adverse changes in securities markets generally, as well as risks related to the performance of the companies whose securities we have invested in, risks associated with specific industries, and other factors. These investments are subject to significant fluctuations in fair value due to the volatility of the securities markets and of the underlying businesses. The concentration of these investments as a percentage of our overall investment portfolio fluctuates from time to time based on, among other things, the size of our investment portfolio and our ability to liquidate these investments.

In addition, because our portfolio may be concentrated in a limited number of companies, we may experience a significant loss if any of these companies, among other things, defaults on its obligations, performs poorly, does not generate adequate cash flow to fund its operations, is unable to obtain necessary financing on acceptable terms, or at all, or files for bankruptcy, or if the sectors in which these companies operate experience a market downturn. To the extent we require access to funds, we may need to sell these securities under unfavorable market conditions, record impairment charges and fall short of our financing needs.

Covenants in our and our subsidiaries' Indentures restrict our business in many ways.

There are restrictive covenants in our and our subsidiaries' Indentures that restrict us and our subsidiaries (as applicable), under certain circumstances, from taking certain actions such as, among other things:

- incur additional debt;
- allow to exist certain restrictions on certain subsidiaries' ability to pay dividends, make distributions, make other payments or transfer assets;
- restrict our ability to make investments or make other payments in respect of our equity securities or our other indebtedness;
- limit our ability to incur indebtedness that is senior to, equal or subordinate to certain Indebtedness, or to engage in certain sale/leaseback transactions;
- enter into certain transactions with affiliates;
- merge or consolidate with another company;
- restrict our ability to repurchase or prepay any other of our securities or other indebtedness; and
- restrict our ability to enter into highly leveraged transactions.

Our ability to, among other things, recapitalize, incur additional debt, secure existing or future debt or take a number of other actions may be limited by the terms of the our Indentures, business and tax considerations and legal restrictions,

including, but not limited to, repurchasing indebtedness or capital stock or paying dividends, and could have the effect of diminishing our ability to make payments on our outstanding Indebtedness when due.

Risks Related to the Regulation of Our Business

Our services depend on FCC licenses that can expire or be revoked or modified and applications for FCC licenses that may not be granted.

If the FCC were to cancel, revoke, suspend, restrict, significantly condition, or fail to renew any of our licenses or authorizations, or fail to grant our applications for FCC licenses that we may file from time to time, it could have a material adverse effect on our business, financial condition and results of operations. As an example, a loss of a frequency authorization would reduce the amount of spectrum available to us, potentially reducing the amount of DISH TV, Wireless, and/or Broadband and Satellite Services offerings available to our DISH TV, Wireless, and/or Broadband and Satellite Services subscribers. The materiality of such a loss of authorizations would vary based upon, among other things, the location of the frequency used, or the availability of replacement spectrum. In addition, Congress and other Administrative and Regulatory agencies often consider and enact legislation that affects us and FCC proceedings to implement the Communications Act and enforce its regulations are ongoing. We cannot predict the outcomes of these legislative or regulatory proceedings or their effect on our business.

Wireless services and our Wireless spectrum licenses are subject to regulation by the FCC and, depending on the jurisdiction, other federal, state and local, as well as international, governmental authorities and regulatory agencies, including, among other things, regulations governing the licensing, construction, operation, sale and interconnection arrangements of wireless telecommunications systems. In particular, the FCC imposes significant regulation on

licensees of wireless spectrum with respect to, among others, how radio spectrum is used by licensees, the nature of the services that licensees may offer and how the services may be offered, and resolution of issues of interference between spectrum bands. The FCC grants wireless licenses for terms of generally 10-12 years that are subject to renewal or revocation.

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There can be no assurances that our Wireless spectrum licenses will be renewed. Failure to comply with FCC build-out requirements in a given license area may result in acceleration of other build-out requirements or in the modification, cancellation, or non-renewal of licenses. See Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

Changes in levels of U.S. government spending or overall spending priorities could impact, among other things, our business, financial condition and results of operations.

We derive a portion of our revenue from subscribers who receive benefits under the Affordable Connectivity Program (“ACP”), an FCC benefit program that helps ensure that households can afford access to broadband. Levels of U.S. government spending are very difficult to predict and may be impacted by numerous factors such as, among others, the political environment, macroeconomic conditions and the ability of the U.S. government to enact relevant legislation such as authorization and appropriations bills.

Discontinuation, amendment or repeal of ACP, or replacement of ACP with one having different eligibility requirements and/or funding levels could negatively

impact, among other things, our net Wireless subscriber activations, which may impact our decision to continue to participate in the program. We cannot predict whether or when any future changes to the ACP may occur, or whether or to what extent those changes may affect our operations or impose additional costs on our business. In addition, the timing of any changes or modifications to ACP could affect our operations and results of operations. For example, a temporary lapse in funding for ACP, as a result of, among other things, temporary government shutdown, could, among other things, result in lower net Wireless subscriber activations, even if ACP is ultimately fully funded and approved.

In particular, reduced government funding for benefits programs such as ACP would result in a reduction in reimbursements to us. Amendments to or repeal of ACP in whole or in part and/or decisions by the FCC could affect us and the manner in which we are reimbursed by such programs, all of which could materially and adversely affect our business, results of operations and financial condition. Following the FCC's announcement, ACP stopped accepting new applications and enrolments on February 7, 2024. Barring congressional action to fund ACP, funding may run out as soon as April 2024.

The risk of non-compliance with laws and regulations, including, but not limited to, the risk of changes to laws and regulations, could adversely affect our business.

Our business is regulated by numerous governmental agencies and other regulatory bodies, both domestically and internationally. Also, our international operations are subject to the laws and regulations of many different jurisdictions that may differ significantly from U.S. laws and regulations. Violations of these laws and regulations could result in fines or penalties or other sanctions which could have a material adverse impact on our business. Additionally, our ability to operate and grow our business depends on laws and regulations that govern the frequency

bands and/or orbital locations we operate in or may operate in in the future.

These laws and regulations are subject to the administrative and political process and do change from time to time. Our business could suffer a material adverse impact if laws and regulations change and we are not able to adapt to these changes efficiently.

If our internal controls are not effective, our business, our stock price and investor confidence in our financial results may be adversely affected.

We periodically evaluate and test our internal control over financial reporting to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act. Our management has concluded that our internal control over financial reporting was effective as of December 31, 2023. We depend on our third-party vendors' internal controls and rely on these controls when evaluating the effectiveness of our internal controls. If in the future we are unable to report that our internal control over financial reporting is effective (or if our auditors do not agree with our assessment of the effectiveness of, or are unable to express an opinion on, our internal control over financial reporting), investors, subscribers and business depends partners could lose confidence in the accuracy of our financial reports, which could in turn have a material adverse effect 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 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 our business.

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subject

Risks Related to possible renewal. Generally, Ownership of our licenses and special temporary authorizations have been renewed on a routine basis, but there can be no assurance that this will continue.

RISKS RELATED TO THE BSS TRANSACTION

If the BSS Transaction does not qualify as a tax-free distribution and merger under the Internal Revenue Code of 1986, as amended (the "Code"), then we and/or our stockholders may be required to pay substantial U.S. federal income taxes and under certain circumstances we may have indemnification obligations to DISH Network.

The parties to the BSS Transaction received a tax opinion from their respective counsels as to the tax-free nature of the transaction. They did not obtain a private letter ruling from the IRS in this respect and instead are relying solely on their respective tax opinions for comfort that the transaction qualifies for tax-free treatment for U.S. federal income tax purposes under the Code. The failure of any factual representation or assumption to be true, correct and complete, or any undertaking to be fully complied with, could affect the validity of the tax opinions and result in tax liabilities for our shareholders and/or us.

RISKS RELATED TO OUR OWNERSHIP

Common Stock

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

Charles W. Ergen, our Chairman, beneficially owns approximately 60% 54% of our total equity securities (assuming conversion of the Class B common stock beneficially owned by Mr. Ergen into Class A common stock and giving effect to the exercise of options held by Mr. Ergen that are either currently exercisable as of, or may become exercisable within 60 days after, February 6, 2023 February 27, 2023) and beneficially owns approximately 93% 91.4% of the total voting power of all classes of shares (assuming no conversion of any Class B common stock and giving effect to the

exercise of options held by Mr. Ergen that are either currently exercisable as of, or may become exercisable within 60 days after, February 6, 2023 February 27, 2023). Through his beneficial ownership of our equity securities, 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; (iv) a compensation committee charter which provides the compensation committee with the authority and funding to retain compensation consultants and other advisors; and/or (v) director nominees selected, or recommended for the Board's Board of Directors selection, either by a majority of the independent directors or a nominating committee composed solely of independent directors.

We

Pursuant to the Amended Support Agreement (which was signed as part of the Merger), Mr. Ergen and the other Ergen Stockholders have potential conflicts agreed not to vote, or cause or direct to be voted, the shares of interest EchoStar Class A Common Stock owned by them, other than with DISH Network due respect to our common ownership.

any matter presented to the holders of EchoStar Class A substantial majority Common Stock on which holders of EchoStar Class B Common Stock are not entitled to vote, for three years following the closing of the Merger, such that the Ergen Stockholders' voting power of EchoStar will be approximately 90.4% for such three-year period.

In addition, pursuant to the Amended Support Agreement, EchoStar and the Ergen Stockholders entered into the Registration Rights Agreement reasonably providing for the registration of the Ergen Stockholders' shares of each EchoStar Class A Common Stock or EchoStar Class B Common Stock received as part of the merger consideration and/or EchoStar and DISH is owned beneficially Class B Common Stock held by Charles W. Ergen, our Chairman, and by certain entities established for the benefit of his family. 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 such stockholders immediately prior to the following:

- **Cross directorships and stock ownership.** Charles W. Ergen serves as the Chairman of our and DISH's board of directors, is employed by both companies and has fiduciary duties to our and DISH's shareholders. Mr. Ergen 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, some of our directors and officers, including Mr. Ergen, own DISH stock and options to purchase DISH stock. 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.

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- **Intercompany agreements with DISH Network.** We have entered into various agreements with DISH Network. Pursuant to certain agreements, we obtain certain products, services and rights from DISH Network; DISH Network obtains certain products, services and rights from us; and we and DISH Network indemnify each other against certain liabilities arising from our respective businesses. Generally, the amounts paid for products and services provided under the agreements are based on cost plus a fixed margin, which varies depending on the nature closing of the products Merger, at EchoStar's sole cost and services provided. 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 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 certain agreements with DISH Network may 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 or less favorable to us. In addition, DISH Network or its affiliates will likely continue to enter into transactions, including joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, with us or other affiliates. Although the terms of any such transactions will be established based upon negotiations between us and DISH Network and, when appropriate, subject to approval by a committee of 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. expense.

▪ **Competition for business opportunities.**

DISH Network may have interests in various companies that have subsidiaries or controlled affiliates that own or operate domestic or foreign services that may compete with services offered by our businesses. From time to time we may pursue the same business opportunities as DISH Network, such as when we participate in auctions for spectrum or orbital slots for our satellites or other business opportunities. In certain auctions, we and DISH Network may be prohibited from participating separately, and cooperating with DISH Network may result in a less favorable outcome for us.

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

We do not have any agreements not to compete with DISH Network. However, many of our potential customers who compete with DISH Network have historically perceived us as a competitor due to our affiliation with DISH Network. There can be no assurance that we will be successful in entering into any commercial relationships with potential customers who are competitors of DISH Network (particularly if we continue to be perceived as affiliated with DISH Network as a result of common ownership, certain shared management services and other arrangements with DISH Network).

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 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;
- 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.

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;

- 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.

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As discussed above, Mr. Ergen beneficially owns approximately 60% 54% of our total equity securities and approximately 93% 91.4% of the total voting power of all classes of shares and such ownership may make it impractical for any third party to obtain control of us.

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

RISKS RELATED TO THE COVID-19 PANDEMIC

Our operations, and those of our customers, suppliers, vendors, and other third parties with whom we conduct business, including regulatory agencies, have been, and may continue to be, adversely affected by the COVID-19 pandemic.

The effects of the COVID-19 pandemic have disrupted our and our customers', suppliers', vendors' and other business partners' and investees' businesses, and have delayed the manufacture and deployment of our satellites, specifically our EchoStar XXIV satellite. Additionally, some regulatory bodies may still have reduced activities which may materially delay the review and/or approval of licenses or authorizations we need to operate our business. We cannot currently estimate or determine the final magnitude of these impacts.

Additionally, many of our subscribers continue to work remotely or engage in distance learning. These activities have increased the usage on our HughesNet service so that there is little or no capacity remaining for subscriber growth in our most popular geographic areas. This limitation on capacity has resulted in our subscribers experiencing slower speeds, which, in turn, has resulted in higher churn.

GENERAL RISKS

General Risks

Our articles of incorporation designate the Eighth Judicial District Court of Clark County of the State of Nevada as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Any person purchasing or otherwise acquiring any interest in any shares of our capital stock shall be deemed to have notice of and to have consented to this provision of our articles of incorporation. This choice of forum provision may limit our stockholders' ability to bring certain claims, including, **but not limited to**, claims against our directors, officers or employees, in a judicial forum that the stockholder finds favorable and therefore the choice of forum provision may discourage lawsuits or increase costs with respect to such claims.

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

ITEM

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 1C. CYBERSECURITY

We recognize the importance of assessing, identifying, reviewing and managing material risks associated with cybersecurity threats, as such term is defined in Item 106(a) of Regulation S-K. These risks include, among other things: operational and legal risks including intellectual property theft or loss, fraud, extortion, harm to employees or customers and violation of data privacy or security laws. Our framework is informed in part by the National Institute of Standards and Technology (NIST) Cybersecurity Framework, although this does not imply that we meet all technical standards, specifications or requirements under NIST.

We have an enterprise-wide information security program designed to identify, protect against, detect, respond to, and recover from cybersecurity risks, threats and events. Our cyber risk management system contributes significantly to the overall resilience and integrity of our business by, among other things, integrating the risk identification process in all major company initiatives and deployment processes, implementing a unified approach to managing both digital and traditional business risks, making continuous improvements and regularly reporting to management and the Board of Directors as a whole to ensure accountability.

We regularly assess risks from cybersecurity and technology threats and monitor our information systems for potential vulnerabilities. We and certain third parties conduct regular reviews and tests of our information security program and also leverage, among other things, audits, tabletop exercises, penetration and vulnerability testing, red team exercises, simulations and other exercises to evaluate the effectiveness of our information security program and improve our security measures and planning. In addition, we evaluate third-party risks and perform third-party risk management to assess, identify and mitigate risks from third parties such as vendors, suppliers and other business partners.

We have experienced cyber-attacks or other malicious activities that disrupted our business in the past. Any future failure or disruption of our information technology infrastructure and communications systems or those of third parties that we use in our operations could harm our business in the future. On February 23, 2023, DISH Network experienced a network outage that affected its internal servers and IT telephony. We immediately activated our incident response and business continuity plans designed to contain, remediate and recover from the situation. We engaged the services of certain cyber-security experts and outside advisors to assist in the evaluation of the situation, and once we determined that the outage was due to a cybersecurity incident, we promptly notified appropriate law enforcement authorities. In addition, on February 28, 2023, we further disclosed that certain data had been extracted from the DISH Network IT systems.

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ITEM 2. PROPERTIES

Our principal executive offices are located

After investigation and discussions with certain third parties, we determined that our customer databases were not accessed, however, we confirmed that certain employee-related records as well as a limited number of other records containing certain personal information were among the data extracted. We took steps to protect the affected records, received confirmation that the extracted data was deleted and notified individuals whose data was extracted.

The DISH TV, SLING TV and Retail Wireless services, along with our wireless and data networks remained operational at 100 Inverness Terrace East, Englewood, Colorado 80112-5308 and our telephone number is (303) 706-4000, all times during the incident. As of March 31, 2023, all significant systems had been restored. We operate various facilities in the United States and abroad. We have no reason to believe that this cybersecurity incident has not been concluded.

We describe whether and how risks from identified cybersecurity threats, including, but not limited to, as a result of any previous cybersecurity incidents, have materially affected or are reasonably likely to materially affect us, including our facilities business strategy, results of operations or financial condition included as part of our risk factor disclosures at Item 1A of this Annual Report on Form 10-K.

The Chief Information Security Officer (“CISO”) leads our information security organization responsible for overseeing our information security program. Our CISO has over 25 years of experience in various roles involving information security, including risk management and security leadership. Team members who support our information security program have relevant education, professional certifications and industry experience, including but not limited to, holding similar positions at large technology companies. The team provides regular reports, no less frequently than monthly, to senior management and other relevant teams, including, but not limited to, the Chief Executive Officer (“CEO”), Chief Operating Officer (“COO”), Chief Information Officer (“CIO”) and Chief Legal Officer (“CLO”).

Preparation for and, where possible prevention of cybersecurity incidents involves regular and structured briefings to key management on risk remediation measures that should be taken to decrease, among other things, the likelihood and severability of incidents and to mitigate and manage their effects. The CEO, COO, CIO, CLO and other members of management receive detailed updates on cybersecurity risks on a regular basis, no less frequently than monthly, or when significant risks or incidents are well maintained identified. These briefings enable the management team to, among other things, stay informed of the latest threats, assess the effectiveness of current security measures and are sufficient make timely decisions on strategic security initiatives. In addition, the Board of Directors is regularly briefed, no less frequently than quarterly, on cybersecurity risks as part of its oversight functions and to ensure that cybersecurity practices align with the company's overall risk management framework and business objectives.

In connection with the Integration, we anticipate that we will continue to evaluate and address as needed our cyber security risk management, policies, structure, strategies and governance to meet our current and projected needs.

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Item 2. PROPERTIES

The following table sets forth certain information concerning our principal properties related to our Hughes segment, our ESS segment, and our Corporate and Other segment as of December 31, 2022.

business segments.

Location	Segment(s)	Function
Owned:	Segment(s)	
	Using Property	Owned
		Leased

		ESS/Corporate and Other	Corporate headquarters, and ESS operations Englewood, Colorado	All	X
Englewood, Colorado					
Germantown, Maryland	Hughes				
General offices, Littleton, Colorado	Retail Wireless/5G Network Deployment	X			
General offices, engineering offices, network operations and shared hubs, Germantown, Maryland	Broadband and Satellite Services	X			
		Hughes/Corporate and Other	Shared hub, operations, administrative General offices and warehouse, Griesheim, Germany	Broadband and Satellite Services	X
Griesheim, Germany					
Customer call center, warehouse, service, and remanufacturing center, El Paso, Texas	Pay-TV	X			
Leased:					
Data center, gateways, equipment and operations, Cheyenne, Wyoming	Pay-TV/5G Network Deployment/Broadband and Satellite Services	X			
Gilbert, Arizona					
Digital broadcast operations center, Cheyenne, Wyoming	Hughes Pay-TV	X			
San Diego, California					
Digital broadcast operations center and gateways, Gilbert, Arizona	Pay-TV/Broadband and Satellite Services	X			

Engineering offices and service center, Englewood, Colorado	Hughes	Pay-TV	X	
Gaithersburg, Maryland				
Warehouse, Denver, Colorado	Hughes	Pay-TV	X	
Gaithersburg, Maryland				
Warehouse and distribution center, Spartanburg, South Carolina	Hughes	Pay-TV/5G Network Deployment		X
Southfield, Michigan				
Warehouse and distribution center, Denver, Colorado	Hughes	Pay-TV/5G Network Deployment		X
Las Vegas, Nevada				
Warehouse and distribution center, Atlanta, Georgia	Hughes	Pay-TV/5G Network Deployment		
Cheyenne, Wyoming				
	Hughes/ESS		X	Gateways, equipment and ESS operations
Barueri, Brazil	Hughes			Shared hub
Sao Paulo, Brazil	Hughes			Hughes Brazil corporate headquarters, sales offices and warehouse
Bangalore, India	Hughes			Engineering office and office space
Gurgaon, India	Hughes			Administrative offices, shared hub, operations, warehouse, and development center
New Delhi, India	Hughes			Hughes India corporate headquarters

Milton Keynes, United Kingdom

Hughes

Hughes Europe corporate
headquarters and
operations

ITEM 3. LEGAL PROCEEDINGS

For

In addition to the principal properties listed above, we operate numerous facilities for, among other things, our in-home service operations, customer call centers, digital broadcast operations centers strategically located in regions throughout the United States, manufacturing and testing facilities, shared hubs, regional network management centers and backup network operation and control centers. We also have several general offices in foreign countries. Furthermore, our Pay-TV segment owns or leases capacity on nine satellites, which are a discussion major component of legal proceedings, see our DISH TV services and our Broadband and Satellite Services segment currently owns or leases capacity on nine satellites, which are a major component of the Broadband and Satellite Services segment. See Note 21.8 in the Notes to our Consolidated Financial Statements.

ITEM Statements in this Annual Report on Form 10-K for further information.

Item 3. LEGAL PROCEEDINGS

See Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for information regarding certain legal proceedings in which we are involved.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

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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

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

Market Information

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Our Class A common stock is publicly traded quoted on the NASDAQ Nasdaq Global Select Market under the symbol "SATS."

Holders. As of February 6, 2023 February 27, 2024, there were 35,594,333 shares of our Class A common stock outstanding held by 7,316 approximately 8,660 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 6, 2023 February 27, 2024, there were 47,687,039 all of the 131,348,468 outstanding shares of our Class B common stock outstanding, of which 25,066 shares were beneficially held by Charles W. Ergen, our Chairman, and 47,661,973 shares were held in trusts and by certain entities established by Mr. Ergen for the benefit of Mr. Ergen's his 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, contractual restrictions and other factors the board Board of directors Directors considers appropriate. We currently intend to retain our earnings, if any, to support operations, future growth and expansion, although we have repurchased and may, in the future, repurchase shares of our common stock from time to time. Our ability to declare dividends is affected by the covenants in our subsidiary HSSC's subsidiary's indentures. See Note 10 to the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further discussion under Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources of this Form 10-K. information.

Securities Authorized for Issuance Under Equity Compensation Plans

.

See "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters of" in this Annual Report on Form 10-K.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On November 2, 2021, our Board of Directors authorized us to repurchase up to \$500.0 million

The following table provides information regarding purchases of our Class A common stock commencing January 1, 2022 made by us for the period from October 1, 2023 through December 31, 2023.

Period	Total	Average	Total Number of	Maximum Approximate
	Number of		Shares Purchased	
	Shares	Price Paid	as Part of Publicly	Dollar Value of Shares
	Purchased	per Share	Announced	that May Yet be
			Programs	Purchased Under the
				Programs (1)
(In thousands, except share data)				
October 1, 2023 - October 31, 2023	—	\$ —	—	\$ 500,000
November 1, 2023 - November 30, 2023	—	\$ —	—	\$ 500,000
December 1, 2023 - December 31, 2023	—	\$ —	—	\$ 500,000
Total	—	\$ —	—	\$ 500,000

(1) Our Board of Directors previously authorized stock repurchases of up to \$500 million of our outstanding Class A common stock through and including December 31, 2023. On October 20, 2022, our Board of Directors extended this authorization to repurchase up to \$500 million of our outstanding Class A common stock through and including December 31, 2023. Purchases under our repurchase program may be made through open market purchases, privately negotiated transactions, or Rule 10b5-1 trading plans, subject to market conditions and other factors. We may elect not to purchase the maximum amount of shares allowable under this program and we may also enter into additional share repurchase programs authorized by our Board of Directors. This program expired December 31, 2023.

Item 6. [RESERVED]

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

You should read the following management's discussion and including December 31, 2022. In addition, on October 20, 2022, our Board of Directors authorized us to repurchase up to \$500.0 million analysis of our Class A common stock commencing January 1, 2023 through financial condition and including December 31, 2023. Purchases under results of operations together with the audited consolidated financial statements and notes to our repurchase authorizations may be made through privately negotiated transactions, open market repurchases, one or more trading plans financial statements included elsewhere in accordance with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, or otherwise, subject to market conditions this Annual Report on Form 10-K. This management's discussion and other factors. We may elect not to purchase the maximum amount or any of the shares allowable under these authorizations and we may also enter into additional share repurchase programs authorized by our Board of Directors. During the year ended December 31, 2022, we repurchased 3,980,612 shares of our Class A common stock.

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The following table provides information regarding repurchases of our Class A common stock during the three months ended December 31, 2022:

Period	Total Number of Shares (or Units) Purchased	Average Price Paid Per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Disclosed Plans or Program	Maximum Number (or Approximate Dollar Value) of Shares (or Units) That May Yet Be Purchased under the
				Plans or Program (1)
October 1 - 31	—	\$ —	—	\$ 410,736
November 1 - 30	—	—	—	410,736
December 1 - 31	—	—	—	410,736
Total	—	\$ —	—	\$ 410,736

(1) On November 2, 2021, our Board of Directors authorized us to repurchase up to \$500.0 million of our Class A common stock commencing January 1, 2022 through and including December 31, 2022. In addition, on October 20, 2022, our Board of Directors authorized us to repurchase up to \$500.0 million of our Class A common stock commencing January 1, 2023 through and including December 31, 2023. All shares repurchased have been converted to treasury shares.

ITEM 6. [RESERVED]

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

The following Management's Discussion and Analysis of our Financial Condition and Results of Operations ("Management's Discussion and Analysis") should be read in conjunction with our Consolidated Financial Statements. This Management's Discussion and Analysis 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 our operations and Analysis are contains forward-looking statements that involve risks and uncertainties. The forward-looking statements are not historical facts, but rather are based on current expectations, estimates, assumptions and are subject to risks projections about our industry, business and uncertainties that are often difficult to predict and beyond our control. Actual future financial results. Our actual results could differ materially from the results contemplated by these forward-looking statements due to a number of factors, including those expressed or implied by such forward-looking statements. See Disclosure Regarding Forward-Looking Statements of this Form 10-K for further discussion. For a discussion of additional risks, uncertainties and other factors that could impact our results of operations or financial condition, see Item discussed under the caption "Item 1A. Risk Factors of Factors" and elsewhere in this Annual Report on Form 10-K. Further, Furthermore, such forward-looking statements speak only as of the date of this Annual Report on Form 10-K and we undertake no expressly disclaim any obligation to update them. any forward-looking statements.

Overview

Recent Developments

Merger with DISH Network

On December 31, 2023, we completed the Merger with DISH Network. On the terms and subject to the conditions set forth in the Amended Merger Agreement, on December 31, 2023 at the Effective Time each share of DISH Network Common Stock outstanding immediately prior to the Effective Time, was converted into the right to receive a number of validly issued, fully paid and non-assessable shares of EchoStar Common Stock equal to the Exchange Ratio. Any shares of DISH Network Common Stock that were held in DISH Network's treasury or held directly by us or Merger Sub immediately prior to the Effective Time were cancelled and cease to exist and no consideration was paid in respect thereof. All shares of the DISH Network Class A Common Stock were delisted from NASDAQ and deregistered under the Securities Exchange Act of 1934, as amended.

The EchoStar Common Stock issued to the Ergen DISH Stockholders (as defined in the Amended Merger Agreement) as Merger consideration was issued through a private placement exemption from registration under the Securities Act. At the Effective Time, each share of DISH Network Class A Common Stock owned by the Ergen DISH Stockholders immediately prior to the Effective Time was converted into the right to receive a number of shares of EchoStar Class A Common Stock equal to the Exchange Ratio, and (b) each share of DISH Network Class B Common Stock owned by the Ergen DISH Stockholders immediately prior to the Effective Time was converted into the right to receive a number of shares of EchoStar Class B Common Stock equal to the Exchange Ratio.

Concurrently with the entry into the Amended Merger Agreement, the Ergen Stockholders, we and DISH Network entered into the Amended Support Agreement.

In connection with the completion of the Merger, on December 31, 2023, we and the Ergen Stockholders entered into the Registration Rights Agreement. See Note 1 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

For more information and a copy of the Amended Merger Agreement, the Amended Support Agreement and the Registration Rights Agreement, see the Form 8-K of EchoStar Corporation filed on October 3, 2023 and the Form 8-K of EchoStar Corporation filed on January 2, 2024.

With the Merger complete, we are currently focused on the Integration.

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EXECUTIVE SUMMARY

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Overview

Segments

We currently operate in two four primary business segments: (1) Pay-TV; (2) Retail Wireless; (3) 5G Network Deployment; and (4) Broadband and Satellite Services.

Our Pay-TV segment 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 offer Pay-TV services under the DISH® brand and the SLING® brand. We promote our Hughes segment Pay-TV services by providing our subscribers with a better "price-to-value" relationship and experience than

those available from other subscription television service providers. We market our ESS segment. Our operations include various corporate functions that have SLING TV services to consumers who do not been assigned subscribe to our business segments. These activities, costs traditional satellite and income, cable pay-TV services, as well as eliminations to current and recent traditional pay-TV subscribers who desire a lower cost alternative.

Our Retail Wireless segment offers Retail Wireless services as well as a competitive portfolio of intersegment transactions, are accounted for wireless devices. We offer customers value by providing choice and flexibility in our Corporate Retail Wireless services. We offer competitive consumer plans with no annual service contracts. Our Retail Wireless business strategy is to expand our current target segments and Other profitably grow our subscriber base by acquiring and retaining high quality subscribers while we continue our 5G Network Deployment. We intend to acquire high quality subscribers by providing competitive offers, choice and outstanding customer service that better meet those subscribers' needs and budget.

We are currently operating our Retail Wireless segment primarily as a MVNO as we continue our 5G Network Deployment and commercialize our 5G Network. We are transitioning our Retail Wireless segment to a MNO as our 5G Network becomes commercially available and we are currently activating subscribers onto our 5G Network in markets where we have reached VoNR. As an MVNO, today we depend on T-Mobile and AT&T to provide us with network services under the MNSA and the NSA, respectively. Under the NSA, we expect AT&T will become our primary network services provider.

Our 5G Network Deployment segment reporting, business strategy is to commercialize our Wireless spectrum licenses through the completion of our 5G Network Deployment. We have committed to deploy our 5G Network capable of serving increasingly larger portions of the U.S. population at different deadlines, including 20% of the U.S. population by June 2022 and 70% of the U.S. population by June 2023. If by June 2023, we are offering 5G broadband service to at least 50% of the U.S. population but less than 70% of the U.S. population, the 70% June 2023 deadline will be extended automatically to June 2025; however, as a result, we may, under certain circumstances, potentially be subject to certain penalties. On June 14, 2022, we announced we had successfully reached our 20% population coverage requirement. In addition, we announced and certified to the FCC that as of June 14, 2023, we offer 5G broadband service to over 73% of the U.S. population, or more than 246 million Americans nationwide. On September 29, 2023, the FCC confirmed we have met all of our June 14, 2023 band-specific 5G deployment commitments, and two of our three nationwide 5G commitments. The single remaining 5G commitment, that at least 70% of the U.S. population has access to average download speeds equal to 35 Mbps, will be confirmed using the drive test methodology agreed to and approved by the FCC. We have six months from September 29, 2023 to complete this drive test. We now have the largest commercial deployment of 5G VoNR in the world reaching approximately 200 million Americans and 5G broadband service reaching approximately 250 million Americans.

As a result of us providing 5G broadband service to over 50% of the U.S. population by June 14, 2023, the final build-out deadlines have been extended automatically to June 14, 2025 for us to offer 5G broadband service to at least 70% of the population in each Economic Area for the 700 MHz Licenses and AWS-4 Licenses and at least 75% of the population in each Economic Area for the H Block Licenses.

⁵⁶All amounts presented in this Management's Discussion and Analysis are expressed in thousands of U.S. dollars, except share and per share amounts and unless

Hughes Segment

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Our Hughes Broadband and Satellite Services segment business strategy is to maintain and improve our leadership position and through development of leading-edge technologies and services marketed to selected sectors within the consumer, enterprise and globally. Within our Broadband and Satellite Services segment we are an industry leader in both networking technologies and services, innovative global solutions that power a connected future for people, enterprises and things everywhere. We offer provide broadband satellite technology internet products and services to consumer customers. We offer customers, which include home and small to medium-sized businesses, transport technologies and managed network services to enterprise customers, telecommunications providers, aeronautical service providers, including civilian and defense. Our EchoStar XXIV satellite began service in December 2023, bringing additional broadband ne

managed services, equipment, hardware, satellite services capacity across North and communications solutions to government South America customers.

Our Hughes segment continues to focus its efforts on optimizing financial returns of our existing satellites while planning for new satellites launched, leased or acquired. Our consumer revenue growth depends on our success in adding new and retaining existing subscribers, and our Average Revenue Per User/subscriber ("ARPU"). Service and acquisition costs related to ongoing support for our direct and indirect customers are typically impacted most significantly by our growth. The growth of our enterprise and consumer businesses relies heavily on global economic conditions, which has resulted in our consumer subscriber base becoming increasingly limited. Our Latin America consumer subscriber base in certain markets has become capacity constrained. These constraints are expected to be addressed by the launch of an integral part of our satellite service leverage EchoStar XXIV satellite.

To date, we have not experienced a material adverse impact from the Russia-Ukraine conflict to deliver satellite services to unserved markets or sanctions.

On January 4, 2022, our India JV was formed, which allows us to offer flexible and scalable enterprise networking solutions using satellite primary transport, back-up and hybrid implementation in India.

We expect to launch the EchoStar XXIV satellite underserved consumer markets in the second quarter of 2023. The EchoStar XXIV satellite is intended to provide additional capacity for our HughesNet service in North, Central and South America Americas as well as enterprise and government markets. Following delays and government markets.

Other Developments

Cybersecurity Incident

On February 23, 2023, DISH Network experienced a network outage that affected its internal servers and IT telephony. We immediately activated our response and business continuity plans designed to contain, remediate and recover from the situation. We engaged the services of certain cyber-security experts and outside advisors to our contract with the manufacturer to provide compensation for past delays and a realignment of remedies. See Item 1 Business – Hughes Segment of this Form 10-K for further information. The availability evaluation of the EchoStar XXIV satellite could have been impacted by the situation, and once we determined that the outage was due to a material cybersecurity incident, we promptly notified appropriate law enforcement authorities.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUE

throughout North, South and Central America. Capital expenditures associated with the construction and launch of the EchoStar XXIV satellite are included in our Corporate and Other segment reporting.

Our broadband subscribers include customers whose customer databases were not accessed, however, we confirmed that we have not subscribed to our HughesNet U.S. and Latin America through retail, wholesale and small/medium enterprise service channels.

The following table presents our approximate number of broadband subscribers:

	As of December 31,	
	2022	2021
United States	931,000	1,090,000
Latin America	297,000	372,000
Total broadband subscribers	1,228,000	1,462,000

The following table presents the approximate number of net subscriber additions for each quarter in 2022:

	For the Three Months Ended		
	December 31	September 30	June 30

United States	(43,000)	(46,000)	(35,000)
Latin America	(14,000)	(15,000)	(25,000)
Total net subscriber additions	(57,000)	(61,000)	(60,000)

Our ability to gain new customers and retain existing customers in the U.S. is being impacted by our capacity limitations certain employee well as competitive pressure from satellite-based competitors a limited number of other records containing certain personal information w extracted. We took steps to protect the affected records, received confirmation that the extracted data was deleted and other techn individuals whose data was extracted.

The DISH TV, SLING TV and Retail Wireless services, along with our wireless and data networks remained operational at all times durir ended December 31, 2022, these factors resulted in lower total subscribers as compared to the three months ended September 30, 2022.

Our ability to gain new customers and retain existing customers in Latin America is also being impacted by adverse economic conditions. constraints in certain areas limit our ability to add new subscribers. For the three months ended December 31, 2022, the decline in r primarily due to more selective customer screening and improved churn as compared to the three months ended September 30, 2022.

We continued to execute our strategy of maximizing financial returns by utilizing capacity for higher economic value enterprise and govern Latin America. Continued success of this strategy will further reduce the available capacity for consumer subscribers.

incident. As of December 31, 2022 and 2021, our Hughes segment March 31, 2023, all significant systems had \$1.5 billion and \$1.4 l revenue backlog, respectively, an increase of 7.1% during that period, primarily due to an increase in contracts from our domestic and inter Of the total Hughes segment contracted revenue backlog as of December 31, 2022, we expect to recognize \$461.0 million of revenue Hughes segment contracted revenue backlog as our expected future revenue under enterprise customer contracts that are non-cancela revenue.

Goodwill Impairment Assessment

been restored.

Goodwill is assess

the reporting unit level. Reporting units are identified based on how segment management evaluates the results of segment operations a allocation decisions to such reporting units. All of our goodwill is assigned to our Hughes segment. We conducted our annual impairment te: our second fiscal quarter on a qualitative basis and determined that no adjustment to the carrying value of goodwill was then necessary be exceeded carrying value for our Hughes reporting unit.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUE

During the quarter ended December 31, 2022, we conducted a quantitative interim test of goodwill for all of our reporting units due to the price since our interim test in the third quarter of 2022. As a result of this interim test, no goodwill impairment was identified. The fair v reporting unit exceeded the carrying value by more than 20%. We concluded that there were no other indicators of impairment for the quart 31, 2022. Given the decline in our stock price during the year ended December 31, 2022, we believe it is reasonably possible that a further our stock price and market capitalization would result in all or a significant portion of our goodwill becoming impaired. The impairment of gc on liquidity or capital resources. However, it would result in a material non-cash charge and would materially adversely affect our financial recognized.

When estimating the fair value of our Hughes reporting unit, we used a combination of the discounted cash flow and market multiple weighted 50% of the fair value using a discounted cash flow methodology and 50% using a market multiple approach. Although we co transactions further supported our estimate of fair value, we gave them no such weight as the discounted cash flow and market multiple i considered more relevant and more reliable to be used in our fair value estimate.

In our discounted cash flow methodology, we developed and utilized a range of inputs that we believe to be reasonable and appropriately i inputs included, but were not limited to, revenue growth, EBITDA margins, capital expenditures, a terminal growth rate and a discount multiple approach, we also utilized what we believe to be a reasonable and appropriately conservative range of revenue and EBITDA multipl

ESS Segment

Our ESS segment provides satellite services on a full-time and/or occasional-use basis to U.S. government service providers, interne broadcast news organizations, content providers and private enterprise customers. We operate our ESS business using primarily the Echo

the EchoStar 105/SES-11 satellite and related infrastructure. Revenue in our ESS segment depends largely on our ability to continuously available satellite capacity with existing customers and our ability to enter into commercial relationships with new customers.

As of December 31, 2022 and 2021, our ESS segment had contracted revenue backlog of \$22.3 million and \$10.4 million, respectively, and during that period, primarily due to an increase in satellite service contracts with existing and new customers. Of the total ESS segment backlog as of December 31, 2022, we expect to recognize \$16.5 million of revenue in 2023. We define contracted revenue backlog for a contracted future satellite lease revenue.

Corporate and Other Segment

Satellite Anomalies and Impairments

During the first quarter of 2023, we lost contact with and incurred substantially all of our third nano-satellite ("EG-3"), which was launched in 2021. We incurred expenses for this matter, including, but not limited to, costs to remediate the incident and provide additional customer support. During the second and fourth quarters of 2021 and 2023, we did not incur additional material expenses resulting from the cyber-security incident and brought into the filing. We do not expect to incur material expenses in the third quarter of 2021. We are continuing attempts to reestablish contact with EG-3, and if unable to do so, we will have three years to place a new S-band spacecraft at the altitude prescribed in our Australian ITU filing. We expect our S-band satellites recently ordered from Astro Digital to be launched well in advance of the three year replacement timeline. We are not aware of any anomalies with respect to our owned or leased satellites as of the date of these Consolidated Financial Statements. There can be no assurance that any anomalies will not have a significant adverse effect in the future. In addition, there can be no assurance that we can recover critical transmission if an event one or more of our satellites were to fail.

Cybersecurity

We are not aware of any cyber-incidents with respect to our owned or leased satellites or other networks, equipment or systems that had a material adverse effect on our business, costs, operations, prospects, results of operation or financial position during future periods. During the year ended December 31, 2022 and December 31, 2023, we incurred approximately \$30 million in cyber-security-related expenses, which are recorded in "Cost of Sales" in our Consolidated Statements of Operations and through February 22, 2023 Comprehensive Income (Loss). There

Economic Environment

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

There can be no assurance, however, that any such incident can be detected or thwarted or will not have such a material adverse effect

During 2022 and 2023, we experienced significant inflationary pressures in our commodity and labor costs resulting from the macroeconomic environment and the future.

United States, which has significantly impacted our overall operating results.

EXPLANATION OF KEY METRICS AND OTHER ITEMS

Service revenue. "Service revenue" consists principally of Pay-TV and Wireless subscriber revenue, broadband services, maintenance and support revenue and satellite and transponder leases and services revenue. Certain of the amounts included in "Service revenue" are not recurring or non-recurring.

Equipment sales and other revenue. Services "Equipment sales" and other revenue primarily includes the sale of wireless equipment, non-subsidized sales of Pay-TV equipment, the licensing of certain intellectual property and sales of broadband equipment and network services to consumer and enterprise markets.

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Cost of services. "Cost of services" principally includes Pay-TV programming expenses and other operating costs related to our Pay-TV Wireless services (including costs incurred under the MNSA and NSA), and costs of broadband services, maintenance and other contracts associated with satellite and transponder leases and services, satellite uplinking/downlinking, subscriber wholesale service fees for the professional services and facilities rental revenue.

Equipment revenue. Equipment revenue primarily includes broadband equipment and networks sold to customers in our consumer and enterprise markets. **Cost of sales - services and other.** Cost of sales - services and other primarily includes the cost of broadband services provided to enterprise customers, maintenance and other contracted services, costs associated with satellite and transponder leases and services and facilities rental.

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Cost of sales - equipment and other. "Cost of sales - equipment and other" principally includes the cost of the wireless equipment, certain direct costs of wireless mobile network operations to deliver wireless voice and data services, the cost of broadband services provided, as well as costs related to the non-subsidized sales of Pay-TV equipment. Costs are generally recognized as produced in our consumer and enterprise markets. It also includes certain other costs associated with the deployment of equipment to our customers. Revenue is recognized.

Selling, general and administrative expenses.

Selling, general and administrative expenses. "Selling, general and administrative expenses" consists primarily of direct sales and marketing costs, third-party commissions related to the acquisition of subscribers and employee-related costs associated with services (e.g., information systems, human resources and other services), including bad debt expense and stock-based compensation. It includes professional fees (e.g., legal, information systems, and accounting services) and other expenses associated with facilities and administrative services.

Research expenses includes costs related to the installation of equipment for our new Pay-TV subscribers and development expenses. Research and development expenses primarily include costs associated with the design and development cost of products to support the provision of subsidized sales of Pay-TV equipment for new technology and innovation to our customers, subscribers.

Impairment of long-lived assets and goodwill. Impairment of long-lived assets and goodwill includes our impairment of property and equipment, goodwill, regulatory authorizations, goodwill and other intangible assets.

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

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" primarily includes interest expense associated with our long-term debt and finance lease obligations (net of capitalized interest), prepayment premiums, amortization of debt issuance costs associated with our long-term debt, and interest expense related to certain legal proceedings associated with our finance lease obligations.

Gains (losses) Other, net. The main components of "Other, net" are gains and losses realized on investments, net. Gains (losses) primarily includes the sale and/or conversion of marketable and non-marketable investment securities and derivative instruments, impairment of non-marketable investment securities, unrealized gains and losses from changes in fair value of our certain marketable equity and non-marketable securities and other investments for which we have elected the fair value option. It may also include realized derivative instruments, foreign currency gains and losses, on the sale or exchange of equity in earnings and losses of our available-for-sale debt securities, other-than-temporary impairment of our available-for-sale securities, realized gains and losses on the sale or exchange of equity securities and debt securities without readjustment and adjustments to the carrying amount of investments in unconsolidated affiliates and marketable equity securities resulting from observable price changes, affiliates.

Equity in earnings (losses) of unconsolidated affiliates, net. Equity in earnings (losses) of unconsolidated affiliates, net includes earning investments accounted for using the equity method.

Foreign currency transaction gains (losses), net. Foreign currency transaction gains (losses), net include gains and losses resulting from the measurement of transactions denominated in foreign currencies.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUE

Other, net. Other, net primarily includes dividends received from our marketable investment securities and other non-operating income and is not appropriately classified elsewhere in the Consolidated Statements of Operations in our Consolidated Financial Statements.

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA is defined as Net income (loss) excluding interest expense, net, Income tax benefit (provision), net, Depreciation and amortization, and Net "Net income (loss) attributable to non-controlling interest, net." EBITDA is not a measure determined in accordance with U.S. generally accepted accounting principles ("GAAP"). EchoStar plus "Interest expense capitalized" and net of "Interest income," "Income tax (provision) benefit, net" and "Depreciation and amortization." This non-GAAP measure is reconciled to Net "Net income (loss) attributable to EchoStar" in our discussion of Results "Results of Operations" section. EBITDA should

Operating income before depreciation and amortization ("OIBDA"). OIBDA is defined as "Operating income (loss)" plus "Depreciation and amortization." This "non-GAAP measure" is reconciled to "Operating income (loss)" in our discussion of "Results of Operations" below.

DISH TV subscribers. We include customers obtained through direct sales, independent third-party retailers and other independent third-party relationships in our DISH TV subscriber count. We also provide DISH TV services to hotels, motels and other commercial accounts. For commercial accounts, we divide our total revenue for these commercial accounts by \$34.99, and include the resulting number, which is less than the actual number of commercial units served, in our DISH TV subscriber count.

SLING TV subscribers. We include customers obtained through direct sales and third-party marketing agreements in our SLING TV subscriber count. SLING TV subscriber additions are recorded net of disconnects. SLING TV customers receiving service for no charge, under certain new subscriber programs, are excluded from our SLING TV subscriber count. For customers who subscribe to multiple SLING TV packages, each customer is only counted once as a subscriber.

Pay-TV subscribers. Our Pay-TV subscriber count includes all DISH TV and SLING TV subscribers discussed above. For customers who subscribe to both our DISH TV services and our SLING TV services, each subscription is counted as a separate Pay-TV subscriber.

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Pay-TV average monthly revenue per subscriber ("Pay-TV ARPU"). We are not aware of any uniform standards for calculating Pay-TV ARPU. Presentations of ARPU may not be considered calculated consistently by other companies in isolation the same or similar businesses. We calculate average monthly revenue per Pay-TV subscriber, or Pay-TV ARPU, by dividing average monthly Pay-TV segment "Service revenue," excluding broadband services, for the period by our average number of Pay-TV subscribers for the period. The average number of Pay-TV subscribers for the period is calculated by adding the average number of Pay-TV subscribers for each month and dividing by the number of months in the period. The average number of Pay-TV subscribers for each month is calculated by adding the beginning and ending Pay-TV subscribers for the month and dividing by two. SLING TV subscribers on average purchase lower priced programming services than DISH TV subscribers, and therefore, as SLING TV subscribers increase as a substitute percentage of total Pay-TV subscribers, it has had a negative impact on Pay-TV ARPU.

DISH TV average monthly subscriber churn rate ("DISH TV churn rate"). We are not aware of any uniform standards for **operating income** calculating subscriber churn rate and believe presentations of subscriber churn rates may not be calculated consistently by different companies in the same or similar businesses. We calculate our DISH TV churn rate for any **other measure determined** period by dividing the number of DISH TV subscribers who terminated service during the period by the average number of DISH TV subscribers for the same period, and further dividing by the number of months in the period. The average number of DISH TV subscribers is calculated for the period by adding the average number of DISH TV subscribers for each month and dividing by the number of months in the period. The average number of DISH TV subscribers for each month is calculated by adding the beginning and ending DISH TV subscribers for the month and dividing by two.

DISH TV SAC. Subscriber acquisition cost measures are commonly used by those evaluating traditional companies in the pay-TV industry. We are not aware of any uniform standards for calculating the "average subscriber acquisition costs per new DISH TV subscriber activation," or DISH TV SAC. Our presentations of pay-TV SAC may not be calculated consistently by different companies in the same or similar businesses. Our DISH TV SAC is calculated using all costs of acquiring DISH TV subscribers (e.g., subsidized equipment, advertising, installation, commissions and direct sales, etc.) within the period, plus capitalized payments made under certain sales incentive programs and the value of equipment sold under our **management** lease program for new DISH TV subscribers, divided by gross new DISH TV subscriber activations. We include all subscriber activations in our calculation, including DISH TV subscribers added with little or no subscriber acquisition costs.

Wireless subscribers. We include prepaid and postpaid customers obtained through direct sales, independent third-party retailers and other distribution relationships in our Wireless subscriber count. Our Wireless subscriber count includes all ACP/Gen Mobile subscribers. Our gross new Wireless subscriber activations exclude all ACP/Gen Mobile subscribers as we record these subscribers net of disconnects, as do our competitors.

Affordable Connectivity Program/Gen Mobile subscribers ("ACP/Gen Mobile subscribers"). The Emergency Broadband Benefit Program launched by the FCC in February of 2021 to support broadband services and devices to help low-income individuals that meet certain eligibility requirements. The Affordable Connectivity Program ("ACP") replaced the EBBP on December 31, 2021. Our ACP/Gen Mobile subscribers have a **measured** churn rate compared to our other Wireless subscribers and we incur lower costs to acquire these subscribers. Therefore, our ACP/Gen Mobile subscriber additions are recorded net of **operating efficiency** disconnects.

Wireless average monthly revenue per subscriber ("Wireless ARPU"). We are not aware of any uniform standards for calculating **financial performance** and believe presentations of ARPU may not be calculated consistently by other companies in the same or similar businesses. We calculate our average monthly revenue per Wireless subscriber, or Wireless ARPU, by dividing average monthly Retail Wireless segment "Segment" revenue by the average number of Wireless subscribers for the period. The average number of Wireless subscribers for the period is calculated by adding the average number of Wireless subscribers for each month and dividing by the number of months in the period. The average number of Wireless subscribers for each month is calculated by adding the beginning and ending Wireless subscribers for the month and dividing by two. Management believes EBITDA is a useful measure of our **underlying operating performance** and is frequently used by securities analysts, investors and other interested parties to evaluate the performance of companies in our industry. Wireless churn rate.

Wireless average monthly subscriber churn rate ("Wireless churn rate"). We are not aware of any uniform standards for calculating subscriber churn rate and believe presentations of subscriber churn rates may not be calculated consistently by different companies in the same or similar businesses. We calculate our "Wireless churn rate" for any period by dividing the number of Wireless subscribers who terminated service during the period by the average number of Wireless subscribers for the same period, and further dividing by the number of months in the period. The average number of Wireless subscribers for the period is calculated by adding the average number of Wireless subscribers for each month and dividing by the number of months in the period. The average number of Wireless subscribers for each month is calculated by adding the beginning and ending Wireless subscribers for the month and dividing by two. Mobile subscribers are excluded from our calculation of our **business and is appropriate to enhance an overall understanding of our financial performance**. Management also believes that EBITDA is useful to investors because it is frequently used by securities analysts, investors and other interested parties to evaluate the performance of companies in our industry. Wireless churn rate.

Subscribers. Broadband subscribers. Subscribers include customers that subscribe to our HughesNet service, through retail, wholesale enterprise service channels.

Free cash flow. We define free cash flow as “Net cash flows from operating activities” less: (i) “Purchases of property and equipment” and other receipts of purchases of property and equipment,” and (ii) “Capitalized interest related to Regulatory authorizations,” as shown on Statements of Cash Flows.

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Highlights from our Financial Results

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Consolidated Results of Operations for

RESULTS OF OPERATIONS – Segments

Business Segments

We currently operate four primary business segments: (1) Pay-TV; (2) Retail Wireless; (3) 5G Network Deployment; and (4) Broadband Services.

Revenue and operating income (loss) by segment are shown in the table below:

Year Ended December 31, 2023 Compared to the Year Ended December 31, 2022:

	For the Years Ended December 31,		Variance	
	2023	2022	Amount	%
	(In thousands)			
Revenue:				
Pay-TV	\$ 11,571,159	\$ 12,505,392	\$ (934,233)	(7.5)
Retail wireless	3,692,372	4,135,129	(442,757)	(10.7)
5G network deployment	91,928	65,768	26,160	39.8
Broadband and satellite services	1,755,559	1,998,093	(242,534)	(12.1)
Eliminations	(95,420)	(70,136)	(25,284)	(36.0)
Total revenue	\$ 17,015,598	\$ 18,634,246	\$ (1,618,648)	(8.7)
Operating income (loss):				
Pay-TV	\$ 2,699,810	\$ 2,933,898	\$ (234,088)	(8.0)
Retail wireless	(643,184)	(77,264)	(565,920)	*
5G network deployment	(1,881,369)	(810,968)	(1,070,401)	*
Broadband and satellite services	(458,609)	181,615	(640,224)	*
Eliminations	5,443	5,557	(114)	(2.1)

Total operating income (loss)	\$ (277,909)	\$ 2,232,838	\$ (2,510,747)	*
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* Percentage is not meaningful.

Total revenue. Revenue Our consolidated revenue totaled \$17.016 billion for the year ended December 31, 2023, a decrease of \$2.0 or 8.7% compared to the same period in 2022. The net decrease primarily resulted from the decrease in revenue from our Pay-TV, Broadband and Satellite Service segments.

- **Total operating income (loss).** Operating Our consolidated operating loss totaled \$278 million for the year ended December 31, income of \$189.6 million
- Net \$2.233 billion during the same period in 2022. The net decrease primarily resulted from an increase in operating loss from Deployment and Retail Wireless segments and to a lesser extent decreases in operating income (loss) from our Broadband and Pay-TV segments. The year ended December 31, 2023 was adversely impacted by impairments of \$166.5 million
- Net income attributable goodwill of: (1) \$533 million from our Broadband and Satellite Service segment; (2) \$120 million from Deployment segment; (3) \$99 million from our Retail Wireless segment; and (4) \$6 million from our Pay-TV segment. See Note 2 to stock of \$177.1 million and basic and diluted earnings per share of common stock of \$2.10
- EBITDA of \$707.6 million (see reconciliation of this non-GAAP measure in Results of Operations)

the Notes to our Consolidated Financial Condition as of December 31, 2022:

Statements in this Annual Report on Form 10-K for further information.

- Total assets of \$6.2 billion
- Total liabilities of \$2.6 billion
- Total stockholders' equity of \$3.6 billion
- Cash and cash equivalents and marketable investment securities of \$1.7 billion

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

RESULTS OF OPERATIONS

Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021.

	For the Years Ended December 31,		Variance	
	2022	2021	Amount	%
	(In thousands)			
Revenue:				
Pay-TV	\$ 12,505,392	\$ 12,928,707	\$ (423,315)	(3.3)
Retail wireless	4,135,129	4,897,205	(762,076)	(15.6)
5G network deployment	65,768	73,889	(8,121)	(11.0)
Broadband and satellite services	1,998,093	1,985,720	12,373	0.6

Eliminations	(70,136)	(66,843)	(3,293)	(4.9)
Total revenue	\$ 18,634,246	\$ 19,818,678	\$ (1,184,432)	(6.0)
Operating income (loss):				
Pay-TV	\$ 2,933,898	\$ 3,075,579	\$ (141,681)	(4.6)
Retail wireless	(77,264)	343,785	(421,049)	*
5G network deployment	(810,968)	(216,330)	(594,638)	*
Broadband and satellite services	181,615	209,042	(27,427)	(13.1)
Eliminations	5,557	10,328	(4,771)	(46.2)
Total operating income (loss)	\$ 2,232,838	\$ 3,422,404	\$ (1,189,566)	(34.8)

* Percentage is not meaningful.

Total revenue. Our consolidated revenue totaled \$18.634 billion for the year ended December 31, 2022, a decrease of \$1.184 billion to the same period in 2021. The net decrease primarily resulted from the decrease in revenue from our Retail Wireless and Pay-TV

Total operating income (loss). Our consolidated operating income totaled \$2.233 billion for the year ended December 31, 2022, a billion or 34.8% compared to the same period in 2021. The net decrease primarily resulted from an increase in operating loss from Deployment and decreases in operating income (loss) from our Retail Wireless and Pay-TV segments and to a lesser extent o Satellite Services segment.

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The following table presents

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Pay-TV Segment

We offer Pay-TV services under the DISH brand and the SLING brand. As of December 31, 2023, we had 8.526 million Pay-TV subscribers in the United States, including 6.471 million DISH TV subscribers and 2.055 million SLING TV subscribers.

We promote our consolidated Pay-TV services by providing our subscribers with better service, technology and value than those available from other subscription television service providers. 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 cable networks. We also offer programming packages that include local broadcast networks, specialty sports channels, premium movie channels and Latino and international programming. In the market our SLING TV services to consumers who do not subscribe to traditional satellite and cable pay-TV services, as well as to current and recent traditional pay-TV subscribers who desire a lower cost alternative. Our SLING TV services require Internet connection and are available on multiple streaming-capable devices including, among others, streaming media devices, TVs, tablets, computers, game consoles and phones. We offer SLING domestic, SLING International, SLING Latino and SLING Freestream video programming services.

Trends in our Pay-TV Segment

Competition

Competition has intensified in recent years as the pay-TV industry has matured. We and our competitors increasingly may seek to attract a greater proportion of new subscribers from each other's existing subscriber bases rather than from first-time

purchasers of 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, including computers, televisions, and other streaming and mobile devices, including wireless service providers. In recent years, 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.

We incur significant costs to retain our existing DISH TV subscribers, generally as a result of upgrading their equipment to next generation receivers, primarily including our Hopper® receivers, and by providing retention credits. Our DISH TV subscriber retention costs may vary significantly from period to period.

Many of our competitors have been especially aggressive by offering discounted programming and services for both new and existing subscribers, including, but not limited to, bundled offers combining broadband, video and/or wireless services and other promotional offers. Certain competitors have been able to subsidize the price of video services with the price of broadband and/or wireless services.

Our Pay-TV services also face increased competition from programmers and other companies who distribute video directly to consumers over the Internet, as well as traditional satellite television providers, cable companies and other telecommunications companies that are rapidly increasing their Internet-based video offerings and direct-to-consumer exclusive and non-exclusive content. We also face competition from providers of video content, many of which are providing programming content to us, that distribute content over the Internet including services with live-linear television programming as well as single programmer offerings and offerings of large libraries of on-demand content, including in certain cases original content. These product offerings include, but are not limited to, Netflix, Hulu, Apple+, Prime Video, YouTube TV, Disney+, ESPN+, Paramount+, Max, STARZ, Peacock, Fubo, Philo and Tubi and certain bundles of these offerings.

Significant changes in consumer behavior regarding the means by which consumers obtain video entertainment and information in response to digital media competition could have a material adverse effect on our business, results of operations and financial condition or otherwise disrupt our business.

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In particular, consumers have shown increased interest in viewing certain video programming in any place, at any time and on any broadband or Internet-connected device they choose. Online content providers may cause our subscribers to disconnect our DISH TV services ("cord cutting"), downgrade to smaller, less expensive programming packages ("cord shaving") or elect to purchase through these online content providers a certain portion of the services that they would have historically purchased from us.

Mergers and acquisitions, joint ventures and alliances among cable television providers, telecommunications companies, programming providers and others may result in, among other things, greater scale and financial leverage and increase the availability of offerings from providers capable of bundling video, broadband and/or wireless services in competition with our services and may exacerbate the risks described under the caption "Item 1A. Risk Factors" and elsewhere in our public filings. These transactions may affect us adversely by, among other things, making it more difficult for us to obtain access to certain programming networks on nondiscriminatory and fair terms, or at all.

Our Pay-TV subscriber base has been declining due to, among other things, the factors described above. There can be no assurance that our Pay-TV subscriber base will not continue to decline and that the pace of such decline will not accelerate.

As our Pay-TV subscriber base continues to decline, it could have a material adverse long-term effect on our business, results of operations, financial condition and cash flow.

Programming

Our ability to compete successfully will depend, among other things, on our ability to continue to obtain desirable programming and deliver it to our subscribers at competitive prices. Programming costs represent a large percentage of our "Cost of services" and the largest component of our total expense. We expect these costs to continue to increase due to contractual price increases and the renewal of long-term programming contracts on less favorable pricing terms and certain programming costs are rising at a much faster rate than wages or inflation. In particular, the rates we are charged for retransmitting local broadcast channels have been increasing substantially and may exceed our ability to increase our prices to our subscribers. Our ability to provide services under these agreements and negotiate acceptable terms depends on, among other things, the number of subscribers we have, our actual, perceived or anticipated financial condition and our negotiating power against the programmer, which can vary depending on the size and scale of such programmer. Going forward, our margins may face pressure if we are unable to renew our long-term programming contracts on acceptable pricing and other economic terms if we are unable to pass these increased programming costs on to our subscribers.

Increases in programming costs have caused us to increase the rates that we charge to our subscribers, which could in the future cause our existing Pay-TV subscribers to disconnect our services or cause potential new Pay-TV subscribers to choose not to subscribe to our services. Additionally, even if our subscribers do not disconnect our services, they may purchase through rival and existing online content providers a certain portion of the services that they would have historically purchased from us.

Furthermore, our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate may be negatively impacted if we are unable to renew our long-term programming carriage contracts. In the past, our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate have been negatively impacted as a result of programming interruptions and threatened programming interruptions in connection with the scheduled expiration of programming carriage contracts with content providers. There can be no assurance that the removal of any channels will not have a material adverse effect on our business, results of operations and financial condition or otherwise disrupt our business. We cannot predict with any certainty the impact to our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate resulting from programming interruptions or threatened programming interruptions that may occur in the future. As a result, we may at times suffer from periods of lower net Pay-TV subscriber additions or higher Pay-TV subscriber losses.

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Other Developments

Adaptive Bitrate Streaming Patents

Through our subsidiaries, we hold dozens of issued United States and foreign patents that relate to Adaptive Bitrate Streaming. On September 9, 2022, the chief administrative law judge at the United States International Trade Commission ("ITC") issued an Initial Determination holding that the video streaming in certain Peloton, NordicTrack and Mirror exercise equipment infringes four of those patents, and recommended that the ITC prevent the importation of the infringing products. On March 8, 2023, the ITC issued its Final Determination, which affirmed the Initial Determination for three of the four patents in all material aspects, and issued the recommended exclusion and cease and desist orders, which will become effective after a Presidential review period. On February 9, 2023, we entered into a confidential license agreement covering Mirror exercise

equipment that resolves our litigation involving those products. On May 1, 2023, we entered into a \$75 million license agreement covering Peloton exercise equipment that resolves our litigation involving those products. During the year ended December 31, 2023, we recorded the \$75 million license agreement in "Equipment sales and other revenue" on our Consolidated Statements of Operations and Comprehensive Income (Loss). We have not reached a settlement with respect to the NordicTrack infringing products and we intend to enforce this litigation and to pursue our related patent infringement claims against them.

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RESULTS OF OPERATIONS – Pay-TV Segment

Year Ended December 31, 2023 Compared to the Year Ended December 31, 2022.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2023	2022	Amount	%
	(In thousands)			
Revenue:				
Service revenue	\$ 11,385,961	\$ 12,360,601	\$ (974,640)	(7.9%)
Equipment sales and other revenue	185,198	144,791	40,407	27.9%
Total revenue	11,571,159	12,505,392	(934,233)	(7.5%)
Costs and expenses:				
Cost of services	6,977,628	7,423,427	(445,799)	(6.0%)
% of Service revenue	61.3 %	60.1 %		
Cost of sales - equipment and other	91,164	97,315	(6,151)	(6.3%)
Selling, general and administrative expenses	1,414,808	1,622,281	(207,473)	(12.8%)
% of Total revenue	12.2 %	13.0 %		
Depreciation and amortization	381,292	428,471	(47,179)	(11.0%)
Impairment of long-lived assets and goodwill	6,457	—	6,457	—%
Total costs and expenses	8,871,349	9,571,494	(700,145)	(7.3%)
Operating income (loss)	\$ 2,699,810	\$ 2,933,898	\$ (234,088)	(7.9%)
Other data:				
Pay-TV subscribers, as of period end (in millions)	8.526	9.750	(1.224)	(12.5%)
DISH TV subscribers, as of period end (in millions)	6.471	7.416	(0.945)	(12.7%)
SLING TV subscribers, as of period end (in millions)	2.055	2.334	(0.279)	(11.9%)
Pay-TV subscriber additions (losses), net (in millions)	(1.224)	(0.957)	(0.267)	(27.8%)
DISH TV subscriber additions (losses), net (in millions)	(0.945)	(0.805)	(0.140)	(17.4%)
SLING TV subscriber additions (losses), net (in millions)	(0.279)	(0.152)	(0.127)	(83.6%)
Pay-TV ARPU	\$ 104.56	\$ 101.20	\$ 3.36	3.3%
DISH TV subscriber additions, gross (in millions)	0.464	0.634	(0.170)	(26.8%)
DISH TV churn rate	1.69 %	1.54 %	0.15 %	9.7%
DISH TV SAC	\$ 1,118	\$ 1,044	\$ 74	7.1%

Purchases of property and equipment, net of refunds	\$	242,736	\$	131,093	\$	111,643	\$
OIBDA	\$	3,081,102	\$	3,362,370	\$	(281,268)	\$

* Percentage is not meaningful.

Pay-TV Subscribers

DISH TV subscribers. We lost approximately 945,000 net DISH TV subscribers during the year ended December 31, 2023 compared to the loss of approximately 805,000 net DISH TV subscribers during the same period in 2022. This increase in DISH TV subscriber losses primarily resulted from lower gross new DISH TV subscriber activations and a higher DISH TV churn rate.

SLING TV subscribers. We lost approximately 279,000 net SLING TV subscribers during the year ended December 31, 2023 compared to the loss of approximately 152,000 net SLING TV subscribers during the same period in 2022. The increase in SLING TV subscriber losses were primarily related to lower SLING TV subscriber activations, partially offset by lower SLING TV subscriber disconnects in 2023. We continue to experience increased competition, including competition from over-the-top subscription video on-demand and live-linear OTT service providers, many of which are providers of our content and other seasonal sports programming direct to subscribers on an a la carte basis.

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DISH TV subscribers, gross. During the year ended December 31, 2023, we activated approximately 464,000 gross new DISH TV subscribers compared to approximately 634,000 gross new DISH TV subscribers during the same period in 2022, a decrease of 26.8%. This decrease in our gross new DISH TV subscriber activations was primarily related to the lack of demand, shifting consumer behavior, and lower marketing expenditures, as well as increased competitive pressures, including but not limited to, live-linear OTT service providers, aggressive short term introductory pricing and bundled offers combining broadband, video and/or wireless services and other discounted promotional offers, and direct-to-consumer offerings of certain of our programmers. Our gross new DISH TV subscriber activations continue to be negatively impacted by our emphasis on acquiring higher quality subscribers.

DISH TV churn rate. Our DISH TV churn rate for the year ended December 31, 2023 was 1.69% compared to 1.54% for the same period in 2022. Our DISH TV churn rate for the year ended December 31, 2023 was briefly elevated due to the cybersecurity incident. Our DISH TV churn rate continues to be adversely impacted by external factors, such as, among other things, cord cutting, shifting consumer behavior and increased competitive pressures, including, but not limited to, live-linear OTT service providers, aggressive marketing, bundled discount offers combining broadband, video and/or wireless services and other discounted promotional offers. Our DISH TV churn rate continues to be positively impacted by our emphasis on acquiring and retaining higher quality subscribers. Our DISH TV churn rate is also impacted by internal factors, such as, among other things, our ability to consistently provide outstanding customer service, price increases, our ability to combat piracy and other forms of fraud, and the level of our retention efforts.

Our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate have been negatively impacted as a result of programming interruptions and threatened programming interruptions in connection with the scheduled expiration of programming carriage contracts with content providers. We cannot predict with any certainty the impact to our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV subscriber churn rate resulting from programming interruptions or threatened programming interruptions that may occur in the future. As a result, we may at times suffer from periods of lower net Pay-TV subscriber additions or higher net Pay-TV subscriber losses.

We have not always met our own standards for performing high-quality installations, effectively resolving subscriber issues when they arise, answering subscriber calls in an acceptable timeframe, effectively communicating with our subscribers by reducing calls driven by the complexity of our business, improving the reliability of certain systems and subscriber equipment and aligning the interests of certain independent third-party retailers and installers to provide high-quality service. Most of these factors have affected both gross new DISH TV subscriber activations as well as DISH TV subscriber churn rate. In the future, gross new DISH TV subscriber activations and our DISH TV subscriber churn rate may be negatively impacted by these factors, which could in turn adversely affect our revenue.

Service revenue. "Service revenue" totaled \$11.386 billion for the year ended December 31, 2023, a decrease of \$975 million or 7.9% compared to the same period in 2022. The decrease in "Service revenue" compared to the same period in 2022 was primarily related to lower average Pay-TV subscriber base, partially offset by an increase in Pay-TV ARPU, discussed below.

Equipment sales and other revenue. "Equipment sales and other revenue" totaled \$185 million for the year ended December 31, 2023, an increase of \$40 million or 27.9% compared to the same period in 2022. The increase in "Equipment sales and other revenue" compared to the same period in 2022 was primarily related to a non-recurring \$75 million license for our Adaptive Bitrate Streaming patents to Peloton covering certain Peloton products that resolves our litigation involving those products, partially offset by a decrease in equipment sales revenue.

Pay-TV ARPU. Pay-TV ARPU was \$104.56 during the year ended December 31, 2023 versus \$101.20 during the same period in 2022. The \$3.36 or 3.3% increase in Pay-TV ARPU was primarily attributable to the DISH TV and SLING TV programming price increases. The DISH TV and SLING TV programming package price increases were effective in the fourth quarter of 2022 and 2023.

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Cost of services. "Cost of services" totaled \$6.978 billion during the year ended December 31, 2023, a decrease of \$400 million or 6.0% compared to the same period in 2022. The decrease in "Cost of services" was primarily attributable to a lower average Pay-TV subscriber base, partially offset by higher programming costs per subscriber and higher variable and retention costs per subscriber. Programming costs per subscriber increased during the year ended December 31, 2023 due to increases in certain of our programming contracts, including the renewal of certain contracts at higher rates, particularly for local broadcast channels. In addition, variable and retention costs per subscriber increased during the year ended December 31, 2023 due to, among other things, approximately \$30 million in cyber-security-related expenses to remediate the incident and provide additional customer support. "Cost of services" represented 61.3% and 60.1% of "Service revenue" during the year ended December 31, 2023 and 2022, respectively.

In the normal course of business, we enter into contracts to purchase programming content in which our payment obligations are generally contingent on the number of Pay-TV subscribers to whom we provide the respective content. Our "Cost of services" have and will continue to face further upward pressure from price increases and the renewal of long-term programming contracts on less favorable pricing terms. In addition, our programming expenses will increase to the extent we are successful in growing our Pay-TV subscriber base.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$1.415 billion during the year ended December 31, 2023, a \$207 million or 12.8% decrease compared to the same period in 2022. This change was primarily driven by a decrease in subscriber acquisition costs resulting from lower marketing expenditures and lower gross revenue from DISH TV subscriber activations, and a decrease in personnel costs, partially offset by Merger related costs.

Depreciation and amortization. "Depreciation and amortization" expense totaled \$381 million during the year ended December 31, 2023, a \$47 million or 11.0% decrease compared to the same period in 2022. This change was primarily driven by a decrease in depreciation expense from equipment leased to new and existing DISH TV subscribers and the EchoStar satellite which became fully depreciated during the second quarter of 2023.

Impairment of long-lived assets and goodwill. "Impairment of long-lived assets and goodwill" totaled \$6 million for the year ended December 31, 2023. This impairment represents a noncash impairment charge for goodwill. See Note 2 to the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

DISH TV SAC. DISH TV SAC was \$1,118 during the year ended December 31, 2023 compared to \$1,044 during the same period in 2022, an increase of \$74 or 7.1%. This change was primarily attributable to an increase in advertising costs per subscriber, higher installation costs due to an increase in labor and other installation costs, and a lower percentage of remanufactured receivers being activated on new subscriber accounts.

During the year ended December 31, 2023 and 2022, the amount of equipment capitalized under our lease program for DISH TV subscribers totaled \$54 million and \$55 million, respectively.

To remain competitive, we upgrade or replace subscriber equipment periodically as technology changes, and the costs associated with these upgrades may be substantial. To the extent technological changes render a portion of our existing equipment obsolete, we would be unable to redeploy all returned equipment and consequently would realize less benefit from the DISH TV SAC reduction associated with redeployment of that returned lease equipment.

Our "DISH TV SAC" may materially increase in the future to the extent that we, among other things, transition to new technologies, introduce more aggressive promotions, or provide greater equipment subsidies. See further information under "Liquidity and Capital Resources – Subscriber Acquisition and Retention Costs."

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Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2022	2021	Amount	%
	(In thousands)			
Revenue:				
Service revenue	\$ 12,360,601	\$ 12,787,485	\$ (426,884)	(3.4%)
Equipment sales and other revenue	144,791	141,222	3,569	2.5%
Total revenue	12,505,392	12,928,707	(423,315)	(3.3%)
Costs and expenses:				
Cost of services	7,423,427	7,735,410	(311,983)	(4.0%)
% of Service revenue	60.1 %	60.5 %		
Cost of sales - equipment and other	97,315	104,941	(7,626)	(7.3%)
Selling, general and administrative expenses	1,622,281	1,473,941	148,340	10.1%
% of Total revenue	13.0 %	11.4 %		
Depreciation and amortization	428,471	538,836	(110,365)	(20.5%)

Total costs and expenses	9,571,494	9,853,128	(281,634)
Operating income (loss)	\$ 2,933,898	\$ 3,075,579	\$ (141,681)
Other data:			
Pay-TV subscribers, as of period end (in millions)	9.750	10.707	(0.957)
DISH TV subscribers, as of period end (in millions)	7.416	8.221	(0.805)
SLING TV subscribers, as of period end (in millions)	2.334	2.486	(0.152)
Pay-TV subscriber additions (losses), net (in millions)	(0.957)	(0.583)	(0.374)
DISH TV subscriber additions (losses), net (in millions)	(0.805)	(0.595)	(0.210)
SLING TV subscriber additions (losses), net (in millions)	(0.152)	0.012	(0.164)
Pay-TV ARPU	\$ 101.20	\$ 95.94	\$ 5.26
DISH TV subscriber additions, gross (in millions)	0.634	0.835	(0.201)
DISH TV churn rate	1.54 %	1.40 %	0.14 %
DISH TV SAC	\$ 1,044	\$ 823	\$ 221
Purchases of property and equipment, net of refunds	\$ 131,093	\$ 173,485	\$ (42,392)
OIBDA	\$ 3,362,370	\$ 3,614,415	\$ (252,045)

* Percentage is not meaningful.

Pay-TV Subscribers

DISH TV subscribers. We lost approximately 805,000 net DISH TV subscribers during the year ended December 31, 2022 compared to the loss of approximately 595,000 net DISH TV subscribers during the same period in 2021. This increase in DISH TV subscriber losses primarily resulted from lower gross new DISH TV subscriber activations and a higher DISH churn rate.

SLING TV subscribers. We lost approximately 152,000 net SLING TV subscribers during the year ended December 31, 2022 compared to the addition of approximately 12,000 net SLING TV subscribers during the same period in 2021. The decrease in net SLING TV subscribers was primarily related to higher subscriber disconnects in 2022 following seasonal sports activity and lower SLING TV subscriber activations. We continue to experience increased competition, including competition from over-the-top subscription video on-demand and live-linear OTT service providers.

DISH TV subscribers, gross. During the year ended December 31, 2022, we activated approximately 634,000 gross new DISH TV subscribers compared to approximately 835,000 gross new DISH TV subscribers during the same period in 2021, a decrease of 24.1%. This decrease in our gross new DISH TV subscriber activations was primarily related to the lack of demand, shifting consumer behavior and channel removals, including Tegna, as well as increased competitive pressure including aggressive short term introductory pricing and bundled offers combining broadband, video and/or wireless services and other discounted promotional offers, live-linear OTT service providers, and direct-to-consumer offerings by certain of our programmers. Our gross new DISH TV subscriber activations continue to be negatively impacted by an emphasis on acquiring higher quality subscribers.

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DISH TV churn rate. Our DISH TV churn rate for the year ended December 31, 2022 was 1.54% compared to 1.40% for same period in 2021. Our DISH TV churn rate for the year ended December 31, 2022 was negatively impacted programming interruptions in connection with the scheduled expiration of certain programming carriage contracts, including Tegna. Our DISH TV churn rate continues to be adversely impacted by external factors, such as, among other things, cutting, shifting consumer behavior and increased competitive pressures, including aggressive marketing, bundled discounts offers combining broadband, video and/or wireless services and other discounted promotional offers. In addition, our DISH TV churn rate was positively impacted by COVID-19 beginning in the second quarter of 2020, including, among other things, recommendations and/or mandates from federal, state, and/or local authorities that customers refrain from non-essential movements outside of their homes and the resulting increased consumption of our Pay-TV services. Our DISH TV churn rate continues to be positively impacted by our emphasis on acquiring and retaining higher quality subscribers. Our DISH TV churn rate is also impacted by internal factors, such as, among other things, our ability to consistently provide outstanding customer service, price increases, our ability to control piracy and other forms of fraud, and the level of our retention efforts.

Our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate have been negatively impacted as a result of programming interruptions and threatened programming interruptions in connection with scheduled expiration of programming carriage contracts with content providers. On October 6, 2021, Tegna removed channels from our DISH TV programming lineup in 53 markets. On February 4, 2022, we and Tegna signed a new programming carriage contract which restored these channels to our DISH TV programming lineup. Although subscriber demand for local network stations has decreased in recent years as a result of, among other things, programming being available to subscribers through alternative methods, including over the air antennas, there can be no assurance that removal of these or other channels will not have a material adverse effect on our business, results of operations and financial condition or otherwise disrupt our business. In addition, Disney removed its channels, including locals in eight markets, from our DISH TV and SLING TV programming lineup, from October 1, 2022 to October 3, 2022, after we were unable to reach a contract extension agreement prior to the expiration of the programming carriage contract. The channels were restored when we reached a tentative contract extension agreement with Disney and subsequently, we and Disney signed a new long-term programming carriage contract.

We cannot predict with any certainty the impact to our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV subscriber churn rate resulting from programming interruptions or threatened programming interruptions that may occur in the future. As a result, we may at times suffer from periods of lower net Pay-TV subscriber additions or higher net Pay-TV subscriber losses.

Service revenue. "Service revenue" totaled \$12.361 billion for the year ended December 31, 2022, a decrease of \$427 million or 3.3% compared to the same period in 2021. The decrease in "Service revenue" compared to the same period in 2021 was primarily related to lower average Pay-TV subscriber base, partially offset by an increase in Pay-TV ARPU, discussed below.

Pay-TV ARPU. Pay-TV ARPU was \$101.20 during the year ended December 31, 2022 versus \$95.94 during the same period in 2021. The \$5.26 or 5.5% increase in Pay-TV ARPU was primarily attributable to the DISH TV and SLING TV programming price increases and higher Pay-TV ad sales revenue. The DISH TV programming package price increases were effective in the first and fourth quarters of 2021 and the fourth quarter of 2022, and the SLING TV programming package price increases were effective during 2021 and the fourth quarter of 2022.

Cost of services. "Cost of services" totaled \$7.423 billion during the year ended December 31, 2022, a decrease of \$1.0 billion or 4.0% compared to the same period in 2021. The decrease in "Cost of services" was primarily attributable to a lower average Pay-TV subscriber base, partially offset by higher programming costs per subscriber and higher variable and retention costs per subscriber. Programming costs per subscriber increased during the year ended December 31, 2022 due to increases in certain of our programming contracts, including the renewal of certain contracts at higher rates, particularly local broadcast channels. Variable and retention costs per subscriber increased during the year ended December 31, 2022 due to, among other things, higher labor and in-home service costs, and higher credit losses. "Cost of services" represented 60.1% and 60.5% of "Service revenue" during the years ended December 31, 2022 and 2021, respectively.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$1.622 billion during the year ended December 31, 2022, a \$148 million or 10.1% increase compared to the same period in 2021. This change was primarily driven by an increase in costs to support the Pay-TV segment and an increase in subscriber acquisition costs resulting from higher marketing expenditures.

Depreciation and amortization. "Depreciation and amortization" expense totaled \$428 million during the year ended December 31, 2022, a \$110 million or 20.5% decrease compared to the same period in 2021. This change was primarily driven by a decrease in depreciation expense from equipment leased to new and existing DISH TV subscribers and from expiration of our QuetzSat-1 finance lease during the fourth quarter of 2021.

DISH TV SAC. DISH TV SAC was \$1,044 during the year ended December 31, 2022 compared to \$823 during the same period in 2021, an increase of \$221 or 26.9%. This change was primarily attributable to an increase in advertising costs per subscriber, higher installation costs due to an increase in labor and other installation costs.

During the years ended December 31, 2022 and 2021, the amount of equipment capitalized under our lease program for retail DISH TV subscribers totaled \$55 million and \$72 million, respectively. This decrease in capital expenditures primarily resulted from a decrease in gross new DISH TV subscriber activations and a higher percentage of remanufactured receivers being activated on new subscriber accounts.

Retail Wireless Segment

We offer nationwide prepaid and postpaid Retail Wireless services to subscribers primarily under our Boost Mobile, Boost postpaid and Gen Mobile brands, as well as a competitive portfolio of wireless devices. Prepaid wireless subscribers generally pay in advance for monthly access to wireless talk, text, and data services. Postpaid wireless subscribers are qualified to receive services after receiving wireless talk, text, and data services, and may also qualify for financing arrangements for wireless devices.

Boost postpaid. In the fourth quarter of 2022, we launched our Boost postpaid wireless service, to a limited number of customers who had signed up for early registration. During 2023, we launched our nationwide expansion of our Boost postpaid wireless service, and at the end of the third quarter of 2023, we began offering the iPhone 15 on our 5G Network. We also expanded our Boost postpaid offering through a distribution partnership with Amazon.

We are currently operating our Retail Wireless segment primarily as an MVNO as we continue our 5G Network Deployment and commercialize and grow customer traffic on our 5G Network. We are transitioning our Retail Wireless segment to an MNO as our 5G Network becomes commercially available. We are currently activating Boost Mobile and Boost postpaid subscribers with compatible devices onto our 5G Network in markets where we have launched 5G voice services. Within our MVNO operations, today we depend on T-Mobile and AT&T to provide us with network services under MNSA and NSA, respectively. Under the NSA, we expect AT&T will become our primary network services provider.

Historically, a portion of our Wireless subscribers received services through T-Mobile's CDMA Network. However, T-Mobile previously provided notice that it intended to shutdown the CDMA Network on March 31, 2022. The shutdown began on March 31, 2022.

31, 2022 and was completed during the second quarter of 2022. While we worked to mitigate the harms of this shutdown, incurred significant costs to migrate subscribers on this timeline. We implemented targeted efforts and promotions directed impacted customers, which resulted in the successful migration of the vast majority of our CDMA subscribers. The CD shutdown negatively impacted our gross new Wireless subscriber activations, our Wireless churn rate, and our results operations during the first and second quarters of 2022. During the second quarter of 2022, we removed approximately 126,000 subscribers from our ending Wireless subscriber count representing Wireless subscribers who did not migrate off CDMA network prior to the shutdown. The effect of the removal of the 126,000 subscribers was excluded from the calculation of our net Wireless subscriber additions/losses and Wireless churn rate.

On June 21, 2022, we and T-Mobile signed an amendment to the MNSA. In connection with this amendment, T-Mobile agreed to transfer to us (subject to required regulatory approvals) all Boost branded customers of former Sprint affiliates, Shentel, Swiftel, as well as Boost branded customers who were previously part of the California Public Utilities Commission CA program (the "Boost Affiliate Subscribers"). We received regulatory approvals and on September 1, 2022 closed the transition upon which we received approximately 139,000 Boost Affiliate Subscribers. In addition, this amendment, among other things, settled all open disputes, including CDMA matters, with terms providing improved pricing and enhanced roaming solutions for our consumers. Prior to the signing of this agreement, the first and second quarters of 2022 were adversely impacted among other things, our CDMA migration costs and our ability to launch more competitive service plans in the marketplace. As a result, during the first and second quarters of 2022, we experienced lower gross new Wireless subscriber activations and higher Wireless churn.

During the second half of 2022, we began the process of migrating subscribers off the Transition Services Agreement ("TSA") with T-Mobile, including the billing systems, and onto our own billing and operational support systems. The migration of subscribers to our new billing and operational support systems accelerated during the fourth quarter of 2022 and continued through the first and second quarters of 2023. The migration of subscribers during the first and second quarters of 2023 negatively impacted our Wireless churn rate and our results of operations. During the second quarter of 2023, we completed the migration of subscribers off the TSA with T-Mobile and onto our own billing and operational support systems. As of December 31, 2023, we had 7.378 million Wireless subscribers. Currently, we offer Wireless subscribers competitive consumer plans with no annual service contracts and monthly service plans including high-speed data and unlimited talk and text, and financing arrangements for wireless devices for certain qualified subscribers.

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ACP Subscribers. A portion of our subscriber base and revenue is comprised of subscribers who receive benefits under the Affordable Connectivity Program ("ACP"). The ACP program is expected to end unless Congress appropriates additional funding. As a result, the FCC has begun taking steps to wind down the ACP and has announced that ACP stopped accepting new applications and enrollments on February 7, 2024. The FCC projects that households enrolled in the ACP will continue to receive the benefit on their service through April 2024. This date is an estimate and may change. Without additional funding from Congress, the FCC anticipates that current ACP funding is projected to run out in April 2024. Discontinuation, amendment or repeal of ACP, or replacement of ACP with one having different eligibility requirements and/or funding levels could negatively impact, among other things, our net Wireless subscriber activations and results of operations or impose additional costs on our business. If ACP funding is ultimately restored or replaced, there can be no assurance that the timing of the restoration or replacement will not lead to service interruptions and negatively impact, among other things, our net Wireless subscriber activations and results of operations. Generally, ACP subscribers have lower Wireless ARPU than other Wireless subscribers.

Other Developments

We regularly evaluate ways to enhance our business. As part of this process, we are in regular dialogue with interested parties who may assist us in accomplishing our goals, including ongoing conversations with CONX Corp. (an entity partially owned by Charles W. Ergen, our Chairman) regarding a transaction involving our Retail Wireless segment. There can be no assurance that these discussions will lead to a transaction nor as to the structure or terms of any such transaction.

Competition

Retail wireless is a mature market with moderate year over year organic growth. Competitors include, among others, providers who offer similar communication services, such as talk, text and data. Competitive factors within the wireless communication services industry include, but are not limited to, pricing, market saturation, service and product offerings, customer experience and service quality. We compete with a number of national wireless carriers, including Verizon, AT&T and T-Mobile, all of which are significantly larger than us, serve a significant percentage of all wireless subscribers and enjoy scale advantages compared to us. Verizon, AT&T, and T-Mobile are currently the only nationwide MNOs in the United States.

Primary competitors to our Retail Wireless segment include, but are not limited to, Metro PCS (owned by T-Mobile), Cricket Wireless (owned by AT&T), Visible (owned by Verizon), Tracfone Wireless (owned by Verizon), and other MVNOs such as Consumer Cellular, Mint Mobile (T-Mobile has reached an agreement to acquire) and Xfinity Mobile.

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RESULTS OF OPERATIONS – Retail Wireless Segment

Year Ended December 31, 2023 Compared to the Year Ended December 31, 2022.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2023	2022	Amount	%
	(In thousands)			
Revenue:				
Service revenue	\$ 3,337,240	\$ 3,653,909	\$ (316,669)	(9%)
Equipment sales and other revenue	355,132	481,220	(126,088)	(26%)
Total revenue	3,692,372	4,135,129	(442,757)	(11%)
Costs and expenses:				
Cost of services	2,022,443	2,135,074	(112,631)	(5%)
% of Service revenue	60.6 %	58.4 %		
Cost of sales - equipment and other	1,133,377	1,193,645	(60,268)	(5%)
Selling, general and administrative expenses	859,111	705,760	153,351	22%
% of Total revenue	23.3 %	17.1 %		
Depreciation and amortization	221,968	177,914	44,054	25%
Impairment of long-lived assets and goodwill	98,657	—	98,657	
Total costs and expenses	4,335,556	4,212,393	123,163	3%
Operating income (loss)	\$ (643,184)	\$ (77,264)	\$ (565,920)	
Other data:				

Wireless subscribers, as of period end (in millions) **	7.378	7.983	(0.605)	(
Wireless subscriber additions, gross (in millions)	2.743	3.418	(0.675)	(1
Wireless subscriber additions (losses), net (in millions) ***	(0.617)	(0.576)	(0.041)	(
Wireless ARPU	\$ 36.15	\$ 37.72	\$ (1.57)	(
Wireless churn rate	4.17 %	4.46 %	(0.29)%	(
OIBDA	\$ (421,216)	\$ 100,650	\$ (521,866)	

* Percentage is not meaningful.

** During the second quarter of 2022, we removed approximately 126,000 subscribers from our ending Wireless subscriber count representing Wireless subscribers who did not migrate off the CDMA network prior to the shutdown. The effect of removal of the 126,000 Wireless subscribers was excluded from the calculation of our net Wireless subscriber additions/losses and Wireless churn rate. See "Wireless – Retail Wireless" for further information on the CDMA shutdown. In addition, during the third quarter of 2022, approximately 139,000 Boost Affiliate Subscribers were transferred to us; they are included in our ending Wireless subscriber count and excluded from our gross new Wireless subscriber activations. See "Wireless – Retail Wireless" for further information on the amended MNSA.

*** Includes ACP/Gen Mobile subscribers.

Wireless subscribers. We lost approximately 617,000 net Wireless subscribers during the year ended December 31, 2023, compared to the loss of approximately 576,000 net Wireless subscribers during the same period in 2022. This increase in Wireless subscriber losses primarily resulted from lower gross new Wireless subscriber activations, partially offset by increase in net ACP/Gen Mobile subscriber additions and a lower Wireless churn rate.

Wireless subscribers, gross. During the year ended December 31, 2023, we activated approximately 2.743 million gross new Wireless subscribers compared to approximately 3.418 million gross new Wireless subscribers during the same period in 2022, a decrease of 19.7%. This decrease in our gross new Wireless subscriber activations was primarily related to increased competitive pressures, including aggressive competitor marketing, discounted service plans and deeper wireless device subsidies. In addition, our gross new Wireless subscribers for the year ended December 31, 2023 was negatively impacted by our emphasis on acquiring and retaining higher quality subscribers.

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Wireless churn rate. Our Wireless churn rate for the year ended December 31, 2023 was 4.17% compared to 4.46% for same period in 2022. Our Wireless churn rate for the year ended December 31, 2023 was positively impacted by our emphasis on acquiring and retaining higher quality subscribers, partially offset by competitive pressures, including deeper wireless device subsidies. In addition, our Wireless churn rate for the year ended December 31, 2023 was negatively impacted by migrating subscribers off the TSA with T-Mobile and onto our new billing and operational support systems. Furthermore, our Wireless churn rate for the year ended December 31, 2022 was negatively impacted by the shutdown of the CDMA Network.

Service revenue. "Service revenue" totaled \$3.337 billion for the year ended December 31, 2023, a decrease of \$317 million or 8.7% compared to the same period in 2022. The decrease in "Service revenue" compared to the same period in 2022 was primarily related to a lower average Wireless subscriber base and a decrease in Wireless ARPU, discussed below.

Wireless ARPU. Wireless ARPU was \$36.15 during the year ended December 31, 2023 versus \$37.72 during the same period in 2022. The \$1.57 or 4.2% decrease in Wireless ARPU was primarily attributable to, among other things, a shift in subscriber plan mix to lower priced service plans.

Equipment sales and other revenue. "Equipment sales and other revenue" totaled \$355 million for the year ended December 31, 2023, a decrease of \$126 million or 26.2% compared to the same period in 2022. The decrease in "Equipment sales and other revenue" compared to the same period in 2022 was primarily related to a decrease in units shipped and high promotional subsidies, partially offset by higher revenue per unit shipped due to unit mix. During the year ended December 2023, we shipped a higher percentage of devices that are compatible with our 5G Network and other devices that have higher revenue per unit.

Cost of services. "Cost of services" totaled \$2.022 billion for the year ended December 31, 2023, a decrease of \$113 million or 5.3% compared to the same period in 2022. The decrease in "Cost of services" was primarily attributable to a lower average Wireless subscriber base, partially offset by higher monthly dealer incentive costs. During the year ended December 31, 2023, we realigned our commission structure with current business objectives to acquire higher quality, long-term subscribers, which resulted in elevated costs during the transition period.

Cost of sales – equipment and other. "Cost of sales – equipment and other" totaled \$1.133 billion for the year ended December 31, 2023, a decrease of \$60 million or 5.0% compared to the same period in 2022. The decrease in "Cost of sales – equipment and other" compared to the same period in 2022 was primarily related to a decrease in units shipped, partially offset by higher costs per unit shipped due to unit mix. During the year ended December 31, 2023, we shipped a higher percentage of devices that are compatible with our 5G Network and other devices that have a higher cost per unit.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$859 million during the year ended December 31, 2023, a \$153 million or 21.7% increase compared to the same period in 2022. This change was primarily driven by higher marketing expenditures mainly related to the third quarter of 2023 nationwide expansion of our Boost postpaid wireless service and offering of the iPhone 15 on our 5G Network, partially offset by a decrease in costs to support the Retail Wireless segment. The year ended December 31, 2022 was negatively impacted by costs related to development of our own billing and operational support systems as we prepared to migrate subscribers off the T-Mobile Mobile.

Impairment of long-lived assets and goodwill. "Impairment of long-lived assets and goodwill" totaled \$99 million for the year ended December 31, 2023. This impairment represents a noncash impairment charge for goodwill. See Note 2 to the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

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Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2022	2021	Amount	%
	(In thousands)			
Revenue:				
Service revenue	\$ 3,653,909	\$ 4,142,883	\$ (488,974)	(12)
Equipment sales and other revenue	481,220	754,322	(273,102)	(36)
Total revenue	4,135,129	4,897,205	(762,076)	(16)
Costs and expenses:				

Cost of services	2,135,074	2,450,516	(315,442)	(1
% of Service revenue	58.4 %	59.2 %		
Cost of sales - equipment and other	1,193,645	1,347,396	(153,751)	(1
Selling, general and administrative expenses	705,760	578,675	127,085	2
% of Total revenue	17.1 %	11.8 %		
Depreciation and amortization	177,914	176,833	1,081	
Total costs and expenses	4,212,393	4,553,420	(341,027)	(
Operating income (loss)	<u>\$ (77,264)</u>	<u>\$ 343,785</u>	<u>\$ (421,049)</u>	
Other data:				
Wireless subscribers, as of period end (in millions) **	7.983	8.546	(0.563)	(
Wireless subscriber additions, gross (in millions)	3.418	3.690	(0.272)	(
Wireless subscriber additions (losses), net (in millions) ***	(0.576)	(0.728)	0.152	2
Wireless ARPU	\$ 37.72	\$ 39.00	\$ (1.28)	(
Wireless churn rate	4.46 %	4.58 %	(0.12)%	(
OIBDA	\$ 100,650	\$ 520,618	\$ (419,968)	(8

* Percentage is not meaningful.

** During the second quarter of 2022, we removed approximately 126,000 subscribers from our ending Wireless subscriber count representing Wireless subscribers who did not migrate off the CDMA network prior to the shutdown. The effect of removal of the 126,000 Wireless subscribers was excluded from the calculation of our net Wireless subscriber additions/losses and Wireless churn rate. See "Wireless – Retail Wireless" for further information on the CDMA shutdown. In addition, during the third quarter of 2022, approximately 139,000 Boost Affiliate Subscribers were transferred to us; these subscribers are included in our ending Wireless subscriber count and excluded from our gross new Wireless subscriber activations. See "Wireless – Retail Wireless" for further information on the amended MNSA.

*** Includes ACP/Gen Mobile subscribers.

We entered the retail wireless business in 2020 as a result of the Boost Mobile Acquisition and the Ting Mobile Acquisition; we expanded the business in 2021 through the Republic Wireless Acquisition. During the second quarter of 2021, we acquired over 200,000 subscribers as a result of the Republic Wireless Acquisition. We are currently in the process of integrating Retail Wireless operations and have made and continue to make targeted changes to our marketing, sales, and operations to further enhance our profitability.

Wireless subscribers. We lost approximately 576,000 net Wireless subscribers during the year ended December 31, 2022, compared to the loss of approximately 728,000 net Wireless subscribers during the same period in 2021. This decrease in Wireless subscriber losses primarily resulted from a lower Wireless churn rate on a lower average Wireless subscriber base, partially offset by the shutdown of the CDMA Network, the effectiveness of our promotions and competitive pressures. During the years ended December 31, 2022 and 2021, our CDMA migration efforts required significant focus and resources from management and our sales personnel, which adversely impacted our gross new Wireless subscriber activations. Furthermore, we have and continue to face increased competitive pressures, including aggressive competitor marketing, discounted service plans and deeper wireless device subsidies.

Wireless churn rate. Our Wireless churn rate for the year ended December 31, 2022 was 4.46% compared to 4.58% for same period in 2021. Our Wireless churn rate for the year ended December 31, 2022 was positively impacted by subscriber retention efforts. In addition, our Wireless churn rate was negatively impacted by the shutdown of the CDMA Network and competitive pressures, including deeper wireless device subsidies.

Service revenue. "Service revenue" totaled \$3.654 billion for the year ended December 31, 2022, a decrease of \$489 million or 11.8% compared to the same period in 2021. The decrease in "Service revenue" compared to the same period in 2021 was primarily related to a lower average Wireless subscriber base and a decrease in Wireless ARPU, discussed below.

Wireless ARPU. Wireless ARPU was \$37.72 during the year ended December 31, 2022 versus \$39.00 during the same period in 2021. The \$1.28 or 3.3% decrease in Wireless ARPU was primarily attributable to, among other things, CDMA migration credits and subscriber plan mix to lower priced service plans.

Equipment sales and other revenue. "Equipment sales and other revenue" totaled \$481 million for the year ended December 31, 2022, a decrease of \$273 million or 36.2% compared to the same period in 2021. The decrease in "Equipment sales and other revenue" compared to the same period in 2021 was primarily related to a decrease in units shipped.

Cost of services. "Cost of services" totaled \$2.135 billion for the year ended December 31, 2022, a decrease of \$315 million or 12.9% compared to the same period in 2021. The decrease in "Cost of services" was primarily attributable to a lower average Wireless subscriber base and lower network services costs per subscriber, partially offset by higher customer device usage. In addition, the fourth quarter of 2022 was negatively impacted by the revaluation of certain non-cash contingent liabilities relating to a lower than anticipated wireless churn rate on Ting subscribers. Our lower network services costs per subscriber during the year ended December 31, 2022 resulted from the new MVNO rates, as a result of our amendment to MNSA with T-Mobile and our NSA with AT&T. In addition, the fourth quarter of 2022 was negatively impacted by migrating subscribers off the TSA with T-Mobile and onto our new billing and operational support systems. We are incurring duplicate costs related to our TSA with T-Mobile and our own billing and operational support systems as we work to migrate subscribers off the TSA with T-Mobile.

Cost of sales – equipment and other. "Cost of sales – equipment and other" totaled \$1.194 billion for the year ended December 31, 2022, a decrease of \$154 million or 11.4% compared to the same period in 2021. The decrease in "Cost of sales – equipment and other" compared to the same period in 2021 was primarily related to a decrease in units shipped and a one-time reimbursement from T-Mobile as a result of our amendment to the MNSA with T-Mobile, partially offset by higher costs per unit shipped due to unit mix. During the fourth quarter of 2022, we shipped a higher percentage of devices that are compatible with our 5G Network. These devices have a higher cost per unit which contributed to the increase in costs per unit shipped.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$706 million during the year ended December 31, 2022, a \$127 million or 22.0% increase compared to the same period in 2021. This change was primarily driven by higher marketing expenditures, an increase in costs to support the Retail Wireless segment, including costs of migrating subscribers off the TSA with T-Mobile and onto our new billing and operational support systems, and higher amortization of capitalized sales commissions.

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5G Network Deployment Segment

We have invested a total of over \$30 billion in Wireless spectrum licenses, which includes over \$10 billion in noncontrolling investments in certain entities. The \$30 billion of investments related to Wireless spectrum licenses does include \$9 billion of capitalized interest related to the carrying value of such licenses. See Note 2 and Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

We will need to raise additional capital in the future, which may not be available on favorable terms, to fund the effort described below, as well as, among other things, make any potential Northstar Re-Auction Payment and SNR Re-Auction Payment for the AWS-3 licenses retained by the FCC. There can be no assurance that we will be able to profitably deploy these Wireless spectrum licenses, which may affect the carrying amount of these assets and our future financial condition and results of operations. See Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

DISH Network Spectrum

We have invested a total of over \$30 billion to acquire certain Wireless spectrum licenses. These Wireless spectrum licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements. We plan to commercialize our Wireless spectrum licenses through our 5G Network Deployment. We have committed to deploy our 5G Network capable of serving increasingly larger portions of the U.S. population at different deadlines, including 20% of the U.S. population by June 2022 and 70% of the U.S. population by June 2023. If by June 2023, we are offering 5G broadband service to at least 50% of the U.S. population but less than 70% of the U.S. population, the 70% June 2023 deadline will be extended automatically to June 2025; however, as a result, we may, under certain circumstances, potentially be subject to certain penalties. On June 14, 2022, we announced we had successfully reached our 20% population coverage requirement. In addition, we announced and certified to the FCC that as of June 14, 2023, we offer 5G broadband service to over 73% of the U.S. population, or more than 246 million Americans nationwide. On September 29, 2023, the FCC confirmed we have met our June 14, 2023 band-specific 5G deployment commitments, and two of our three nationwide 5G commitments. The single remaining 5G commitment, that at least 70% of the U.S. population has access to average download speeds equal to or greater than 35 Mbps, will be confirmed using the drive test methodology agreed to and approved by the FCC. We have six months from September 29, 2023 to complete this drive test. We now have the largest commercial deployment of 5G VoNR in the world, reaching approximately 200 million Americans and 5G broadband service reaching approximately 250 million Americans.

As a result of us providing 5G broadband service to over 50% of the U.S. population by June 14, 2023, the final build-out deadlines have been extended automatically to June 14, 2025 for us to offer 5G broadband service to at least 70% of the population in each Economic Area for the 700 MHz Licenses and AWS-4 Licenses and at least 75% of the population in each Economic Area for the H Block Licenses.

We may need to make significant additional investments or partner with others to, among other things, continue our 5G Network Deployment and further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly. In addition, as we continue our 5G Network Deployment, we have and may continue to incur significant additional expenses related to, among other things, research and development, wireless testing and ongoing upgrades to the wireless network infrastructure, software and third-party integration. As a result of these investments, among other factors, we plan to raise additional capital, which may not be available on favorable terms. We may also determine that additional wireless spectrum licenses may be required for our 5G Network Deployment and to compete effectively with other wireless service providers. See Note 15 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

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

During 2015, 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 initially made over \$10 billion in certain noncontrolling investments in Northstar Spectrum, LLC ("Northstar Spectrum"), the parent company of Northstar Wireless, L.L.C. ("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 "Regulatory authorizations, net" 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 ("VIEs") and, based on the characteristics of structure of these entities and in accordance with the applicable accounting guidance, we consolidate these entities into our financial statements. On October 12, 2023, the FCC consented to the sale of Northstar Manager's ownership interest in Northstar Spectrum, which we purchased for a total of approximately \$109 million. This purchase resulted in the elimination of all of our redeemable noncontrolling interest as it related to Northstar Spectrum as of the purchase date and we continue to consolidate the Northstar Entities as wholly-owned subsidiaries. Subsequent to December 31, 2023, the FCC consented to the sale of SNR Management's ownership interests in SNR HoldCo, which was purchased by our direct wholly-owned subsidiary EchoStar SNR HoldCo LLC for a total of approximately \$442 million on February 16, 2024. This purchase resulted in the elimination of all of our redeemable noncontrolling interest as it related to SNR HoldCo as of the purchase date and we continue to consolidate the SNR Entities as wholly-owned subsidiaries. See Note 2 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

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RESULTS OF OPERATIONS – 5G Network Deployment Segment

Year Ended December 31, 2023 Compared to the Year Ended December 31, 2022.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2023	2022	Amount	%
	(In thousands)			
Revenue:				
Equipment sales and other revenue	\$ 91,928	\$ 65,768	\$ 26,160	39.8
Total revenue	91,928	65,768	26,160	39.8
Costs and expenses:				
Cost of sales - equipment and other	977,329	521,631	455,698	87.4
Selling, general and administrative expenses	255,380	223,539	31,841	14.2
Depreciation and amortization	620,685	131,566	489,119	*
Impairment of long-lived assets and goodwill	119,903	—	119,903	*

Total costs and expenses	1,973,297	876,736	1,096,561	*
Operating income (loss)	<u>\$ (1,881,369)</u>	<u>\$ (810,968)</u>	<u>\$ (1,070,401)</u>	*
Other data:				
Purchases of property and equipment, net of refunds	\$ 2,586,151	\$ 2,596,209	\$ (10,058)	(0.4)
OIBDA	<u>\$ (1,260,684)</u>	<u>\$ (679,402)</u>	<u>\$ (581,282)</u>	(85.6)

* Percentage is not meaningful.

Cost of sales – equipment and other. “Cost of sales – equipment and other” totaled \$977 million during the year ended December 31, 2023, an increase of \$456 million compared to the same period in 2022. The increase primarily resulted from increase in lease expense on communication towers, transport, cloud services, and other costs related to our 5G Network.

Selling, general and administrative expenses. “Selling, general and administrative expenses” totaled \$255 million during the year ended December 31, 2023, a \$32 million increase compared to the same period in 2022. This change was primarily driven by an increase in costs to support our 5G Network Deployment.

Depreciation and amortization. “Depreciation and amortization” expense totaled \$621 million during the year ended December 31, 2023, a \$489 million increase compared to the same period in 2022. This change was primarily driven by increase in depreciation and amortization expense related to 5G Network Deployment assets being placed in service. We expect our depreciation and amortization expense to increase as we continue to place 5G Network Deployment assets in service.

Impairment of long-lived assets and goodwill. “Impairment of long-lived assets and goodwill” totaled \$120 million during the year ended December 31, 2023. This impairment represents a noncash impairment charge for goodwill. See Note 2 to Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

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Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2022	2021	Amount	%
	(In thousands)			
Revenue:				
Equipment sales and other revenue	\$ 65,768	\$ 73,889	\$ (8,121)	(11.0)
Total revenue	65,768	73,889	(8,121)	(11.0)
Costs and expenses:				
Cost of sales - equipment and other	521,631	100,040	421,591	*
Selling, general and administrative expenses	223,539	167,174	56,365	33.7
Depreciation and amortization	131,566	23,005	108,561	*
Total costs and expenses	876,736	290,219	586,517	*
Operating income (loss)	\$ (810,968)	\$ (216,330)	\$ (594,638)	*

Other data:					
Purchases of property and equipment, net of refunds	\$	2,596,209		1,012,157	1,584,052 *
OIBDA	\$	(679,402)	\$	(193,325)	\$ (486,077) *

* Percentage is not meaningful.

Cost of sales – equipment and other. “Cost of sales – equipment and other” totaled \$522 million for the year ended December 31, 2022, an increase of \$422 million compared to the same period in 2021. The increase primarily resulted from increase in lease expense on communication towers, transport, cloud services, and other costs related to our 5G network.

Selling, general and administrative expenses. “Selling, general and administrative expenses” totaled \$224 million for the year ended December 31, 2022, a \$56 million increase compared to the same period in 2021. This change was primarily driven by an increase in costs to support our 5G Network Deployment.

Depreciation and amortization. “Depreciation and amortization” expense totaled \$132 million during the year ended December 31, 2022, a \$109 million increase compared to the same period in 2021. This change was primarily driven by increase in amortization expense related to certain software licenses and an increase in depreciation expense resulting from 5G Network Deployment assets being placed in service. We expect our depreciation expense to increase as we continue to place 5G Network Deployment assets into service.

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Broadband and Satellite Services Segment

We are an industry leader in both networking technologies and services, innovating to deliver the global solutions that power the connected future for people, enterprises and things everywhere. We provide broadband services to consumer customers which include home and small to medium-sized businesses, and satellite, multi-transport technologies and managed network services to enterprise customers, telecommunications providers, aeronautical service providers and government entities including civilian and defense.

Our EchoStar XXIV satellite began service in December 2023, bringing additional broadband capacity across North and South America and is expected to be an integral part of our satellite service business. We will leverage EchoStar XXIV to deliver satellite services to unserved and underserved consumer markets in the Americas as well as enterprise and government markets.

We also design, provide and install gateway and terminal equipment to customers for other satellite systems. In addition, we design, develop, construct and provide telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and our enterprise customers. We also offer a robust suite of integrated, multi-transport solutions to enable airline and airline service providers to deliver reliable in-flight network connectivity serving both commercial and business aviation.

Backlog

As of December 31, 2023, our Broadband and Satellite services segment had approximately \$1.980 billion of contract revenue backlog, an increase of 30 percent compared to December 31, 2022 primarily due to an increase in contracts and

domestic enterprise customers. We define the Broadband and Satellite services segment contracted revenue backlog as expected future revenue under enterprise customer contracts that are non-cancelable, including lease revenue.

Competition

Our industry is highly competitive. As a global provider of network technologies, products and services, our Broadband and Satellite Services Segment competes with a large number of telecommunications service providers, which puts pressure on prices and margins. To compete effectively, we emphasize our network quality, customization capability, offering of networks as a turnkey managed service, position as a single point of contact for products and services and competitive prices.

In our consumer broadband satellite technologies and internet services markets, we compete against traditional telecommunications and wireless carriers, other satellite internet providers, as well as fiber optic, cable, and wireless internet service providers. Customers consider cost, speed and accessibility to be key determining factors in the selection of a service provider. In addition, government subsidies, such as the Federal Communication Commission's ("FCC") Rural Development Opportunity Fund, can have the effect of subsidizing the growth of our wired, wireless and satellite competitors. Our primary satellite competitors in the North American consumer market are ViaSat Communications, Inc., which is owned by ViaSat, ("ViaSat"), and Space Exploration Technologies Corp. ("SpaceX"). Both ViaSat and SpaceX have also entered the South and Central American consumer markets. We seek to differentiate ourselves based on the ubiquitous availability of our service quality, proprietary technology, and distribution channels.

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In our enterprise markets, we compete against multiple categories of providers. In the managed services area, we compete against providers of satellite-based and terrestrial-based networks, including fiber optic, cable, wireless internet service, multiprotocol label switching (MPLS) and internet protocol-based virtual private networks (VPN), which vary by region. In the in-flight connectivity market, we compete against direct and indirect providers of passenger WiFi services, such as ViaSat and SpaceX. To compete effectively, we emphasize our network quality, customization capability, ability to offer networks as a turnkey managed service, position as a single point of contact for products and services and competitive prices. Our primary competitors for the supply of satellite technology platforms are Gilat Satellite Networks Ltd, ViaSat, and ST Engineering iDirect Inc. 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.

In the emerging NTN market, we expect to compete with several companies targeting this area, with technology approaches that may be similar to us or in some cases different. We will compete on the basis of our strong spectrum position, expertise in satellite and 5G technologies and our global industry relationships.

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RESULTS OF OPERATIONS – Broadband and Satellite Services Segment

Year Ended December 31, 2023 Compared to the Year Ended December 31, 2022.

Statements of Operations Data	For the Years Ended December		Variance	
	31,		Amount	%
	2023	2022		
	(In thousands)			
Revenue:				
Service revenue	\$ 1,443,616	\$ 1,611,069	\$ (167,453)	(10.4%)
Equipment sales and other revenue	311,943	387,024	(75,081)	(19.4%)
Total revenue	1,755,559	1,998,093	(242,534)	(12.1%)
Costs and expenses:				
Cost of services	530,875	567,311	(36,436)	(6.4%)
% of Service revenue	36.8 %	35.2 %		
Cost of sales - equipment and other	241,570	294,683	(53,113)	(18.0%)
Selling, general and administrative expenses	486,379	491,025	(4,646)	(0.9%)
% of Total revenue	27.7 %	24.6 %		
Depreciation and amortization	419,262	462,748	(43,486)	(9.4%)
Impairment of long-lived assets and goodwill	536,082	711	535,371	75,438%
Total costs and expenses	2,214,168	1,816,478	397,690	21.9%
Operating income (loss)	\$ (458,609)	\$ 181,615	\$ (640,224)	(352.5%)
Other data:				
Broadband subscribers, as of period end (in millions)	1.004	1.228	(0.224)	(18.2%)
Broadband subscriber additions (losses), net (in millions)	(0.224)	(0.234)	0.010	4.3%
OIBDA	\$ (39,347)	\$ 644,363	\$ (683,710)	(106.1%)

* Percentage is not meaningful.

Broadband subscribers. We lost approximately 224,000 net Broadband subscribers for the year ended December 31, 2023, compared to the loss of approximately 234,000 net Broadband subscribers during the same period in 2022. The Broadband subscriber losses for the year ended December 31, 2023 primarily resulted from our past capacity limitations, competitive pressure from satellite-based competitors and other technologies, and our emphasis on acquiring and retaining higher quality subscribers.

Service revenue. "Service revenue" totaled \$1.444 billion for the year ended December 31, 2023, a decrease of \$167 million or 10.4%, as compared to 2022. The decrease was primarily attributable to lower sales of broadband services and lower sales to our North American Enterprise customers, partially offset by a net increase in broadband services sales to our international enterprise customers.

Equipment sales and other revenue. "Equipment sales and other revenue" totaled \$312 million for the year ended December 31, 2023, a decrease of \$75 million, or 19.4%, as compared to 2022. The change was primarily attributable to a decrease related to our North American enterprise customers due to lower hardware sales and positive adjustments on certain long-term contracts, and a decrease in hardware sales to our international enterprise customers, partially offset by an increase in sales to our mobile satellite system customers.

Cost of services. "Cost of services" totaled \$531 million for the year ended December 31, 2023, a decrease of \$36 million or 6.4%, as compared to 2022. The decrease was primarily attributable to the corresponding decrease in services and revenue.

Cost of sales – equipment and other. "Cost of sales – equipment and other" totaled \$242 million for the year ended December 31, 2023, a decrease of \$53 million, or 18.0%, as compared to 2022. The decrease was primarily attributable to the corresponding decrease in equipment revenue.

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Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled \$486 million for the year ended December 31, 2023, a decrease of \$5 million, or 0.9%, as compared to 2022. The decrease was primarily attributable to decreases in sales and marketing expenses, partially offset by Merger related costs.

Depreciation and amortization. "Depreciation and amortization" expense totaled \$419 million for the year ended December 31, 2023, a decrease of \$43 million, or 9.4%, as compared to 2022. The decrease was primarily attributable to decrease in other non-satellite depreciation expense, partially offset by increase in satellite depreciation driven by our AI Yah 3 and EchoStar XXIV satellites.

Impairment of long-lived assets and goodwill. "Impairment of long-lived assets and goodwill" totaled \$536 million for the year ended December 31, 2023. This impairment represents a \$533 million noncash impairment charge to goodwill and a \$3 million noncash impairment for long-lived assets. See Note 2 to the Notes to our Consolidated Financial Statements in our Annual Report on Form 10-K for further information.

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Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021.

Statements of Operations Data	For the Years Ended December		Variance	
	31,		Amount	%
	2022	2021		
	(In thousands)			
Revenue:				
Service revenue	\$ 1,611,069	\$ 1,702,288	\$ (91,219)	(5.3)%
Equipment sales and other revenue	387,024	283,432	103,592	36.5%

Total revenue	1,998,093	1,985,720	12,373	
Costs and expenses:				
Cost of services	567,311	548,994	18,317	
% of Service revenue	35.2 %	32.3 %		
Cost of sales - equipment and other	294,683	234,740	59,943	2
Selling, general and administrative expenses	491,025	496,338	(5,313)	(
% of Total revenue	24.6 %	25.0 %		
Depreciation and amortization	462,748	496,361	(33,613)	(
Impairment of long-lived assets	711	245	466	
Total costs and expenses	1,816,478	1,776,678	39,800	
Operating income (loss)	\$ 181,615	\$ 209,042	\$ (27,427)	(1
Other data:				
Broadband subscribers, as of period end (in millions)	1.228	1.462	(0.234)	(1
Broadband subscriber additions (losses), net (in millions)	(0.234)	(0.102)	(0.132)	
OIBDA	\$ 644,363	\$ 705,403	(61,040)	(

* Percentage is not meaningful.

Broadband subscribers. We lost approximately 234,000 net Broadband subscribers for the year ended December 31, 2020 compared to the year ended December 31, 2021:

Statements of Operations Data ⁽¹⁾	For the year ended December 31,		Variance	
	2022	2021	Amount	%
Revenue:				
Services and other revenue	\$ 1,623,931	\$ 1,715,287	\$ (91,356)	(5
Equipment revenue	374,162	270,433	103,729	38
Total revenue	1,998,093	1,985,720	12,373	0
Costs and expenses:				
Cost of sales - services and other	569,755	551,679	18,076	3
% of total services and other revenue	35.1 %	32.2 %		
Cost of sales - equipment	292,318	231,975	60,343	20
% of total equipment revenue	78.1 %	85.8 %		
Selling, general and administrative expenses	455,234	461,705	(6,471)	(1
% of total revenue	22.8 %	23.3 %		
Research and development expenses	32,810	31,777	1,033	3
% of total revenue	1.6 %	1.6 %		
Depreciation and amortization	457,621	491,329	(33,708)	(6
Impairment of long-lived assets	711	245	466	190
Total costs and expenses	1,808,449	1,768,710	39,739	2
Operating income (loss)	189,644	217,010	(27,366)	(12
Other income (expense):				
Interest income, net	50,900	22,801	28,099	122
Interest expense, net of amounts capitalized	(57,170)	(95,512)	38,342	(40
Gains (losses) on investments, net	47,107	69,531	(22,424)	(32
Equity in earnings (losses) of unconsolidated affiliates, net	(5,703)	(5,170)	(533)	10
Foreign currency transaction gains (losses), net	5,235	(12,613)	17,848	(14
Other-than-temporary impairment losses on equity method investments	—	(55,266)	55,266	(100

Other, net	3,210	(12,434)	15,644	(12)
Total other income (expense), net	43,579	(88,663)	132,242	(14)
Income (loss) before income taxes	233,223	128,347	104,876	8
Income tax benefit (provision), net	(66,675)	(65,626)	(1,049)	
Net income (loss)	166,548	62,721	103,827	16
Less: Net loss (income) attributable to non-controlling interests	10,503	10,154	349	
Net income (loss) attributable to EchoStar Corporation common stock	\$ 177,051	\$ 72,875	\$ 104,176	14
Other data:				
EBITDA ⁽²⁾	\$ 707,617	\$ 702,541	\$ 5,076	
Subscribers, end of period	1,228,000	1,462,000	(234,000)	(1)

(1) An explanation loss of approximately 102,000 net Broadband subscribers during the same period in 2021. This increase in net Broadband subscribers primarily resulted from our key metrics is included in Explanation of Key Metrics capacity limitations, increasing bandwidth usage by our existing subscribers, and Other Items.

(2) A reconciliation of EBITDA to Net income (loss), the most directly comparable GAAP measure in competitive pressures are impacting our Consolidated Financial Statements, is included in Results of Operations. For further information on our use of EBITDA, see Explanation of Key Metrics and Other Items.

consumer subscriber levels.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

The following discussion relates to our results of operations for the year ended December 31, 2022 compared to the year ended December 31, 2021:

Services and other revenue. Services and other revenue "Services revenue" totaled \$1.6 billion \$1.611 billion for the year ended December 31, 2022, a decrease of \$91.4 million \$91 million, or 5.3% 5.4%, as compared to 2021. The decrease was primarily attributable to our Hughes segment related to lower sales of broadband services to our consumer customers of \$103.1 million, partially offset by higher sales of broadband services to our enterprise customers of \$5.3 million and to mobile satellite system and other customers of \$4.5 million. Our ESS segment increased by \$2.9 million. customers. The variances reflect an estimated negative impact of exchange rate fluctuations of \$5.9 million, primarily attributable to enterprise customers.

Equipment sales and other revenue. Equipment revenue "Equipment sales and other revenue" totaled \$374.2 million \$374.2 million for the year ended December 31, 2022, an increase of \$103.7 million \$104 million, or 38.4% 36.5%, as compared to 2021. The increase was primarily attributable to: i) increases in hardware sales to our enterprise customers of \$102.6 million mainly associated with a certain customer in North America and to international customers, and ii) increases on our hardware sales to our mobile satellite system customers, of \$6.6 million, partially offset by decreases in hardware sales of \$5.5 million to our consumer customers.

Cost of sales - services and other services. "Cost of sales - services and other services" totaled \$569.8 million \$567 million for the year ended December 31, 2022, an increase of \$18.1 million \$18 million, or 3.3%, as compared to 2021. The increase was attributable to a non-recurring decrease in a certain international regulatory fee of \$4.5 million in 2021 and increase: cost of services provided to our consumer and enterprise customers, mainly related to service delivery expenses, such as for services and customer care.

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Cost of sales - equipment. – equipment and other. "Cost of sales – equipment and other" totaled \$292.3 million; million for the year ended December 31, 2022, an increase of \$60.3 million \$60 million, or 26.0% 25.5%, as compared to 2021. The increase was primarily attributable to the corresponding increase in equipment revenue and change in product mix.

Selling, general and administrative expenses. Selling, "Selling, general and administrative expenses expenses" totaled \$455.2 million \$491 million for the year ended December 31, 2022, a decrease of \$6.5 million \$5 million, or 1.4% 1.1%, compared to 2021. The decrease was primarily attributable to decreases in: i) in sales and marketing expenses of \$18.5 million and ii) legal expenses of \$2.3 million, offset by increases in: i) bad debt expense of \$7.4 million primarily due to the recovery of bad debt reserves in 2021 and ii) other general and administrative expenses of \$6.9 million. expenses.

Depreciation and amortization. "Depreciation and amortization amortization" expenses totaled \$457.6 million \$463 million for the year ended December 31, 2022, a decrease of \$33.7 million \$34 million, or 6.9% 6.8%, as compared to 2021. The decrease was primarily attributable to: i) to decreases in other property and equipment depreciation expense, of \$27.7 million; ii) decreases in our satellite depreciation, of \$8.9 million, mainly related to our SPACEWAY 3 satellite which was fully depreciated at the end of the first quarter of 2021, and iii) decreases in amortization of intangibles of \$2.1 million. intangibles. These decreases were partially offset by increases in amortization of our capitalized software software.

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OTHER CONSOLIDATED RESULTS

Year Ended December 31, 2023 Compared to the Year Ended December 31, 2022.

Statements of Operations Data	For the Years Ended December 31,		Variance	
	2023	2022	Amount	%
	(In thousands)			
Operating income (loss)	\$ (277,909)	\$ 2,232,838	\$ (2,510,747)	
Other income (expense):				
Interest income	207,374	93,240	114,134	
Interest expense, net of amounts capitalized	(90,357)	(79,217)	(11,140)	(1)
Other, net	(1,770,792)	1,088,441	(2,859,233)	
Total other income (expense)	(1,653,775)	1,102,464	(2,756,239)	

Income (loss) before income taxes	(1,931,684)	3,335,302	(5,266,986)
Income tax (provision) benefit, net	296,860	(798,410)	1,095,270
Effective tax rate	15.4 %	23.9 %	
Net income (loss)	(1,634,824)	2,536,892	(4,171,716)
Less: Net income (loss) attributable to noncontrolling interests, net of tax	67,233	59,172	8,061
Net income (loss) attributable to EchoStar	<u>\$ (1,702,057)</u>	<u>\$ 2,477,720</u>	<u>\$ (4,179,777)</u>

* Percentage is not meaningful.

Interest income. "Interest income" totaled \$207 million during the year ended December 31, 2023, an increase of \$114 million compared to the same period in 2022. This increase primarily resulted from higher percentage returns earned on our cash and marketable investment securities, partially offset by lower average cash and marketable investment securities balances during the year ended December 31, 2023.

Other, net. "Other, net" expense totaled \$1.771 billion during the year ended December 31, 2023, compared to income of \$1.088 billion during the same period in 2022. This change primarily resulted from a loss of approximately \$1.793 billion (including the \$100 million prepayment previously made to T-Mobile) as the probability weighted fair value of our option to purchase certain of T-Mobile's 800 MHz spectrum licenses was reduced to zero compared to a \$1.015 billion increase during the year ended December 31, 2022. **Interest** In addition, the year ended December 31, 2023 was negatively impacted by \$103 million net decrease in gains on marketable and non-marketable investment securities and impairments of "Other investment securities, net." Furthermore, the year ended December 31, 2023 was positively impacted by \$73 million in gains from the repurchases of our 3 3/8% Convertible Notes due 2026 (the "Convertible Notes due 2026"), our 2 3/8% Convertible Notes due 2024 (the "Convertible Notes due 2024") and 0% Convertible Notes due 2025 (the "Convertible Notes due 2025") and collectively with the Convertible Notes due 2026 and the Convertible Notes due 2024, the "Convertible Notes") and 5 7/8% Senior Notes due 2024. See Note 6 and 10 in the Notes to our Consolidated Financial Statements for further information.

Income tax (provision) benefit, net. Our income tax benefit was \$297 million during the year ended December 31, 2023 compared to a provision of \$798 million during the same period in 2022. The change was primarily related to a decrease in "Income (loss) before income taxes" and the change in our effective tax rate. Our effective tax rate during the year ended December 31, 2023 was impacted by noncash impairment charges to goodwill, and federal, state and foreign valuation allowances.

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Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021.

Statements of Operations Data	For the Years Ended December		Variance	
	31,			
	2022	2021	Amount	%
	(In thousands)			
Operating income (loss)	\$ 2,232,838	\$ 3,422,404	\$ (1,189,566)	(34.8)
Other income (expense):				
Interest income	93,240	33,903	59,337	*

Interest expense, net of amounts capitalized	(79,217)	(111,151)	31,934	28.7
Other, net	1,088,441	4,716	1,083,725	*
Total other income (expense)	1,102,464	(72,532)	1,174,996	*
Income (loss) before income taxes	3,335,302	3,349,872	(14,570)	(0.4)
Income tax (provision) benefit, net	(798,410)	(828,437)	30,027	3.6
Effective tax rate	23.9 %	24.7 %		
Net income (loss)	2,536,892	2,521,435	15,457	0.6
Less: Net income (loss) attributable to noncontrolling interests, net of tax	59,172	35,150	24,022	68.3
Net income (loss) attributable to EchoStar	\$ 2,477,720	\$ 2,486,285	\$ (8,565)	(0.3)

* Percentage is not meaningful.

Other, net. "Other, net" income totaled \$50.9 million for \$1.088 billion during the year ended December 31, 2022, an increase of \$28.1 million, or 123.2%, as \$1.084 billion compared to 2021, the same period in 2021. This change primarily attributable to increases resulted from a \$1.015 billion increase in the yield fair value of our option to purchase certain of T-Mobile's 800 MHz spectrum licenses during the year ended December 31, 2022 compared to a \$13 million decrease during the year ended December 31, 2021. See Note 6 in the Notes to our Consolidated Financial Statements in this Annual Report on our marketable investment securities and an increase in our marketable investment securities average balance. Form 10-K for further information.

Income tax (provision) benefit, net.

Interest expense, net of amounts capitalized. Interest expense, net of amounts capitalized, totaled \$57.2 million for Our income tax provision was \$798 million during the year ended December 31, 2022, a decrease of \$38.3 million, or 40.1%, as \$30 million compared to the same period in 2021. The decrease in the provision was primarily related to a decrease in "Income (loss) before income taxes."

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Non-GAAP Performance Measures and Reconciliation

It is management's intent to provide non-GAAP financial information to enhance the understanding of our GAAP financial information, and it should be considered by the reader in addition to, but not instead of, the financial statements prepared in accordance with GAAP. Each non-GAAP financial measure is presented along with the corresponding GAAP measure so as not to imply that more emphasis should be placed on the non-GAAP measure. We believe that providing these non-GAAP measures in addition to the GAAP measures allows management, investors and other users of our financial information to more fully and accurately assess both consolidated and segment performance. The non-GAAP financial information presented may be determined or calculated differently by other companies and may not be directly comparable to that of other companies.

Consolidated EBITDA

Consolidated EBITDA is not a measure determined in accordance with GAAP and should not be considered a substitute for operating income, net income or any other measure determined in accordance with GAAP. Consolidated EBITDA is used as a measurement of operating efficiency and overall financial performance and we believe it is a helpful measure for those evaluating operating performance in relation to our competitors. Conceptually, EBITDA measures the amount of income generated each period that could be used to service debt, pay taxes and fund capital expenditures. EBITDA should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP.

	For the Years Ended December 31,		
	2023	2022	2021
	(In thousands)		
Net income (loss) attributable to EchoStar	\$ (1,702,057)	\$ 2,477,720	\$ 2,486,285
Interest, net	(117,017)	(14,023)	77,248
Income tax provision (benefit), net	(296,860)	798,410	828,437
Depreciation and amortization	1,597,923	1,174,895	1,213,946
Consolidated EBITDA	\$ (518,011)	\$ 4,437,002	\$ 4,605,916

The changes in Consolidated EBITDA during the years ended December 31, 2023, 2022, and 2021, were primarily a result of the factors described in connection with operating revenues and operating expenses, including the impact from changes in the probability weighted fair value of our option to purchase certain of T-Mobile's 800 MHz spectrum licenses resulting in a loss of approximately \$1.793 billion (including the \$100 million prepayment previously made to T-Mobile) and the "Impairment of long-lived assets and goodwill" of \$761 million.

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Segment OIBDA

Segment OIBDA, which is presented below, is a non-GAAP measure and does not purport to be an alternative to operating income (loss) as a measure of operating performance. We believe this measure is useful to management, investors and other users of our financial information in evaluating operating profitability of our business segments on a more variable cost basis as it excludes the depreciation and amortization expenses related primarily to capital expenditures and acquisitions for those business segments, as well as in evaluating operating performance in relation to our competitors. Segment OIBDA is calculated by adding back depreciation and amortization expense to business segments operating income (loss). See Note 16 to the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

For the Year Ended December 31, 2023	Broadband and Satellite					Consolidated
	Pay-TV	Retail Wireless	5G Network Deployment	Satellite Services	Eliminations	
	(In thousands)					

Segment	operating						
income (loss)		\$2,699,810	\$(643,184)	\$(1,881,369)	\$ (458,609)	\$ 5,443	\$ (277,909)
Depreciation and amortization		381,292	221,968	620,685	419,262	(45,284)	1,597,923
OIBDA		<u>\$3,081,102</u>	<u>\$(421,216)</u>	<u>\$(1,260,684)</u>	<u>\$ (39,347)</u>	<u>\$ (39,841)</u>	<u>\$ 1,320,014</u>
Broadband and							
For the			Retail	5G Network	Satellite		
Year Ended December		Pay-TV	Wireless	Deployment	Services	Eliminations	Consolidated
31, 2022							
(In thousands)							
Segment	operating						
income (loss)		\$2,933,898	\$ (77,264)	\$ (810,968)	\$ 181,615	\$ 5,557	\$ 2,232,838
Depreciation and amortization		428,471	177,914	131,566	462,748	(25,804)	1,174,895
OIBDA		<u>\$3,362,369</u>	<u>\$ 100,650</u>	<u>\$ (679,402)</u>	<u>\$ 644,363</u>	<u>\$ (20,247)</u>	<u>\$ 3,407,733</u>
Broadband and							
For the			Retail	5G Network	Satellite		
Year Ended December		Pay-TV	Wireless	Deployment	Services	Eliminations	Consolidated
31, 2021							
Segment	operating						
income (loss)		\$3,075,579	\$ 343,785	\$ (216,330)	\$ 209,042	\$ 10,328	\$ 3,422,404
Depreciation and amortization		538,836	176,833	23,005	496,361	(21,089)	1,213,946
OIBDA		<u>\$3,614,415</u>	<u>\$ 520,618</u>	<u>\$ (193,325)</u>	<u>\$ 705,403</u>	<u>\$ (10,761)</u>	<u>\$ 4,636,350</u>

The changes in OIBDA during the years ended December 31, 2023, 2022, and 2021, were primarily a result of the factors described in connection with operating revenues and operating expenses, and the "Impairment of long-lived assets and goodwill" of: (1) \$536 million from our Broadband and Satellite Service segment; (2) \$120 million from our 5G Network Deployment segment; (3) \$99 million from our Retail Wireless segment; and (4) \$6 million from our Pay-TV segment.

LIQUIDITY AND CAPITAL RESOURCES

Cash, Cash Equivalents and Current Marketable Investment Securities

We consider all liquid investments purchased with a remaining maturity of 90 days or less at the date of acquisition to be cash equivalents. See Note 6 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information regarding our marketable investment securities. As of December 31, 2023, our cash, cash equivalents and current marketable investment securities totaled \$2.444 billion compared to \$4.307 billion as of December 31, 2022, a decrease of \$1.863 billion. This decrease in cash, cash equivalents and current marketable investment securities primarily resulted from capital expenditures, net of refunds, of \$4.225 billion (including capitalized interest related to Regulatory authorizations), the repurchases and redemption of our senior notes of \$1.461 billion, net repurchases of our Convertible Notes of \$110 million, repayments of long-term debt and finance lease obligations of \$122 million, the purchase of Northstar Manager's ownership interests in Northstar Spectrum of \$109 million, partially offset by cash generated from operating activities of \$2.433 billion and \$1.522 billion in net proceeds from the issuance of our 11 3/4% Senior Notes due 2027.

Debt Issuances and Maturity

On May 24, 2021, we issued \$1.5 billion aggregate principal amount of our 5 1/8% Senior Notes due June 1, 2029. Interest accrues at an annual rate of 5 1/8% and is payable semi-annually in cash, in arrears on June 1 and December 1 of each year.

On November 26, 2021, we issued \$2.750 billion aggregate principal amount of our 5 1/4% Senior Secured Notes due December 1, 2026. Interest accrues at an annual rate of 5 1/4% and is payable semi-annually in cash, in arrears on June 1 and December 1 of each year, commencing on June 1, 2022.

On November 26, 2021, we issued \$2.5 billion aggregate principal amount of our 5 3/4% Senior Secured Notes due December 1, 2028. Interest accrues at an annual rate of 5 3/4% and is payable semi-annually in cash, in arrears on June 1 and December 1 of each year, commencing on June 1, 2022.

On November 15, 2022 and January 26, 2023, we issued \$2.0 billion and \$1.5 billion, respectively, aggregate principal amount of our 11 3/4% Senior Secured Notes due November 15, 2027. Interest accrues at an annual rate of 11 3/4% and is payable semi-annually in cash, in arrears on May 15 and November 15 of each year, commencing on May 15, 2023.

Our 6 3/4% Senior Notes due 2021 with an aggregate principal balance of \$2.0 billion were repurchased or redeemed as of June 1, 2021.

Our 5 7/8% Senior Notes due 2022 with an aggregate principal balance of \$2.0 billion were repurchased or redeemed as of July 15, 2022.

Our 5% Senior Notes due 2023 with an aggregate principal balance of \$1.5 billion were repurchased or redeemed as of March 15, 2023.

During the year ended December 31, 2023, we repurchased approximately \$49 million of our 2 3/8% Convertible Notes due 2024 in open market trades. The remaining balance of approximately \$951 million matures on March 15, 2024.

During the year ended December 31, 2023, we repurchased approximately \$17 million of our 57/8% Senior Notes due 2024 in open market trades. The remaining balance of approximately \$1.983 billion matures on November 15, 2024.

Cash Flow

The following discussion highlights our cash flow activities during the years ended December 31, 2023, 2022 and 2021.

Cash flows from operating activities. We typically reinvest the cash flow from operating activities in our business primarily to grow our subscriber base, expand our infrastructure, make strategic investments, such as significant investments in our Wireless business, including our 5G Network Deployment, and repay debt obligations. For the years ended December 31, 2023, 2022 and 2021, we reported "Net cash flows from operating activities" of \$2.433 billion, \$3.621 billion and \$4.655 billion, respectively.

Net cash flows from operating activities from 2022 to 2023 decreased \$1.189 billion, primarily attributable to a \$1.352 billion decrease in income adjusted to exclude non-cash charges for "Depreciation and amortization" expense, "Realized and unrealized losses (gains) on investments, impairments and other," "Realized and unrealized losses (gains) on derivatives," "Non-cash, stock-based compensation" expense, "Deferred tax expense (benefit) and "Impairment of \$30.8 million long-lived assets and goodwill." In addition, this change also includes decreases in interest cash flows resulting from changes in operating assets and liabilities principally attributable to timing differences between book expense and cash payments, including taxes.

Net cash flows from operating activities from 2021 to 2022 decreased \$1.034 billion, primarily attributable to a \$1.003 billion decrease in income adjusted to exclude non-cash charges for "Depreciation and amortization" expense, "Realized and unrealized losses (gains) on investments, impairments and other," "Realized and unrealized losses (gains) on derivatives," "Non-cash, stock-based compensation" expense, "Impairment of long-lived assets and goodwill," and "Deferred tax expense (benefit)." In addition, this change also includes decreases in cash flows resulting from changes in operating assets and liabilities principally attributable to timing differences between book expense and cash payments, including taxes.

Cash flows from investing activities. Our investing activities generally include purchases and sales of marketable investment securities, acquisitions, strategic investments, including purchases and settlements of derivative financial instruments, and purchases of wireless spectrum licenses, capital expenditures and capitalized interest. For the amortization years ended December 31, 2023, 2022 and 2021, we reported outflows from "Net cash flows from investing activities" of deferred \$2.809 billion, \$9.060 billion and \$4.247 billion, respectively.

The year ended December 31, 2023 was impacted by cash outflows primarily related to capital expenditures, net of refunds, of \$4.225 billion (including capitalized interest related to Regulatory authorizations), partially offset by \$1.303 billion in net sales of marketable investment securities and \$148 million in proceeds from other debt investments.

The year ended December 31, 2022 was impacted by cash outflows primarily related to a \$7.207 billion payment to the FCC for the 3.45–3.55 GHz band licenses and capital expenditures, net of refunds, of \$4.035 billion (including capitalized interest related to Regulatory authorizations), partially offset by \$2.194 billion in net sales of marketable investment securities.

The year ended December 31, 2021 was impacted by cash outflows primarily related to capital expenditures, net of refunds, of \$2.397 billion (including capitalized interest primarily related to Regulatory authorizations) and \$1.948 billion in net purchases of marketable investment securities, partially offset by a \$337 million deposit refund from our participation in the auction for the Flexible-Use Service Licenses in the 3.7-3.98 GHz Band.

During the years ended December 31, 2023, 2022 and 2021, capital expenditures for wireless equipment totaled \$2.586 billion, \$2.596 billion and \$1.012 billion, respectively. The increase in 2022

for wireless equipment primarily resulted from our 5G Network Deployment. In addition, capital expenditures during the years ended December 31, 2023, 2022 and 2021 for new and existing DISH TV customer equipment totaled \$75 million, \$78 million and \$104 million, respectively. The decrease in 2023 for new and existing DISH TV customer equipment primarily resulted from lower gross new DISH TV subscriber activations. The decrease in 2022 for new and existing DISH TV customer equipment primarily resulted from lower gross new DISH TV subscriber activations and a higher percentage of remanufactured receivers being activated on new subscriber accounts.

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During the year ended December 31, 2023 capital expenditures for satellites related to our Pay-TV segment totaled \$105 million. During the years ended December 31, 2023, 2022 and 2021, other corporate capital expenditures totaled \$63 million, \$50 million and \$65 million, respectively. During the years ended December 31, 2023, 2022 and 2021 capital expenditures for our Broadband and Satellite services segment, net of refunds, totaled \$233 million, \$326 million and \$438 million, respectively.

Cash flows from financing cost as a result activities. Our financing activities generally include net proceeds related to the issuance of equity and long-term and convertible debt, cash used for the repurchase, redemption or payment of long-term debt and finance lease obligations, and repurchases of our Class A common stock. For the years ended December 31, 2023, 2022 and 2021, we reported "Net cash flows from financing activities" outflows of \$277 million, \$274 million and inflows of \$3.515 billion, respectively.

The net cash outflows in 2023 primarily related to the repurchases and maturity redemption of our senior notes of \$1.461 billion, net repurchases of our Convertible Notes of \$110 million and repayments of long-term debt and finance lease obligations of \$122 million, partially offset by \$1.522 billion in net proceeds from the issuance of our 11 3/4% Senior Notes due 2027.

The net cash outflows in 2022 primarily related to the repurchases and redemption of our 5 7/8% Senior Notes due 2022 with an aggregate principal balance of \$2.0 billion, \$89 million of repurchases of our treasury shares and \$57 million of repurchases of our 5% Senior Notes due 2023 in open market trades, partially offset by \$1.949 billion in net proceeds from the issuance of our 11 3/4% Senior Notes due 2027.

The net cash inflows in 2021 primarily related to \$2.737 billion in net proceeds from the issuance of our 5 1/4% Senior Secured Notes due 2026, \$2.488 billion in net proceeds from the issuance of our 5 3/4% Senior Secured Notes due 2028, \$1.490 billion in net proceeds from the issuance of our 5 1/8% Senior Notes due 2029, partially offset by the repurchases and redemption of our 6 3/4% Senior Notes due 2021 with an aggregate principal balance of \$2.0 billion, the redemption of our 7 5/8% Senior Unsecured Notes due 2021 with an aggregate principal balance of \$900 million and an increase \$261 million of \$6.8 million in capitalized repurchases of our treasury shares.

Free Cash Flow

We define free cash flow as "Net cash flows from operating activities" less: (i) "Purchases of property and equipment" net of "Refunds and other receipts of purchases of property and equipment," and (ii)

"Capitalized interest relating to the EchoStar XXIV satellite program.

Gains (losses) on investments, net. Gains (losses) on investments, net totaled \$47.1 million in gains for the year ended December 31, 2022, as compared to \$69.5 million in gains for the year ended December 31, 2021, a negative change of \$22.4 million. The change was primarily attributable to a net loss of \$28.3 million related to the exit of our investment in Dish Mexico in 2022.

Foreign currency transaction gains (losses), net. Foreign currency transaction gains (losses), net totaled \$5.2 million in gains for the year ended December 31, 2022, Regulatory authorizations," as compared to \$12.6 million in losses for the year ended

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

December 31, 2021, a positive change of \$17.8 million. The change was due to the net impact of foreign exchange rate fluctuations of certain foreign currencies during the period, primarily related to the Brazilian Real, Indian Rupee, and the European Euro.

Other-than-temporary impairment losses on equity method investments. Other-than-temporary impairment losses on equity method investments was \$55.3 million for the year ended December 31, 2021, related to the impairment of our investment in Dish Mexico. Given changing market trends, conditions, and company-specific events, we concluded that our investment in Dish Mexico was not recoverable.

Other, net. Other, net totaled \$3.2 million in gains for the year ended December 31, 2022, as compared to \$12.4 million in losses for the year ended December 31, 2021, a positive change of \$15.6 million. The change was primarily attributable to a litigation expense of \$16.8 million in 2021.

Income tax benefit (provision), net. Income tax benefit (provision), net was \$(66.7) million for the year ended December 31, 2022, as compared to \$(65.6) million for the year ended December 31, 2021. Our effective income tax rate was 28.6% and 51.1% for the year ended December 31, 2022 and 2021, respectively. The variations in our effective tax rate from the U.S. federal statutory rate for the year ended December 31, 2022 were primarily due to excluded foreign losses where the Company carries a full valuation allowance, and the impact of state and local taxes. The variations in our current year effective tax rate from the U.S. federal statutory rate for the year ended December 31, 2021 were primarily due to excluded foreign losses where the Company carries a full valuation allowance and the impact of state and local taxes.

On August 16, 2022, the Inflation Reduction Act ("IRA") was signed into law. Among other provisions, the IRA includes a 15% corporate minimum tax rate applied to certain large corporations and a 1% excise tax on corporate stock repurchases made after December 31, 2022. We do not expect the IRA to have a material impact shown on our Consolidated Financial Statements.

Net Statements of Cash Flows. We believe free cash flow is an important liquidity metric because it measures, during a given period, the amount of cash generated that is available to repay debt obligations, make investments (including strategic wireless investments), fund acquisitions and for certain other activities. Free cash flow is not a measure determined in accordance with GAAP and should not be considered a substitute for "Operating income, (loss) attributable," "Net income," "Net cash flows from operating activities" or any other measure determined in accordance with GAAP. Since free cash flow includes investments in operating assets, we believe this non-GAAP liquidity measure is useful in addition to EchoStar Corporation common stock. The following table reconciles the change in Net income (loss) attributable to EchoStar Corporation common stock:

	Amounts
Net income (loss) attributable to EchoStar Corporation for the year ended	
December 31, 2021	\$ 72,875
Decrease (increase) in other-than-temporary impairment losses on equity method investments	55,266
Decrease (increase) in interest expense, net of amounts capitalized	38,342
Increase (decrease) in interest income, net	28,099
Increase (decrease) in foreign currency transaction gains (losses), net	17,848
Increase (decrease) in other, net	15,644
Increase (decrease) in net income (loss) attributable to non-controlling interest	349
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	(533)
Decrease (increase) in income tax benefit (provision), net	(1,049)
Increase (decrease) in gains (losses) on investments, net	(22,424)
Increase (decrease) in operating income (loss), including depreciation and amortization	(27,366)
Net income (loss) attributable to EchoStar Corporation for the year ended	
December 31, 2022	\$ 177,051

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

EBITDA. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items section. The following table reconciles EBITDA to Net income (loss), the most directly comparable GAAP measure "Net cash flows from operating activities."

Free cash flow can be significantly impacted from period to period by changes in "Net income (loss)" adjusted to exclude certain non-cash charges, operating assets and liabilities, "Purchases of property and equipment," net of "Refunds and other receipts of purchases of property and equipment," and "Capitalized interest related to Regulatory authorizations." These items are shown in the "Net cash flows from operating activities" and "Net cash flows from investing activities" sections on our Consolidated Financial Statements: Statements of Cash Flows included herein. Operating asset and liability balances can fluctuate significantly from period to period and there can be no assurance that free cash flow will not be negatively impacted by material changes in operating assets and liabilities in future periods, since these changes depend upon, among other things, management's timing of payments and control of inventory levels, and cash receipts. In addition to fluctuations resulting from changes in operating assets and liabilities, free cash flow can vary significantly from period to period depending upon, among other things, subscriber additions (losses), service revenue, subscriber churn, subscriber acquisition and retention costs including amounts capitalized under our equipment lease programs for DISH TV subscribers, operating efficiencies, increases or decreases in purchases of property and equipment, expenditures related to our 5G Network Deployment and other factors.

	For the year ended			
	December 31,		Variance	
	2022	2021	Amount	%
Net income (loss)	\$166,548	\$ 62,721	\$103,827	165.5
Interest income, net	(50,900)	(22,801)	(28,099)	123.2

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Interest expense, net of amounts capitalized	57,170	95,512	(38,342)	(40.1)
Income tax provision (benefit), net	66,675	65,626	1,049	1.6
Depreciation and amortization	457,621	491,329	(33,708)	(6.9)
Net loss (income) attributable to non-controlling interests	10,503	10,154	349	3.4
EBITDA	<u>\$707,617</u>	<u>\$702,541</u>	<u>\$ 5,076</u>	0.7

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The following table reconciles free cash flow to "Net cash flows from operating activities."

	For the Years Ended December 31,		
	2023	2022	2021
	(In thousands)		
Net cash flows from operating activities	\$ 2,432,647	\$ 3,621,190	\$ 4,655,373
Purchases of property and equipment, net of refunds (including capitalized interest related to Regulatory authorizations)	(4,224,783)	(4,034,781)	(2,397,197)
Free cash flow	<u>\$ (1,792,136)</u>	<u>\$ (413,591)</u>	<u>\$ 2,258,176</u>

Operational Liquidity

We make general investments in property such as, among others, satellites, wireless devices, set-top boxes, information technology and facilities that support our Pay-TV, Retail Wireless and Broadband and Satellite Services segments. We are also making significant additional investments and may partner with others to, among other things, continue our 5G Network Deployment and further commercialize, build-out and integrate our Wireless spectrum licenses and related assets. Moreover, since we are primarily a subscriber-based company, we also make subscriber-specific investments to acquire new subscribers and retain existing subscribers. While the change general investments may be deferred without impacting the business in EBITDA:

	Amounts
EBITDA for the year ended December 31, 2021	\$ 702,541
Decrease (increase) in other-than-temporary impairment losses on equity method investments	55,266
Increase (decrease) in foreign currency transaction gains (losses), net	17,848
Increase (decrease) in other, net	15,644
Decrease (increase) in net loss (income) attributable to non-controlling interests	349
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	(533)
Increase (decrease) in gains (losses) on investments, net	(22,424)
Increase (decrease) in operating income (loss), excluding depreciation and amortization	(61,074)
EBITDA for the year ended December 31, 2022	\$ 707,617

the short-term, the subscriber-specific investments are less discretionary. Our overall objective is to generate sufficient cash flow over the life of each subscriber to provide an adequate return against the upfront investment. Once the upfront investment has been made for each subscriber, the subsequent cash flow is generally positive, but there can be no assurance that over time we will recoup or earn a return on the upfront investment.

The following tables present

There are a number of factors that impact our total revenue, capital expenditures and EBITDA by segment for the year ended December 31, 2022, as future cash flow compared to the year ended December 31, 2021:

	Hughes	ESS	Corporate and Other	Consolidated Total
For the year ended December 31, 2022				
Total revenue	\$ 1,966,587	\$ 20,533	\$ 10,973	\$ 1,998,093
Capital expenditures	239,403	—	86,488	325,891
EBITDA	732,929	14,416	(39,728)	707,617
For the year ended December 31, 2021				
Total revenue	\$ 1,956,226	\$ 17,679	\$ 11,815	\$ 1,985,720
Capital expenditures	296,303	—	142,127	438,430
EBITDA	781,824	9,185	(88,468)	702,541

Table cash flow we generate at a given point in time. The first factor is our churn rate and how successful we are at retaining our current subscribers. To the extent we lose subscribers from our existing base, the positive cash flow from that base is correspondingly reduced. The second factor is how successful we are at maintaining our service margins. To the extent our "Cost of Contents

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Hughes Segment

	For the year ended December 31,		Variance	
	2022	2021	Amount	%
Total revenue	\$ 1,966,587	\$ 1,956,226	\$ 10,361	0.5
Capital expenditures	239,403	296,303	(56,900)	(19.2)
EBITDA	732,929	781,824	(48,895)	(6.3)

Total services" grow faster than our "Service revenue, was \$2.0 billion for the year ended December 31, 2022, an increase amount of \$10.4 million, or 0.5%, as compared cash flow that is generated per existing subscriber is reduced. Our Pay-TV service margins have been reduced by, among other things, higher programming costs. Our Retail Wireless service margins are impacted by, among other things, our MNSA agreement with T-Mobile and our NSA agreement with AT&T and the speed with which we are able to 2021. Services and other revenue decreased primarily due to lower sales of broadband services to convert Wireless subscribers onto our consumer customers of \$103.1 million, partially 5G Network. The third factor is the rate at which we acquire new subscribers. The faster we acquire new subscribers, the more our positive ongoing cash flow from existing subscribers is offset by higher sales of broadband services to our enterprise customers of \$5.3 million and to our mobile satellite system and other customers of \$4.5 million. Equipment revenue increased primarily due to: i) increases in hardware sales to our enterprise customers of \$102.6 million mainly the negative upfront cash flow associated with acquiring new subscribers. Conversely, the slower we acquire subscribers, the more our operating cash flow is enhanced in that period.

Finally, our future cash flow is impacted by, among other things, the rate at which we complete our 5G Network Deployment, incur litigation expense, and any cash flow from financing activities. We anticipate operating expenditures for our 5G Network Deployment to increase during 2024 as we continue to, among other things, deploy cell sites and communication towers to commercialize our 5G Network. Since we reached our 5G Network Deployment milestone of 70% of the U.S. population, we expect our capital expenditures will decline in the near term. However, as we prepare for our next build-out requirements in 2025, we expect our capital expenditures to increase as we approach this deadline. As a certain customer in North America and to international customers, and ii) increases on result, our hardware sales to our mobile satellite system customers of \$6.6 million, partially offset by decreases in hardware sales of \$5.5 million to our consumer customers. These variances reflect an estimated negative impact of exchange rate fluctuations of \$6.7 million, primarily attributable to our enterprise customers.

Capital expenditures were \$239.4 million for the year ended December 31, 2022, a decrease of \$56.9 million, or 19.2%, as compared to 2021, primarily due to decreases in expenditures associated with our consumer business, and decreases in expenditures related to the construction historical cash flow is not necessarily indicative of our satellite-related ground infrastructure.

The following table reconciles the change in the Hughes Segment EBITDA:

	Amounts	
EBITDA for the year ended December 31, 2021	\$	781,824
Increase (decrease) in foreign currency transaction gains (losses), net		17,438
Decrease (increase) in net loss (income) attributable to non-controlling interests		349
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net		39
Increase (decrease) in gains (losses) on investments, net		(1,883)
Increase (decrease) in other, net		(3,344)
Increase (decrease) in operating income (loss), excluding depreciation and amortization		(61,494)
EBITDA for the year ended December 31, 2022	\$	732,929

ESS Segment

	For the year ended		Variance	
	December 31,		Amount	%
	2022	2021		
Total revenue	\$ 20,533	\$ 17,679	\$ 2,854	16.1
EBITDA	14,416	9,185	5,231	57.0

Total revenue was \$20.5 million for the year ended December 31, 2022, an increase future cash flows. As of \$2.9 million December 31, 2023, or 16.1%, compared to 2021, primarily due to an

increase in transponder services provided to third parties.

EBITDA was \$14.4 million for the year ended December 31, 2022, an increase of \$5.2 million, or 57.0%, as compared to 2021, primarily due to the increase in overall ESS segment revenue and lower expenses.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Corporate and Other Segment

	For the year ended December 31,		Variance	
	2022	2021	Amount	%
Total revenue	\$ 10,973	\$ 11,815	\$ (842)	(7.1)
Capital expenditures	86,488	142,127	(55,639)	(39.1)
EBITDA	(39,728)	(88,468)	48,740	(55.1)

Total revenue was \$11.0 million for the year ended December 31, 2022, which is primarily flat compared to 2021.

Capital expenditures were \$86.5 million for the year ended December 31, 2022, a decrease of \$55.6 million, as compared to 2021, primarily due to decreases in expenditures related to the EchoStar XXIV satellite program.

The following table reconciles the change in the Corporate and Other Segment EBITDA:

	Amounts
EBITDA for the year ended December 31, 2021	\$ (88,468)
Increase (decrease) in gains (losses) on investments, net	(20,541)
Increase (decrease) in operating income (loss), excluding depreciation and amortization	(4,827)
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	(572)
Increase (decrease) in foreign currency transaction gains (losses), net	411
Increase (decrease) in other, net	74,269
EBITDA for the year ended December 31, 2022	\$ (39,728)

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Year Ended December 31, 2021 Compared to the Year Ended December 31, 2020

The following table presents our consolidated results of operations for the year ended December 31, 2021 compared to the year ended December 31, 2020:

Statements of Operations Data ⁽¹⁾	For the years ended December 31,		Variance	
	2021	2020	Amount	%
Revenue:				
Services and other revenue	\$ 1,715,287	\$ 1,682,304	\$ 32,983	2.0
Equipment revenue	270,433	205,603	64,830	31.5
Total revenue	1,985,720	1,887,907	97,813	5.2
Costs and expenses:				
Cost of sales - services and other	551,679	577,943	(26,264)	(4.5)
% of total services and other revenue	32.2 %	34.4 %		

Cost of sales - equipment	231,975	166,435	65,540	39.4
% of total equipment revenue	85.8 %	80.9 %		
Selling, general and administrative expenses	461,705	474,912	(13,207)	(2.8)
% of total revenue	23.3 %	25.2 %		
Research and development expenses	31,777	29,448	2,329	7.9
% of total revenue	1.6 %	1.6 %		
Depreciation and amortization	491,329	525,011	(33,682)	(6.4)
Impairment of long-lived assets	245	1,685	(1,440)	(85.5)
Total costs and expenses	1,768,710	1,775,434	(6,724)	(0.4)
Operating income (loss)	217,010	112,473	104,537	92.9
Other income (expense):				
Interest income, net	22,801	39,982	(17,181)	(43.0)
Interest expense, net of amounts capitalized	(95,512)	(147,927)	52,415	(35.4)
Gains (losses) on investments, net	69,531	(31,306)	100,837	*
Equity in earnings (losses) of unconsolidated affiliates, net	(5,170)	(7,267)	2,097	(28.9)
Foreign currency transaction gains (losses), net	(12,613)	6,015	(18,628)	*
Other-than-temporary impairment losses on equity method investments	(55,266)	—	(55,266)	*
Other, net	(12,434)	195	(12,629)	*
Total other income (expense), net	(88,663)	(140,308)	51,645	(36.8)
Income (loss) before income taxes	128,347	(27,835)	156,182	*
Income tax benefit (provision), net	(65,626)	(24,069)	(41,557)	*
Net income (loss)	62,721	(51,904)	114,625	*
Less: Net loss (income) attributable to non-controlling interests	10,154	11,754	(1,600)	(13.6)
Net income (loss) attributable to EchoStar Corporation common stock	\$ 72,875	\$ (40,150)	\$ 113,025	*
Other data:				
EBITDA ⁽²⁾	\$ 702,541	\$ 616,875	\$ 85,666	13.9
Subscribers, end of period	1,462,000	1,564,000	(102,000)	(6.5)

* Percentage is not meaningful.

(1) An explanation of our key metrics is included in Explanation of Key Metrics and Other Items.

(2) A reconciliation of EBITDA to Net income (loss), the most directly comparable GAAP measure in our Consolidated Financial Statements, is included in Results of Operations. For further information on our use of EBITDA, see Explanation of Key Metrics and Other Items.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

The following discussion relates to our results of operations for the years ended December 31, 2021 compared to the year ended December 31, 2020:

Services and other revenue. Services and other revenue totaled \$1.7 billion for the year ended December 31, 2021, an increase of \$33.0 million, or 2.0%, as compared to 2020. The increase was primarily attributable to our Hughes segment related to higher sales of broadband services to our consumer customers of \$27.8 million and to our mobile satellite system customers of \$1.4 million. Sales of broadband services to our enterprise customers remained flat compared to 2020. Our Corporate and Other segment increased by \$2.1 million. These variances reflect the negative impact of exchange rate fluctuations of \$4.6 million, primarily attributable to our consumer customers.

Equipment revenue. Equipment revenue totaled \$270.4 million for the year ended December 31, 2021, an increase of \$64.8 million, or 31.5%, as compared to 2020. The increase was primarily attributable to increases in hardware sales of \$76.7 million to our enterprise customers, partially offset by decreases in hardware sales to our mobile satellite system customers of \$8.0 million and to our consumer customers of \$3.9 million.

Cost of sales - services and other. Cost of sales - services and other totaled \$551.7 million for the year ended December 31, 2021, a decrease of \$26.3 million, or 4.5%, as compared to 2020. The decrease was attributable to lower costs of services provided to our consumer customers associated with customer care and field services as well as a non-recurring decrease in a certain international regulatory fee of \$4.5 million.

Cost of sales - equipment. Cost of sales - equipment totaled \$232.0 million for the year ended December 31, 2021, an increase of \$65.5 million, or 39.4%, as compared to 2020. The increase was primarily attributable to the corresponding increase in equipment revenue and product mix.

Selling, general and administrative expenses. Selling, general and administrative expenses totaled \$461.7 million for the year ended December 31, 2021, a decrease of \$13.2 million, or 2.8%, as compared to 2020. The decrease was primarily attributable to decreases in bad debt expense of \$4.7 million and decreases in other selling, general and administrative expenses of \$7.1 million.

Depreciation and amortization. Depreciation and amortization expenses totaled \$491.3 million for the year ended December 31, 2021, a decrease of \$33.7 million, or 6.4%, as compared to 2020. The decrease was primarily attributable to (i) decreases in our satellite depreciation of \$27.1 million, mainly related to our SPACEWAY 3 satellite which was fully depreciated at the end of the first quarter of 2021, (ii) decreases in amortization of intangibles of \$6.5 million, and (iii) decreases in other property and equipment depreciation expense of \$2.9 million.

Impairment of long-lived assets. Impairment of long-lived assets totaled \$0.2 million for the year ended December 31, 2021, a decrease of \$1.4 million, or 85.5%, as compared to 2020. The decrease was primarily attributable to an impairment loss related to our nano-satellites which experienced technical anomalies following launch in 2020.

Interest income, net. Interest income, net totaled \$22.8 million for the year ended December 31, 2021, a decrease of \$17.2 million, or 43.0%, as compared to 2020, primarily attributable to decreases in the yield on our marketable investment securities and a decrease in our marketable investment securities average balance.

Interest expense, net of amounts capitalized. Interest expense, net of amounts capitalized totaled \$95.5 million for the year ended December 31, 2021, a decrease of \$52.4 million, or 35.4%, as compared to 2020. The decrease was primarily attributable to a decrease of \$41.4 million in interest expense and the amortization of deferred financing cost as a result of, among other things, capital expenditures for our 5G Network Deployment, we experienced negative free cash flow. We expect that this trend will continue in 2024 and in future periods. In addition, declines in our Pay-TV and Wireless subscriber base and any decrease in subscriber-related margins negatively impact our cash flow, and there can be no assurance that our subscriber declines will not continue.

Subscriber Base – Pay TV, Retail Wireless and Broadband and Satellite Services Segments

See "Results of Operations" above for further information.

Subscriber Acquisition and Retention Costs

We incur significant upfront costs to acquire Pay-TV, Wireless and Broadband subscribers, including, but not limited to, advertising, independent third-party retailer incentives, payments made to third parties, equipment and wireless device subsidies, installation services, and/or new customer promotions. While we attempt to recoup these upfront costs over the repurchases lives of their subscription, there can be no assurance that we will be successful in achieving that objective. With respect to our DISH TV services and maturity Boost postpaid, 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 services and Boost postpaid 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.

We incur significant costs to retain our existing DISH TV subscribers, generally as a result of upgrading their equipment to next generation receivers, primarily including our Hopper® 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 to existing customers in exchange for a contractual commitment to receive service for a minimum term. A component of our 7 5/8% Senior Unsecured Notes due 2021 retention efforts includes the installation of equipment for customers who move. Retention costs for Wireless subscribers are primarily related to promotional pricing on upgraded wireless devices for qualified existing subscribers. Our DISH TV and an increase Wireless subscriber retention costs may vary significantly from period to period.

Seasonality

Historically, the first half of \$9.8 million the year generally produces fewer gross new DISH TV subscriber activations than the second half of the year, as is typical in capitalized interest relating the pay-TV industry. In addition, the first and fourth quarters generally produce a lower DISH TV churn rate than the second and third quarters. However, in recent years, as the pay-TV industry has matured, we and our competitors increasingly must seek to the EchoStar XXIV attract a greater proportion of new subscribers from each other's existing subscriber bases rather than from first-time purchasers of pay-TV services. As a result, historical trends in seasonality described above may not be indicative of future trends.

Our net SLING TV subscriber additions are impacted by, among other things, certain major sporting events and other major television events. The first and third quarters generally produce higher gross new Wireless subscriber activations. The historical trends discussed above, for net DISH TV subscriber additions, net SLING TV subscriber additions and gross new Wireless subscriber activations, may not be indicative of future trends. There can be no assurance that these trends will not continue and/or accelerate.

Satellites

Pay-TV Segment. Operation of our DISH TV services requires that we have adequate satellite program.

Gains (losses) on investments, net. Gains (losses) on investments, net totaled \$69.5 million in gains transmission capacity for the year ended December 31, 2021, an increase programming that we offer. Moreover, competitive conditions may require that we expand our offering of \$100.8 million, new programming. While we generally have had in-orbit satellite capacity sufficient to

transmit our existing channels and some backup capacity to recover the transmission of certain critical programming, our backup capacity is limited. In the event of a failure or loss of any of our owned or leased satellites, we may need to acquire or lease additional satellite capacity or relocate one of our other satellites and use it as compared to 2020. The change was primarily attributable to increased gains on marketable investment securities of \$ 63.7 million in 2021 as compared to 2020, gains on other equity securities of \$7.1 million in 2021 and a \$29.8 million impairment loss in 2020.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Equity in earnings (losses) of unconsolidated affiliates, net. Equity in earnings (losses) of unconsolidated affiliates, net totaled \$5.2 million in losses replacement for the year ended December 31, 2021, failed or lost satellite. Such a decrease failure could result in losses a prolonged loss of \$2.1 million, critical programming or 28.9%, as compared to 2020. The decrease was related to net increased earnings from our investments a significant delay in our equity method investees. plans to expand programming as necessary to remain competitive and cause us to expend a significant portion of our cash to acquire or lease additional satellite capacity.

Foreign currency transaction gains (losses), net Broadband and Satellite Services Segment. totaled \$12.6 million in losses Operation of our Broadband and Satellite Services also requires adequate satellite transmission capacity for the year ended December 31, 2021, as compared services that we offer. Prior to \$6.0 million in gains for the year ended December 31, 2020, a negative change of \$18.6 million. The change was due to the net impact of foreign exchange rate fluctuations of certain foreign currencies during the year.

Other-than-temporary impairment losses on equity method investments. Other-than-temporary impairment losses on equity method investments was \$55.3 million for the year ended December 31, 2021, related to the impairment of our investment in Dish Mexico. Given changing market trends, conditions, and company-specific events, we concluded that our investment in Dish Mexico was not recoverable.

Other, net. Other, net totaled \$12.4 million in losses for the year ended December 31, 2021, as compared to \$0.2 million in gains for the year ended December 31, 2020, an increase in losses of \$12.6 million. The increase was primarily attributable to a litigation expense of \$16.8 million and losses from debt repurchases on our 7 5/8% Senior Unsecured Notes due 2021 of \$1.9 million, partially offset by dividends received from certain marketable equity securities of \$2.5 million..

Income tax benefit (provision), net. Income tax benefit (provision), net was \$(65.6) million for the year ended December 31, 2021, as compared to \$(24.1) million for the year ended December 31, 2020. Our effective income tax rate was 51.1% and (86.5)% for the years ended December 31, 2021 and 2020, respectively. The variations in our effective tax rate from the U.S. federal statutory rate for the year ended December 31, 2021 were primarily due to certain foreign losses and impairments where the Company carries a full valuation allowance, and the impact of state and local taxes. The variations in our current year effective tax rate from the U.S. federal statutory rate for the year ended December 31, 2020 were primarily due to the increase in our valuation allowance associated with certain foreign losses, permanent book tax differences, and by the impact of state and local taxes, partially offset by the change in net losses that are capital in nature and research and experimentation credits.

Net income (loss) attributable to EchoStar Corporation common stock. The following table reconciles the change in Net income (loss) attributable to EchoStar Corporation common stock:

	Amounts
Net income (loss) attributable to EchoStar Corporation for the year ended	
December 31, 2020	\$ (40,150)
Decrease (increase) in other-than-temporary impairment losses on equity method investments	(55,266)
Decrease (increase) in income tax benefit (provision), net	(41,557)
Increase (decrease) in foreign currency transaction gains (losses), net	(18,628)
Increase (decrease) in interest income, net	(17,181)
Increase (decrease) in other, net	(12,629)
Increase (decrease) in net income (loss) attributable to non-controlling interest	(1,600)
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	2,097
Decrease (increase) in interest expense, net of amounts capitalized	52,415
Increase (decrease) in gains (losses) on investments, net	100,837
Increase (decrease) in operating income (loss), including depreciation and amortization	104,537
Net income (loss) attributable to EchoStar Corporation for the year ended	
December 31, 2021	\$ 72,875

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

EBITDA. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items section. The following table reconciles EBITDA to Net income (loss), the most directly comparable GAAP measure in our Consolidated Financial Statements:

	For the years ended		Variance	
	December 31,			
	2021	2020	Amount	%
Net income (loss)	\$ 62,721	\$ (51,904)	\$ 114,625	*
Interest income, net	(22,801)	(39,982)	17,181	(43.0)
Interest expense, net of amounts capitalized	95,512	147,927	(52,415)	(35.4)
Income tax provision (benefit), net	65,626	24,069	41,557	*
Depreciation and amortization	491,329	525,011	(33,682)	(6.4)
Net loss (income) attributable to non-controlling interests	10,154	11,754	(1,600)	(13.6)
EBITDA	\$ 702,541	\$ 616,875	\$ 85,666	13.9

* Percentage is not meaningful.

The following table reconciles the change in EBITDA:

	Amounts
EBITDA for the year ended December 31, 2020	\$ 616,875
Increase (decrease) in gains (losses) on investments, net	100,837
Increase (decrease) in operating income (loss), excluding depreciation and amortization	70,855
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	2,097
Decrease (increase) in net loss (income) attributable to non-controlling interests	(1,600)
Increase (decrease) in other, net	(12,629)
Increase (decrease) in foreign currency transaction gains (losses), net	(18,628)
Decrease (increase) in other-than-temporary impairment losses on equity method investments	(55,266)
EBITDA for the year ended December 31, 2021	<u>\$ 702,541</u>

Segment Operating Results and Capital Expenditures

The following tables present our total revenue, capital expenditures and EBITDA by segment for the year ended December 31, 2021, as compared to the year ended December 31, 2020:

	Hughes	ESS	Corporate and Other	Consolidated Total
For the year ended December 31, 2021				
Total revenue	\$ 1,956,226	\$ 17,679	\$ 11,815	\$ 1,985,720
Capital expenditures	296,303	—	142,127	438,430
EBITDA	781,824	9,185	(88,468)	702,541
For the year ended December 31, 2020				
Total revenue	\$ 1,860,834	\$ 17,398	\$ 9,675	\$ 1,887,907
Capital expenditures	355,197	41	53,560	408,798
EBITDA	727,608	7,873	(118,606)	616,875

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Hughes Segment

	For the years ended December 31,		Variance	
	2021	2020	Amount	%
Total revenue	\$ 1,956,226	\$ 1,860,834	\$ 95,392	5.1
Capital expenditures	296,303	355,197	(58,894)	(16.6)
EBITDA	781,824	727,608	54,216	7.5

Total revenue was \$2.0 billion for the year ended December 31, 2021, an increase of \$95.4 million, or 5.1%, as compared to 2020. Services and other revenue increased primarily due to increases in sales of broadband services to our consumer customers of \$27.8 million and to our mobile satellite system customers of \$1.4 million. Sales of broadband services to our enterprise customers remained flat compared to 2020. Equipment revenue increased primarily due to increases in hardware sales of \$76.7 million to our enterprise customers, partially offset by decreases in hardware sales to our mobile satellite system customers of \$8.0 million and to our consumer customers of \$ 3.9 million. These variances reflect the negative impact of exchange rate fluctuations of \$4.7 million.

Capital expenditures were \$296.3 million for the year ended December 31, 2021, a decrease of \$58.9 million, or 16.6%, as compared to 2020, primarily due to decreases in expenditures associated with our consumer business, partially offset by increased expenditures related to our enterprise business and construction of our satellite-related ground infrastructure in preparation of the launch of EchoStar XXIV. XXIV, we were nearing or had reached capacity in most areas of the

U.S., which constrained growth within our consumer subscriber base. These constraints have been addressed by the EchoStar XXIV satellite. In the event of a failure or loss of any of our owned or leased satellites, we may need to acquire or lease additional satellite capacity or relocate one of our other satellites and use it as a replacement for the failed or lost satellite. Such a failure could result in a prolonged loss of services.

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Satellite Insurance

We generally do not carry in-orbit insurance on our satellites or payloads because we have assessed that the cost of insurance is not economical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures.

Pursuant to the terms of our joint venture agreement with Al Yah Satellite Communications Company PrJSC ("Yahsat") in Brazil in 2019, we are required to maintain insurance for the Al Yah 3 Brazilian payload during the commercial in-orbit service of such payload, subject to certain limitations on coverage. The following table reconciles insurance policies were procured by Yahsat, under which we and Yahsat are the change beneficiaries of any claims in proportion to their shareholdings. An insurance claim was submitted in the Hughes Segment EBITDA:

	Amounts
EBITDA for the year ended December 31, 2020	\$ 727,608
Increase (decrease) in operating income (loss), excluding depreciation and amortization	65,216
Increase (decrease) in other, net	3,658
Increase (decrease) in gains (losses) on investments, net	2,249
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	(229)
Decrease (increase) in net loss (income) attributable to non-controlling interests	(1,600)
Increase (decrease) in foreign currency transaction gains (losses), net	(15,078)
EBITDA for the year ended December 31, 2021	\$ 781,824

ESS Segment

	For the years ended		Variance	
	December 31,			
	2021	2020	Amount	%
Total revenue	\$ 17,679	\$ 17,398	\$ 281	1.6
Capital expenditures	—	41	(41)	(100.0)
EBITDA	9,185	7,873	1,312	16.7

Total revenue was \$17.7 million second quarter of 2023 for compensation with respect to the reduction in estimated useful life of the Al Yah 3 satellite.

We also have obtained certain insurance for our EchoStar XXIV satellite covering launch plus the first year of operations. We will continue to assess circumstances going forward and make insurance-related decisions on a case-by-case basis.

Stock Repurchases

Our Board of Directors previously authorized stock repurchases of up to \$500 million of our outstanding Class A common stock. On October 20, 2022, our Board of Directors extended this authorization to repurchase up to \$500 million of our outstanding Class A common stock through and including December 31, 2023. This program expired December 31, 2023. During the year ended December 31, 2021, December 31, 2023, which is primarily flat compared to 2020.

EBITDA was \$9.2 million for there were no repurchases of our Class A common stock. During the year years ended December 31, 2021, an increase of \$1.3 million, or 16.7%, as compared to 2020, primarily due to the recovery of a bad debt reserve.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Corporate and Other Segment

	For the years ended December 31,		Variance	
	2021	2020	Amounts	%
Total revenue	\$ 11,815	\$ 9,675	\$ 2,140	22.1
Capital expenditures	142,127	53,560	88,567	*
EBITDA	(88,468)	(118,606)	30,138	(25.4)

* Percentage is not meaningful.

Total revenue was \$11.8 million for the year ended December 31, 2021, an increase of \$2.1 million, or 22.1%, as compared to 2020, primarily due to increased services and other revenue from DISH Network.

Capital expenditures were \$142.1 million for the year ended December 31, 2021, an increase of \$88.6 million, as compared to 2020, primarily due to increases in expenditures related to the EchoStar XXIV satellite program.

The following table reconciles the change in the Corporate and Other Segment EBITDA:

	Amounts
EBITDA for the year ended December 31, 2020	\$ (118,606)
Increase (decrease) in gains (losses) on investments, net	98,588
Increase (decrease) in operating income (loss), excluding depreciation and amortization	4,353
Decrease (increase) in equity in earnings (losses) of unconsolidated affiliates, net	2,326
Increase (decrease) in foreign currency transaction gains (losses), net	(3,672)
Increase (decrease) in other, net	(16,191)
Decrease (increase) in other-than-temporary impairment losses on equity method investments	(55,266)
EBITDA for the year ended December 31, 2021	\$ (88,468)

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

LIQUIDITY AND CAPITAL RESOURCES

Cash, Cash Equivalents and Marketable Investment Securities

We consider all liquid investments purchased with an original maturity of 90 days or less to be cash equivalents. See Item 7A. Quantitative and Qualitative Disclosures about Market Risk of this Form 10-K for further discussion regarding our marketable investment securities.

As of December 31, 2022 and 2021, we repurchased 3,980,612 shares and 10,941,872 shares of our cash, cash equivalents Class A common stock, respectively.

Covenants and marketable investment securities totaled \$1.7 billion Restrictions Related to our Long-Term Debt

We are subject to the covenants and \$1.5 billion, respectively, of which \$1.0 billion and \$1.0 billion, respectively, we held as marketable investment securities, consisting of various debt and equity instruments including corporate bonds, corporate equity securities, government bonds and mutual funds.

The following discussion highlights our cash flow activities for the years ended December 31, 2022, 2021 and 2020.

Cash Flow Activities

The following table summarizes our cash flows provided by (used for) operating, investing and financing activities, as reflected restrictions set forth in the Consolidated Statement of Cash Flows:

	For the years ended December 31,		
	2022	2021	Variance
Operating activities	\$ 529,605	\$ 632,226	\$ (102,621)
Investing activities	(275,185)	158,930	(434,115)
Financing activities	(83,105)	(1,147,345)	1,064,240
Effect of exchange rates on cash and cash equivalents	(2,306)	(3,749)	1,443
Net increase (decrease) in cash and cash equivalents	\$ 169,009	\$ (359,938)	\$ 528,947

Cash flows provided by (used for) operating activities decreased by \$102.6 million primarily attributable to changes in assets and liabilities, net of \$(85.6) million, other-than-temporary impairment losses on equity method investments of \$(55.3) million, depreciation and amortization of \$(33.7) million, other, net of \$(23.5) million, foreign currency translation losses (gains), net of \$(17.8) million, deferred tax provision (benefit), net of \$(16.2) million, losses (gains) on investments, net of \$22.4 million and changes in net income (loss) of \$103.8 million.

Cash flows provided by (used for) investing activities decreased by \$434.1 million primarily attributable indentures related to our marketable investment securities net activity, long-term debt.

DISH Network and DISH DBS Corporation

The indentures related to our outstanding senior notes issued by DISH DBS Corporation ("DISH DBS") contain restrictive covenants that, among other investments net activity, a decrease in expenditures for property things, impose limitations on the ability of DISH DBS and equipment, a decrease in expenditures in externally marketed software, its restricted subsidiaries to: (i) incur additional indebtedness; (ii) enter into sale and the India JV formation.

Cash flows provided by (used for) financing activities improved by \$1.1 billion primarily attributable leaseback transactions; (iii) pay dividends or make distributions on DISH DBS' capital stock or repurchase DISH DBS' capital stock; (iv) make certain investments; (v) create liens; (vi) enter into certain transactions with affiliates; (vii) merge or consolidate with another company; and (viii) transfer or sell assets. The indentures related to the repurchase our outstanding DISH Network and maturity DISH DBS senior secured notes contain restrictive covenants that, among

other things, impose limitations on our ability and certain of our 7 5/8% Senior Unsecured subsidiaries to: (i) incur additional indebtedness; (ii) enter into sale and leaseback transactions; (iii) pay dividends or make distributions on our capital stock or repurchase our capital stock; (iv) make certain investments of spectrum collateral; (v) create liens; (vi) enter into certain transactions with affiliates; (vii) merge or consolidate with another company; and (viii) transfer or sell assets. Should we fail to comply with these covenants, all or a portion of the debt under the senior notes, senior secured notes and our other long-term debt could become immediately payable. The senior notes and senior secured notes also provide that the debt may be required to be prepaid if certain change-in-control events occur. In addition, the Convertible Notes due 2021 provide that, if a "fundamental change" (as defined in the related indenture) occurs, holders may require us to repurchase for cash all or part of \$901.8 million their Convertible Notes. As of the date of filing of this Annual Report on Form 10-K, we, DISH Network and decreases DISH DBS were in treasury share repurchases of \$172.1 million.

compliance with the covenants and restrictions related to our respective long-term debt.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

	For the years ended December 31,		
	2021	2020	Variance
Operating activities	\$ 632,226	\$ 534,388	\$ 97,8
Investing activities	158,930	(1,142,455)	1,301,3
Financing activities	(1,147,345)	(15,620)	(1,131,7
Effect of exchange rates on cash and cash equivalents	(3,749)	(1,390)	(2,3
Net increase (decrease) in cash and cash equivalents	\$ (359,938)	\$ (625,077)	\$ 265,1

Cash flows provided by (used for) operating activities increased by \$97.8 million primarily attributable to changes in net income (loss) of \$114.6 million, gains (losses) on investments, net of \$(100.8) million, foreign currency translation losses (gains), net of \$18.6 million, deferred tax provision (benefit), net of \$19.5 million, other-than-temporary impairment losses on equity method investments of \$55.3 million, and changes in assets and liabilities, net of \$(1.3) million.

Cash flows provided by (used for) investing activities increased by \$1.3 billion primarily attributable

Hughes Satellite Systems Corporation

The indentures related to our marketable investment securities net activity, outstanding senior notes issued by Hughes Satellite Systems Corporation ("HSSC") contain restrictive covenants that, among other investments net activity things, impose limitations on the ability of HSSC and an increase its restricted subsidiaries to: (i) incur additional indebtedness; (ii) pay dividends or make distributions on HSSC's capital stock or repurchase HSSC's capital stock; (iii) allow to exist certain restrictions on such subsidiaries' ability to pay dividends, make distributions, make other payments, or transfer assets; (iv) make certain investments; (v) create liens; (vi) enter into certain transactions with affiliates; (vii) merge or consolidate with another company; and (viii) transfer or sell assets. As of the date of filing of this Annual Report on Form 10-K, we and HSSC were in expenditures compliance with the covenants and restrictions related to our respective long-term debt.

Other

We are also vulnerable to fraud, particularly in the acquisition of new subscribers. While we are addressing the impact of subscriber fraud through a number of actions, there can be no assurance that we will not continue to experience fraud, which could impact our subscriber growth and churn. Economic weakness may create greater incentive for property signal theft, piracy and equipment.

Cash flows provided by (used for) financing activities decreased by \$1.1 billion primarily attributable to subscriber fraud, which could lead to the repurchase of higher subscriber churn and maturity of our 7 5/8% Senior Unsecured Notes due 2021 of \$(90.0) million and treasury share repurchases of \$(261.4) million, reduced revenue.

Obligations and Future Capital Requirements

Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2022:

	Payments Due in the Years Ending December 31,						
	Total (4)(5)	2023	2024	2025	2026	2027	Thereafter
Long-term debt (1)	\$ 1,500,000	\$ —	\$ —	\$ —	\$ 1,500,000	\$ —	\$ —
Interest on long-term debt	356,252	89,063	89,063	89,063	89,063	—	—
Satellite-related commitments (2)	169,252	60,822	19,105	18,618	17,156	15,460	38,000
Operating lease obligations (3)	201,625	25,101	23,180	19,578	18,770	17,256	97,700
Total	\$ 2,227,129	\$ 174,986	\$ 131,348	\$ 127,259	\$ 1,624,989	\$ 32,716	\$ 135,800

(1) Assumes all long-term debt is outstanding until scheduled maturity.

(2) Includes payments pursuant to: i) the EchoStar XXIV launch contract, ii) regulatory authorizations, iii) non-lease costs associated with our finance lease satellites, iv) in-orbit incentives relating to certain satellites and v) commitments for satellite service arrangements.

(3) Operating leases consist primarily of leases for office space, data centers and satellite-related ground infrastructure.

(4) The table excludes amounts related to deferred tax liabilities, unrecognized tax positions and certain other amounts recorded in our non-current liabilities as the timing of any payments is uncertain.

(5) The table excludes long-term deferred revenue and other long-term liabilities that do not require future cash payments.

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

Off-Balance Sheet Arrangements

We generally do not engage in off-balance sheet financing activities or use derivative financial instruments for hedge accounting or speculative purposes.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

As of December 31, 2022, we had foreign currency forward contracts with a notional value of \$8.3 million in place to partially mitigate foreign currency exchange risk. From time to time, we may enter into foreign currency forward contracts, or take other measures, to mitigate risks associated with foreign currency denominated assets, liabilities, commitments and anticipated foreign currency transactions.

Letters of Credit and Surety Bonds

The following table presents the components of our letters of credit and surety bonds as of December 31, 2022:

	Amounts
Letters of credit secured by restricted cash	\$ 10,670
Surety bonds	16,150
Credit arrangement available to our foreign subsidiaries	27,410
Total letters of credit and surety bonds	\$ 54,230

Certain letters of credit are secured by assets of our foreign subsidiaries.

Satellites

As our satellite fleet ages, we will evaluate whether and to what extent to utilize replacement alternatives such as acquiring or constructing additional satellites, with or without customer commitments for capacity. We may also construct or acquire or lease additional satellites or satellite capacity.

See Note 15 in the future Notes to provide satellite services at additional orbital locations, to improve the quality of our satellite services or to provide new satellite services.

Satellite Insurance

We generally do not carry in-orbit insurance. Consolidated Financial Statements in this Annual Report on our satellites payloads because we have assessed that the cost of insurance is not economical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures. Pursuant to the terms of our joint venture agreement with Yahsat, we are required to maintain insurance Form 10-K for the Al Yah 3 Brazilian payload during the commercial in-orbit service of the payload, subject to certain limitations on coverage. We have obtained certain insurance for our EchoStar XXIV satellite covering launch plus the first year of operations. We will continue to assess circumstances going forward and make insurance related decisions on a case-by-case basis.

for further information.

Future Capital Requirements

We primarily rely on expect to fund our future working capital, capital expenditures, other investments, and debt service requirements from cash generated from operations, existing cash, restricted cash, cash equivalents and marketable investment securities balances, and cash generated through raising additional capital. We may need to make significant additional investments to, among other things, continue our 5G Network Deployment and further commercialize, build-out and integrate our Wireless spectrum licenses and related assets. The amount of capital required to fund our future working capital expenditure and other investment needs varies, depending on, among other things, the rate at which we complete 5G Network Deployment, the purchase of additional wireless spectrum licenses and the rate at which we acquire new subscribers, and the cost of subscriber acquisition and retention. Certain of our capital expenditures for 2024 are expected to be driven by the rate of our 5G Network Deployment as well as costs associated with subscriber premises equipment. The capital expenditures are necessary for our 5G Network Deployment as well as to operate and maintain our DISH TV service. Consequently, we consider them to be non-discretionary.

We currently intend to use our cash, cash equivalents and marketable investment securities, and cash flow generated through our operations to pay the March 2024 debt maturity. However, we do not currently have the necessary cash, cash equivalents and marketable investment securities and/or projected future cash flows to fund our business. Revenue in our Entertainment segment depends largely on the November 2024 debt maturity and subsequent interest on our ability to refinance our outstanding debt. To address our capital needs, we are in active discussions with funding sources to continuously make use of debt to raise additional capital and restructure our outstanding debt.

Our capital expenditures vary depending on, among other things, the number of our available satellites leased or under construction at any point in time and could increase materially as a result of increased competition, significant satellite capacity constraints, failures, or economic weakness and our ability to enter into commercial relationships with new customers. Consumer revenue in our Hughes segment depends on our success in adding new customers. Our DISH TV subscriber base has been declining and retaining existing subscribers and driving higher ARPU. Revenue in our enterprise and equipment businesses relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies. There can be no assurance that we or our DISH TV subscriber base will continue to decline and that the pace of such decline will not accelerate. In the event that our DISH TV subscriber base continues to decline, it will have a material adverse long-term effect on our cash flow.

On November 15, 2021 the SNR Put Right was exercised. As of December 31, 2023, the aggregate value of SNR Management's ownership interest in SNR HoldCo was \$438 million, recorded as "Redeemable noncontrolling interests" on our Consolidated Balance Sheets.

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Subsequent to December 31, 2023, the FCC consented to the sale of SNR Wireless Management, LLC's ("SNR Wireless Management") ownership interests in SNR HoldCo, which was purchased by our direct wholly-owned subsidiary EchoStar. SNR HoldCo LLC for a total of approximately \$442 million on February 16, 2024.

We have and expect to continue to incur expenditures in 2024 related to our 5G Network Deployment, including, but not limited to, capital expenditures associated with our 5G Network Deployment and the potential purchase of additional wireless spectrum licenses. The amount of capital required will also depend on, among other things, our available liquidity, the growth of our Retail Wireless segment and the levels of investment necessary to support potential strategic initiatives that may arise from time to time. These factors, including, but not limited to, a reduction in our available future cash flows from operations. Furthermore, if we experience negative cash flows, as a result of our existing cash and marketable investment securities balances 5G Network Deployment, will require us to raise additional capital in the future, which may not be reduced.

available on favorable terms.

Volatility in the financial markets has made it more difficult at times for issuers of high-yield indebtedness, such as us, to access capital markets at favorable terms. These developments may have a significant amount effect on our cost of capital and outstanding indebtedness. As of December 31, 2022, our total indebtedness was \$1.5 billion. Our liquidity requirements continue to be significant, primarily due to our remaining debt service requirements. We may from time to time seek to purchase amounts of our outstanding debt in open market purchases, privately negotiated transactions or otherwise, depending on market conditions, financing and our liquidity needs and other factors. The amounts we may repurchase may vary and be material. In position.

5G Network Deployment Segment

See Note 15 in the future, we may require material capital expenditures Notes to make significant acquisitions or investments in infrastructure, technologies or joint ventures to support and expand our business, or if we decide to purchase or build additional satellites or other technologies or assets. Other aspects of our business operations may also require additional capital. We also expect to owe U.S. Federal income tax for 2022.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

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

Stock Repurchases

On November 2, 2021, our Board of Directors authorized us to repurchase up to \$500.0 million of our Class A common stock commencing January 1, 2022 through and including December 31, 2022. In addition, on October 20, 2022, our Board of Directors authorized us to repurchase up to \$500.0 million of our Class A common stock commencing January 1, 2023 through and including December 31, 2023. Purchases under our repurchase authorizations may be made through privately negotiated transactions, open market repurchases, one or more trading plans in accordance with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, or otherwise, subject to market conditions and other factors. We may elect not to purchase the maximum amount or any of the shares allowable under these authorizations and we may also enter into additional share repurchase programs authorized by our Board of Directors. During the year ended December 31, 2022, we repurchased 3,980,612 shares of our Class A common stock for \$89.3 million under this program. The remaining authorization under this program, which expired on December 31, 2022, was \$410.7 million.

CRITICAL ACCOUNTING POLICIES

For a summary of our significant accounting policies, including those discussed below, see Note 2 in our Consolidated Financial Statements.

CRITICAL ACCOUNTING ESTIMATES

The preparation of our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

Availability of Credit and Effect on Liquidity

The ability to raise capital has generally existed for us despite economic weakness and uncertainty. While modest fluctuations in the cost of capital will not likely impact our current operational plans, significant fluctuations could have a material adverse effect on our business, results of operations and financial condition.

Critical Accounting Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires us management to make certain estimates, judgments and assumptions that affect the amounts reported amounts of assets and liabilities at the date of balance sheets, the reported amounts of revenue and expenses for each reporting period, and certain information disclosed in our Consolidated Financial Statements. We base our estimates, judgments and assumptions on historical experience and on various other factors that we believe are believed to be relevant and reasonable under the circumstances. Actual results may differ from previously estimated amounts, and such differences may be material to our Consolidated Financial Statements. We review our estimates and assumptions periodically, and the effects of revisions are reflected prospectively in the period they occur or prospectively if the revised estimate affects future periods. The following represent what we believe are the critical accounting policies that may involve a high degree of estimation, judgment and complexity. For a summary of our significant accounting policies including those discussed below, see Note 2 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K.

Indefinite-Lived Intangible Assets and Goodwill

Valuation of intangible assets with indefinite lives. We evaluate the carrying amount of intangible assets with indefinite lives annually, and also when events and circumstances warrant.

Wireless Spectrum Licenses. During 2022, we acquired the 3.45-3.55 GHz wireless licenses (the "3.45-3.55 GHz Licenses"). During 2021, we acquired the 3550-3650 MHz (CBRS) and 3.7-3.98 GHz wireless licenses, together (the "CBRS Licenses"). During 2020, we acquired the 37 GHz, 39 GHz, and 47 GHz wireless licenses and during 2019, we acquired the 28 GHz and 28 GHz wireless licenses, together (the "High-Band Licenses").

In 2023 and 2022, we combined our 600 MHz, 700 MHz, AWS-4, H Block, High-Band Licenses, C-Band Licenses, 3.45-3.55 GHz Licenses and the Northstar Licenses and SNR Licenses into a single unit of accounting. In 2021, we combined our 600 MHz, 700 MHz, AWS-4, H Block, High-Band Licenses, C-Band Licenses, 3.45-3.55 GHz Licenses and the Northstar Licenses and SNR Licenses into a single unit of accounting.

In 2023, we quantitatively assessed these licenses for impairment. Our quantitative assessment consisted of a market approach performed by a third party and reviewed by management.

Market Approach. Currently frequencies in the 500 kHz to 30 GHz make up the bulk of commercial use in the United States. Spectrum bands can be grouped into four categories: low-band (less than 1 GHz), lower mid-band (1-2 GHz), upper mid-band (primarily 2-4 GHz) and high-band (generally above 24 GHz). Radio frequencies have different characteristics with regard to the distance they will travel and their ability to penetrate structures. Lower band frequency bands require less power to travel large distances and propagate well providing geographic coverage, whereas higher bandwidth spectrum is favored in urban settings where the goal is increased data capacity and cell sites are dense, with limited coverage areas.

Spectrum is licensed by geographic areas that can vary from the size of a county to significantly larger expanses. Licenses can cover densely populated urban areas to sparsely populated rural regions. Pricing for spectrum licenses will vary, sometimes significantly based on the frequency, population area or restrictions associated with the authorization for use obtained from the FCC. Population or "Pop" is a key input to valuing each geographic license. The amount of spectrum included in a license is measured in terms of megahertz, referred to as "MHz." The wider the band the greater the MHz.

The market approach assessed the value of our spectrum using benchmarks, based on market transactions, which include spectrum auctions and secondary market transactions, either acquisitions of spectrum or of businesses for which spectrum values can reliably be inferred. The market approach looked at the value of each band of our spectrum by block in each geographic area based on pairing the spectrum in a manner that yielded its highest and best use. Prices were then calculated on an amount per MHz-Pop basis (where the numerator is the total value of the licenses and the denominator is the product of the population and MHz) based upon the most relevant data points. Finally, a discount was applied to the analysis for lack of marketability on certain of our holdings based on sale restrictions associated with those specific bands.

Our spectrum holdings include low-band, lower mid-band, upper mid-band (collectively referred to as "Low-Mid Band Licenses") and high-band licenses.

As part of our impairment assessment we performed the market approach during the fourth quarter of 2023 and concluded that the fair value of these licenses are substantially in excess of their carrying value.

Changes in circumstances or market conditions could result in a write-down of any of the above Wireless spectrum license in the future.

Goodwill. We test goodwill for impairment at the reporting unit level, which includes, among others, the SLING TV, DISH Retail Wireless, 5G Network Deployment and Hughes reporting units. Historically the majority of our goodwill relates to the Hughes reporting unit within our Broadband and Satellite Services segment and the Retail Wireless and 5G Network Deployment segments. Our impairment assessment is detailed by segment below.

We perform our annual impairment assessment for goodwill and other indefinite-lived intangible assets each year during the fourth quarter or more frequently if events or changes in circumstances indicate an impairment may be possible. We previously performed our annual impairment assessment for goodwill during the second quarter and changed the testing date due to the Merger in order to align the testing date between all reporting units. The change in testing date does not result in a material change in the method of our goodwill impairment assessment. We may consider qualitative factors to assess if it is more likely than not that the fair value for goodwill is below the carrying amount. If we determine in the qualitative assessment that it is more likely than not that the fair value is less than its carrying value, then we perform a quantitative assessment to determine the estimated fair value of the reporting unit. We may also elect to bypass the qualitative assessment and perform a quantitative assessment.

Our assessment process included, among other things, discounted cash flow analyses, consideration of fair values of tangible and indefinite-lived intangible assets held by the reporting units and our recent market capitalization. Our assessment indicated the goodwill attributed to certain acquisitions was no longer supported based on the sustained decrease in market capitalization. As such, we recorded a total noncash impairment charge of approximately \$758 million in "Impairment of long-lived assets and goodwill" on our Consolidated Statements of Operations and Comprehensive Income (Loss).

Income Taxes

Our income tax policy is to record the estimated future tax effects of temporary differences between the tax bases of assets and liabilities and amounts reported in the accompanying consolidated balance sheets, as well as operating loss and tax credit carryforwards. Determining necessary valuation allowances requires us to make assessments about the timing of future events, including the probability of expected future taxable income and available tax planning opportunities. We periodically evaluate our need for a valuation allowance based on both historical evidence, including trends, and future expectations in each reporting period. Any such valuation allowance is recorded in either "Income tax (provision) benefit, net" on our Consolidated Statements of Operations and Comprehensive Income (Loss) or "Accumulated other comprehensive income (loss)" within "Stockholders' Equity (Deficit)" on our Consolidated Balance Sheets. Future performance could have a significant effect on the realization of tax benefits, or reversals of valuation allowances, as reported in our consolidated results of operations.

Management evaluates the recognition and measurement of uncertain tax positions based on applicable tax law, regulatory case law, administrative rulings and pronouncements and the facts and circumstances surrounding the tax position. Changes in our estimates related to the recognition and measurement of the amount recorded for uncertain tax positions could result in significant changes in our "Income tax provision (benefit), net," which could be material to our consolidated results of operations.

Although we believe our assumptions, judgments and estimates are reasonable, changes in tax laws or our interpretation of tax laws and the resolution of any tax audits could significantly impact the amounts provided for income taxes in our consolidated financial statements.

Contingent Liabilities

We record an accrual for litigation and other loss contingencies when we determine that a loss is probable and the amount of the loss can be reasonably estimated. Legal fees and other costs of defending legal proceedings are charged to expense as incurred.

A significant amount of management judgment is required in determining whether, when, or if, an accrual should be recorded for a loss contingency and the amount of such accrual. Estimates generally are developed in consultation with legal counsel and are based on an analysis of potential outcomes. Due to the inherent uncertainty in determining the likelihood of potential outcomes, a future event occurring and the potential financial statement impact of such outcomes, an event, it is possible that upon further development or resolution of a contingent matter, charges related to existing loss contingencies a charge could be recorded in a future periods, which could period to "Selling, general and administrative expenses" or "Litigation expense" on our Consolidated Statements of Operations and Comprehensive Income (Loss) that would be material to our consolidated results of operations and financial position.

condition.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Revenue Recognition

Our Hughes segment enters into contracts to design, develop

Backlog

See "Broadband" and deliver telecommunication networks to customers in our enterprise and mobile satellite systems markets. Those contracts require significant effort to develop and construct the network over an extended time period. Revenue from such contracts is recognized over time using an appropriate method to measure progress toward completion. Depending on the nature of the arrangement, we measure progress toward completion using the cost-to-cost input method or the units delivered output method. Under the cost-to-cost method, revenue reflects the ratio of costs incurred to estimated total cost:

completion. Under the units-of-delivery method, revenue and related costs are recognized as products are delivered based on the expected profit **Satellite Services Segment** above for the entire agreement. Profit margins on long-term contracts are based on estimates of total revenue and costs at completion. We review and revise our estimates periodically and recognize related adjustments **further information**.

New Accounting Pronouncements

See **Note 2** in the period in which the revisions are made. Estimated losses on contracts are recorded in the period in which they are identified. Changes in our periodic estimates for these contracts could result in significant adjustments **Notes to** revenue or costs, which could be material to our consolidated results of operations.

Impairment of Assets

Impairment of long-lived assets

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

We evaluate goodwill and intangible assets with indefinite lives for impairment on an annual basis or whenever events or changes in circumstances indicate the reporting unit's fair value is more likely than not less than carrying value. Impairment may result from, among other things, deterioration in financial and operational performance, declines in stock price, increased attrition, adverse market conditions, adverse changes in applicable laws and/or regulations, deterioration of general macroeconomic conditions, fluctuations in foreign exchange rates, increased competitive markets in which we operate, declining financial performance over a sustained period, changes in key personnel and/or strategy, and a variety of other factors. Our impairment assessment typically begins with a qualitative assessment to determine whether it is more likely than not the fair value of the reporting unit is less than its carrying amount. The qualitative assessment includes comparing overall financial performance against the planned results. In the performance of the qualitative assessment, we analyze a variety of events or factors that may influence the fair value of the reporting unit, that could include, but are not limited to, macroeconomic conditions, industry and market considerations, cost factors, and other relevant entity-specific events which requires significant judgment. If we determine in the qualitative assessment that it is more likely than not that the fair value is less than its carrying value, then we perform a quantitative assessment to determine the estimated fair value of the indefinite-lived asset or reporting unit. We could also choose the option to bypass the qualitative assessment for any reporting unit in a period and proceed directly to the quantitative impairment test. In the quantitative assessment, fair value is usually estimated using two valuation approaches: the discounted cash flows method and the market comparable method. In the performance of the quantitative assessment, we use a variety of inputs, some of which may require significant judgment, that influence the value of the reporting unit, that could include, but are not limited to: discount rate, revenue growth rate, amount and timing of future cash flows, control premium, guideline public company metrics, and comparable market transactions. In addition, we also perform a market capitalization reconciliation to compare the estimated fair value, determined using the discounted cash flows method and the market comparable method, to the Company's market capitalization as of the date of the test. If the carrying value exceeds the estimated fair value, then an impairment is recognized for the difference.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

Impairment of investments

We periodically evaluate all of our investments to determine whether events or changes in circumstances have occurred that may have a significant adverse effect on the fair value of the investment and/or if there has been observable price change in orderly transactions for identical or similar securities of the same issuer. We consider information if provided to us by investees such as current financial statements, business plans, investment documentation, capitalization tables, liquidation waterfalls, and board materials, and we may make additional inquiries of investee management.

Indicators of impairment may include, but are not limited to, unprofitable operations, material loss contingencies, change in business strategy, changes in the investees' enterprise value and changes in the investees' investment pricing. When we determine that one of our other investments is impaired we reduce its carrying value to its estimated fair value and recognize the impairment loss. Additionally, when there has been an observable price change to a cost method investment, we adjust the carrying amount of the investment to its then estimated fair value and recognize the investment gain or loss.

Income Taxes

Our income tax policy is to record the estimated future tax effects of temporary differences between the tax bases of assets and liabilities and amounts reported in the accompanying consolidated balance sheets, as well as operating loss and tax credit carryforwards. Determining necessary valuation allowances requires us to make assessments about the timing of future events, including the probability of expected future taxable income and available tax planning opportunities. We periodically evaluate our need for a valuation allowance based on both historical evidence, including trends, and future expectations for each reporting period. Any such valuation allowance is recorded in either *Income tax benefit (provision), net* on our Consolidated Statements of Operations and Consolidated Statements of Comprehensive Income (Loss) or Accumulated other comprehensive income (loss) within *Stockholders' equity* on our Consolidated Balance Sheets. Future performance could have a significant effect on the realization of tax benefits, or reversals of valuation allowances, as reported in our consolidated results of operations.

Management evaluates the recognition and measurement of uncertain tax positions based on applicable tax law, regulatory case law, administrative rulings and pronouncements and the facts and circumstances surrounding the tax position. Changes in our estimates related to the recognition and measurement of the amount recorded for uncertain tax positions could result in significant changes in our *Income tax benefit (provision), net*, which could be material to our consolidated results of operations.

NEW ACCOUNTING PRONOUNCEMENTS

For a discussion of new accounting pronouncements, refer to Note 2. Summary of Significant Accounting Policies in our Consolidated Financial Statements.

SEASONALITY

For our Hughes segment, service revenue is generally not impacted by seasonal fluctuations other than those associated with fluctuations related to sales and promotional activities.

Our ESS segment is not generally affected by seasonal impacts.

We cannot predict with any certainty whether these trends will continue in the near future.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - CONTINUED

INFLATION AND SUPPLY CHAIN

Inflation started to impact our operations in 2021 as we have continued to experience increased costs in certain functional areas including field services and customer care. We are unable to predict the extent or nature of any future inflationary pressure at this time. Our ability to increase the prices charged in our *Annual Report on Form 10-K* for our products and services in future periods will depend primarily on competitive pressures or contractual terms.

The worldwide interruptions and delays in the supply of components, materials and parts, although not materially impacting operations during 2022, may impact our ability to timely provide equipment deliveries in the future. These interruptions and delays could also increase the cost of our equipment which we may not be able to pass onto our customers.

ITEM further information.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risks Associated with Financial Instruments and Foreign Currency

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

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Cash, Cash Equivalents and Current Marketable Investment Securities

As of ~~December 31, 2022~~ December 31, 2023, our cash, cash equivalents and ~~current~~ marketable investment securities had a fair value of ~~\$1.7 billion~~, ~~\$2.444 billion~~. Of ~~this that~~ amount, a total of ~~\$1.6 billion~~ ~~\$2.277 billion~~ was invested in: (a) cash; (b) ~~money market funds~~; (c) ~~debt instruments of the United States Government and its agencies~~; (d) commercial paper and corporate notes with an overall average maturity of less than one year and rated in one of the four highest rating categories by at least two nationally recognized statistical rating organizations; ~~(c) debt instruments of the U.S. government and its agencies~~; and/or ~~(d)~~ (e) instruments with similar risk, duration and credit quality characteristics to the commercial paper and corporate obligations described above. The primary purpose of these investing activities has been to preserve principal until the cash is required to, among other things, ~~continue investing in our business, pursue acquisitions and other strategic transactions, fund ongoing operations, make strategic investments~~ repay debt obligations and expand ~~the our~~ business. Consequently, the size of this portfolio ~~fluctuates can fluctuate~~ significantly as cash is received and used in our ~~business~~, ~~business for these or other purposes~~. The value of this portfolio ~~may be~~ is negatively impacted by credit losses; however, this risk is mitigated through diversification that limits our exposure to any one issuer.

Interest Rate Risk

~~A change in interest rates would not affect the fair value of our cash, or materially affect the fair value of our cash equivalents due to their maturities of less than 90 days.~~

A change in interest rates would affect the fair value of our ~~cash, cash equivalents and~~ current marketable ~~debt investment~~ securities portfolio; however, we normally hold these investments to maturity. Based on our ~~cash, cash equivalents and~~ December 31, 2023 current ~~marketable debt securities non-strategic~~ investment portfolio of ~~\$1.6 billion as of December 31, 2022~~ ~~\$2.277 billion~~, a hypothetical 10% change in average interest rates ~~during 2022~~ would not have ~~had~~ a material impact on the fair value ~~of our cash, cash equivalents and debt securities portfolio~~ due to the limited duration of our investments.

Our cash, cash equivalents and current marketable ~~debt investment~~ securities had an average annual rate of return for the year ended ~~December 31, 2022~~ December 31, 2023 of ~~2.21%~~ 5.1%. A change in interest rates would affect our future annual interest income from this portfolio, since funds would be re-invested at different rates as the instruments mature. A hypothetical 10% decrease in average interest rates during ~~2022 2023~~ would ~~have resulted result~~ in a decrease of ~~\$2.8 million~~ approximately \$18 million in annual interest income.

As of ~~December 31, 2022~~ December 31, 2023, we held investments in the publicly traded securities of several companies with a fair value of ~~\$118.8 million~~ \$167 million. These investments, which are held for strategic and financial purposes, are concentrated in a small number of companies, are highly speculative and have historically experienced, and continue to experience volatility. The fair value of these investments are subject to significant fluctuations in fair value and can be significantly impacted by the risk of adverse changes in securities markets generally, as well as risks related to the performance of the companies whose securities we have invested in, risks associated with specific industries and other factors. In general, our strategic marketable investment securities portfolio is not significantly impacted by interest rate fluctuations as it currently consists primarily of equity securities, the value of which is more closely related to factors specific to the underlying business. A hypothetical 10% adverse change in the market price of our public strategic equity investments during ~~2022~~ 2023 would have resulted in a decrease of ~~\$11.9 million~~ \$17 million in the fair value of these investments.

Other Investments

Restricted Cash, Cash Equivalents and Marketable Investment Securities

As of ~~December 31, 2022~~ December 31, 2023, we had ~~\$273.2 million~~ \$118 million of ~~other equity investments~~ restricted cash and ~~other~~ marketable investment securities invested in: (a) cash; (b) money market funds; (c) debt investments instruments of privately held companies that we hold for strategic business purposes. ~~The~~ the United States Government and its agencies; and/or (d) instruments with similar risk, duration and credit quality characteristics to commercial paper. Based on our December 31, 2023 investment portfolio, a hypothetical 10% increase in average interest rates would not have a material impact on the fair value of these investments is not readily determinable. We periodically review these investments ~~our restricted cash~~ and may adjust the carrying amount to their estimated fair value when there are indications of impairment, observable prices changes for the investments or observable transactions of the same investments. A hypothetical adverse change equal to 10% of the carrying amount of these investments during 2022 would have resulted in a decrease of \$27.3 million in the value of these investments. Our ability to realize value from our strategic investments in companies that are privately held depends on the success of those companies' businesses and their ability to obtain sufficient capital to execute their business plans. Because private markets are not as liquid as public markets, there is also increased risk that we will not be able to sell these investments, or that when we sell them, we will not be able to recover our investment. ~~marketable investment securities.~~

Foreign Currency Exchange Risk

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

Our objective in managing our exposure to foreign currency changes is to reduce earnings and cash flow volatility associated with foreign currency exchange rate fluctuations, primarily resulting from loans to foreign subsidiaries in U.S. dollars. Accordingly, we may enter into foreign currency forward contracts, or take other measures, to mitigate risks associated with foreign currency denominated assets, liabilities, commitments and anticipated foreign currency transactions. As of **December 31, 2022** **December 31, 2023**, we had foreign currency forward contracts with a notional amount of **\$8.3 million** less than **\$1 million** in place to partially mitigate foreign currency exchange risk. The estimated fair values of the foreign currency contracts were not material as of **December 31, 2022** **December 31, 2023**. The impact of a hypothetical 10% adverse change in exchange rates on the carrying amount of the net assets and liabilities of our foreign subsidiaries during **2022** **2023** would have resulted in an estimated loss to the cumulative translation adjustment of **\$42.5** **\$43** million as of **December 31, 2022** **December 31, 2023**.

Long-Term Debt

As of **December 31, 2023**, we had long-term debt of **\$22.710 billion**, excluding finance lease obligations and unamortized deferred financing costs and debt discounts, on our Consolidated Balance Sheets. We estimated the fair value of this debt to be approximately **\$17.844 billion** using quoted market prices. The fair value of our debt is affected by fluctuations in interest rates. A hypothetical 10% decrease in assumed interest rates would increase the fair value of our debt by approximately **\$688 million**. To the extent interest rates increase, our future costs of financing would increase at the time of any future financings. As of **December 31, 2023**, all of our long-term debt consisted of fixed rate indebtedness.

Derivative Financial Instruments

We generally do

From time to time, we invest in speculative financial instruments, including derivatives. As of **December 31, 2023**, we did not use hold any material derivative financial instruments for speculative purposes and we generally do not apply hedge accounting treatment other than the option to purchase certain T-Mobile's 800 MHz spectrum licenses under the Spectrum Purchase Agreement. See Note 6 in the Notes to our derivative financial instruments. We evaluate our derivative financial instruments from time to time but there can be no assurance that we will not enter into additional foreign currency forward contracts, or take other measures, Consolidated Financial Statements in the future to mitigate our foreign currency exchange risk.

ITEM this Annual Report on Form 10-K for further information.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our Consolidated Financial Statements consolidated financial statements are included in this Annual Report on Form 10-K beginning on page F-1.

Item 15 of
this Form
10-K.

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

Not applicable.

ITEM

Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls controls and Procedures procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Principal Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended) 1934 as of the end of the period covered by this Form 10-K report. Based upon that evaluation, our Chief Executive Officer and Chief Principal Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Form 10-K such that the information required to be disclosed in our SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

report.

Changes in Internal Control Over Financial Reporting

There has been no change in internal control over financial reporting

As a result of the Merger, our internal control over financial reporting (as defined in by Rule 13a-15(f) and Rule 15d-15(f) under the Securities and Exchange Act of 1934, 1934) changed during our most recent fiscal quarter. We determined that the Merger involved the transfer of a business, which for entities under common control required the retrospective combination of DISH Network into the Company for all periods presented using the historical cost basis of the acquired assets. For the consolidated entity, we implemented new internal controls to record the retrospective combination and associated financial reporting. Further, as amended) that occurred during the three months ended December 31, 2022 that has materially affected, or is reasonably likely DISH Network was material to materially affect, EchoStar, we adopted many aspects of DISH Network's control environment for our internal control over financial reporting. We continue to review our internal control over financial reporting and may from time to time make changes aimed at enhancing its effectiveness and to ensure that our systems evolve with our business.

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Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

United States generally accepted accounting principles.

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

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- (ii) provide reasonable assurance that our transactions are recorded as necessary to permit preparation of our financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- (ii) provide reasonable assurance that our transactions are recorded as necessary to permit preparation of our financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

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

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Control—Integrated Framework (2013) issued by the Committee of Sponsoring

Organizations of the Treadway Commission, Commission (COSO). Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2022 December 31, 2023.

The effectiveness of our internal control over financial reporting as of December 31, 2022 December 31, 2023 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which appears in Item 15(a) of this Annual Report on Form 10-K.

ITEM

Item 9B. OTHER INFORMATION

Financial Results

On February 22, 2023, we issued a press release (the "Press Release") announcing our financial results for the quarter and year ended December 31, 2022. A copy

10b5-1 Trading Arrangements

None of the Press Release is furnished herewith Company's directors or Section 16 officers adopted, modified or terminated a Rule 10b5-1 trading arrangement or a non-Rule 10b5-1 trading arrangement during the Company's fiscal quarter ended December 31, 2023, as Exhibit 99.1. The foregoing information, including the exhibit related thereto, is furnished in response to such terms are defined under Item 2.02 408(a) of Form 8-K and shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise, and shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended, or into any filing or other document pursuant to the Securities Exchange Act of 1934, as amended, except as otherwise expressly stated in any such filing.

ITEM Regulation S-K.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item with respect to the identity and business experience of our directors and corporate governance will be set forth in our Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed no later than 120 days after December 31, 2022, under the caption "Election of Directors," which information is hereby incorporated herein by reference.

The information required by this Item with respect to the identity and business experience of our executive officers is set forth in Part I of this Form 10-K under the caption Item 1. Business — Information about our Executive Officers.

The information required by this Item with respect to our code of ethics is contained in Part I of this Form 10-K under the caption Item 1. Business — Website Access.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item will be set forth in our Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed no later than 120 days after December 31, 2022, under the caption "Executive Compensation and Other Information," which information is hereby incorporated herein by reference.

The information required by this Item with respect to the identity and business experience of our executive officers is set forth under the caption "Information About Our Executive Officers" in this Annual Report on Form 10-K.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

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Item 11. EXECUTIVE COMPENSATION

The information required by this Item will be set forth in our Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed no later than 120 days after December 31, 2022, under the captions "Election of Directors," "Equity Security Ownership" and "Equity Compensation Plan Information," which information is hereby incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item will be set forth in our Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be filed no later than 120 days after December 31, 2022, under the caption "Certain Relationships and Related Party Transactions," which information is hereby incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item will be set forth in our Proxy Statement for the 2023 Annual Meeting of Shareholders, which information is hereby incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item will be filed no later than 120 days after December 31, 2022, under set forth in our Proxy Statement for the caption "Principal Accountant Fees and Services," 2023 Annual Meeting of Shareholders, which information is hereby incorporated herein by reference.

PART IV

ITEM

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)

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

(1) Financial Statements

Page

(1) Consolidated Financial Statements

[Index to Consolidated Financial Statements](#)

Page

[Report of KPMG LLP, Independent Registered Public Accounting Firm](#) F-2

[Consolidated Balance Sheets as of December 31, 2022 and 2021](#) F-4

[Consolidated Statements of Operations for the years ended December 31, 2022, 2021 and 2020](#) F-5

[Consolidated Statements of Comprehensive Income \(Loss\) for the years ended December 31, 2022, 2021 and 2020](#) F-6

[Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2022, 2021 and 2020 \(Deficit\)](#) F-7

[Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020](#) F-8

[Notes to Consolidated Financial Statements](#) F-9

(2) Financial Statement Schedules

None. All schedules have been included in the consolidated financial statements or notes thereto.

(3) Exhibits

(2) Exhibits

2.1* [Form Asset Purchase Agreement, dated as of Separation Agreement between EchoStar July](#)

26, 2019, by
and among
T-Mobile
US, Inc.,
Sprint
Corporation
and DISH
Network
Corporation
(incorporated
by reference
from Exhibit
2.2 to Exhibit
2.1 to
Amendment
No. 1 the
Quarterly
Report on
Form 10-Q of
EchoStar
Corporation's
Form
10 DISH
Network
Corporation
filed
December
12, 2007,
Commission
File No. 001-
33807), July
29, 2019).

2.2* First
Amendment
to the Asset
Purchase
Agreement,
dated June
17, 2020, by
and between
DISH
Network and
NTM
(incorporated
by reference
from Exhibit
99.1 of the
Current
Report on
Form 8-K of
DISH
Network
Corporation
filed June 17,

Table of Contents

2.3 Amended and Restated Agreement and Plan of Merger, between EchoStar Corporation, EchoStar Satellite Services L.L.C., Broadband Acquisition Corporation and Hughes Communications, Inc. dated as of February 13, 2011 October 2, 2023, by and among EchoStar Corporation, DISH Network Corporation and EAV Corp. (incorporated by reference to from Exhibit 2.1 to Hughes Communications Inc.'s EchoStar's Current Report on Form 8-K filed February 15, 2011, Commission File No. 1-33040), ** on October 3, 2023). **

3.13.1* ☐ Amended and Restated
Articles of Incorporation of
EchoStar Corporation
(incorporated by reference to
Exhibit 3.1 to Amendment
No. 1 of EchoStar
Corporation's Form 10 filed
December 12, 2007,
Commission File No. 001-
33807), Corporation.

3.23.3* ☐ Certificate of Amendment to
Articles of Incorporation of
EchoStar Corporation, dated
as of May 4, 2016
(incorporated by reference to
Exhibit 3.1 to EchoStar
Corporation's Current Report
on Form 8-K, filed May 5,
2016, Commission File No.
001-33807).

3.4* ☐ Certificate of
Withdrawal of
Certificate of
Designation of
EchoStar
Corporation
(incorporated by
reference to Exhibit
3.1 to EchoStar
Corporation's
Current Report on
Form 8-K, filed
March 6, 2017,
Commission File
No. 001-33807).

3.5* Amended and Restated Bylaws of EchoStar Corporation (incorporated by reference to Exhibit 3.2 to Amendment No. 1 of EchoStar Corporation's Form 10 filed December 12, 2007, Commission File No. 001- 33807), Corporation.

4.1* Specimen Class A Common Stock Certificate of EchoStar Corporation (incorporated by reference to Exhibit 4.1 to Amendment No. 1 of EchoStar Corporation's Form 10 filed December 12, 2007, Commission File No. 001- 33807).

4.2* Security Agreement, dated as of June 8, 2011, among EH Holding

forming
Corporation
(currently
known as
Hughes
Satellite
Systems
Corporation).
the guarantors
listed on the
signature
pages thereto,
and U.S. Bank
National
Association,
as successor
collateral
agent
(incorporated
by reference to
Exhibit 4.1 to
EchoStar
Corporation's
Current Report
on Form 8-K
filed June 9,
2011,
Commission
File No. 001-
33807).

4.3* Indenture,
relating to the
5 7/8% Senior
Notes due
2024, dated as
of November
20, 2014
among DISH
DBS
Corporation,
the guarantors
named on the
signature
pages thereto
and U.S. Bank
National
Association,
as Trustee
(incorporated
by reference
from Exhibit
4.1 to the
Current Report
on Form 8-K of

[DISH Network Corporation](#)
[filed](#)
[November 21, 2014](#)).

4.4* [Indenture, relating to the 7 3/4% Senior Notes due 2026, dated as of June 13, 2016, among DISH DBS Corporation, the guarantors named on the signature pages thereto and U.S. Bank National Association, as Trustee \(incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed June 13, 2016\).](#)

4.5* [Indenture, relating to the 5.250% Senior Secured Notes, dated as of July 27, 2016, among Hughes Satellite Systems Corporation, the guarantors party thereto, U.S. Bank National Association, as trustee and successor collateral agent \(incorporated by reference to](#)

[Exhibit 4.1 to
EchoStar
Corporation's
Current Report
on Form 8-K
filed on July
27, 2016,
Commission
File No. 001-
33807\).](#)

4.6* [Indenture,
relating to the
6.625% Senior
Unsecured
Notes, dated
as of July 27,
2016, among
Hughes
Satellite
Systems
Corporation,
the guarantors
party thereto
and U.S. Bank
National
Association,
as trustee
\(incorporated
by reference to
Exhibit 4.2 to
EchoStar
Corporation's
Current Report
on Form 8-K
filed on July
27, 2016,
Commission
File No. 001-
33807\).](#)

4.6* Additional
4.7* Secured Party
Joinder, dated
as of July 27,
2016, among
U.S. Bank
National
Association,
as trustee and
successor
collateral
agent, and
Hughes
Satellite
Systems
Corporation
(incorporated
by reference to
Exhibit 4.4 to
EchoStar
Corporation's
Current Report
on Form 8-K
filed on July
27, 2016,
Commission
File No. 001-
33807).

4.8* Form of
5.250% Senior
Secured
NoteIndenture,
relating to the
3 3/8%
Convertible
Notes due
2026,
(included dated
as part of

August 8, 2016, by and between DISH Network Corporation and U.S. Bank National Association, as Trustee (incorporated by reference from Exhibit 4.3), 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed August 8, 2016).

4.9* Indenture, relating to the 2 3/8% Convertible Notes due 2024, dated as of March 17, 2017, by and between DISH Network Corporation and U.S. Bank National Association, as Trustee (incorporated by reference from Exhibit 4.1 to the Current Report on Form 8 K of DISH Network Corporation filed March 20, 2017).

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[4.10*](#) [Supplemental Indenture relating to Hughes Satellite Systems Corporation's 5.250% Senior Secured Notes due 2026, dated March 23, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto, U.S. Bank National Association, as trustee and successor collateral agent \(incorporated by reference to Exhibit 4.19 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121\).](#)

[4.11*](#) [Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, dated as of March 23, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.20 to Hughes Satellite Systems Corporation's Registration Statement on Form S-4, filed April 6, 2017, Commission File No. 333-179121\) 333-179121\).](#)

[4.12*](#) [Joinder Agreement, dated as of August 10, 2017, to the Security Agreement dated as of June 8, 2011, by and between HNS Americas, L.L.C., HNS Americas II, L.L.C. and U.S. Bank National Association, as successor collateral agent \(incorporated by reference to Exhibit 4.24 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 001-33807\).](#)

4.13* [Second Supplemental Indenture relating to Hughes Satellite Systems Corporation's 5.250% Senior Secured Notes due 2026, dated August 10, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto, U.S. Bank National Association, as trustee and successor collateral agent \(incorporated by reference to Exhibit 4.25 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 001-33807\).](#)

4.14* [Second Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, dated as of August 10, 2017, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantor listed on the signature pages thereto and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.26 to](#)

[EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, filed February 22, 2018, Commission File No. 001-33807\).](#)

4.15* [Supplemental Indenture relating to the \\$500,000,000 7/8% Senior Notes due 2024 \(incorporated by reference from Exhibit 4.15 to the Annual Report on Form 10-K of DISH DBS Corporation filed March 29, 2018\).](#)

4.16* [Supplemental Indenture relating to the \\$500,000,000 7 3/4% Senior Notes due 2026 \(incorporated by reference from Exhibit 4.16 to the Annual Report on Form 10-K of DISH DBS Corporation filed March 29, 2018\).](#)

4.17* Joinder
Agreement,
dated as of
June 12,
2019, to the
Security
Agreement
dated as of
June 8, 2011,
by _____ and
between
EchoStar
BSS
Corporation,
EchoStar
FSS L.L.C.,
and _____ U.S.
Bank
National
Association,
as successor
collateral
agent
(incorporated
by reference
to Exhibit 4.1
to EchoStar
Corporation's
Quarterly
Report _____ on
Form 10-Q,
for _____ the
quarter
ended June
30, _____ 2019,
filed August
8, _____ 2019,
Commission
File No. 001-
33807).

4.18* Third
Supplemental
Indenture
relating _____ to
Hughes
Satellite
Systems
Corporation's
5.250%
Senior
Secured
Notes _____ due
2026, _____ dated
June 12

June 30, 2019, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantors listed on the signature pages thereto, U.S. Bank National Association, as trustee and successor collateral agent (incorporated by reference to Exhibit 4.2 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, filed August 8, 2019, Commission File No. 001-33807).

4.19* [Third Supplemental Indenture relating to Hughes Satellite Systems Corporation's 6.625% Senior Notes due 2026, dated as of June 12, 2019, by and among Hughes Satellite Systems Corporation, the guarantors and the supplemental guarantors listed on the signature pages thereto and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.3 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, filed August 8, 2019, Commission File No. 001-33807\).](#)

4.20* [Indenture relating to the 7 3/8% Senior Notes due 2028, dated as of July 1, 2020, among DISH DBS Corporation, the guarantors named on the signature pages thereto and U.S. Bank National Association, as Trustee \(incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed July 1, 2020\).](#)

4.21* [Indenture relating to the 0% Convertible Notes due 2025, dated as of December 21, 2020, by and between DISH Network Corporation and U.S. Bank National Association, as Trustee \(incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed December 22, 2020\).](#)

4.22* [First Supplemental Indenture relating to the DISH 3.375% Convertible Notes due 2026, dated as of December 29, 2023, among DISH Network Corporation, EchoStar Corporation and U.S. Bank Trust Company, National Association \(as successor to U.S. Bank National Association\), as Trustee \(incorporated by reference from Exhibit 4.2 to the Current Report on Form 8-K of EchoStar Corporation filed January 2, 2024\).](#)

4.23* [First Supplemental Indenture relating to the DISH 2.375% Convertible Notes due 2024, dated as of December 29, 2023, among DISH Network Corporation, EchoStar Corporation and U.S. Bank Trust Company, National Association \(as successor to U.S. Bank National Association\), as Trustee \(incorporated by reference from Exhibit 4.4 to the Current Report on Form 8-K of EchoStar Corporation filed January 2, 2024\).](#)

4.24* [First Supplemental Indenture, relating to the DISH 0% Convertible Notes due 2025, dated as of December 29, 2023, among DISH Network Corporation, EchoStar Corporation and U.S. Bank Trust Company, National Association \(as successor to U.S. Bank National Association\), as Trustee \(incorporated by reference from Exhibit 4.6 to the Current Report on Form 8-K of EchoStar Corporation filed January 2, 2024\).](#)

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4.25* [Indenture, relating to the 5 1/8% Senior Notes due 2029, dated as of May 24, 2021 among DISH DBS Corporation, the guarantors named on the signature pages thereto and U.S. Bank National Association, as Trustee \(incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed May 24, 2021\).](#)

4.26* [Indenture, relating to the 5 1/4% Senior Secured Notes due 2026 and the 5 3/4% Senior Secured Notes due 2028, dated as of November 26, 2021, among DISH DBS Corporation, the guarantors named on the signature pages thereto and U.S. Bank National Association, as Trustee and Collateral Agent \(incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed November 26, 2021\).](#)

4.27* [Security Agreement, dated as of November 26, 2021, among DISH DBS Corporation, the guarantors named on the signature pages thereto and U.S. Bank National Association, as Collateral Agent \(incorporated by reference from Exhibit 4.2 to the Current Report on Form 8-K of DISH Network Corporation filed November 26, 2021\).](#)

4.28* [Loan and Security Agreement, dated as of November 26, 2021, between DISH DBS Corporation and DISH Network Corporation \(incorporated by reference from Exhibit 4.3 to the Current Report on Form 8-K of DISH Network Corporation filed November 26, 2021\).](#)

4.29* [Secured Indenture, relating to the 11.75% Senior Secured Notes due 2027, dated as of November 15, 2022, among DISH Network Corporation, the guarantors named on the signature pages thereto and U.S. Bank Trust Company, National Association, as trustee and collateral agent \(incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH Network Corporation filed January 26, 2023\).](#)

4.30* [Security Agreement, dated as of November 15, 2022, among the secured guarantors named on the signature pages thereto and U.S. Bank Trust Company, National Association, as collateral agent \(incorporated by reference from Exhibit 4.2 to the Current Report on Form 8-K of DISH Network Corporation filed November 15, 2022\).](#)

4.31* [Description of our Capital Stock \(\(incorporated by reference to Exhibit 4.25 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2019, filed February 20, 2020, Commission File No. 001-33807\).](#)

10.2* [Form of EchoStar Corporation 2008 Class B CEO Stock Option Plan \(incorporated by reference to Exhibit 10.25 to Amendment No. 1 of EchoStar Corporation's Form 10 filed December 12, 2007, Commission File No. 001-33807\).](#)**

10.2* [Amended and Restated EchoStar Corporation 2008 Stock Incentive Plan \(the "2008 Stock Incentive Plan"\) \(incorporated by reference to EchoStar Corporation's Definitive Proxy Statement on Form 14, filed September 18, 2014, Commission File No. 001-33807\).](#)**

[10.3*](#) [Amended and Restated EchoStar Corporation 2008 Non-Employee Director Stock Option Plan \(the "2008 Non-Employee Director Stock Option Plan"\) \(incorporated by reference to EchoStar Corporation's Definitive Proxy Statement on Form 14, filed March 31, 2009, Commission File No. 001-33807\).](#)**

[10.6*](#) [Form of Restricted Stock Unit Agreement for 2008 Stock Incentive Plan — Executive or Director](#)
[10.4*](#) [\(incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed November 6, 2015, Commission File No. 001-33807\).](#)**

[10.5*](#) [Form of Stock Option Agreement for 2008 Stock Incentive Plan \(1999\) \(incorporated by reference to Exhibit 10.39 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).](#)**

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[10.8*](#) [Form of Stock Option Agreement for 2008 Stock Incentive Plan — Employee \(2008\) \(incorporated by reference to Exhibit 10.40 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).](#)**

[10.7* Form of Stock Option Agreement for 2008 Stock Incentive Plan — Executive \(2008\) \(incorporated by reference to Exhibit 10.41 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).**](#)

[10.8* Form of Stock Option Agreement for 2008 Stock Incentive Plan — Employee \(2014\) \(incorporated by reference to Exhibit 10.42 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).**](#)

[10.9* Form of Stock Option Agreement for 2008 Stock Incentive Plan — Executive \(2014\) \(incorporated by reference to Exhibit 10.43 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).**](#)

[10.10* Form of Non-Employee Director Stock Option Agreement for 2008 Non-Employee Director Stock Option Plan \(incorporated by reference to Exhibit 10.44 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).**](#)

[10.11* Form of Restricted Stock Unit Agreement for 2008 Stock Incentive Plan — Executive or Director \(2011\) \(incorporated by reference to Exhibit 10.45 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, filed February 24, 2016, Commission File No. 001-33807\).**](#)

[10.15*](#) [EchoStar Corporation 2017 Stock Incentive Plan](#)
[10.12*](#) [\(incorporated by reference to EchoStar Corporation's](#)
[Definitive Proxy Statement on Form 14, filed March 23,](#)
[2017, Commission File No. 001-33807\).](#)**

[10.13*](#) [EchoStar Corporation 2017 Non-Employee Director](#)
[Stock Incentive Plan \(incorporated by reference to](#)
[EchoStar Corporation's Definitive Proxy Statement on](#)
[Form 14, filed March 23, 2017, Commission File No.](#)
[001-33807\).](#)**

[10.14*](#) [Amended and Restated EchoStar Corporation 2017](#)
[Employee Stock Purchase Plan \(incorporated by](#)
[reference to EchoStar Corporation's Definitive Proxy](#)
[Statement on Form 14, filed March 23, 2017,](#)
[Commission File No. 001-33807\).](#)**

[10.15*](#) [Amendment No. 1 to EchoStar Corporation 2017](#)
[Amended and Restated Employee Stock Purchase](#)
[Plan dated October 20, 2022 \(incorporated by](#)
[reference to Exhibit 10.5 to EchoStar Corporation's](#)
[Quarterly Report on Form 10-Q for the quarter ended](#)
[September 30, 2022, filed November 3, 2022,](#)
[Commission File No. 001-33807\).](#)**

[10.16*](#) [EchoStar Non-Qualified Plan -- Executive Plan and](#)
[Adoption Agreement, as amended \(incorporated by](#)
[reference to Exhibit 10.1 to EchoStar Corporation's](#)
[Quarterly Report on Form 10-Q for the quarter ended](#)
[June 30, 2017, filed August 9, 2017, Commission File](#)
[No. 001-33807\).](#)**

[10.17*](#) [Form _____ of](#)
[Stock Option](#)
[Agreement](#)
[for _____ the](#)
[EchoStar](#)
[Corporation](#)
[2017 Stock](#)
[Incentive](#)
[Plan _____ -](#)
[Employee](#)
[\(2017\)](#)
[\(incorporated](#)
[by reference](#)
[to _____ Exhibit](#)
[10.2 _____ to](#)
[EchoStar](#)
[Corporation's](#)
[Quarterly](#)
[Report _____ on](#)
[Form 10-Q](#)
[for _____ the](#)
[quarter](#)
[ended June](#)
[30, _____ 2017,](#)
[filed August](#)
[9, _____ 2017,](#)
[Commission](#)
[File No. 001-](#)
[33807\)](#)**

[10.18*](#) [Form _____ of](#)
[Stock Option](#)
[Agreement](#)
[for _____ the](#)
[EchoStar](#)
[Corporation](#)
[2017 Stock](#)
[Incentive](#)
[Plan _____ -](#)
[Executive](#)
[\(2017\)](#)
[\(incorporated](#)
[by reference](#)
[to _____ Exhibit](#)
[10.3 _____ to](#)
[EchoStar](#)
[Corporation's](#)
[Quarterly](#)
[Report _____ on](#)

[Form 10-Q](#)
[for the](#)
[quarter](#)
[ended June](#)
[30, 2017,](#)
[filed August](#)
[9, 2017,](#)
[Commission](#)
[File No. 001-](#)
[33807\).](#)******

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10.19* [Form of Non-Employee Director Stock Option Agreement for the EchoStar Corporation 2017 Non-Employee Director Stock Incentive Plan \(incorporated by reference to Exhibit 10.4 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed August 9, 2017, Commission File No. 001-33807\).](#)******

10.20* [Form of Restricted Stock Unit Agreement for the EchoStar Corporation 2017 Stock Incentive Plan - Executive \(2017\) \(incorporated by reference to Exhibit 10.5 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed August 9, 2017, Commission File No. 001-33807\).](#)******

10.21* [Form of Stock Option Agreement for the EchoStar Corporation 2017 Stock Incentive Plan — Employee \(2022\) \(incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed November 3, 2022, Commission File No. 001-33807\).](#)******

[10.22*](#) [Form of Stock Option Agreement for the EchoStar Corporation 2017 Stock Incentive Plan — Executive \(2022\) \(incorporated by reference to Exhibit 10.2 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed November 3, 2022, Commission File No. 001-33807\)](#)**

[10.23*](#) [Form of Non-Employee Director Stock Option Agreement for the EchoStar Corporation 2017 Non-Employee Director Stock Incentive Plan \(2022\) \(incorporated by reference to Exhibit 10.3 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed November 3, 2022, Commission File No. 001-33807\)](#)**

[10.24*](#) [Form of Restricted Stock Unit Agreement for the EchoStar Corporation 2017 Stock Incentive Plan — Executive \(2022\) \(incorporated by reference to Exhibit 10.4 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed November 3, 2022, Commission File No. 001-33807\)](#)**

[10.29*](#) [Form of Stock Option Agreement for Hamid Akhavan \(incorporated by reference to Exhibit 10.2 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed May 5, 2022, Commission File No. 001-33807\)](#)**

[10.26*](#) [Form of Restricted Stock Unit Agreement for Hamid Akhavan \(incorporated by reference to Exhibit 10.3 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed May 5, 2022, Commission File No. 001-33807\)](#)**

[10.32*](#) [Letter Agreement between EchoStar Corporation and DISH Network Corporation, dated August 3, 2018, amending that certain Form of Tax Sharing Agreement between EchoStar Corporation and DISH Network \(incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 2018, filed November 8, 2018, Commission File No. 001-33807\)](#).

[10.33*](#)

[Amendment](#)
[to EchoStar](#)
[Non-](#)
[Qualified](#)
[Plan](#) --
[Executive](#)
[Plan](#) and
[Adoption](#)
[Agreement,](#)
[dated](#)
[November 1,](#)
[2018](#)
[\(incorporated](#)
[by reference](#)
[to Exhibit](#)
[10.35](#) to
[EchoStar](#)
[Corporation's](#)
[Annual](#)
[Report on](#)
[Form 10-K](#)
[for the year](#)
[ended](#)
[December](#)
[31, 2018,](#)
[filed](#)
[February 21,](#)
[2019,](#)
[Commission](#)
[File No. 001-](#)
[33807\).](#)**

[10.28*](#)

[Amended and](#)
[Restated EchoStar](#)
[Corporation](#)
[Executive Officer](#)
[Bonus Incentive](#)
[Plan, dated as of](#)
[April 30, 2019](#)
[\(incorporated by](#)

[reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, filed August 8, 2019, Commission File No. 001-33807\).**](#)

10.29*

[Amendment to EchoStar Non-Qualified Plan – Executive Plan and Adoption Agreement, dated October 21, 2019 \(incorporated by reference to Exhibit 10.1 to EchoStar Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, filed November 5, 2020, Commission File No. 001-33807\).**](#)

[10.37*](#) [Amendment No. 1 to](#)
[10.30*](#) [Contract between](#)
[EchoStar XXIV](#)
[L.L.C. and](#)
[SpaceSystems/Loral,](#)
[LLC \(currently](#)
[known as Maxar](#)
[Space LLC\) for the](#)
[Jupiter 3 Satellite](#)
[Program, dated](#)
[October 1, 2018](#)
[\(incorporated by](#)
[reference to Exhibit](#)
[10.2 to EchoStar](#)
[Corporation's](#)
[Quarterly Report on](#)
[Form 10-Q for the](#)
[quarter ended](#)
[September 30,](#)
[2020, filed](#)
[November 5, 2020,](#)
[Commission File No.](#)
[001-33807\). ****](#)

[10.38*](#) [Amendment No. 2 dated as of November 16,](#)
[2022 to the Contract between EchoStar XXIV](#)
[L.L.C. and Maxar Space LLC for the Jupiter 3](#)
[Satellite Program \(incorporated by reference to](#)
[Exhibit 10.1 to EchoStar Corporation's Current](#)
[Report on Form 8-K filed November 22, 2022,](#)
[Commission File No. 001-33807\)***](#)

[10.39*](#) [Amendment No. 1 to EchoStar Corporation](#)
[2017 Non-Employee Director Stock Incentive](#)
[Plan \(incorporated by reference to EchoStar](#)
[Corporation's Definitive Proxy Statement on](#)
[Schedule 14A, filed March 17, 2021,](#)
[Commission File No. 001-33807\) 001-33807\).](#)

[**](#)
[—](#)

- 10.31* [Second Amended and Restated EchoStar Corporation Executive Officer Bonus Incentive Plan, dated as of November 2, 2021 \(incorporated by reference to Exhibit 10.30 to EchoStar Corporation's Annual Report on Form 10-K for the year ended December 31, 2021, filed February 24, 2022, Commission File No. 001-33807\).](#)**
- 10.32* [2002 Class B CEO Stock Option Plan \(incorporated by reference from Appendix A to DISH Network Corporation's Definitive Proxy Statement on Schedule 14A dated April 9, 2002\).](#)**
- 10.33* [Nonemployee Director Stock Option Agreement \(incorporated by reference to Exhibit 99.6 to the Current Report on Form 8-K of DISH Network Corporation filed July 7, 2005\).](#)**
- 10.34* [DISH Network Corporation 2009 Stock Incentive Plan \(incorporated by reference to Appendix A to DISH Network Corporation's Definitive Proxy Statement on Form 14A filed September 19, 2014\).](#)**
- 10.35* [Amended and Restated DISH Network Corporation 2001 Nonemployee Director Stock Option Plan \(incorporated by reference to Appendix B to DISH Network Corporation's Definitive Proxy Statement on Form 14A filed March 31, 2009\).](#)**
- 10.36* [Amended and Restated DISH Network Corporation 1999 Stock Incentive Plan \(incorporated by reference to Appendix C to DISH Network Corporation's Definitive Proxy Statement on Form 14A filed March 31, 2009\).](#)**
- 10.37* [Guaranty of Certain Obligations to FCC, dated as of October 1, 2015, made by DISH Network Corporation in favor of the Federal Communications Commission \(Northstar Wireless\) \(incorporated by reference from Exhibit 10.2 to the Current Report on Form 8-K of DISH Network Corporation filed October 2, 2015\).](#)
- 10.38* [Guaranty of Certain Obligations to FCC, dated as of October 1, 2015, made by DISH Network Corporation in favor of the Federal Communications Commission \(SNR Wireless\) \(incorporated by reference from Exhibit 10.4 to the Current Report on Form 8-K of DISH Network Corporation filed October 2, 2015\).](#)
- 10.39* [Form of Base/Additional Note Hedge Transaction Confirmation \(incorporated by reference from Exhibit 10.1 to the Current Report on Form 8-K of DISH Network Corporation filed August 8, 2016\).](#)
- 10.40* [Form of Base/Additional Warrant Transaction Confirmation \(incorporated by reference from Exhibit 10.2 to the Current Report on Form 8-K of DISH Network Corporation filed August 8, 2016\).](#)
- 10.41* [Description of the 2017 Long-Term Incentive Plan dated December 2, 2016 \(incorporated by reference from the Current Report on Form 8-K of DISH Network Corporation filed December 8, 2016\).](#)**
- 10.42* [Description of the 2019 Long-Term Incentive Plan dated August 17, 2018 \(incorporated by reference from the Current Report on Form 8-K of DISH Network Corporation filed August 23, 2018\).](#)**

- 10.43* [Incentive Stock Option Agreement \(incorporated by reference from Exhibit 10.1 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed November 6, 2020\).](#)**
- 10.44* [Non-Qualified Stock Option Agreement \(incorporated by reference from Exhibit 10.2 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed November 6, 2020\).](#)**
- 10.45* [Restricted Stock Unit Agreement \(incorporated by reference from Exhibit 10.3 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed November 6, 2020\).](#)**

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- 10.46* [Master Network Service Agreement, dated as of July 1, 2020, by and among DISH Network Corporation, DISH Purchasing Corporation, and T-Mobile USA, Inc. \(incorporated by reference from Exhibit 10.4 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed November 6, 2020\).](#)
- 10.47* [License Purchase Agreement, dated as of July 1, 2020, by and among DISH Network Corporation and T-Mobile USA, Inc. \(incorporated by reference from Exhibit 10.5 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed November 6, 2020\).](#)
- 10.48* [Network Services Agreement, dated as of July 14, 2021, by and among DISH Wireless L.L.C. and AT&T Mobility LLC \(incorporated by reference from Exhibit 10.1 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed November 4, 2021\).](#)***
- 10.49* [Amended and Restated Support Agreement, dated as of October 2, 2023, by and among DISH Network, EchoStar and the Ergen Stockholders \(attached to the prospectus which forms a part of this registration statement as Annex B\) \(incorporated by reference from Exhibit 10.1 to the Amendment No. 1 on Form S-4 of EchoStar filed on November 6, 2023\).](#)
- 10.50* [Letter Agreement, dated as of October 2, 2023, by and between EchoStar and Hamid Akhavan \(incorporated by reference from Exhibit 10.2 to the Amendment No. 1 on Form S-4 of EchoStar filed on November 6, 2023\).](#)**
- 10.51* [Letter Agreement, dated as of October 2, 2023, by and between EchoStar and John W. Swieringa \(incorporated by reference from Exhibit 10.3 to the Amendment No. 1 on Form S-4 of EchoStar filed on November 6, 2023\).](#)**

10.52* [Registration Rights Agreement, dated as of December 31, 2023, among EchoStar Corporation, Charles W. Ergen, Cantey M. Ergen and the other signatories thereto \(incorporated by reference from Exhibit 10.1 to EchoStar's Current Report on Form 8-K filed on January 2, 2024\).](#)

10.53* [Form of Warrant Amendment Letter Agreement \(incorporated by reference from Exhibit 4.8 to EchoStar's Current Report on Form 8-K filed on January 2, 2024\).](#)

10.54* [Form of Warrant Guarantee \(incorporated by reference from Exhibit 4.9 to EchoStar's Current Report on Form 8-K filed on January 2, 2024\).](#)

10.55* [Form of Note Hedge Amendment Letter Agreement \(incorporated by reference from Exhibit 4.11 to EchoStar's Current Report on Form 8-K filed on January 2, 2024\).](#)

21 ☐ [Subsidiaries of EchoStar Corporation.](#)

23 ☐ [Consent of KPMG LLP, Independent Registered Public Accounting Firm.](#)

24 ☐ [PowersPower of Attorney of authorizing Dean A. Manson as signatory for Charles W. Ergen, Kathleen O. Abernathy, George R. Brokaw, Stephen J. Bye, James DeFranco, R. Stanton Dodge, Michael T. Dugan, Cantey M. Ergen, Lisa W. Hershman, Pradman P. Kaul, Jeffrey R. Tarr, C. Michael Schroeder Tom A. Ortolf and William David Wade.](#)

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31.199.1(l) ☐ [Press release dated February 22, 2023 issued by EchoStar Corporation regarding financial results for the quarter and full year ended December 31, 2022.](#)

[31.1\(H\)](#) [Section 302 Certification of Chief Executive Office and Officer.](#)

[31.2](#) [Section 302 Certification of Principal Financial Officer Officer.](#)

[32.1](#) [Section 906 Certification of Chief Executive Officer and Officer.](#)

[32.2](#) [Section 906 Certification of Principal Financial Officer.](#)

[97.1](#) [EchoStar Corporation's Clawback Policy.](#)

[99.1*](#) [Department of Justice CDMA Letter to Defendants dated July 9, 2021 \(incorporated by reference from Exhibit 99.1 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed August 9, 2021\).](#)

[101](#) The [instance](#) document does not appear following materials from the Annual Report on Form 10-K of EchoStar Corporation for the year ended December 31, 2023, filed on February 29, 2024, formatted in the [Inline eXtensible Business Reporting Language \("iXBRL"\)](#): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations and Comprehensive Income (Loss), (iii) Consolidated Statement of Changes in Stockholders' Equity (Deficit), (iv) Consolidated Statements of Cash Flows, and (v) related notes to these financial statements.

[104](#) [Cover Page](#) Interactive Data File [because its \(the cover page](#) XBRL tags are embedded [within in](#) the Inline XBRL document. [XBRL Taxonomy Extension Schema.](#)

[XBRL Taxonomy Extension Calculation Linkbase.](#)

101.DEF

XBRL
Taxonomy
Extension
Definition
Linkbase.

101.LAB XBRL Taxonomy Extension Label Linkbase.



101.PRE XBRL Taxonomy Extension Presentation Linkbase.

(H) Filed herewith.

(I) Furnished herewith.

* Incorporated by reference.

** Constitutes a management contract or compensatory plan or arrangement.

*** Certain portions of the exhibit have been omitted in accordance and separately filed with the Securities and Exchange Commission's rules and regulations regarding Commission with a request for confidential treatment.

**** Schedules and exhibits have been omitted pursuant to

Item

601(a)

(5) of

Regulation

S-K. We

agree to

furnish

supplementally

to the

Securities

and

Exchange

Commission

a copy of

any

omitted

schedule

or exhibit

upon

request,

subject to

our right

to request

confidential

treatment

of any

requested

schedule

or exhibit.

ITEM 16.FORM 10-K SUMMARY

None

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act
behalf by the undersigned, thereunto duly authorized.

ECHOSTAR COF

By: Hamid Akhavan
/s/ Paul W. Orban
Chief Executive Officer
Paul W. Orban
(Principal
Executive Officer and

Date: February 22, 2023

February 29, 2024

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has
and in the capacities and on the dates indicated.

Signature	Title
<u>/s/ Hamid Akhavan</u>	President and Chief Executive Officer and <u>Pr</u>
<u>Hamid Akhavan</u>	(Principal Executive Officer)
<u>/s/ Paul W. Orban</u>	Executive Vice President and Chief Financial
<u>Paul W. Orban</u>	(Principal Financial Officer and Principal Officer)
<u>/s/ Jeffrey S. Boggs</u>	Interim Principal Accounting Officer
<u>*</u>	Chairman
<u>Jeffrey S. Boggs</u>	
<u>*</u>	
<u>Charles W. Ergen</u>	
<u>*</u>	Vice Chair
<u>Pradman P. Kaul</u>	Director
<u>Kathleen Q. Abernathy</u>	

* Director

George R. Brokaw

* Director

Stephen J. Bye

* Director

James DeFranco

* Director

R. Stanton Dodge

* Director

Michael T. Dugan

Cantey M. Ergen

* Director

Lisa W. Hershman

* Director

Jeffrey R. Tarr

Tom A. Ortolf

* Director

C. Michael Schroeder

William D. Wade

William David Wade

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* By: /s/ Dean A. Manson

Dean A. Manson

Attorney-in-Fact

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Consolidated Financial Statements:

[Index to Consolidated Financial Statements](#)

[Report of KPMG LLP, Independent Registered Public Accounting Fir
Firm \(PCAOB ID: 185\)](#)

[Consolidated Balance Sheets as of December 31, 2022 and 2021](#)

[Consolidated Statements of Operations for the years ended Decem](#)

[Consolidated Statements of Comprehensive Income \(Loss\) for the ye
2020](#)

[Consolidated Statements of Changes in Stockholders' Stockholders'
December 31, 2022, 2021 and 2020](#)

[Consolidated Statements of Cash Flows for the years ended Decemb](#)

[Notes to Consolidated Financial Statements](#)

Report

[Table of Independent Registered Public Accounting Firm Contents](#)

REPORT OF INDEPENDENT REGISTERED

To the Stockholders and Board of Directors

EchoStar Corporation:

Opinions on the Consolidated Financial Statements and Internal

We have audited the accompanying consolidated balance sheets of Internal Company as of December 31, 2022 December 31, 2023 and 2021, 2022, the comprehensive income (loss), changes in stockholders' equity (deficit) for the year period ended December 31, 2022 December 31, 2023, and the statements). We also have audited the Company's internal control over financial reporting as of 2022 December 31, 2023, based on criteria established in *Internal Control over Financial Reporting* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly the financial position of the Company as of **December 31, 2022**, **December 31, 2021**, and **December 31, 2020**, its cash flows for each of the years in the three-year period ended **December 31, 2022**, and the related disclosures, in accordance with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained effective internal control over financial reporting as of **December 31, 2022**, based on the criteria set forth in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Going Concern

The accompanying consolidated financial statements have been prepared on a going concern basis. As discussed in Note 1 to the consolidated financial statements, the Company expects to use a substantial amount of cash in the next twelve months and expects to continue as a going concern. Management's plans in regard to these financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinions

The Company's management is responsible for these consolidated control over financial reporting, and for its assessment of the effect of these controls on the financial statements. The independent member firm included in the accompanying Management's Annual Report on Internal Control is to express an opinion on the Company's consolidated financial statements and control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to follow the standards of the PCAOB in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal controls over financial reporting were in place in all material respects.

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Our audits of the consolidated financial statements included per misstatement of the consolidated financial statements, whether du respond to those risks. Such procedures included examining, on disclosures in the consolidated financial statements. Our audits also i significant estimates made by management, as well as evaluating statements. Our audit of internal control over financial reporting includ financial reporting, assessing the risk that a material weakness exists effectiveness of internal control based on the assessed risk. Our aud we considered necessary in the circumstances. We believe that our a

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process de: reliability of financial reporting and the preparation of financial stateme accepted accounting principles. A company's internal control over fina that (1) pertain to the maintenance of records that, in reasonable di dispositions of the assets of the company; (2) provide reasonable ass permit preparation of financial statements in accordance with gener and expenditures of the company are being made only in accordanc the company; and (3) provide reasonable assurance regarding prev use, or disposition of the company's assets that could have a material

Because of its inherent limitations, internal control over financial rep projections of any evaluation of effectiveness to future periods are su because of changes in conditions, or that the degree of compliance w

Critical Audit Matter

The critical audit matter communicated below is a matter arising fror statements that was communicated or required to be communicated t or disclosures that are material to the consolidated financial stati subjective, or complex judgments. The communication of a critical au consolidated financial statements, taken as a whole, and we are n providing a separate opinion on the critical audit matter or on the acc

*Sufficiency of audit evidence over **certain Hughes segment re***

We identified the evaluation of the sufficiency of audit evidence over the audit matter. Specifically, a high degree of subjective auditor judgment was captured and extent of audit evidence obtained related to the related revenue of the Hughes segment. aggregated throughout these with specialized skills and knowledge were required to assess evaluation data interfaces, nature and procedures used to initiate, process, and certain revenue streams.

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/s/ KPMG LLP

We have served as the Company's auditor since 2007.

2002.

Denver, Colorado

February 29, 2024

February
22, 2023

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ECHOSTAR CORPOF

CONSOLIDATED BALANC

(Amounts Dollars in thousands, except sha

Assets

Current assets:

- Cash and cash equivalents
- Marketable investment securities
- Trade accounts receivable and contract assets, net
- Other current assets, net
- Total current assets

Non-current assets:

- Property and equipment, net
- Operating lease right-of-use assets
- Goodwill
- Regulatory authorizations, net
- Other intangible assets, net
- Other investments, net
- Other non-current assets, net
- Total non-current assets

Total assets

Liabilities and Stockholders' Equity

Current liabilities:

- Trade accounts payable
- Contract liabilities
- Accrued expenses and other current liabilities
- Total current liabilities

Non-current liabilities:

- Long-term debt, net
- Deferred tax liabilities, net
- Operating lease liabilities

Other non-current liabilities
Total non-current liabilities
Total liabilities
Commitments and contingencies

Assets
<i>Current Assets:</i>
Cash and cash equivalents
Marketable investment securities
Trade accounts receivable, net of allowance for credit losses of \$74,390 and respectively
Inventory
Prepays and other assets
Other current assets
Total current assets
<i>Noncurrent Assets:</i>
Restricted cash, cash equivalents and marketable investment securities
Property and equipment, net
Regulatory authorizations, net
Other investments, net
Operating lease assets
Intangible assets, net
Other noncurrent assets, net
Total noncurrent assets
Total assets
Liabilities and Stockholders' Equity (Deficit)
<i>Current Liabilities:</i>
Trade accounts payable
Deferred revenue and other
Accrued programming
Accrued interest
Other accrued expenses and liabilities
Current portion of long-term debt and finance lease obligations (Note 10)
Total current liabilities
<i>Long-Term Obligations, Net of Current Portion:</i>
Long-term debt and finance lease obligations, net of current portion (Note 10)
Deferred tax liabilities, net
Operating lease liabilities
Long-term deferred revenue and other long-term liabilities
Total long-term obligations, net of current portion
Total liabilities
Commitments and Contingencies (Note 15)
Redeemable noncontrolling interests (Note 2)

Stockholders' Equity (Deficit):
Class A common stock, \$0.001 par value, 1,600,000,000 shares authorized, 140,153,138,128,368 shares issued and outstanding, respectively
Class B common stock, \$0.001 par value, 800,000,000 shares authorized, 131,348,410 shares issued and outstanding
Additional paid-in capital
Accumulated other comprehensive income (loss)
Accumulated earnings (deficit)
Total EchoStar stockholders' equity (deficit)
Noncontrolling interests
Total stockholders' equity (deficit)
Total liabilities and stockholders' equity (deficit)

The accompanying notes are an integral part of these Consolidated Financial Statements.

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ECHOSTAR CORPORATION

CONSOLIDATED BALANCE SHEET, STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

(Amounts in thousands, except shares)

Stockholders' equity:
Preferred stock, \$0.001 par value, 20,000,000 shares authorized, none issued and outstanding at both December 31, 2022 and 2021
Common stock, \$0.001 par value, 4,000,000,000 shares authorized:
Class A common stock, \$0.001 par value, 1,600,000,000 shares authorized, 58,604,927 shares issued and 35,291,616 shares outstanding at December 31, 2022 and 58,059,622 shares issued and 38,726,923 shares outstanding at December 31, 2021
Class B convertible common stock, \$0.001 par value, 800,000,000 shares authorized, 47,687,039 shares issued and outstanding at both December 31, 2022 and 2021
Class C convertible common stock, \$0.001 par value, 800,000,000 shares authorized, none issued and outstanding at both December 31, 2022 and 2021
Class D common stock, \$0.001 par value, 800,000,000 shares authorized, none issued and outstanding at both December 31, 2022 and 2021
Additional paid-in capital
Accumulated other comprehensive income (loss)

Accumulated earnings (losses)
Treasury shares, at cost, 23,313,311 and 19,332,699 : December 31, 2022 and 2021, respectively
Total EchoStar Corporation stockholders' equity
Non-controlling interests
Total stockholders' equity
Total liabilities and stockholders' equity

Revenue:	
Service and other revenue	
Equipment sales and other revenue	
Total revenue	
NOTE 3. REVENUE RECOGNITION	
Costs and Expenses (exclusive of depreciation and amortization):	
Cost of services	
Cost of sales - equipment and other	
Contract Balances	ministrative expenses
Depreciation and amortization	
The following table presents the components impairment of long-lived assets and goodwill (Note 2)	
Table of our contract balances.	
Total costs and expenses	
-	
Operating income (loss)	
Trade accounts receivable and contract assets, net:	
Other income (Expense):	
Sales and services	
Interest income, net	
Leasing	
Interest expense, net of amounts capitalized	
Total trade accounts receivable	
Other, net (Note 6)	
Contract assets	
Total other income (expense)	
Allowance for doubtful accounts	
Total trade accounts receivable and contract assets	
Income (loss) before income taxes	
Income tax (provision) benefit, net	
Contract liabilities:	
Net income (loss)	
Current	
Less: Net income (loss) attributable to noncontrolling interests, net of tax	
Non-current	
Total contract liabilities	
Net income (loss) attributable to EchoStar	
The following table presents the revenue recognize	
Operations that was previously included within contract li	
common stock:	
Basic	E
Diluted	20
Revenue	\$ 1
Earnings per share - Class A and B common stock:	
Basic net income (loss) per share attributable to EchoStar	
The following table presents the activity in our allowance	
Diluted net income (loss) per share attributable to EchoStar	
Comprehensive Income (Loss):	
Net income (loss)	20
Balance at beginning of period	
Other comprehensive income (loss):	
Credit losses (1)	
Foreign currency translation adjustments	
Deductions	
Unrealized holding gains (losses) on available-for-sale debt securities	
Foreign currency translation	

Reclassification of previously unrealized (gains) losses on available-for-sale securities included in net income (loss)	
Deferred income tax (expense) benefit, net	
Other	
Total other comprehensive income (loss), net of tax	

NOTES TO CONSOLIDATED FINANCIAL STATE

Market Approach. Currently frequencies in the 500 kHz to 1 GHz are used in the United States. Spectrum bands can be grouped into three categories: lower band (below 1 GHz), lower mid-band (1-2 GHz), upper mid-band (above 2 GHz). Radio frequencies have different characteristics. Unconcentrated in time and distance they will travel and their ability to penetrate require less power to travel large distances and propagate whereas higher bandwidth spectrum is favored in urban areas where capacity and cell sites are dense, with limited coverage area.

Our spectrum holdings include low-band, lower mid-band and mid-band licenses (collectively, “Low-Mid Band Licenses”) and high-band licenses.²³

During 2023, 2022, and 2021, our multichannel video wireless spectrum licenses were assessed as a single	
2021, management assessed these licenses qualitatively recent auction results and historical market activity. We	
that the fair value of these licenses exceeded their carryi	
unconsolidated affiliates, net	(5,
Changes in circumstances or market conditions could r	
Wireless spectrum licenses in the future.	5,
Other-than-temporary impairment losses on equity method investments	F-22
Other, net	3,
Total other income (expense),	
(a) The impact of adopting ASC 326 on January 1, 2020 was a net dec	
driven by a \$13.4 million reclassification to Other current assets, n	233,
\$2.9 million adjustment to Accumulated earnings (losses).	
Income tax benefit (provision), net	(66,
Net income (loss)	166,
Less: Net loss (income) attributable to non-controlling interests	10,
Net income (loss) attributable to	
Contract Acquisition Costs	\$ 177,
Earnings (losses) per share -	
Class A and B common stock:	
Basic	\$ 2
Diluted	\$ 2
The following table presents the activity in our contract a	
	F
	In thousand20
Balance at beginning of period	\$
Additions	Accumulated
Amortization expense	Class A and B Additional Other
Foreign currency translation	Common Paid-In Comprehensive
	Stock Capital Income (Loss)
Balance at end of period	\$
December 31,	
Performance Obligations 266	\$ECHOSTAR CORPOF
Issuance of	NOTES TO CONSOLIDATED FINAN
Class A	Continued
Table of December 31, 2022, the remaining performan	
common stock:	
with original expected durations of more than one year	
Exercise of	
expected to be satisfied within one year and greater	
respectively. This amount and percentages exclude agr	
Hughes segment, our leasing arrangements and agree	
collectability of all amounts due through the term of contr	
benefits	
Employer	Video subscribers typically follows
Disaggregation of Revenue	described above, with the exception th
Purchases	most of our commercial subscribers exc
Geographic Information	multiple years in length. However,
Non-cash,	typically do not receive time-limited d
The following tables present our revenue from custo	
geographic market and by segment.	
compensation	Performance obligations, revenue is equ
Other	a given month.
comprehensive	Hughes
For the year ended December 31, 2022	
Income (loss), net of income tax expense	(23,090)
North America	\$ 1,576,773 \$

South and Central America	Our Retail Wireless segment revenue	17,138
debt	Wireless subscriber revenue and sell	218,496
Other	prepaid and postpaid subscribers. The n	
reclassified	are prepaid under the Boost Mobile and	
Total revenue		\$ 1,966,587
ASU 2020		
For the year ended December 31, 2021	net of defea smaller subset of postpaid subscribe	
taxes	postpaid brand. Prepaid subscribers, f	\$ 1,617,229
North America	(service on a month-to-month contract. C	
South and Central America	customers are determined to be one mo	176,515
2)	are qualified to pay for their service at	162,482
Other	and pay for their monthly service on a	
Contribution		
Total revenue		\$ 1,956,226
non-controlli		
interest hold	Our contracts with postpaid custom	
For the year ended December 31, 2020	enforceable duration of one month. H	
North America	credits offered to a customer on an equ	\$ 1,556,961
repurchase	and are contingent on the	151,484
South and Central America	service contract may result in another \$	152,679
Other	service contract based on another \$	
Total revenue		\$ 1,800,924
attributable	deemed to exist.	
noncontrolling		
interests	We have both an indirect sales chanr	
Net	party owned retail stores and big box	
(loss)	through Amazon and a direct sales	
attributable	customers online through each respec	
EchoStar	deliver products to third-party reta	
Nature of Products and Services	direct sales channel,	
December	distribution partners to receive in	
The following tables present our revenue disaggregated		
Issuance	may involve more than one performance	
Goodwill	wireless services, wireless devices or	
common sto	contracts that may include various comt	
Goodwill represents the nature of products and services.		
stock	performance obligation based on its re	
awards	price. Although our Retail Wireless segr	
Employea	and services, which we have termin	
For the year ended December 31, 2022	generally distinct b	
Services and other revenue	device and service are so	
Services	times, and in the case of certain sta	\$ 1,592,436
Lease revenue	indirect sales channel, have different cu	
Total	the product is transferred to an interme	
Non-cash	customer in the indirect channel, the c	
Equipment	device is the intermediary, such as the i	119,107
stock-based	whereas for the service the subscribe	
Design, development and	When control of the product is not transf	
Other	in the indirect channel the product is a	246,265
comprehens	performance obligations.	8,777
Lease revenue		
income (loss)		36,554
Total equipment revenue		374,149
Issuance		
Total revenue		\$ 1,966,587
equity	We consigned inventory and the custo	
contribution	device and service is the end custome	
For the year ended December 31, 2022	revenue include otl	
assets pursuant		
Services and other revenues	which is derived from	
to the India JV	equipment which, for operating lease	2,648,799
Services	and other revenue in the may be reco	
formation	within our Consolidated Statements of I	39,021
Lease revenue	type leases, is reported in Equipment	
Consideratio		1,685,799
Total services and other revenue		
received	Income (Loss) depending on whether v	
Equipment revenue	principal or agent in the Consol date	1,122,934
Design, development and	services with the subscriber. Service revenues i	
construction Services	has been provided and no i	

Lease revenue	Concessions given to subscribers are recorded as a reduction of lease revenue.	
repurchase		
Total equipment revenue	270,427	
Other, net	711	
Total revenue	1,956,226	\$
Net income		
(loss)		
For the year ended December 31, 2020	Equipment revenues are primarily from wireless devices.	
Services and other revenue	Services are recognized when control of the product is transferred to the customer, contracts contain no bundled components, and we separate from non-lease components.	
Services	Customer contracts gain on bundled components.	
Lease revenue	we separate from non-lease components.	
Net income		
Total services and other revenue	1,655,233	
(loss)		
Equipment revenue:	offer postpaid customers the option of installment payments, generally over 36 months.	
Equipment	of a financing component as a reduction of lease revenue.	
Deconsolidation	in contracts where customers purchase equipment in installments over more than one year, we recognize revenue for the equipment components that are not considered part of the lease.	
Lease revenue	6,992	
Total equipment revenue	205,601	
Class A		
Total revenue	1,860,834	\$
common stock:		
Exercise of	F-27	
stock		
awards	(2,444)	
Employee		
benefits	20,100	
Employee		
Stock		
Purchase		
Plan	1	12,041
Non-cash,		
Sales-type lease revenue:	We have elected the practical expedient to recognize revenue at the commencement of the lease term, which we expect, at contract inception, that the transfer of a performance obligation to the customer's payment for that performance obligation will occur within one year or less. We may offer certain customers on device installment upgrade to a new device after paying a portion of the device's cost.	
Revenue at lease commencement		
Interest income		
Total sales-type lease revenue		
Operating lease revenue		
Other, net	(6,931)	
Purchase		
Northstar		
Substantially all of our net investment in sales-type lease		
\$21.9 million and \$17.1 million as of December 31, 2022		
ownership		
interest		
The following table presents future operating lease payments		
2022:		
Northstar		
Spectrum		
Deconsolidation		
December 31,		
2023		
2024		
2025		
2026		
2027		
2028 and beyond		
interests		
Total lease payments to be received		
Net income		
(loss)		
The following table presents amounts for assets subject to		
Property and equipment, net:		
EchoStar		
promotional activity. For wireless devices, we defer a portion of equipment lease return, we defer a portion of equipment		

	Balance, December 31, 2023	lease components, cost of consideration	Accumulated depreciation	of sales to customers
				Net
Customer premises equipment	\$ 271	\$8,301,979	\$ (160,056)	
Satellites	\$ 621	\$ (629,592)	\$ 226,029	
Real estate	\$ 104,620	\$ (52,284)	\$ 59,336	
Total	\$ 1,008,516	\$ (700,910)	\$ 307,606	

6 Our Hughes segment broadband, serviceable during 2022, the Company identified fully depreciated and related to our customer premises equipment assets. C reduced by \$1.1 billion. There was no impact to Other pri

time and recognize revenue ratably a

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

obligations provide for fees based on us
Table of Contents
We satisfy these performance obligat

related revenue at the point in time, or c
The following table presents depreciation expense for as
Services are rendered. Our Hughes t

included in Depreciation and amortization:
Services segment also sells and
equipment to its customers. Revenue

generally

Customer premises equipment sales contracts and sales

Satellites warranties, but generally

Real estate Revenue for extended warranties is rec

Total extended warranty period. \$ or \$

performance obligations, we typically

transaction price to each performance,
NOTE4. LESSEE ACCOUNTING For the y
relative standalone selling prices. Whe

The following table presents the amounts for ROU assets:

standalone selling price is the expected

Net income (loss) \$ 166,548

contracts generally require customer pa

Other comprehensive income (loss), net of tax:

Right-of-use assets:

Operating Foreign currency

Finance translation adjustments 39,608

Total right-of-use assets

Lease liabilities:

Current: amounts and classified as

Operating net income (loss)

Finance realized depreciation

Total current lease liabilities

Non-current: arrangements, we measure progress (18

Operating using Total other

Finance input method, we recognize the trans

Total non-current (loss) net of tax 41,570

Total lease liabilities

As of December 31, 2022, we have prepaid our obligat

assets. Finance lease assets are reported net of accum

\$95.7 million as of December 31, 2022 and 2021, respec

and recognize related adjustments in

(loss) attributable to

revisions are made

EchoStar Corporation

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	interim payments as work progress
	contracts, we may be entitled to receive
The following table presents the components of lease cost discount rates for operating and finance leases:	
	Net income (loss)
	Adjustments to reconcile net income (loss) to net cash provided by operating activities
	We derive a portion of our revenue from connectivity services. The lease cost for these services is primarily based upon usage. Generally, our ESS segment satellite customers contain a single period of rights relating to the shares of ECHOSTAR CORP.
Lease cost:	Operating lease cost
	Finance lease cost:
	Amortization of right-of-use assets
	Interest on lease liabilities
	Total finance lease cost
	Short-term lease cost
	Variable lease cost
	Total lease cost
	Other current assets
Lease term and discount rate:	Weighted-average remaining lease term:
	Finance leases
	Operating leases
	Weighted-average discount rate:
	Finance leases
	Operating leases
The following table presents the detailed cash flows from operations with respect to our lease liabilities:	
	Cash paid for amounts included in the measurement of lease liabilities:
	Operating cash flows from operating leases
	Operating cash flows from finance leases
	Financing cash flows from finance leases
We participate in various United States securities offerings, including underwritten offerings, in which we indemnify the ECHOSTAR CORP. affiliates with respect to our obligations.	
We obtained ROU assets in exchange for lease liability of \$22.6 million upon commencement of operating leases during 2021 and 2020, respectively. The cost of broadband services, and participating providers can be used for such discounts. This revenue is recorded on our Consolidated Statement of Comprehensive Income (Loss). Corresponding when services have been provided.	
The following table presents future minimum lease payments for operating and finance leases:	
December 31, 2022:	Year ending December 31,
	2023
	2024
	2025
	2026
	2027

2028 and beyond	consideration (i.e., we must perform ad
Total future minimum lease payments	to receive consideration). Amounts
Less: Interest	accounts receivable when our right
Total lease liabilities	unconditional. When consideration is r
	unconditional right to consideration in

goods or services, a contract liability is r

NOTES. BUSINESS COMBINATIONS

to the identifiable performance obligatio

In May 2019, we entered into an agreement with Bharti

Bharti Airtel Services Limited (together with BAL, "Bha

contribute its very small aperture terminal ("VSAT") tel

business in India to Hughes Communications India Priv

our less than wholly owned Indian subsidiaries, that co

business in India. On January 4, 2022, this joint ve

subsequent to the formation of the India JV, we hold a 6

33% ownership interest in HCIPL. The India JV co

companies to offer flexible and scalable enterprise netwo

for primary transport, back-up and hybrid implementation

to the India JV have been included in these Consolidat

formation. The costs associated with the closing of th

expensed as incurred. Revenue and Other and Long-term De

long-term liabilities" on our Consoli

The fair value excess of the balances are amortized ov

million, inclusive of amounts paid for over the acquisition

were shareholders of HCIPL prior to closing the India JV.

(Amounts in thous

related to contracts with subscribers of c

All assets and liabilities acquired in the India JV formal

value. The following table presents our allocation of the p

Assets Recognized to the Co:

Additional Other

with a Customer and subsequent i

Assets:

Trade accounts receivable and contract assets, net

Other current assets

Property and equipment

Goodwill

Other intangible assets

Total assets

Liabilities:

Trade accounts payable

Accrued expenses and other current liabilities

Deferred tax liabilities

Total liabilities

Total purchase price

benefit concern. — 6,921 —

Lessee Accounting

The valuation values of assets acquired and liabilities as:

goodwill for impairment at the reporting unit level, which

DISH TV, Retail Wireless, 5G Network Deployment and

majority of our goodwill relates to the Hughes reporting

Services segment and the Retail Wireless and 5G Netwo

fiber and transport equipment, ware

centers, vehicles and other equipment

We perform our annual impairment assessment for go

assets each year during the fourth quarter or mo

circumstances indicate an impairment may be possibl

impairment assessment for goodwill during the second c

to the Merger in order to align the testing date between

date does not result in a material change in non

we are reasonably certain to exercise.

	DISH TV subscribers have the choice	
	the satellite receiver and other equipment	
	on their DISH TV services. Most of our new	
Goodwill	choose to lease equipment and thus	
	equipment. Equipment leased to new	
	subscribers is capitalized and depreciated	
	used lives net services to consumer.	
Balance as of December 31, 2021, net of accumulated impairment losses	include foreign and small	
Goodwill from India JV formation, net of foreign currency translation		
Balance as of December 31, 2022, net of accumulated impairment losses	For equipment leased to new and existing	
Impairment of goodwill	we made an accounting policy election to	
	with our programming services as	
Balance as of December 31, 2023, net of accumulated impairment losses	obligation in accordance with the reversal	
	DISH Network	
	as the programming services are the	
Accumulated impairment losses as of December 31, 2023	for R&D tax	
	the police state revenue related	
	credits utilized	0,319
	new and existing DISH TV subscriber	
	Other	1,209
	been accounted for as an operating lease	

December 31,
We lease certain office space, communication

For such an accounting to be useful, it must be based on the same principles and assumptions as the financial statements. The accounting must be based on the same accounting principles and assumptions as the financial statements. The accounting must be based on the same accounting principles and assumptions as the financial statements.

Other comprehensive income (loss)	income in Services	Equipment sales and other
comprehensive income (loss)	Consolidated	Statements
	37,901	(698)
Balance, December 31, 2022	Services	"Service and other"
	\$ (172,044)	\$ (97)
	Amortization of Debt	\$ (98)
	Other	
	We will need to raise additional capital, which may not be available on favorable terms, to fund the efforts described below, and we collect concurrent with revenue, neither makes any payment for the Auction Payment and SMP Re-Award and other current liabilities in the Consolidated AWS-3 licenses retained by the Company.	
	Shipping and handling costs associated with the equipment transferred to the customer and are included in the revenue "on our own" at the time of shipment, and	
(Loss)	net	(50,959)
	DISH Network Spectrum assets, net	
		(6,456)
	We have invested a total of over \$300 million to acquire certain Wireless Spectrum F-30 and F-36 licenses. Wireless spectrum licenses are issued on an interim and final build-out requirements and certain renewal requirements to utilize our Wireless Spectrum through the completion of the nationwide, Open ECHOSTAR CORP. (ECHO)	
Table of Contents	NOTES TO CONSOLIDATED FINANCIAL STATEMENTS	
Net cash provided by (used) in operating activities	We have committed to a Continued broadband network (our "5G Network") serving increasingly larger portions of the U.S. population at different rates.	
Cost of Sales - Services and Other	including 20% of Defense, the Department of Defense, and 70% of the U.S. population.	
Cash flows from investing activities:	Pay-TV Segment	
Pay-TV Segment	Full year 2023. If by June 2023, we are unable to complete our marketable investment in the "Cost of sales - services and other" population but less than 70% of the U.S. population and maturing of the	
Cost of Sales - Services and Other	Sales and maturities of the	
Comprehensive Income (Loss) principal expenses and other operating costs	segment. The cost of television programming rights to distribute live sports or tournament is charged to expense method over the course of the season or June 14, 2023 band-specific affiliate	
Broadband and Satellite Services Segment	commitments. The single investments	
"Cost of services" on our Consolidated	and Comprehensive Income (Loss) principal equal to 35 Mbps services will be confirmed by the FCC. We operate have six month	
Net cash provided by (used) in operating activities	rest of the year, and we have six month	

with the 2023 3Q period and is disclosed as incurred in the largest commercial deployment.	
The following two business segments are reaching approximately 200 million 5G broadband service reaching million Americans.	
Retail Wireless Segment	
“Cost of Sales - Equipment” As a result of us providing 5G for Cost of sales - equipment in the service Statements of Operations primarily and (Loss) principally includes and costs in and NSA. Costs incurred under the recognized as the services are performed broadband service to at least 70% in each Economic Area for the 2023 3Q period.	
Cost of Sales - Equipment and Other	
mat population in each Economic Area Senior Unsecured Pay-TV Segment	
Payment of finance	
“Cost of sales – equipment and other” Statements of Operations and Comprehensive Income principally includes costs related to the Pay-TV equipment. Costs are generally are delivered to customers and the recognized licenses and related as comply with regulations applicable Broadband and Satellite Services Segment activities, any such investment	
“Cost of sales – equipment and other” Statements of Operations and Comprehensive Income principally, consists of inventory cost royalties, and is generally recognized as of the equipment is passed to the customer is recognized.	
“Cost of sales – equipment and other” Statements of Operations and Comprehensive Income principally includes the cost of wireless items, certain direct costs of wireless m to deliver wireless voice and data service recognized as products are delivered related revenue is recognized. rates on cash and	
cash equivalents (2,306)	
5G Network Deployment Segment	
Net increase	
(decrease) in cash	
“Cost of sales – equipment and other” Statements of Operations and Comprehensive Income principally includes the lease expense and transport as well as cloud service generally recognized on a straight-line basis. Costs related to cloud services are either the contract term or based on usage.	
NOTES TO CONSOLIDATED STATEMENTS - Continued	
restricted amounts,	
end of period	\$ 705,883

ECHOSTAR CORPOF

During 2015, through our wholly-c
Table of ContentsONSOLIDATED FINAN
American AWS-3 Wireless II L.L.
and America AWS-3 Wireless III
ECHOSTAR CORPOF

NOTES TO CONSOLIDATED FINAN

noncontrolling investContinued

NOTE LLC ("Northstar Spectrum"), the j
1. OF NORTHSTAR
Northstar Wireless, L.L.C. ("Nc

Advertising Costsively with Northsta
BUSINNorthstar Entities"), and in SNR

We recognize advertising expense

component of "Selling, general and adr
Organization and Business Activities
our Consolidated Statements of Operat

Income (Loss). Advertising expenses to
million and \$725 million for the years en
2022 and 2021, respectively.") to Norths

SNR Wireless, respectively, w
Research and Development authoriz
referred to as "EchoStar" the "Comany
Consolidated Balance Sheets.

Research and development costs, not in
customer requirements, are expense
included as a component of "Selling, gi
expenses" on our Consolidated Staten
Comprehensive Income (Loss).sidered

entities ("VIEs") and, based on th
Recent Developments, these entities cl

are incurred the comparable will be use
Merger with DISH Network
customers under these instances can

customers, development efforts
Cost December 31, 2022, we completed
Consolidated Statement Operations:
Plan of Merger dated as of October
Northstar Spectrum, which we pu

Stock-based Compensation Expense;
or approximately \$200 million.
Stock-based compensation expense is
fair value of stock awards ultimately exp
are estimated at the time of grantOf
necessary, in subsequent periods if act
those estimates. Compensation expens
conditions only is recognized on a str
requisite service period for the entire
expense for the year and subject to the con
Wireless Management, LLC's ("S

Amended Merger Agreement on Decem
ownership ECHOSTAR CORPOF
p.n ET (the "Effective Time") each
NOTES TO CONSOLIDATED FINAN

Class EchoStar SNR F-1000-1250
share "DISH Network Class A Com
approximately \$442 million on F
Network Class C common stock, par
awards subject to performance condit
when satisfaction of the performance coi
to SNR HoldCo as of the purch

Advertising Costs,onsolidate the SNR
non-as-separable shares of EchoStar Cl

Advertising costs are expensed as incl
Selling, general and administrative expe

Statements of Operations. not forth in
Broadband and Satellite Servic
Agreement, at the Effective Time, each
Research and Development

Class We offer or broadcast satellite services. Comprehensive Income (Loss). Products are Network Class A, Customer Service, Research and development costs not in Common Stock. Risk Allocation: Customer requirements, are generally expected prior, to the effective date.

Debt Issuance Costs absolutely less Costs of issuing debt generally are deferred. \$110 million, are amortized utilizing \$91 interest method, with amortization in December 31, 2023, 2022 and 2021, respectively.

Interest expense, net of amounts capitalized Statements of Operations. We report our immediate interest expense as a reduction of the related Consolidated Balance Sheets. **Satellite Services** All shares of ("ESS segment") — delisted from the Satellite services on. We

Foreign Currency and/or occasional foreign currency, as amended.

Cash and Cash Equivalentsted, multi- to U.S. government securities.

We consider all liquid investments the "ESS segment" is likely to have remaining maturity of 90 days or less, including both commercial acquisition to be cash equivalents. December 31, 2023 and 2022 may compare with 1,004 million Broadband funds, government bonds, corporate paper. The amortized cost of DISH Network Class A Common Stock approximates their fair value. satellite providers, broadcast network. **Concentration of Credit Risks** in the DISH Network Class A Common Stock equity bringing additional broadcast. Cash and cash equivalents are maintained with financial institutions domestically. Deposits held with banks may be insured by the Federal Deposit Insurance Corporation. deposits may be redeemed upon maintained with financial institutions concurrently with the entry into the Amended credit ratings. We routinely assess the significant customers, and this assessment, the Ergen DISH Network, the large number and geographic the Ergen Stockholders; we and DISH customers, limits our concentration amended and restated support agreement receivables from contracts with customers existing customers and (In connection with the completion of the the Amended and Restated F-16 report Stockholders, we and DISH Network, or and the Ergen Stockholders entered agreement (the "Registration Rights Agreement").

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ECHOSTAR CORP OF	
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS	
Continued	
Marketable Investment Securities	
ECHOSTAR CORP OF	

All equity securities are carried at fair value recognized in "Other, net" within "on our Consolidated Statements Comprehensive Income (Loss).

Other Developments

All debt securities are classified as a Other Security Incident. We report the tel and losses related to changes in market debt securities as a separate compone comprehensive income (loss)" within (Deficit)," net of related deferred income Balance Sheets. The functional current the fair value to our foreign oper securities, which are determined to be losses are recorded in "Other, net" (Expense)" on our Consolidated Stater Comprehensive Income (Loss). Interest for-sale debt securities is reported in Ir our Consolidated Statements of Operat Income (Loss).

On February 28, 2023, we furth We evaluate our debt investment portf declines in the local currency. Accord securities are related to credit loss. Man losses on marketable debt securities impairment model on a quarterly b expected credit losses, measured ove marketable debt securities considering factors, including, but not limited to, a c or an entity's ability to pay.

Receivables and Related Allowance f development activities, and gain

General Accounts Receivable assigned to our business s

Trade accounts receivable represent o consideration arising from our perform contracts and are recorded at cost expected credit losses that are not expe maintained allowances for credit losses re failure or inability of our customers to r We recognize the allowance for ex inception and reassess quarterly be expectation of the asset's collectability.

The DISH TV, SUNG TV, an credit losses on financial assets, inclu receivable, utilizing a current expecter model. We estimate the expected cred the contractual life of an asset consider information, credit quality of the custome

conditions and forecasts of future econo During the first quarter of 20 In substantially all of our sub groups similar types of financial ass characteristics. Pools identified by man to assets to remediate the inci not limited to residential customers, enterprise customers, and advertisi third and fourth quarters of 2022 characteristics of the financial asset po

management and reviewed periodically. economic conditions are based on severe not limited to, changes in the unrec economic forecasts and current collect the allowance for credit losses may not credit losses requiring additional charge the actual amount collected. Past due balances are written off against our all when our internal collection efforts have

by primary geographic market as Installments ReceivableS. and its territ Canada); (ii) South and Central We offer Boost postpaid customers th devices and other equipment in install period of 36 months. Installments rece our Consolidated Balance Sheets at th (i.e., the receivables' unpaid balance as off amounts due to impairment and un of the allowance for credit losses. At th sale, we retranslate impute a discount exceeds 12 months as there is no statu receivables. The receivables are record which is determined by discounting payments at the imputed interest rate installments receivable is included in "Tr net" and the long-term portion of in included in "Other noncurrent assets, r Balance Sheets. This adjustment re reduction in the transaction price of the which is allocated to the performa the accompanying consoli arrangement such as Equipment and statements include all bal Consolidated Statements of Operatio accompanying notes (collectively, Income (Loss). Financial Statements") results

EchoStar and our consolidated st prepared in conformity F-17 J.S. (accounting principles ("GAAP").)

majority owned subsidiaries, inve in which we have a controlling fin are deemed influence and VIES Table of Contents been determined to have a c interest in ECHOSTAR CORPOF

NOTES TO CONSOLIDATED FINAN in which beneficiary. Continued as noncontrolling interests noncontrolling interests. See I The imputed discount rate reflects a cu and is predominately comprised of th underlying the installment receivable, credit worthiness of the customer. TI receivables is amortized over the financ the effective interest method and recog other revenues" on our Consol Comprehensive Income-vestee, these e classified as either market Inventoryurities or other investments, w

recorded at cost, and based on inventory is stated at the lower of cost or market. Cost is determined using the first-in, first-out method. Inventory includes the cost of freight-in, royalties and manufacturing overhead. The carrying value is calculated as the estimated selling price less the estimated costs necessary to complete, sell, and transport the inventory. We record write downs for inventory when the carrying value of slow moving items based on trends and other factors exceeds the fair value into arrangements with distributors when the carrying value of the product to a distributor has occurred, but the product has not yet been sold to the distributor. Until such time it is sold to the distributor, we account for the inventory at the carrying value.

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

Property and equipment, including leasehold improvements, related to our wireless projects, 5G network, and satellites, are stated at cost less depreciation and amortization and impairment losses, if any. Capitalized expenditures include the cost of purchased assets, plus the cost to construct and install the asset, and overhead directly benefiting the asset. Depreciation and amortization begins when pre-construction activity commences. Depreciation and amortization of an asset is ready for its intended purpose. Depreciation and amortization of an asset is generally capitalized when the asset is used in the construction of customers' homes. We have certain finance leases. The recorded costs are the present value of all lease payments, plus the cost of the lease right of use ("ROU") assets over the term of the lease.

EchoStar issued equity in connection with the Merger. Accordingly, upon the completion of the Merger, if a satellite were to fail while in-orbit, the cost of the satellite would be charged to expense in the period such loss is incurred. The amount of any such loss would be recorded at the carrying value of the satellite less any insurance proceeds estimated to be received. The cost of the satellite is recorded on a straight-line basis over its estimated useful life of one to 40 years. Repair and maintenance expense when incurred. Renewals and extensions of the lease term or value or extend the asset's useful life are capitalized.

Internal Use Software

We capitalize certain costs related to the development of internal use software. Capitalization of costs begins when the preliminary project stage is complete and continues through the funding of the software project. Capitalization of costs ends when the software project is ready for its intended use. Internal use software costs are recorded in "Property and Equipment" on our Consolidated Balance Sheets and "Software" on our Consolidated Statements of Financial Position. The estimated useful life of the software is determined based on the nature and complexity of the software. Statements are expressed in thousands of U.S. dollars.

Asset Retirement Obligation

Upon the completion of the Merger, we recorded an asset retirement obligation for the estimated cost of decommissioning and removal of certain assets. We record an asset retirement obligation for the estimated cost of decommissioning and removal of certain assets combined with those of EchoStar at the time of the Merger. The value of legal obligations associated with the asset retirement obligation is recorded at the time of the Merger.

tangible long-lived assets and a corresponding carrying amount of the related asset in obligation is incurred. In periods measurement, we recognize changes in the passage of time and revisions to amount of the original estimate. Over time to its present value and the capitalized the estimated useful life of the assets obligations relate primarily to certain remediate leased property on our comm recorded in "Property and equipment, net recorded in "Long-term deferred revenue liabilities" on our Consolidated Balance Sheet cash repurchases of the treasury shares connection with closing of the Merger. In between EchoStar and DISH Network has all historical periods.

Redeemable Noncontrolling Interests

Table of Contents. Northstar Wireless subsidiary of Northstar Spectrum, which Northstar Manager and U.S. Under the ECHOSTAR CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS guidance in ASC 810, Northstar Spectrum and, based on the characteristics of the consolidated Northstar Spectrum into our Other Investments Northstar Operative Agreements, as among other things that Northstar Manager Equity Method Investments not the obligation, to require Northstar Northstar Manager's ownership interest We use the equity method to account for (the "Northstar Put Right") for a period have the ability to exercise significant influence equity contribution to Northstar Spectrum decisions of the affiliate. Such investments of return at cost and subsequently adjusted for the net earnings or loss of the investment

The First Northstar Put Window closes "Other, net" on our Consolidated Statement of Comprehensive Income (Loss). The consolidated subsidiary American II received notice investments includes a component of gain exercised the Northstar Put Right after our investment exceeds the fair value 2022. As of December 31, 2022, the identifiable assets and liabilities of Northstar Put Right accrued to \$96 million received from these foreign entities affiliate the FCC consented to the sale of Northstar amount of our investment. interests in Northstar Spectrum, which was approximately \$100 million. This put Cost Method Investments elimination of all of our redeemable non related to Northstar Spectrum as of the We generally measure investments in our continuous to consolidate the Northstar I instruments without a readily determinable subsidiaries adjusted for observable price changes in the identical or similar securities of the Northstar Spectrum does not have a resulting from impairments, if any. Other Northstar Manager's ownership interest measured to determine their local currency. Although Northstar Manager is the only observable market information. When Spectrum Northstar Manager's amount of an investment to U.S. dollars considered temporary equity under the exchange rates its estimated fair value guidance and was recorded as noncontrolling interests" in the measurement

recorded in "Other, net" on our Consolidated Statements of Operations and Comprehensive Income. Subsequently, Northstar Management's Other Debt Investments increased by \$1.2 billion through "Redeemable noncontrolling interest" on our Consolidated Balance Sheet. We generally record our investments in equity securities without a readily determinable fair value. We recognize any discounts or premiums on the acquisition of equity securities as an adjustment to the carrying amount of the investment. Interest income, and expense, is recorded on the investment. The resulting translation adjustment is recorded in Other, net on our Consolidated Statements of Operations and Comprehensive Income. Except in addition, some of our debt investments are income that is paid-in-kind, which is recorded in Other, net on our Consolidated Statements of Operations and Comprehensive Income. SNR HoldCo, which is an entity owned by Northstar Management, is accounted for as an equity method investment. We periodically evaluate all of our other investments to determine whether events or changes in circumstances may have a significant adverse effect on the carrying amount of an investment. We consider information from investees such as current financial statements, investment documentation, capitalization tables, waterfalls, and board materials; an impairment study; and additional inquiries of investee management. Indicators of impairment may include deferred income taxes related to the investment, material loss contingencies, changes in market trends or market conditions, changes in market capitalization, changes in investees' enterprise value and changes in investment pricing. When we determine that an impairment loss exists, we record a nonrecurring impairment loss in Other, net on our Consolidated Statements of Operations and Comprehensive Income.

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Gains on other investments is impaired we record to its estimated fair value and losses are recorded in Other, net on our Consolidated Statements of Operations and Comprehensive Income.

The First SNR Put Window closed in the third quarter of 2021. On November 13, 2021, we, through our American III, received notice that SNR Management may purchase and hold derivative securities. SNR Put right effective as of November 13, 2021. Among other reasons, strategic or special dividend payments, or other reasons, SNR Management may purchase and hold derivative securities. We record all derivative financial instruments at fair value as either a liability or an asset. Changes in fair value are recorded in Other, net on our Consolidated Statements of Operations and Comprehensive Income. On November 13, 2021, the FCC consented to the sale of SNR Management's ownership interests in SNR HoldCo, which is an entity owned by Northstar Management. Our re-direct wholly-owned subsidiary entities included in the "Other, net" within "Other, net" on our Consolidated Statements of Operations and Comprehensive Income. Our purchase resulted in the elimination of

Comprehensive Income (Loss). We have a derivative financial instrument for hedge as wholly-owned subsidiaries.

SNR HoldCo does not have a call right F-19

Management's ownership interests in

SNR Management is the sole manager

Management's ownership interest is carried

under the applicable accounting guidance

[Table of Contents](#) redeemable noncontrolling

mezzanine section of our Consolidated

Management's ownership interest in SNR

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

ownership interest in SNR HoldCo is

annual rate of return through "Return

interests" on our Consolidated Balance

We have the option to purchase certain

recorded in "Net income (loss) attributable

spectrum licenses from T-Mobile at a fair

interests, net of tax" on our Consolidated

part of the Boost Mobile Acquisition.

Operations and Comprehensive Income

information.

results of SNR HoldCo attributable to

recorded as "Redeemable noncontrolling

Impairment of Long-Lived Assets and

Consolidated Balance Sheets, with the

Assets

income (loss) attributable to noncontrolling

on our Consolidated Statements.

We review our long-lived assets and

Comprehensive Income (Loss). See

intangible assets for impairment where

information.

circumstances indicate that the carrying

not be recoverable. Intangible assets are

Use of Estimates

amortized over their estimated useful lives.

We are required

held and used in operations, the asset

carrying amount of the asset (or asset

undiscounted future net cash flows.

determined, the actual impairment recorded

between the carrying amount and the

using one of the following approaches:

market. In the event of an impairment

"Impairment of long-lived assets"

Statements of Operations and Comprehensive

based on the amount by which the carrying

fair value of the long-lived asset or asset

to be disposed of are reported at the low

or fair value less costs to sell. amortization

deferred contract acquisition costs;

Fair value, using the income approach

using a discounted cash flow model that

flows associated with the asset or asset

discounted at a rate commensurate with

value, utilizing the cost approach, is determined

replacement cost of the asset reduced

depreciation and obsolescence. Fair value

approach, benchmarks the fair value

amount. We have the option to purchase

spectrum, inputs used to recognize revenue

DBS Satellites and standalone selling prices of

finance leases, asset impairments, estimated

used to evaluate and (vii) recognize impairment

We currently evaluate our DBS satellite one asset group whenever events or c indicate that its carrying amount may not believe any triggering event has indicate impairment as of December 31. We continue to monitor the DBS satellite the inherent uncertainty in the estimate impairment. historical experience, observable market other factors that we believe to *Broadband Satellites* to the inherent making estimates, actual indicated ab We evaluate our Broadband satellites if may be material to our consolidated recoverability whenever events or ch Additionally, changing economic cond indicate that their carrying value may no inherent uncertainty in the estimate anomalies may be considered a significant physical condition of a particular satellite redundancies designed within each satellite anomalies may not be considered t requiring a test of recoverability. We do event has occurred which would indicate December 31, 2023 and 2022. We will Broadband satellite fleet for indicators of to be cash equivalents. Cash equivalents *Finite-Lived Regulatory Authorizations*, n bonds, corporate notes and commercial We have regulatory authorizations that e and have determined that they have uncertainties about the ability to exercise Finite lived regulatory authorizations e estimated useful lives on a straight-line basis and useful expenditures are typically usually capitalized when they are incurred banks may exceed the amount of insured *Finite-Lived Intangible Assets* deposits. Generally, these deposits n demand and are maintained with financial intangible assets include customer relationships certain below market contracts. These a their respective useful lives. We do not event has occurred which would indicate December 31, 2023 and 2022. customer

Indefinite-Lived Intangible Assets and
Marketing Investment Securities

We do not amortize indefinite-lived intangible assets, but test these assets for impairment at least annually or more frequently if events or circumstances indicate that impairment may exist.

quarter or more often if indicators of impairment exist. We have the option to first perform a qualitative assessment to determine whether it is necessary to perform a quantitative impairment test. However, we may elect to bypass the qualitative assessment in any period and proceed directly to perform a quantitative impairment test. Our intangible assets primarily consist of FCC licenses and certain regulatory rights to use spectrum at specific frequencies. Generally, we have determined that these assets have indefinite useful lives due to the following factors:

- FCC licenses are a non-depletable resource; existing FCC licenses are integral segments and will contribute to the replacement satellite application authorized by the FCC subject to our continued compliance with FCC rules and regulations without substantial cost under a legislative and legal environment that is not significantly different from the current environment.
- FCC licenses are not technologically obsolete; we intend to use these assets in the future.

Management estimates credit losses based on a credit loss impairment analysis. We estimate the expected credit loss based on the carrying amount of the licenses. We combine all of our indefinite-lived intangible assets that we currently utilize or plan to utilize in the future for impairment testing for accounting purposes. For 2023, 2022 and 2021, management performed a qualitative assessment to determine whether it is more likely than not that the fair value of the DBS licenses exceeds its carrying amount. In our assessment, we considered, among others, overall financial performance, market considerations, and relevant events. In contemplating all factors in their totality, management determined that it is more likely than not that the fair value of the DBS licenses exceeds its carrying amount. Therefore, no impairment analysis was required, that are not expected to be impaired. We maintain allowances for credit losses related to our receivables. For 2023, 2022 and 2021, management performed a qualitative assessment to determine whether it is more likely than not that the fair value of the Broadband Licenses exceeds its carrying amount. We recognize the allowance for expected credit losses based on the carrying amount of the licenses. Through a business acquisition in 2011, we acquired certain authorizations from the FCC to operate in the 107.1-107.9 MHz frequencies at the 95° W.L. and 107.1-107.9 MHz frequencies at the 107° W.L. ("Operational FCC Slot Licenses"). The orbital location are substantially equivalent to the orbital location of the Broadband Licenses. In 2019, we acquired global satellite spectrum rights for mobile satellite services ("Mobile Satellite Spectrum"). For the year ended December 31, 2021, management performed a qualitative assessment to determine whether it was more likely than not that the fair value of these licenses exceeds its carrying amount. In our assessment, we considered several factors, including, among others, overall financial performance, market considerations, and relevant events. In contemplating all factors in their totality, management determined that it is more likely than not that the fair value of the Mobile Satellite Spectrum exceeds its carrying amount. As such, no further analysis was required.

the allowance for credit losses may not be the actual amount collected. Past due t During 2022, we acquired the 3.45-3.5 (the "3.45–3.55 GHz Licenses"). During 3550-3650 MHz (CBRS) and 3.7-3.98 together (the "C-Band Licenses"). Durin 37 GHz, 39 GHz, and 47 GHz wireless l we acquired the 24 GHz and 28 GHz w (the "High-Band Licenses").ent in install period of 36 months. Installments rece In 2023 and 2022, we combined our 600 H Block, High-Band Licenses, C-Band l Licenses and the Northstar Licenses a single unit of accounting. In 2021, we 700 MHz, AWS-4, H Block, High-E Licenses, 3.45–3.55 GHz Licenses and and SNR Licenses into a single unit of a present value, which is determined l In 2023, we quantitatively assess impairment. Our quantitative assessme approach performed by a third p. management.eceivable is included in "net" on our Consolidated Balance S results in a discount or reduction in the contract with a customer, which is alloc F-21 obligations of the arrangement such revenues on our Consolidated Staterr Comprehensive Income (Loss).

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NOTES TO CONSOLIDATED FINAN	
Continued	

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Market Approach. Currently frequencie GHz make up the bulk of commercial l Spectrum bands can be grouped into f (less than 1 GHz), lower mid-band (1- (primarily 2-4 GHz) and high-band (ge Radio frequencies have different char: the distance they will travel and th structures. Lower band frequency band travel large distances and propagate v coverage, whereas higher bandwidth urban settings where the goal is increas sites are dense, with limited coverage ar other revenues" on our Consoli Spectrum is licensed by geographic are size of a county to significantly larger cover densely populated urban areas to regions. Pricing for spectrum license significantly based on the frequen restrictions associated with the author from the FCC. Population or "Pop" is a

geographic license. The amount of spectrum is measured in terms of megahertz, and the wider the band the greater the MHz. transaction inventory. We record write downs for in The market approach assessed the value benchmarks, based on market transaction spectrum auctions and secondary market acquisitions of spectrum or of business values can reliably be inferred. The market the value of each band of our spectrum area based on pairing the spectrum in highest and best use. Prices were then per MHz-Pop basis (where the numerator licenses and the denominator is the price MHz) based upon the most relevant discount was applied to the analysis for certain of our holdings based on sale of those specific bands. cost to construct and overhead directly benefiting the asset. Our spectrum holdings include low-band mid-band (collectively referred to as "L and high-band licenses. capitalized when customers' homes. We have certain As part of our impairment assessment, approach during the fourth quarter of 2021, the fair value of these licenses are substantially carrying value.

In 2022, management performed a qualitative determine whether the fair value of the carrying amount. In our assessment, value approach and the income approach during 2022 and concluded that under both scenarios these licenses are substantially in excess expense when incurred. Renewals and In 2021, management performed a qualitative determine whether it is more likely than these licenses exceed the carrying amount we considered several factors, including projected financial performance of our business enterprise value of our Wireless transactions for wireless spectrum license results. In assessing these factors macroeconomic conditions and industry contemplating all factors in their totality more likely than not that the fair value exceeds their carrying amount. the software.

During 2023, 2022, and 2021, our multi and data service ("MVDDS") wireless assessed as a single unit of account. In 2021, management assessed these licenses qualitative assessment focused on recent historical market activity. We concluded not that the fair value of these licenses amount. In our assessment, we recognize changes in

the passage of time and revisions to
Changes in circumstances or market co
write-down of any of the above Wireless
future.estimated useful life of the asse
obligations relate primarily to certa
remediate leased property on our comm
recorded in "Property and equipment, ne
recorded in "Long-term deferred rever
liabilities" on our Consolidated Balance s

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ECHOSTAR CORPOF	
NOTES TO CONSOLIDATED FINAN	
Continued	

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<i>Goodwill</i>	ECHOSTAR CORPOF
NOTES TO CONSOLIDATED FINAN	
Goodwill represents the excess of the over the estimated fair values of asset assumed as of the acquisition date impairment at the reporting unit level, others, the SLING TV, DISH TV, Reta Deployment and Hughes reporting units of our goodwill relates to the Hughes Broadband and Satellite Services si Wireless and 5G Network Deployment s decisions of the affiliate. Such investme We perform our annual impairment ass other indefinite-lived intangible assets ea quarter or more frequently if events or c indicate an impairment may be p performed our annual impairment asses the second quarter and changed the Merger in order to align the testing de units. The change in testing date does change in the method of our goodwill We may consider qualitative factors to than not that the fair value for goodw amount. If we determine in the qualitat more likely than not that the fair value value, then we perform a quantitative a the estimated fair value of the reporting to bypass the qualitative assessment a assessment.n impairments, if any. Othe measured to determine their value basi Our assessment process included, discounted cash flow analyses, consid tangible and indefinite-lived intangibl reporting units and our recent ma assessment indicated the goodwill acquisitions was no longer supported decrease in our market capitalization. total noncash impairment charge of app	

Impairment Considerations

Goodwill

We periodically evaluate all of our other whether events or changes in circumstance may have a significant adverse effect on our investment. We consider information i Goodwill from India JV formation, net of foreign currency investments such as current financial statement Balance as of December 31, 2023, net of accumulated investment documentation, capitalization impairment of goodwill waterfalls, and board materials; and v Balance as of December 31, 2023, net of accumulated inquiries of investee management.

Accumulated impairment losses as of December 31, 2023, and impairment may include, but is not limited to, unprofitable operations, material loss of business strategy, changes in management, and changes in the investees' investment priorities. We capitalize interest associated with the construction of certain assets, including, but is not limited to, wireless spectrum licenses, build-out of 5G Network Deployment and satellites. Impairment begins when, among other things, steps are taken to dispose of an asset for its intended use and ceases when the asset is placed in its intended use or when these activities are suspended. We purchase and hold derivative contracts for, among other reasons, strategic or speculative purposes. We record all derivative financial instruments on our Consolidated Balance Sheets at fair value. Changes in the fair values of derivative contracts are recognized in our results of operations as "Other Income (Expense)." Statements of Operations and Comprehensive Income. [Table of Contents](#) designated any derivative contracts to be accounted for using hedge accounting.

Continued

We are currently commercializing our 5G Network Deployment qualified capital expenditures. Historically, the qualifying carrying value of our long-term debt obligations, therefore substantially all of being capitalized. However, as the qu

certain bands of wireless spectrum li
service, we will no longer capitalize inte
we will begin to expense interest on our
of Operations and Comprehensive Incon
We have the option to purchase certain
spectrum licenses from T-Mobile at a fi
Business Combinations

information
When we acquire a business that
pertaining to common control, we alloc
impairment of Long-Lived Assets are
the various components of the acquisi
Assets.
value of each component using vario
including the market approach, incom
the market, our long-lived assets, an
approach. The accounting standard fo
intangible assets for impairment when
requires identifiable assets, liabilities, no
circumstances indicate that the carrying
goodwill acquired to be recorded at ac
not be recoverable. Intangible assets
Transaction costs related to the acquis
amortized over their estimated useful li
expensed as incurred. Costs associated
held and used in operations, the asset
associated with a business combinat
carrying amount of the asset (or asse
included as a yield adjustment to the
undiscounted future net cash flows.
rate.
determined, the actual impairment rec

between the carrying amount and the
Acquired intangible assets other than go
using one of the following approaches:
their estimated useful lives unless the li
market. In the event of an impairment
indefinite. Amortization of these intangil
impairment of Long-Lived Assets"
recognized on a straight-line basis over
estimated useful lives. Amortization and Carri
life primarily ranging from approximate
based on the amount by which the carr
relation to the estimated discounted cas
fair value of the long-lived asset or asse
intangible asset.

to be disposed of are reported at the low
or fair value less costs to sell.

Long-Term Deferred Revenue and

Liabilities

Fair value, using the income approach
using a discounted cash flow model that
Certain programmers provide us up
flows associated with the asset or as
amounts are deferred and recognized i
discounted at a rate commensurate wi
services" on a straight-line basis over
value, utilizing the cost approach, is d
contract term (generally up to ten years
term portions of these deferred credi
depreciation and amortization. Fair va
Consolidated Balance Sheets in "Defe
approach benchmarks the fair valu
and "Long-term deferred revenue and c
respectively.

**DBS Satellites
Sales Taxes**

We currently evaluate our DBS satellit
We account for sales taxes imposed on
one asset group whenever events or c
on a net basis on our Consolidated Stat
indicate that its carrying amount may
Comprehensive Income (Loss). Since
not believe any triggering event has
agent for the governmental authorities,
indicate impairment as of December 31
the customer is collected and remitted t
continue to exist" or the DBS satellite
jurisdictional entity.
impairment.

Income Taxes

Broadband Satellites

We recognize, establish a provision or
currently payable, or receivable, or ch
recoverability whenever events or ch
indicate that their carrying value may n

reflect are recorded for deferred effects of the estimated future income tax effects that exist between GAAP carrying an basis of existing assets and liabilities bases and are measured using enacted taxable income in the years in which they are expected to be recovered or settled. Based on the facts and circumstances, we determine whether it is more likely than not that the deferred tax assets will be realized in the future. We determine deferred tax assets and liabilities based on the tax laws of the taxing jurisdiction and report the net amount as a non-current asset or liability in the balance sheet. We assess the realizability of deferred tax assets based on the ability to extend the period of realization, including regulatory authorizations, and the estimated useful lives on a straight-line basis. Deferred tax assets are usually capitalized when they are incurred. From time to time, we engage in transactions that may have tax consequences that are uncertain. We recognize deferred tax benefits based on management's judgment, a tax filing position is more likely than not to be sustained under applicable tax law, and certain tax authorities' threshold. For tax positions that we do not consider more likely than not to be sustained, we do not recognize a portion of a tax benefit. We recognize a portion of a tax benefit based on management's assessment of how the tax benefit will be settled. Unrecognized tax benefits are recorded against the deferred tax assets associated with tax loss and tax credit carryforwards. We periodically based on our ongoing settlements with various taxing authorities, tax laws, regulations and precedent. Our tax positions are made based upon the applicable law and updated in light of changes in facts and circumstances. Due to the uncertain and complex application of tax laws, it is possible that the ultimate resolution of tax liabilities which could be materially different from our current estimate. In such an event, we will record additional tax expense or benefit in the period in which such event occurs. **Intangible Assets and Liabilities** We recognize uncertain tax benefits based on management's assessment of the probability of income tax provision or benefit. We do not test these assets for impairment at least annually or more often if indicators of impairment exist. "Interest expense, net of amounts capitalized" respectively, on our Consolidated Operations and Comprehensive Income Statement. However, we may elect to bypass the impairment test in any period and proceed directly to the impairment test. Our intangible assets primarily consist of FCC licenses and certain regulatory rights to use spectrum at specific frequencies. Generally, we have determined that these assets have indefinite useful lives due to the following:

- FCC licenses are a non-depletable asset.
- existing FCC licenses are integral to our operations and will contribute to our long-term growth.

ECHOSTAR CORP

- we intend to use these assets in

[illegible]

- Level 1, defined as observable inputs markets for identical assets;
- Level 2, defined as observable inputs of Level 1, including quoted prices for similar markets; and quoted prices for identical that are not active and model-derived value and significant value drivers are observable
- Level 3, defined as unobservable inputs exists, consistent with reasonably available participants therefore requiring assumptions ("Slot Licenses"). The orbital location are substantially equivalent

Fair values of our marketable investment securities basis based on a variety of observable market publicly traded equity securities and U.S. government bonds. Fair value for equity securities is ordinarily determined based on Level 1 measurements for identical securities in active markets. Fair value for marketable debt securities are generally based on quoted market prices. For securities that are not actively traded in use markets for such debt securities are less than fair value. For identical debt securities on or near the balance sheet date, the fair value is primarily of leases for office space, data center and other real estate infrastructure.

A lease is classified measurement date and more strong indication of the following criteria ownership of the asset by the end of the lease option fair value and matrix pricing techniques rate, credit quality, maturity and other relevant purchase the asset that is reasonably certain to be for a major part of the remaining useful life of the fair value of our investments in marketable debt value measurements from time to time in connection impairment testing and the lease payments all assignment of purchase consideration to a

companies. Those fair value measurements that require the use of unobservable inputs and are categorized within Level 3 of the fair value hierarchy. In 2021, we had 700 MHz, AWS-4, H Block, High-E and Low-E spectrum. Transfers between levels in the fair value hierarchy were not significant. Beginning of the asset quarterly accounting, we have transfers between levels during the years ended December 31, 2021 and 2020 for the fair value of our marketable investments and debt instruments. Our quantitative assessment of the fair value approach performed by a third party. Fair values for our publicly traded debt securities are based on market prices, when available. The fair values of private equity investments, available trade information, and/or (v) are based on market conditions, related securities, various other publicly available information. In performing our fair value assessments, we make assumptions regarding, among other things, the effect of these factors on the value of the debt securities. We report the fair value of our long-term debt.

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ECHOSTAR CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
For the Year Ended December 31, 2021

Market Approach. Currently, frequency spectrum is a scarce resource. GHz make up the bulk of commercial radio frequency spectrum. Spectrum bands can be grouped into four categories: low-band (1-1.5 GHz), mid-band (1.5-3 GHz), high-band (3-30 GHz), and very high-band (30-300 GHz). (primarily 2-4 GHz) and high-band (4-30 GHz). Radio frequencies have different characteristics based on the distance they will travel and the structures. Lower band frequency bands are used for local coverage and propagate well over long distances, whereas higher bandwidth bands are used for high-speed data transfer. Historically, for embedded conversion features, the conversion option associated with convertible debt was recorded as the debt discount. In accordance with *Debt with Conversion and Other Options* and *ASU 2020-06*, the first quarter of 2021, the equity component of \$1.051 billion has been reclassified from "Additional Paid-in Capital" to "Long-term Debt" and the associated tax benefits have been reclassified from "Deferred Tax Assets" to "Deferred Tax Liabilities". The approach assessed the value of the debt based on market transaction benchmarks, based on market transactions. **Deferred Debt Issuance Costs and Debt Discounts.** Costs of issuing debt, including premiums and discounts, are generally deferred and amortized to "Interest Expense" on our Consolidated Statement of Comprehensive Income (Loss) using the effective interest method over the terms of the respective notes. We report the

as a reduction of the related long-term debt
Sheets. See Note 10 for further information.
discount was applied to the analysis fo
Revenue Recognitionidings based on sale re
those specific bands.

Pay-TV Segment

Our spectrum holdings include low-ban
Our Pay-TV segment revenueefisprimarily di
revenue. We also generate revenue from ec
hardware related fees, including DVRs an
multiple receivers; advertising services; fees e
operations; broadband services; warranty ser
and related equipment to third-party pay-TV
telemetry, tracking and control ("TT&C") serv
services. See Note 16 for further inf
disaggregated by major source.erformed a qu
determine whether the fair value of th
Our residential video subscribers contrac
combinations of services, as discussed abo
generally distinct and are accounted for as se
We consider our installations for first time
specialized nature and there
integration service combining the installation
have concluded that the installation likely exp
and thus the installation and programming se
single performance obligation. We general
obligations and recognize revenue as the sen
as the programming is broadcast to subscrib
transfer of control of the services to the subscr
results. In assessing these factors
In cases where a subscriber is charged certa
those fees are generally considered
the lessor atsubscriber related totha endsubs
having to pay an additional fee upon renewa
recognized over the estimated period of time
lease is classifiedfee remains material to the
be less than one year. Revenues arising from
separate from the initial installation, such
meet any of these criteria. Our finance lease:
satellite capacity. assessment focused on re
historical market activity. We concluded
All significant lease arrangementsmounting a
generally recognized when these services are
amount.

For our residential video subscribers, we ha
term under Accounting Standard Codificati
Contracts with Customers ("ASC 606") is o
revenue recognized for these subscribers for
amount billed in that month, except for certain
are accounted for as material rights, as discus

Balance as of December 31, 2021, net of accu
Equipment revenues are primarily related to
Balance as of December 31, 2022, net of accu
Equipment revenue is recognized when contro
Balance as of December 31, 2023, net of accu
our customer, either the direct distribution p
impairment of goodwill
described above. We offer postpaid customers
Balance as of December 31, 2023, net of accu
installments, generally over 36 months. W
financing component as a reduction of the
Accumulated impairment losses as of Decembe
where customers purchase their devices with a
one year, including those financing componen
significant to the contract.

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We capitalize interest associated with the construction of certain assets, including, but not limited to, wireless spectrum licenses, build-out costs, 5G Network Deployment and satellites.

NOTES TO CONSOLIDATED FINANCIAL

significant financing component for contracts inception, that the period between the transfer of a customer and the customer's payment for it be one year or less. We may offer certain customers on device installment plans with a device after paying a specified portion of the agreement amount and trading in their device for a new device. We may also offer an account for this trade-in right as a guarantee of the trade-in right's fair value is recognized as a reduction to the revenue recognized upon the transaction price is reduced by the guarantee, the scope of Topic 606, and the remaining balance between the performance obligations within the contract. In the indirect sales channel often include a direct distribution partner as a reimbursement offered to the end consumer. If the qualifying device is sold with a right of return, the carrying value of our long-term debt. These credits (payments to a customer) are a consideration when estimating the amount of sales of equipment to indirect dealers and are experience and other factors, such as expected wireless devices sold with a right of return, with revenue and cost of sales to reflect this variable.

Our broadband service contracts typically obli
the same services on a recurring basis in ex
the various components of the acquisi

over the term of the contract. We satisfy such time and recognize revenue ratably as service period. Certain of our contracts with service obligation usage, capacity or volume. We satisfy these recognize the related revenue at the point in the services are rendered. Our Broadband segment also sells and leases communications equipment from equipment sales generally is recognized. Our equipment sales contracts typically include but generally do not provide for returns or warranties is recognized ratably over the term. Our contracts with multiple performance obligations contract's transaction price to each performance relative standalone selling prices. When the observable, our primary method used to estimate the expected cost plus a margin. Our contracts payments to be made at or shortly after the time or perform the services.

In addition to equipment and service offering Services segment also enters into long-term construct and install complex telecommunications operators and enterprise customers. Revenue generally recognized over time as a measure of transfer of control of the goods or services to the nature of the arrangement, we measure progress using an appropriate input method or output method. we recognize the transaction price as revenue incurred to estimated total costs at completion. revenue and cost of sales are recognized as progress the expected profit for the entire agreement. contracts generally are based on estimated completion. We review and revise our estimates related adjustments in the period in which the losses on contracts are recorded in the period. generally receive interim payments as work contracts, we may be entitled to receive an advance the customer is collected and remitted to us. We derive a portion of our revenues from connectivity services. These contracts typically recurring monthly payments by the customer. connectivity services is satisfied over time as receives and consumes the benefits provided. time is generally based upon usage. amounts are

Deferred tax assets and liabilities are recognized. Generally, our satellite service contracts with performance obligation and, therefore, their transaction price. We transfer control and receive services at the point in time or over the period rendered.

From time to time, we engage in transactions consequences may be subject to uncertainty when, in management's judgment, a transaction meet the more likely than not threshold, depending on management's assessment.

ly be settled. We adjust our ongoing examinations by and settlement authorities, as well as changes in the ECHOSTAR CORPORATION NOTES TO CONSOLIDATED FINANCIAL PRESENT. THE CLASSIFY INTEREST AND PER with our uncertain tax positions as a expense, net of amounts capitaliz Governmental Funding respectively, on our Consolidated State Comprehensive Income (Loss).

We participate in various United States federal the Affordable Connectivity Program ("ROU") A income households may receive a discount of and certain connected devices, and particip reimbursement for such discounts. This rever other revenue" on our Consolidated State Comprehensive Income (Loss). Correspond when services have been provided to the cus Table of Contents cash has not been received. These amounts : receivable, net" on our Consolidated Balance Sheet ECHOSTAR CORPORATION

NOTES TO CONSOLIDATED FINANCIAL Contract Balances Continued

The timing of revenue recognition generally dif to customers. A contract asset is recorded v advance of our right to receive consideration (services in order to receive consideration). A We determine fair value based on the p accounts receivable when our right to consid he received for an asset or paid to tr consideration is received, or we have an unci price) in the principal or most advantage in advance of delivery of goods or services, or liability in an orderly transaction betw The transaction price can include nonrefun Market or observable inputs are the pr allocated to the identifiable performance obl followed by unobservable inputs or subscribers are typically billed monthly, and t hypothetical transactions in the absen customers arise from the timing of the mor utilize the highest level of inputs availab Wireless subscribers, the majority of which i following hierarchy in determining fair va revenue. We do not adjust the amount of con when we anticipate that the period between

and eventual payment for those goods ar one year. Contract assets are included in "T and lease contract liabilities are recognized inc Level 2, defined as the Consolidated Balance Sheets. Contract bal quoted prices included quoted prices for similar contract term. See Note 17 for further infor activity detail about our allowance for credit related to contracts with subscribers. and model derived valu inputs and significa observable in active ma Assets Recognized Related to the Costs Customer which little or no mark with reasonably availab

We recognize an asset for the incremental cos assumptions, based o available. We have determined that certain sales ince Broadband and Satellite Services, and Retail those with our independent third-party retailer capitalized, and payments made under these Level 2 - Defined as observable amortized to expense over the estimated cus prices included in Level 1, incl These amounts are capitalized in "Other and cash equivalents, have ac noncurrent assets, net" on our Consolidate

amortized in "Selling, general and administrative expenses" in our Consolidated Statements of Operations and Consolidated Balance Sheets, net of finance lease obligations")

Leases instruments in markets that are actively traded, the fair value derived valuations in which we are able to determine the fair value

Lessee Accounting significant approximated fair value in active markets; and

Level 3 - Defined as unobservable inputs that are used in the valuation process when little or no market data exists. Consistent with our policy, we enter into non-cancelable operating and finance leases for communication towers, satellite infrastructure, data centers, office space, data warehouses and distribution centers, and other facilities. Substantially all of our leases have remaining terms of 13 years, some of which include renewal options to terminate the leases within one year (generally communication towers), the lease term plus the renewal period that we are reasonably certain to exercise.

on a recurring basis based on a variety of factors, including the nature of the asset, the location of the asset, the age of the asset, the condition of the asset, the demand for the asset, the availability of similar assets, and the results of our market research. We determine if an arrangement is a lease and, if so, whether it is an operating or finance lease at commencement. Operating leases are included in "Operating lease assets" and "Operating lease liabilities" in our Consolidated Balance Sheets. Finance lease assets are included in "Property and equipment, net of accumulated depreciation" and "Long-term debt and finance lease obligations" and "Long-term debt and finance lease obligations, net of current portion" on our Consolidated Balance Sheets. Leases with an initial term of 12 months or less are recorded on the balance sheet and we recognize lease expense on a straight-line basis over the lease term. See Note 9 for further information on our lease accounting.

active markets and are categorized as Level 1 of the fair value hierarchy.

Additionally, we use fair value measurements in connection with other investments, assets, and liabilities. The assignment of purchase consideration to the various assets and liabilities of acquired companies. Those fair value measurements are categorized as Level 3 of the fair value hierarchy.

include significant unobservable inputs. See Note 9 for further information on our fair value measurements.

ECHOSTAR CORP OF FINANCIAL

considered to occur at the beginning of the period. There were no transfers between Level 1 and Level 2 during the period ended December 31, 2022. Operating lease ROU assets and lease liabilities are measured at the present value of our obligation to make lease payments over the lease term. The operating lease ROU asset is measured at the present value of the lease payments, less any prepaid or deferred lease payments. When the implicit rate is not readily determinable, we use our IBR based on quoted market prices, when available, at the commencement date in determining the present value of lease payments. Our IBR is based on an estimated secured rate plus a credit spread and other publicly available information. Leases denominated in a currency different than the reporting currency are translated into the reporting currency using the collateralized borrowing rate in the reporting currency. We make various assumptions in determining the fair value of our assets and liabilities, including the use of the dollar and foreign currency swap spread, which may affect the fair value of our assets and liabilities.

rein the lease or ~~and incremental to the underlying~~
and the same term as the underlying lease. The in
se for the initial measurement of lease liabilities.
m terms. In determining our incremental
consider implicit in the lease term, secured inc
Ot be reasonably determined. We report revenue
th from sales-type ~~leases~~ denominated at the con
w different than U.S. dollar, the collateralized
ot currency using the U.S. dollar. Equipment sa
sh spread, when available, ~~ximity~~ be a service.
significant integration service combining the
se other revenue" on our Consolidated Sta
an Comprehensive Income (Loss). We serv
per assets revenue in Operating lease right-of-us
liabilities in Accrued expenses Service, and
re recognize revenue as the services are provided.
Operating lease liabilities. We report finance
is broadcast to current market rates, and equipment, net and finance lease liabilities
debt, net and Long-term debt, net.

Revenue Recognition

Earnings Per Share
Overview

Revenue is recognized upon subscribers, as thi
We present basic and diluted earnings (t
comprised of the primary and secondary
for revenue" on our Class A and Class B con
subsequent
Class A and Class B common stock excl
computed by dividing Net income (loss) attrib
In common stock by the weighted-average
fe outstanding for the period. Diluted EPS refl
su could occur, if shares of common stock were
Th based compensation awards. The potential
awards is computed using the treasury stock
when the net remaining interest to the subsidiary,
market value of our Class A common stock du
one year. Revenues arising from our in-home se
of our diluted weighted-average common
initial installation, such as mounting a TV on a
options to purchase shares of our Class A co
recognized when these services are performed,
would be anti-dilutive.

For Other Comprehensive Income (Loss) have
under Accounting Standard Codification Topic 6
C. The amounts reclassified to net income (loss)
th on available-for-sale securities are included in
net in the Consolidated Statements of
except for certain nonrefundable upfront fees of
Comprehensive Income (Loss).
rights, as discussed above.

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NOTES TO CONSOLIDATED FINAN

CONTINUED Contii

Cost of Services

Pay-TV Segment

"Cost of services" on our Consolidated Statement of Comprehensive Income (Loss) principally includes the cost of programming and other operating costs related to our Pay-TV television programming distribution rights is on a subscriber basis and various upfront carriage fees. If the related programming is distributed to subscribers, the programming contracts are generally charged on a straight-line method over the term of the agreement. If the programming rights to distribute live sports events or a tournament is charged to expense using the straight-line method over the course of the season or tournament.

Broadband and Satellite Services Segment

"Cost of services" on our Consolidated Statement of Comprehensive Income (Loss) principally includes the cost of capacity and services, hub infrastructure, customer support, and capacity and direct labor costs associated with the services, which are generally charged to expense as incurred.

Retail Wireless Segment

"Cost of services" on our Consolidated Statement of Comprehensive Income (Loss) principally includes the cost of the MNSA and NSA. Costs incurred under these contracts are recognized as the services are performed or as the related revenue is recognized.

Cost of Sales – Equipment and Other

Pay-TV Segment

"Cost of sales – equipment and other" on our Consolidated Statement of Operations and Comprehensive Income (Loss) includes the cost of equipment related to the non-subsidized sales of Pay-TV. The cost of equipment is recognized as products are delivered to customers and the related revenue is recognized.

Broadband and Satellite Services Segment

"Cost of sales – equipment and other" on our Consolidated Statement of Operations and Comprehensive Income (Loss) includes the cost of inventory costs, including freight and royalties. The cost of equipment is recognized at the point in time control of the equipment is transferred to the customer and the related revenue is recognized.

Retail Wireless Segment

"Cost of sales – equipment and other" on our Consolidated Statement of Operations and Comprehensive Income (Loss) includes the cost of wireless devices and other related items, including the cost of mobile network operations to deliver wireless services.

are generally recognized as products are delivered and related revenue is recognized.

5G Network Deployment Segment

"Cost of sales – equipment and other" on our Statements of Operations and Comprehensive Income (Loss) includes expense on communication towers and transmission equipment. Lease costs are generally recognized on a straight-line basis over the term. Costs related to cloud services are either recognized over the contract term or based on usage.

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ECHOSTAR CORP NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Advertising Costs

We recognize advertising expense when incurred. Advertising expense is included in "general and administrative expenses" on our Statements of Operations and Comprehensive Income (Loss). Advertising expense was \$868 million, \$816 million and \$725 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Research and Development

Research and development costs, not including amortization of acquired intangible assets, are expensed as incurred and are included in "Selling, general and administrative expenses" on our Statements of Operations and Comprehensive Income.

Additionally, customer-related research and development costs in connection with the specific requirements of certain customers. In such instances, the amounts for these customer-related research and development costs are also included in "Cost of sales – equipment and other" on our Statements of Operations and Comprehensive Income. Research and development costs totaled \$110 million for the years ended December 31, 2023, 2022 and 2021.

Cash and Cash Equivalents

We consider all liquid investments with a maturity of less than 90 days or less at the time of purchase to be cash equivalents. Cash equivalents as of December 31, 2023 and 2021 primarily consisted of money market funds, government bonds, corporate bonds, and commercial paper.

funds, commercial paper. The amortized approximates their fair value.

Concentration of Credit Risk

Cash and cash equivalents are maintained w domestically and internationally. Deposits hel amount of insurance provided on such depo may be redeemed upon demand and are mair with investment-grade credit ratings. We i strength of significant customers, and this a large number and geographical diversity concentration of risk with respect to rec customers.

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ECHOSTAR CORPOF
NOTES TO CONSOLIDATED FINAN
Continued

Marketable Investment Securities

Debt Securities

Our corporate bond portfolio includes t by individual corporations, primarily

All equity securities are carried at fair the industrial fair value recognized in “(Income (Expense)” on our Consol Operations and financial services indl paper portfolio includes instruments corporations, primarily in the industrial utilities industries. Our other Comprehe

All debt securities portfolio includes in as available-for-sale and are recorded the temporary unrealized gains and los in various debt instruments, including l and mutual funds. We consider purchased with an original maturity n days or less to be cash equivalents.

We account for our marketable debt : for-sale or using a separate componen comprehensive income (loss)” within (Deficit),” net of related deferred Consolidated Balance Sheets. The ch option based of marketable debt

determined to be company specific credit losses are recognized in "Other, net" within "Other Income" in the Consolidated Statements of Comprehensive Income (Loss). For securities investment strategy for the securities debt securities, we recognize periodic difference between fair value and cost as *Unrealized gains (losses) on available-for-sale securities* in the Consolidated Statements of Comprehensive Income (Loss). Gain upon sales of available-for-sale securities is reclassified from other comprehensive income to net income recognized on the trade date in the Consolidated Statements of Operations. We use the first-in, first-out method to determine the cost basis on sales of securities. Interest income from securities is reported in *Interest income* in the Consolidated Statements of Operations. *Unrealized gains (losses) on available-for-sale securities* are reported in *Other, net* in the Consolidated Statements of Comprehensive Income (Loss).

We periodically evaluate our securities investment portfolio to determine if declines in the fair value of these securities are temporary or other-than-temporary. Our evaluation considers, among other things, the length of time and extent to which the fair value of the security has been lower than amortized cost, the company-specific factors related to the security, and our estimates of credit losses on marketable securities. We use a credit loss impairment model on securities to estimate the credit loss impairment on the security and (iii) our intent to sell the security or estimate credit losses, measured over the contractual life of the securities considering relevant factors, including, but not limited to, a decrease in the fair value of the security, the entity's ability to hold the investment for a period of time that allows it to recover its value. We generally consider a decline in fair value other-than-temporary when (i) we intend to sell the security, (ii) it is more likely than not that we will be required to sell the security before maturity or when it recovers its value, or (iii) we do not expect to recover the amortized cost of the security before maturity. Declines in the fair value of securities that are determined to be other-than-temporary are recognized in *Unrealized gains (losses) on available-for-sale securities* in the Consolidated Statements of Comprehensive Income (Loss).

Receivables and recognized in Net Income in the Consolidated Statements of Operations. We recognize new cost basis Related Allowance for credit losses in the Consolidated Statements of Comprehensive Income (Loss).

From time to time we make strategic investments in marketable corporate debt securities. We account for these debt securities using the fair value method because it results in consistency in accounting for gains and losses for all securities in our investment portfolio. When we elect the fair value method for investments in debt securities, we recognize changes in fair value of these securities in *Unrealized gains (losses) on available-for-sale securities* in the Consolidated Statements of Comprehensive Income (Loss).

Equity Securities

Restricted Marketable Investment Sec

ECHOSTAR CORP OF
NOTES TO CONSOLIDATED FINAN
CONTINUED

General Accounts Receivable

REFINITIV 

In determining the amount allowan management groups similar types o consistent risk characteristics. management include, but are not customers, commercial customers, en advertising services. The risk charac asset portfolios are monitored by man periodically. The forecasts for future e based on several factors including, but in the unemployment rate, external e current collection rates. Our estimate consider historical levels of for cre judgments about the creditworthiness i our customers based on t evaluations. losses requiring additional to reflect the actual amount colle accounts receivable balances are v allowance for credit losses when our ir have been unsuccessful. Bad debt exp

Installments Receivable

We offer Boost postpaid customers i accounts receivable pay for their devi assets equipment in installments, gen 36 months. Installments receivable Consolidated Balance Sheets at thei (i.e., the receivables' unpaid balan written-off amounts due to impairn discounts), net of the allowance for cr of an installment sale, we impute a dis term exceeds 12 months as there is n on the receivables. The receivables present value, which is determined b future cash payments at the imputed ir portion of installments receivable i: general "Trade accounts receivable, l expense the long-term portion of ins included in "Other noncurrent a Consolidated Balance Sheets. This i discount or reduction in the transacti with a customer, which is allocate obligations of the arrangement such a revenues on our Consolidate Operations. Operations and Comprehe

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Contract Assets

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Continued

The imputed discount rate reflects a rate and is predominately comprised risk underlying the installment receivable. The estimated credit worthiness of the customer is used to determine the discount on receivables is amortized over the installment term using the effective interest rate. Revenue is recognized in advance of billing the customer. Contract assets are included in *Trade accounts receivable, net* or *Other non-current assets* in the Consolidated Balance Sheets based on the expected timing of customer payment. Contract liabilities typically relate to our long-term contracts where revenue using the cost-based input method is recognized when the amount billed exceeds the amount of contract assets. Contract assets also include receivables from leases recognized over the lease term.

Contract Acquisition Costs

Our contract acquisition costs represent the incremental costs of obtaining a contract and costs of completing the contract. These costs include incentives paid to employees and third parties. When we determine that our contract acquisition costs are recoverable, we defer and amortize the costs over the contract term, or over the estimated useful life of the relationship if anticipated renewals are probable. Incentives payable upon renewal are included in the initial incentive. We amortize contract acquisition costs in proportion to the revenue to which the costs relate. Sales incentives as incurred are amortized over a period of one year or less. Contract acquisition costs are included in *Other non-current assets* in the Consolidated Balance Sheets and are expensed as incurred. Selling, general and administrative expenses are included in *Selling, general and administrative expenses* in the Consolidated Statement of Operations. Comprehensive Income.

Inventory

Inventory is stated at the lower of cost or net realizable value. Cost of inventory is determined using the first-in, first-out method. Inventory consists primarily of raw materials, direct labor and indirect overhead costs. Inventory includes the cost of purchased materials, labor, freight-in, and manufacturing process inventories. We determine the lower of cost or net realizable value by comparing the cost of inventory to the estimated net realizable value.

overhead. Net realizable value using calculated as the estimated selling costs necessary to complete, sell, transfer future use or recovery, considering the record write downs for inventory for obsolescence of inventory balances, the effects of design changes, forecasted future moving items based on firm or orders trends and alternative means of arrangements with distributors when disposition a product to a distributor maintain control of excess or obsolete losses within Cost of sales - equipment Statements of Operations when product sold to an end consumer. For the determine that account for the commitments to purchase inventory value. products as consigned inventory

Property and Equipment

Satellites

Satellites

Property and equipment, including related to our wireless projects, 5G Network satellites, are stated at cost less accumulated Depreciation is recorded on a straight estimated useful lives. The depreciation losses, if any. Capitalized expenditures satellites includes construction costs assets, plus the present value payable cost to construct the satellite costs, asset such as labor and overhead the asset. Interest is capitalized construction activity commences a premiums. We depreciate our owned line basis over ends once the estimated satellite.

ECHOSTAR CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
CONTINUED

asset is ready for its intended purpose to customers is generally capitalized in customers' homes. We have acquired under finance leases. The satellites assets are the present values We amortize our finance lease ROU ("ROU") assets over their respective lease

Our satellites may experience anomalies

If a satellite were to time, some significant adverse effect on their rer while in-orbit, the commercial operation operating results or financial position.

We evaluate our satellites for impairment recoverability whenever events or changes indicate that their carrying value may be recoverable. Certain anomalies significant adverse change charged to condition period such loss was incur particular satellite. However, based designed within each satellite, certain reduced to the extent of these are considered insurance proceeds estimate events requiring a test of recoverability

We generally do not carry in-orbit insurance and payloads because we have assessed insurance is not economical relative. Therefore, we generally bear the risk. However, we may be required to carry satellites and payloads per the terms. We will continue to assess circumstances and make insurance-related decisions on a

Other Property and Equipment

Other property and equipment are accumulated depreciation received, recorded on a straight-line basis over lives. Other property and equipment include and improvements; furniture, fixtures, and use software; customer premises construction in process. Costs related to the procurement and development use are capitalized and amortized method over the estimated useful life excess of five 40 years. Repair and charged to expense when incurred.

Goodwill

Renewals and improvements that are asset's useful life are capitalized.

Internal Use Software

We account capitalize certain costs related acquiring internal use software. Capital costs begin once the preliminary project and we commit to funding the software ceases when the software project businesses using the acquisition method requires that the assets acquired its internal software costs are recorded in "F assumed be recorded at the date respective fair values. Any excess price equipment, net" on our Consolidated and are amortized over the estimated the net assets acquired is recorded goodwill is assigned to our Hughes segment

software.

Asset Retirement Obligation

We evaluate goodwill record an asset impairment on an annual basis in our whenever events and changes in carrying amounts may not be recover result from, among other things, deterior operational performance, declines in attrition, adverse market conditions, applicable laws and/or regulations, c macroeconomic conditions, fluctuation rates, increased competitive markets declining financial performance ove changes in key personnel and/or str other factors. Our impairment asses with a qualitative assessment to deter likely than not the fair value of the re its carrying amount. The qualitative comparing the overall financial per planned results. In the performan assessment, we analyze a variety of may influence the fair value of the re include, but are not limited to: mac industry and market considerations, i relevant entity-specific events whic judgment. If we determine in the qualit is more likely than not that the fair carrying value, then we perform a qua determine the estimated fair value associated with the indefinite lived retir lived assets and a corresponding in amount of the related asset in the obligation is incurred. In periods measurement, we recognize changes from the passage of time and revision reporting unit. We could also choose t original estimate. Over time, the liabilit the qualitative assessment for any rep and proceed directly to the quantitative quantitative assessment, fair its pre-estimated using two valuation appro cash flows method and the marke In capitalized cost is depre performance estimated useful life assessment, we use a variety asset. obligations relate primarily to certai remediate leased property on our cor are recorded in "Property and equipme liability recorded in "Long-term defen long-term liabilities" on our Consolidate

Table of inputs, some of which require management judgment, that influence the fair value of the assets that could include, but are not limited to, revenue growth rate, amount and timing of future cash flows, guideline public company metrics, a discount rate for transactions. In addition, we also use the capitalization reconciliation to compare the fair value, determined using the discount rate, to the value and the market comparable method, to determine the fair value.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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Company's market capitalization as of December 31, 2023, the carrying value exceeds the estimated fair value, and impairment is recognized for the difference.

There has been no impairment to date.

Regulatory Authorizations

Finite Lived

We have regulatory authorizations that are finite lived. The Federal Communications Commission has determined that they have finite lives. We have finite lives about the ability to extend or renew the finite lived regulatory authorizations. The finite lived regulatory authorizations are estimated useful lives on a straight-line basis. They are usually capitalized when they are incurred.

Indefinite Lived

We also have indefinite lived regulatory authorizations. They primarily consist of FCC authorizations for the use of orbital locations. We have determined that these authorizations generally have indefinite lives. They are not amortized.

FCC authorizations are non-discriminatory.

- Renewal satellite applications are authorized by the FCC subject to the FCC's regulatory, legislative and legal environment.
- Expenditures required to maintain or renew these authorizations are not significant; and
- We intend to use these authorizations for the foreseeable future.

Costs incurred to maintain or renew these authorizations are expensed as incurred.

Other Intangible Assets

Our other intangible assets consist of patents, trademarks and licenses which we amortize using the straight-line method over their estimated useful lives. We evaluate the recoverability of intangible assets periodically, taking into account events or circumstances that may affect the carrying amount of the assets. If the carrying amount of an intangible asset is not recoverable, we adjust the carrying amount of the asset to its fair value.

Impairment of Long-lived Assets

We review our long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. If the carrying amount of a long-lived asset is not recoverable, we adjust the carrying amount of the asset to its fair value. The impairment test is performed at the lowest level for which cash flows are largely independent of the cash flows of other assets and liabilities. For assets held and used in operations, the test is performed at the asset level. If the carrying amount of an asset is not recoverable, we adjust the carrying amount of the asset to its fair value. The impairment loss is recorded in *Impairment of Long-lived Assets* in the Consolidated Statements of Operations.

Other Investments

Equity Method Investments

We use the equity method to account for investments in entities in which we have the ability to exercise significant influence but do not have the ability to exercise control. We initially record such investments at cost and subsequently adjust the carrying amount of such investments in proportion to our share of the net earnings or losses of the investee, which is reported in *Equity* in the Consolidated Statements of Operations and Comprehensive Income. We also record our share of the carrying amount of such investments in goodwill when the cost of our investment exceeds the fair value of the underlying identifiable assets and liabilities.

ECHOSTAR CORP NOTES TO CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

underlying identifiable assets and liabilities. Lastly, dividends received from the investee reduces the carrying amount of our investment.

Other Equity

Cost Method Investments

We generally measure investments in equity instruments without a readily determinable fair value at cost, adjusted for observable price changes.

transactions for the identical or similar issuer and changes resulting from impairment equity instruments are measured to based on observable market information. The carrying amount of an investment to its fair value, the gain or loss is recorded in **Gains (losses) on investments, net** in the Consolidated Statements of Operations and Comprehensive Income.

Other Debt Investments

We generally record our investments in debt instruments without a readily determinable fair value at amortized cost. We recognize any discount or premium on the loan in **Interest income, net** in the Consolidated Statements of Operations and Comprehensive Income (Loss). In addition, some of our investments may have interest income that is paid-in-kind, which we add to the principal balance to determine the effective interest income. When we adjust the carrying amount of the investment, the gain or loss is recorded in **(losses) "Other, net" on investments** in the Consolidated Statements of Operations and Comprehensive Income (Loss).

Impairment Considerations

We periodically evaluate all of our investments to determine whether events or changes in circumstances have occurred that may have a significant adverse effect on the value of the investment. We consider factors such as current business plans, investment documents, liquidation waterfalls, and bond indentures may make additional inquiries of investee management.

Indicators of impairment may include, but are not limited to, unprofitable operations, material loss of assets, changes in business strategy, changes in management, changes in the investee's financial conditions, changes in the investee's investment portfolio, or changes in the investee's investment strategy. If we determine that one of our other investments is impaired, we reduce its carrying value to its estimated fair value and recognize the impairment loss in **impairment losses "Other, net" on equity investments or Gains (losses) on investments, net** in the Consolidated Statements of Operations.

Contract Liabilities

Contract liabilities consist of advance billings in excess of revenue recognized in Comprehensive Income (Loss).

Derivative Instruments

We may purchase and are included in derivative financial instruments for strategic or Other non-current liabilities purposes. We record all derivative financial instruments in our Consolidated Balance Sheets as either assets or liabilities. Changes in fair value are recognized in Comprehensive Income (Loss) when we expect to recognize revenue. Derivative liabilities as revenue after all revenue has been met.

Recently Adopted Accounting Pronouncements

Government Assistance

On January 1, 2022 we adopted Accounting Standards Update ("ASU") No. 2021-10 - Government Assistance (Topic 832): Disclosures by Business Entities for Government Assistance, which requires business entities to disclose information about government assistance they receive. The requirements include: (i) the nature of the assistance; (ii) the related accounting policy used; (iii) the balance sheet and income statement amounts applicable to each financial instrument; and (iii) significant terms and conditions of the assistance. Our adoption of this ASU did not have a material impact on our Consolidated Balance Sheets, Statements of Operations, Statements of Financial Position, or Statements of Cash Flows. We have not designated any financial instrument for hedge accounting.

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ECHOSTAR CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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Income Taxes

740): Simplifying

We have the Accounting for Income Taxes (is option to purchase certain of T-Mobile's 800 Mobile at a fixed price in the future as pa Standards Board ("FASB") overall simplif Acquisition. See Note 6 for further information.

Impairment of Long-Lived Assets and s Intangible Assets

We review our long-lived assets and identifi al for impairment whenever events or changes in accounting for income taxes by updating o certain exceptions. Our adoption carrying am may not have a material impact on our Consoli

Credit Losses

On January 1, 2020, we adopted ASU No. 20 Credit Losses (Topic 326), as amended, and o Codification Topic 326 ("ASC 326"). ASC 326 the periodic estimation of credit losses for ce expected losses instead of incurred losses. I model for available-for-sale debt securitie accounting model for purchased financial be that have experienced credit deterioration sinc their original purchase. We have elected to a assets which are held and used in operations be impaired if the carrying amount of the new: asset group) exceeded its undiscounted fut impairment is determined, the actual impairm between the carrying amount and we recogni using one of the following approaches: incor event of an impairment, a cumulative effect los adoption of \$9.1 million to Accumulated earn 2020. Based long-lived assets" on this elec comparative Consolidated Financial Stateme reported under the accounting standards in January 1, 2020.

Financial Impact of Adoption. The following this new standard resulting in adjustments to o effective January 1, 2020:

	Balance December 31, 2019	
Trade accounts receivable and contract assets, net	\$	196,629 \$
Other current assets, net	\$	179,531 \$
Other investments, net	\$	325,405 \$
Other non-current assets, net	\$	334,841 \$
Total assets	\$	7,154,298 \$

Deferred tax liabilities, net	\$	351,692	\$
Accumulated earnings (losses)	\$	632,809	\$
Non-controlling interests	\$	75,748	\$
Total stockholders' equity	\$	3,745,553	\$
Total liabilities and stockholders' equity	\$	7,154,298	\$

The application of ASC 326 requirements Consolidated Statements of Operations and based on the amount by which the carrying at the long-lived asset or asset group. Assets w reported at the lower of the carrying amount or

Fair value, using the income approach, is discounted cash flow model that uses the es with the asset or asset group under re commensurate with the risk involved. Fair valu determined based on the replacement cost o other things, depreciation and obsolescence ended December 31, 2020. market approac against the carrying amount.

DBS Satellites

We currently evaluate our DBS satellite flee group whenever events or changes in circums amount may not be recoverable. We do not b occurred which would indicate impairment a 2022. We will continue to monitor the DBS impairment.

Broadband Satellites

We evaluate our Broadband satellites f recoverability whenever events or changes their carrying value may not be recoverabl considered a significant adverse change ir particular satellite. However, based on redur satellite, certain of these anomalies may not events requiring a test of recoverability. We event has occurred which would indicate im 2023 and 2022. We will continue to monitor t indicators of impairment.

Finite-Lived Regulatory Authorizations

We have regulatory authorizations that are nc determined that they have finite lives due to u extend or renew their terms. Finite lived amortized over their estimated useful lives or costs are usually capitalized when they are inc

Finite-Lived Intangible Assets

Intangible assets include customer relations below market contracts. These assets are a useful lives. We do not believe any triggering € indicate impairment as of December 31, 2023.

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Recently Issued Accounting Pronouncements

Business Combinations

In October 2021, the FASB issued ASU No. 2021-08 - (Topic 805): Accounting for Contract Assets and Contract Liabilities from Customers, which provides an exception to fair value contract liabilities related to revenue contracts acquired requires an entity (acquirer) to recognize and measure acquired in a business combination in accordance with acquirer should account for the related revenue contract originated the contracts. The ASU is effective for the Company fiscal years beginning after December 15, 2022. The ASU is occurring on or after the effective date.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Reference Rate Reform

Indefinite-Lived Intangible Assets and Goodwill

We do not amortize indefinite-lived intangible assets impairment annually, during the FASB issued ASU No. 2017-04 (ASC 848), fourth quarter or more often if indicators of impairment. We perform a qualitative assessment to determine whether impairment test. However, we may elect to bypass the qualitative impairment test. Subsequent amendments proceed directly to perform impairment test on indefinite-lived intangible assets with indefinite lives primarily consisting of contractual or regulatory rights to use spectrum at specific frequencies. We determined that our FCC licenses have indefinite useful lives as ASC 848 following:

- FCC licenses are a non-depleting asset;
- existing FCC licenses are integral to our business operations and will flow indefinitely;
- replacement satellite applications are generally available under similar conditions, without substantial cost under a similar regulatory environment;
- maintenance expenditures to obtain future cash flows are not significant;
- FCC licenses are not technologically dependent;

- we intend to use these assets indefinitely.

DBS Licenses

We combine all of our indefinite-lived DBS licenses that future into a single unit of accounting. For 2023, 202 qualitative assessment to determine whether it is more li licenses exceeds the carrying amount. In our asses including, among others, overall financial performance, relevant company specific events. In contemplating all fe is more likely than not that the fair value of the DBS I such, no further analysis was required.

Broadband Licenses

Through a business acquisition in 2011, we acquired n operate satellites using Ka-band frequencies at the 95 ("ASC 848" Operational FCC Slot Licenses"). The pl location are substantially equivalent. Through a busines S-band non-geostationary satellite spectrum rights fo Spectrum"). For the year ended December 31, 2023, 2i qualitative assessment to determine whether it was mor 848 these licenses exceeds the carrying amount. In r factors, including, among others, overall financia considerations, and relevant company specific events. Ii we concluded that it is to provide optional guidance to e effects on financial reporting fair value of the market-wid Rates to alternative reference rates. ASC 848 relationships, Operational FCC Slot Licenses and othe Spectrum exceed their carrying amounts. As such, no fur

Wireless Spectrum Licenses

During 2022, we acquired the 3.45-3.55 GHz wireless l During 2021, we acquired the 3550-3650 MHz (CBR together (the "C-Band Licenses"). During 2020, we acq wireless licenses and during 2019, we acquired the together (the "High-Band Licenses").

In 2023 and 2022, we combined our 600 MHz, 700 MH C-Band Licenses, 3.45–3.55 GHz Licenses and the Nor reference rate expected to be discontinued because s guidance may be applied upon issuance accounting. In MHz, AWS-4, H Block, High-Band Licenses, C-Band Li Northstar Licenses and SNR Licenses into a single unit We expect to utilize the optional expedients provided acc

In 2023, we quantitatively assessed these licenses for consisted of a market approach performed by the guidan alternative reference rate. We have evaluated the new process of implementing this ASU, and all subsequent have a material impact on our Consolidated Financial St

