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

Form 10-K

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☐ TRANSITION REPORE THE TRANSITION		TON 13 OR 15(d) OF T	HE SECURITI	ES EXCHANGE ACT OF 1934
	Commiss	sion file number: 333-31929		
	DISH L	DBS Corporation	nn -	
		registrant as specified in its cha		
	orado `incorporation or organization)			328967 r Identification No.)
Englewoo	ridian Boulevard d, Colorado pal executive offices)			0112 o Code)
	Registrant's telephone n	umber, including area code: (30	03) 723-1000	,
	Securities registered p	oursuant to Section 12(b) of the	Act: None	
	Securities registered p	oursuant to Section 12(g) of the	Act: None	
Indicate by check mark if the registrant is a wel	II-known seasoned issuer, as defined in I	Rule 405 of the Securities Act. Yes	□ No ⊠	
Indicate by check mark if the registrant is not re	equired to file reports pursuant to Sectio	n 13 or Section 15(d) of the Act. Ye	es □ No ⊠	
Indicate by check mark whether the registrant (shorter period that the registrant was required to				1934 during the preceding 12 months (or for sucl $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
Indicate by check mark whether the registrant h during the preceding 12 months (or for such sho	nas submitted electronically every Intera orter period that the registrant was requi	ctive Data File required to be submited to submit such files). Yes 🖾 N	itted pursuant to Rule 40 o □	05 of Regulation S-T (§232.405 of this chapter)
Indicate by check mark whether the registrant is a laccelerated filer," "accelerated filer," "smaller repo				ing growth company. See the definitions of "large
Large accelerated filer \square	Accelerated filer \square	Non-accelerated file	er 🗵	Smaller reporting company \square
				Emerging growth company \square
If an emerging growth company, indicate by ch provided pursuant to Section 13(a) of the Excha		t to use the extended transition period	od for complying with a	ny new or revised financial accounting standards
Indicate by check mark whether the registrant ha of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) b				trol over financial reporting under Section 404(b)
If securities are registered pursuant to Section 1 previously issued financial statements.	2(b) of the Act, indicate by check mark	whether the financial statements of	the registrant included i	n the filing reflect the correction of an error to
Indicate by check mark whether any of those er officers during the relevant recovery period pur		uired a recovery analysis of incentiv	ve-based compensation r	received by any of the registrant's executive
Indicate by check mark whether the registrant i	s a shell company (as defined in Rule 12	2b-2 of the Act). Yes □ No ☒		
The aggregate market value of the registrant's v	voting interests held by non-affiliates on	June 30, 2022 was \$0.		
As of March 10, 2023, the registrant's outstand	ing common stock consisted of 1,015 sh	ares of common stock, \$0.01 par va	lue per share.	
The registrant meets the conditions set the reduced disclosure format.	forth in General Instructions (I)	(1)(a) and (b) of Form 10-K a	nd is therefore filing	this Annual Report on Form 10-K with
DOCUMENTS INCORPORATED BY	REFERENCE			
The following documents are incorporate	d into this Form 10-K by reference	: None		

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

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

Unless otherwise required by the context, in this report, the words "DISH DBS," the "Company," "we," "our" and "us" refer to DISH DBS Corporation and its subsidiaries, "DISH Network" refers to DISH Network Corporation, our parent company, and its subsidiaries, including us, and "EchoStar" refers to EchoStar Corporation and its subsidiaries.

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including, in particular, statements about our plans, objectives and strategies, growth opportunities in our industries and businesses, our expectations regarding future results, financial condition, liquidity and capital requirements, our estimates regarding the impact of regulatory developments and legal proceedings, and other trends and projections. Forward-looking statements are not historical facts and may be identified by words such as "future," "anticipate," "intend," "goal," "seek," "believe," "estimate," "expect," "predict," "will," "would," "could," "can," "may," and similar terms. These forward-looking statements are based on information available to us as of the date of this Annual Report on Form 10-K and represent management's current views and assumptions. Forward-looking statements are not guarantees of future performance, events or results and involve known and unknown risks, uncertainties and other factors, which may be beyond our control. Accordingly, actual performance, events or results could differ materially from those expressed or implied in the forward-looking statements due to a number of factors, including, but not limited to, those summarized below:

SUMMARY OF 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.
- 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.
- 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.
- Changes in how network operators handle and charge for access to data that travels across their networks could
 adversely impact our Pay-TV business.
- Economic weakness and uncertainty may adversely affect our ability to grow or maintain our business.

COVID-19 Pandemic

• The COVID-19 pandemic and its impact on the economic environment generally, and on us specifically, have adversely impacted our business. Furthermore, any continuation or worsening of the pandemic and the economic environment could have a material adverse effect on our business, financial condition and results of operations.

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 subscriber activations decrease, or if our subscriber churn rate, subscriber acquisition costs or retention costs increase, our financial performance will be adversely affected.
- Our programming expenses are increasing, which may adversely affect our future 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 may not be able to obtain necessary retransmission consent agreements at acceptable rates, or at all, from local network stations.
- We have experienced cyber-attacks or other malicious activities that disrupted our business and 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.
- 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 currently depend on DISH Network to provide the vast majority of our satellite transponder capacity and other
 related services to us. Our business would be adversely affected if DISH Network ceases to provide these
 services to us and we are unable to obtain suitable replacement services from third parties.
- 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.
- 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.
- We have limited satellite capacity and failures or reduced capacity could adversely affect our business, financial
 condition and results of operations.
- We may have potential conflicts of interest with EchoStar due to our and DISH Network's common ownership and management.
- 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.

Acquisition and Capital Structure Risks

- Our parent, DISH Network, has made substantial investments to acquire certain wireless spectrum licenses and
 other related assets and we have made and may continue to make funds available to DISH Network in the form of
 cash distributions or loans in connection with the development of DISH Network's wireless business.
- Our parent, DISH Network, has made substantial noncontrolling investments in the Northstar Entities and the SNR Entities related to AWS-3 wireless spectrum licenses, and we have made and may make additional cash distributions or loans to DISH Network so that DISH Network may fund the Northstar Entities and the SNR Entities including their obligations to purchase Northstar Manager's and SNR Management's ownership interests.
- We may pursue acquisitions and other strategic transactions to complement or expand our business that may not be successful, and we may lose up to the entire value of our investment in these acquisitions and transactions.
- We have substantial debt outstanding and may incur additional debt.
- Our 5 1/4% Senior Secured Notes due 2026 and the 5 3/4% Senior Secured Notes due 2028 (our "Senior Secured Notes") are subordinated to our existing unsecured notes and certain future unsecured notes with respect to certain realizations under the Intercompany Loan (defined herein) and any collateral pledged as security therefor.
- We may need additional capital, which may not be available on favorable terms, to continue investing in our business and to finance acquisitions and other strategic transactions.
- Our parent, DISH Network, is controlled by one principal stockholder, who is also our Chairman.

Legal and Regulatory Risks

- Our business depends on certain intellectual property rights and on not infringing the intellectual property rights
 of others.
- We are, and may become, party to various lawsuits which, if adversely decided, could have a significant adverse impact on our business, particularly lawsuits regarding intellectual property.
- Our services depend on Federal Communications Commission ("FCC") licenses that can expire or be revoked or modified and applications for FCC licenses that may not be granted.
- If our internal controls are not effective, our business, DISH Network's stock price and investor confidence in our financial results may be adversely affected.
- We may face other risks described from time to time in periodic and current reports we file with the Securities and Exchange Commission ("SEC").

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

PART I

Item 1. BUSINESS

Brief Description of our Business

DISH DBS is a holding company and an indirect, wholly-owned subsidiary of DISH Network, a publicly traded company listed on the Nasdaq Global Select Market. DISH DBS was formed under Colorado law in January 1996. Our principal executive offices are located at 9601 South Meridian Boulevard, Englewood, Colorado 80112 and our telephone number is (303) 723-1000. We refer readers of this report to DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022. Our subsidiaries operate one business segment.

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 and Latino video programming services ("SLING TV"). As of December 31, 2022, we had 9.750 million Pay-TV subscribers in the United States, including 7.416 million DISH TV subscribers and 2.334 million SLING TV subscribers.

Business Strategy

Our Pay-TV 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.

- 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), SLING International, and SLING Latino, 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 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. For example, for certain new and qualifying customers, we guarantee our pricing for certain programming packages and equipment for a three-year period with a two-year commitment. 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.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act and accordingly file our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and other information with the SEC. As an electronic filer, our public filings are also maintained on the SEC's Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that website is http://www.sec.gov.

WEBSITE ACCESS

Our annual 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 Exchange Act also may be accessed free of charge through the website of our parent company, DISH Network, 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.dish.com/.

We have adopted a written code of ethics that applies to all of our directors, officers and employees, including our principal executive officer and senior financial officers, in accordance with Section 406 of the Sarbanes-Oxley Act of 2002 and the rules of the SEC promulgated thereunder. Our code of ethics is available on the website of our parent company, DISH Network, at https://ir.dish.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 DISH Network's website.

Item 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones facing us. We may face other risks described from time to time in periodic and current reports we file with the SEC. If any of the following events occur, our business, financial condition or results of operations could be materially and adversely affected.

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 7. Management's Narrative Analysis of Results of Operations — Trends*" 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; 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 Narrative Analysis of Results of Operations – Trends – 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.

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 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. 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, 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 communications 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, videogame 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.

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, 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. 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 DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022 for further information.

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 ("zero rating"), 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 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 may increase with respect to subscribers who purchase our lower tier programming packages 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 subscribers during a period of economic weakness.

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 to offset increases in costs, there is no assurance that we will be able to do so on an acceptable timeline or at all. Therefore, costs could rise faster than associated revenue, thereby resulting in a negative impact on our operating results, cash flows and liquidity.

COVID-19 Pandemic

The COVID-19 pandemic and its impact on the economic environment generally, and on us specifically, have adversely impacted our business. Furthermore, any continuation or worsening of the pandemic and the economic environment could have a material adverse effect on our business, financial condition and results of operations.

The COVID-19 pandemic caused, and any resurgence of the pandemic could again cause a significant reduction in global economic activity, which could affect our customers' purchasing decisions.

Other effects of the pandemic included, and may continue to include, significant volatility and disruption of the global financial markets; adverse revenue and net income effects; disruptions to our operations, including suspension or deferral of in-home installations; limitations on access to sources of liquidity; supply chain disruptions; limitations on access to raw materials; employee impacts from illness; and local and regional closures or lockdowns, including temporary closures of our facilities and the facilities of our customers and suppliers.

The extent to which our operating and financial results will continue to be affected by the pandemic will depend on various factors beyond our control, such as the continued severity of the pandemic, including any sustained geographic resurgence; the emergence of new variants and strains of the COVID-19 virus; and the success of actions to contain or treat the virus. COVID-19, and volatile regional and global economic conditions stemming from the pandemic, could also aggravate our other risk factors described in this section.

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 services were to deteriorate, we may experience a decrease in subscriber activations and an 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. 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 if we will realize these benefits at all.

If 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 our Pay-TV services. 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 negatively impacted by stricter subscriber acquisition and retention policies for our DISH TV subscribers, including an emphasis on acquiring and retaining higher quality subscribers. In addition, our subscriber acquisition costs could increase as a result of increased spending for advertising and, with respect to our DISH TV services, the installation of more DVR receivers, which are generally more expensive than other receivers. Retention costs with respect to our DISH TV services may be driven higher by increased upgrades of existing subscribers' equipment to DVR receivers.

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. Our subscriber acquisition costs and our subscriber retention costs can vary significantly from period to period and can cause material variability to our 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.

Our programming expenses are increasing, which may adversely affect our 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 and partnerships between companies that offer pay-TV services and programmers, 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.

When offering new programming, or upon expiration of existing contracts, programming suppliers have historically attempted to increase the rates that they charge us for programming. We expect this practice to continue, which, if successful, would increase our programming costs. In addition, our programming expenses may also increase as we add programming to our video services or distribute existing programming to our subscribers through additional delivery services. As a result, our margins may face further pressure if we are unable to renew our long-term programming contracts on acceptable pricing and other economic terms. Alternatively, to attempt to mitigate the effect of price increases or for other reasons, we may elect not to carry or may be unable to carry certain channels, which could adversely affect our net Pay-TV subscriber additions.

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 our service or cause potential new Pay-TV subscribers to choose not to subscribe to our 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 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. 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. 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.

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 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 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 experienced cyber-attacks or other malicious activities that disrupted our business and 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 February 2023, we disclosed that our systems were subject to a cyber-security incident that compromised certain data. With the assistance of outside cyber-security experts, we continue to investigate the incident and will notify any impacted individuals consistent with state and federal requirements. We are incurring certain cyber-security-related expenses, including costs to remediate the incident and provide additional customer support, and expect to incur additional expense in future periods resulting from the cyber-security incident.

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.

In addition, 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 would suffer in the event of system failures or cyberattacks. Likewise, our ability to expand and update our information technology infrastructure in response to our growth and changing needs is important to the continued implementation of our new service offering initiatives. 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 resources that would otherwise be invested in expanding our business and operations. We rely on certain third parties for key components of our information technology and communications systems and ongoing service, all of which affect our Pay-TV services. Some of our key systems and operations, including, but not limited to, those supplied by third-party providers, are not fully redundant, and our disaster recovery planning cannot account for all eventualities. Interruption and/or failure of these systems has in the past disrupted our operations, and could interrupt our services, result in significant financial expenditures and damage our reputation, thus adversely impacting our ability to retain our current subscribers and attract new Pay-TV subscribers.

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 in a timely manner or at all. 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, 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.

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 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 cannot provide any assurances that actions taken by us, or our third-party providers, will adequately repel a future cyber-security incident or prevent or substantially mitigate the impacts of cyber-security breaches or misuses of or unauthorized access to our networks or systems or those of third-party environments, or that we, or our third-party providers, will be able to effectively identify, investigate, and remediate such incidents in a timely manner or at all. We expect to continue to be the target of cyber-security incidents, given the nature of our business, and we expect the same with respect to our third-party providers. If we fail to protect confidential information or to prevent operational disruptions from future cyber-security incidents, there may be a material adverse effect on our business, reputation, financial condition, cash flows, and operating results.

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 facilities and other infrastructure and/or disrupt our ability to operate our business, and could potentially disrupt suppliers' ability to provide the products and services we require to support our operations. Any such disruption could interrupt service for our subscribers, 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, could adversely affect our operations and infrastructure and, as a result, our financial results. Operational impacts resulting from extreme weather, such as damage to our 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. We are not able to accurately predict the materiality of any potential losses or costs associated with extreme weather.

We currently depend on DISH Network to provide the vast majority of our satellite transponder capacity and other related services to us. Our business would be adversely affected if DISH Network ceases to provide these services to us and we are unable to obtain suitable replacement services from third parties.

We lease the vast majority of our satellite transponder capacity from DISH Network and DISH Network is a key supplier of other related services to us. Satellite transponder leasing costs may increase beyond our current expectations. Our inability to obtain satellite transponder capacity on acceptable terms or at all and other related services from DISH Network or third parties could adversely affect our subscriber activations and subscriber churn rate and cause related revenue to decline. See Note 19 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information on our Related Party Transactions with DISH Network.

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 industry 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 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 our Pay-TV services. If these vendors are unable to meet our needs because 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.

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. Because our independent third-party retailers receive most of their incentive value at activation and not over an extended period of time, our interests may not always be aligned with our independent third-party retailers. It may be difficult to better align our interests with our independent third-party retailers because of their capital and liquidity constraints. 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.

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

Operation of our DISH TV services requires that we have adequate satellite transmission capacity for the programming we offer. 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.

Our ability to earn revenue from our DISH TV services depends on 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 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.

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

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 owned or leased satellites and use it as a replacement for the failed or lost satellite, any of which could have a material adverse effect on our business, financial condition and results of operations. Such a failure could result in a prolonged loss of critical programming. A relocation would require FCC approval and we cannot be certain that we could obtain such FCC approval on an acceptable timeline or at all. If we choose to use a satellite in this manner, such use could adversely affect our ability to satisfy certain operational conditions associated with our authorizations and could result in the loss of such authorizations, which would have an adverse effect on our ability to generate revenues.

From time to time, new satellites need to be built and launched. Satellite construction and launch are subject to significant risks, including, among others, construction and launch delays, launch failure and incorrect orbital placement.

Other than in certain limited circumstances, we do not carry commercial in-orbit insurance on any of the satellites we own, and generally do not use commercial insurance to mitigate the potential financial impact of in-orbit failures because we believe that the cost of insurance premiums is uneconomical relative to the risk of such failures. If one or more of our owned in-orbit satellites fails, we could be required to record significant impairment charges.

We may have potential conflicts of interest with EchoStar due to our and DISH Network's common ownership and management.

Questions relating to conflicts of interest may arise between EchoStar and us in a number of areas relating to our past and ongoing relationships with DISH Network and EchoStar. Areas in which conflicts of interest between EchoStar and us, as a result of our relationship with DISH Network, could arise include, but are not limited to, the following:

- Cross officerships, directorships and stock ownership. We and DISH Network have certain overlap in directors and executive officers with EchoStar. These individuals may have actual or apparent conflicts of interest with respect to matters involving or affecting each company. Currently, our and DISH Network's Board of Directors and executive officers includes Charles W. Ergen, who serves as the Chairman of EchoStar and DISH Network and our Chairman. Mr. Ergen also has fiduciary duties to EchoStar's shareholders. For example, there is the potential for a conflict of interest when DISH Network and/or we, on the one hand, or EchoStar, on the other hand, look at acquisitions and other business opportunities that may be suitable for both companies. In addition, certain of DISH Network's and our directors and officers own EchoStar stock. Mr. Ergen beneficially owns approximately 60.3% of EchoStar's total equity securities (assuming conversion of all Class B common stock into Class A common stock) and controls approximately 93.5% of the voting power of EchoStar. 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 DISH Network and/or us, on the one hand, and EchoStar, on the other hand. Furthermore, Mr. Ergen is employed by both us and EchoStar.
- Intercompany agreements with EchoStar. In connection with and following the Spin-off, Share Exchange Agreement and Master Transaction Agreement (as defined in Note 17 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K), we, DISH Network and EchoStar have entered into certain agreements pursuant to which DISH Network and we obtain certain products, services and rights from EchoStar, EchoStar obtains certain products, services and rights from DISH Network and us, and DISH Network and EchoStar have indemnified each other against certain liabilities arising from our respective businesses. The terms of certain of these agreements were established while EchoStar was a wholly-owned subsidiary of DISH Network and us and were not the result of arm's length negotiations. The allocation of assets, liabilities, rights, indemnifications and other obligations between EchoStar and DISH Network under the separation and other intercompany agreements DISH Network entered into with EchoStar, in connection with the Spin-off, may have been different if agreed to by two unaffiliated parties. Had these agreements been negotiated with unaffiliated third parties, their terms may have been more favorable, or less favorable, to DISH Network. In addition, conflicts could arise between DISH Network and/or us, on the one hand, and EchoStar, on the other hand, in the interpretation or any extension or renegotiation of these existing agreements.
- Additional intercompany transactions. EchoStar and its subsidiaries have entered into and may continue to enter into transactions with DISH Network and its subsidiaries. Although the terms of any such transactions will be established based upon negotiations between EchoStar and DISH Network and, when appropriate, subject to the approval of a committee of the non-interlocking directors or in certain instances non-interlocking management, there can be no assurance that the terms of any such transactions will be as favorable to DISH Network or its subsidiaries or affiliates as may otherwise be obtained between unaffiliated parties.
- Business opportunities. DISH Network has historically retained, and in the future may acquire, 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 EchoStar.

Neither we nor DISH Network may be able to resolve any potential conflicts of interest with EchoStar, and, even if either we or DISH Network do so, the resolution may be less favorable to us than if either we or DISH Network were dealing with an unaffiliated party. DISH Network does not have agreements with EchoStar that would prevent either company from competing with the other.

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.

We believe that our future success will depend to a significant extent upon the performance of Charles W. Ergen, our 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 do not have employment agreements with any of them. Mr. Ergen also serves as the Chairman of EchoStar. To the extent our officers are performing services for EchoStar, this may divert their time and attention away from our business and may therefore adversely affect our business

In addition, technological innovation is important to our success and depends, to a significant degree, on the work of technically skilled employees. If we are unable to attract and retain appropriately technically skilled employees, our competitive position could be materially and adversely affected.

Acquisition and Capital Structure Risks

Our parent, DISH Network, has made substantial investments to acquire certain wireless spectrum licenses and other related assets, and we have made and may continue to make funds available to DISH Network in the form of cash distributions or loans in connection with the development of DISH Network's wireless business.

DISH Network has invested a total of over \$30 billion to acquire certain wireless spectrum licenses, which includes \$10 billion in noncontrolling investments in certain entities. See Note 2 and Note 15 in the Notes to the Consolidated Financial Statements in DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022 for detailed information regarding these licenses, including certain interim and final build-out requirements, as well as certain renewal requirements.

DISH Network may need to make significant additional investments or partner with others to, among other things, complete the nation's first cloud-native, Open Radio Access Network ("O-RAN") based 5G network ("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 DISH Network completes its 5G Network Deployment, DISH Network has 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. DISH Network may also determine that additional wireless spectrum licenses may be required to complete its 5G Network Deployment and to compete effectively with other wireless service providers.

In connection with the development of DISH Network's wireless business, including, without limitation, the efforts described above, we have historically made funds available to DISH Network in the form of cash distributions and the Intercompany Loan (defined herein) to partially finance these efforts to date. Subject to, among other things, compliance with applicable legal requirements, including the covenants applicable to our outstanding debt securities, we may make additional funds available, including through cash distributions or loans to finance, in whole or in part, DISH Network's future efforts. There can be no assurance that DISH Network will be able to develop and implement a business model that will realize a return on these wireless spectrum licenses or that DISH Network will be able to profitably deploy the assets represented by these wireless spectrum licenses.

Our parent, DISH Network, has made substantial noncontrolling investments in the Northstar Entities and the SNR Entities related to AWS-3 wireless spectrum licenses, and we have made and may make additional cash distributions or loans to DISH Network so that DISH Network may fund the Northstar Entities and the SNR Entities including their obligations to purchase Northstar Manager's and SNR Management's ownership interests.

During 2015, through its wholly-owned subsidiaries American AWS-3 Wireless II L.L.C. ("American II") and American AWS-3 Wireless III L.L.C. ("American III"), DISH Network initially made over \$10 billion in certain noncontrolling investments in Northstar Spectrum, LLC ("Northstar Spectrum"), the parent company of Northstar Wireless, LLC ("Northstar Wireless," and collectively with Northstar Spectrum, the "Northstar Entities"), and in SNR Wireless HoldCo, LLC ("SNR HoldCo"), the parent company of SNR Wireless LicenseCo, LLC ("SNR Wireless," and collectively with SNR HoldCo, the "SNR Entities"), respectively. On October 27, 2015, the FCC granted certain AWS-3 wireless spectrum licenses (the "AWS-3 Licenses") to Northstar Wireless (the "Northstar Licenses") and to SNR Wireless (the "SNR Licenses"), respectively. The Northstar Entities and/or the SNR Entities may need to raise significant additional capital in the future, which may be obtained from third party sources or from DISH Network, so that the Northstar Entities and the SNR Entities may commercialize, build-out and integrate the AWS-3 Licenses, comply with regulations applicable to the AWS-3 Licenses, and make any potential re-auction payments for the AWS-3 licenses retained by the FCC. Depending upon the nature and scope of such commercialization, build-out and integration efforts, regulatory compliance, and potential re-auction payments, any loans, equity contributions or partnerships could vary significantly. For further information regarding the potential reauction of AWS-3 licenses retained by the FCC, see Note 15 "Commitments and Contingencies - Commitments - DISH Network Noncontrolling Investments in the Northstar Entities and the SNR Entities Related to AWS-3 Wireless Spectrum Licenses" in the Notes to DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022. There can be no assurance that DISH Network will be able to obtain a profitable return on its noncontrolling investments in the Northstar Entities and the SNR Entities.

In connection with certain funding obligations related to the investments by American II and American III discussed above, in February 2015, we paid a dividend of \$8.250 billion to DISH Orbital Corporation ("DOC") for, among other things, general corporate purposes, which included such funding obligations, and to fund other DISH Network cash needs. We have made and may make additional cash distributions or loans to DISH Network so that DISH Network may fund the Northstar Entities and the SNR Entities related to DISH Network's noncontrolling investments in these entities. We may need to raise significant additional capital in the future, which may not be available on favorable terms, to among other things, continue investing in our business and to pursue acquisitions and other strategic transactions.

We may pursue acquisitions and other strategic transactions to complement or expand our business that may not be successful, and we may lose up to the entire value of our investment in these acquisitions and transactions.

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 diversion of our management's attention from our existing business to integrate the operations and personnel
 of the acquired or combined business or joint venture;
- the possible adverse effects on our 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;
- 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.

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 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. In addition, we make cash distributions or loans to DISH Network to finance acquisitions or investments that will not be part of our business.

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 financial losses if the intended objectives of the transactions are not achieved. Some of the businesses acquired by DISH Network have experienced significant operating and financial challenges in their recent history, which in some cases resulted in these businesses commencing bankruptcy proceedings prior to DISH Network's acquisition. DISH Network may acquire similar businesses in the future. There is no assurance that DISH Network will be able to successfully address the challenges and risks encountered by these businesses following their acquisition. If DISH Network is unable to successfully address these challenges and risks, our business, financial condition and/or results of operations may suffer.

We have substantial debt outstanding and may incur additional debt.

As of December 31, 2022, our total long-term debt and finance lease obligations (including current portion) outstanding, including the debt of our subsidiaries, was \$13.246 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 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 may incur substantial additional debt in the future. The terms of the indentures relating to our senior notes and senior secured notes permit us to incur additional debt. If new debt is added to our current debt levels, the risks we now face could intensify.

Our Senior Secured Notes are subordinated to our existing unsecured notes and certain future unsecured notes with respect to certain realizations under the Intercompany Loan (defined herein) and any collateral pledged as security therefor.

Our Senior Secured Notes are subordinated in respect of any realization under an intercompany loan to DISH Network to finance the purchase of wireless spectrum licenses and for general corporate purposes, including the buildout of wireless infrastructure (together with future advances to DISH Network, the "Intercompany Loan"), and any collateral pledged as security therefor behind all of our existing unsecured notes and all future unsecured notes, except any future unsecured notes that expressly provide that such notes rank equal in right of payment with, or junior in right of payment to, the Senior Secured Notes with respect thereto. As a result of this subordination, upon any distribution to our creditors in a bankruptcy, liquidation or reorganization or similar proceeding relating to any amounts realized under the Intercompany Loan, the holders of our existing and certain future unsecured notes will be entitled to be paid in full and in cash from such realized proceeds before any payment in respect of such realized proceeds may be made with respect to the Senior Secured Notes. While the Senior Secured Notes benefit from liens on substantially all existing and future tangible and intangible assets of DISH DBS and the guarantors (the "Collateral"), which does not secure our existing and future unsecured notes, the Collateral does not include the Intercompany Loan and there can be no assurances that the Collateral will be sufficient to satisfy all obligations under the Senior Secured Notes and under any of our other future indebtedness secured by the Collateral. We and the guarantors may not have sufficient funds to pay all of our creditors, and holders of the Senior Secured Notes may receive less, ratably, than the holders of our existing and future unsecured notes as a result of this subordination.

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

We may need to raise significant additional capital in the future, which may not be available on favorable terms to, among other things, continue investing in our business, pursue acquisitions and other strategic transactions. Adverse changes in the credit markets including, but not limited to, rising interest rates, could increase our borrowing costs and/or 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 cash flow to interest payments, which could have a material adverse effect on our financial results.

In addition, economic weakness or weak results of operations 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. 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 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.

Our parent, DISH Network, is controlled by one principal stockholder who is also our Chairman.

Charles W. Ergen, our and DISH Network's Chairman, beneficially owns approximately 51.8% of DISH Network's total equity securities (assuming conversion of all Class B common stock into Class A common stock) and controls approximately 90.4% of the total voting power. Through his voting power, Mr. Ergen has the ability to elect a majority of DISH Network's directors and to control all other matters requiring the approval of DISH Network's stockholders. As a result, DISH Network is a "controlled company" as defined in the Nasdaq listing rules and is, therefore, not subject to Nasdaq requirements that would otherwise require DISH Network to have: (i) a majority of independent directors; (ii) a nominating committee composed solely of independent directors; (iii) compensation of our executive officers determined by a majority of the independent directors or a compensation committee composed solely of independent directors; and (iv) director nominees selected, or recommended for selection by DISH Network's Board of Directors, either by a majority of the independent directors or a nominating committee composed solely of independent directors. Mr. Ergen is also the principal stockholder and Chairman of EchoStar.

Legal and Regulatory Risks

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 operations and sell our products and services. Legal challenges to our intellectual property rights and claims of intellectual property infringement by third parties could require that we enter into royalty or licensing agreements on unfavorable terms, incur substantial monetary liability or be enjoined preliminarily or permanently from further use of the intellectual property in question or from the continuation of our business as currently conducted, which could require us to change our business practices or limit our ability to compete effectively or could have an adverse effect on our results of operations. Even if we believe any such challenges or claims are without merit, they can be time consuming and costly to defend and divert management's attention and resources away from our business. Moreover, because of the rapid pace of technological change, we rely on technologies developed or licensed by third parties, and if we are unable to obtain or continue to obtain licenses 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 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 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. Our vendors, contractors and suppliers may not be required to indemnify us if a claim of infringement is asserted against us, or they may be required to indemnify us only up to a maximum amount, above which we would be responsible for any further costs or damages. Legal challenges to these intellectual property rights may impair our ability to use the products, 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 significant adverse impact on our business, particularly lawsuits regarding intellectual property.

We are, and may become, subject to various legal proceedings and claims which arise in the ordinary course of 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 "Item 1. Business – Patents and Other Intellectual Property" of DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022 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 infringement is valid.

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 services available to our DISH TV 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.

If our internal controls are not effective, our business, DISH Network's 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, 2022. 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, investors, subscribers and business partners could lose confidence in the accuracy of our financial reports, which could in turn have a material adverse effect on our business, investor confidence in our financial results may weaken, and DISH Network's stock price may suffer.

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

	Item 1B.	UNRESOLVED	STAFF	COMMENTS
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None

Item 2. PROPERTIES

The following table sets forth certain information concerning our principal properties.

		Le	ased Fron	n
Description/Use/Location	Owned	EchoStar	DISH	Other Third Party
Corporate headquarters, Englewood, Colorado	· <u></u>	X		
Customer call center, warehouse, service, and remanufacturing center, El Paso, Texas	X			
Data Center, Cheyenne, Wyoming			X	
Digital broadcast operations center, Cheyenne, Wyoming	X			
Digital broadcast operations center, Gilbert, Arizona	X			
Engineering offices and service center, Englewood, Colorado	X			
Warehouse and distribution center, Denver, Colorado				X
Warehouse and distribution center, Atlanta, Georgia				X
Warehouse, Denver, Colorado	X			

In addition to the principal properties listed above, we operate numerous facilities for, among other things, our in-home service operations, customer call centers and digital broadcast operations centers strategically located in regions throughout the United States. Furthermore, we own or lease capacity on ten satellites, which are a major component of our DISH TV services. See Note 6 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

Item 3. LEGAL PROCEEDINGS

See Note 12 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.

PART II

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

Market Information. As of March 10, 2023, all 1,015 issued and outstanding shares of our common stock were held by DOC. There is currently no established trading market for our common stock.

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

You should read the following narrative analysis of our financial condition and results of operations together with the audited consolidated financial statements and notes to our financial statements included elsewhere in this Annual Report on Form 10-K. This management's narrative analysis is intended to help provide an understanding of our financial condition, changes in financial condition and results of our operations and 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 projections about our industry, business and 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 discussed under the caption "Item 1A. Risk Factors" and elsewhere in this Annual Report on Form 10-K. Furthermore, such forward-looking statements speak only as of the date of this Annual Report on Form 10-K and we expressly disclaim any obligation to update any forward-looking statements.

Overview

We currently operate one business segment.

Our Pay-TV 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 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.

Recent Developments

Cyber-Security Incident

On February 23, 2023, our parent, DISH Network, announced on its earnings call that it had experienced a network outage that affected internal servers and IT telephony. We immediately activated our incident response and business continuity plans designed to contain, assess and remediate the situation. The services of cyber-security experts and outside advisors were retained to assist in the evaluation of the situation. We have determined that the outage was due to a cyber-security incident and notified appropriate law enforcement authorities.

On February 27, 2023, we became aware that certain data was extracted from our IT systems as part of this incident. It is possible the investigation will reveal that the extracted data includes personal information. The measures described above are continuing while we, with the assistance of third-party experts and advisors, investigate the extent of the cyber-security incident.

The forensic investigation and assessment of the impact of this incident is ongoing. DISH TV and SLING TV remain operational; however our internal communications, customer call centers and internet sites have been affected. We are actively engaged in restoring the affected systems and are making steady progress.

During the quarter ending March 31, 2023, we are incurring certain cyber-security-related expenses, including costs to remediate the incident and provide additional customer support, and expect to incur additional expense in future periods resulting from the cyber-security incident. The cyber-security incident may also affect certain operating metrics, including, but not limited to, our subscriber activation and churn and may adversely affect our financial condition, results of operations and cash flows. Although the extent of any such adverse impact has not been determined, it may be material.

Economic Environment

During 2022, we experienced significant inflationary pressures in our commodity and labor costs resulting from the macroeconomic environment in the United States, which has significantly impacted our overall operating results as compared to the same period in 2021.

COVID-19 Update

The COVID-19 pandemic created unanticipated circumstances and uncertainty, disruption, and significant volatility in the economic environment generally, which have adversely affected, and may continue to adversely affect, our business operations, including our supply chain, and could materially and adversely affect our business, financial condition and results of operations. In addition, any resurgence in COVID-19 could adversely affect our business, financial condition and results of operations.

Pay-TV

We offer Pay-TV services under the DISH® brand and the SLING® brand. As of December 31, 2022, we had 9.750 million Pay-TV subscribers in the United States, including 7.416 million DISH TV subscribers and 2.334 million SLING TV subscribers. We promote our 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. 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. 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 SLING domestic, SLING International, and SLING Latino video programming services.

Trends

Competition

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 our programming content, 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+, HBO Max, STARZ, Peacock, Fubo, Philo and Tubi.

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.

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. 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 or 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 turn 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 new 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. 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. On October 6, 2021, Tegna Inc. ("Tegna") removed its channels from our DISH TV programming lineup in 53 markets. On February 4, 2022, we and Tegna signed a new long-term 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, but not limited to, over the air antennas, there can be no assurance that the 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, the Walt Disney Company ("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.

In addition, 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 additional 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.

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, distribution and sales of the infringing products. On March 8, 2023, the ITC issued its Final Determination, which upheld the Initial Determination in all material respects; determined that the appropriate form of relief is a Limited Exclusion Order; and also determined to issue Cease and Desist Orders against iFit (NordicTrack) and Peloton. On February 9, 2023, we entered into a confidential license agreement covering Mirror exercise equipment that resolves our litigation involving those products.

Operational Liquidity

We make general investments in property such as, among others, satellites, set-top boxes, information technology and facilities that support our Pay-TV business. Moreover, since we are a subscriber-based company, we also make subscriber-specific investments to acquire new subscribers and retain existing subscribers. While the general investments may be deferred without impacting the business in 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.

There are a number of factors that impact our future cash flow compared to the 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 services" grow faster than our "Service revenue," the amount of 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. 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 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 make general investments, incur litigation expense, and any cash flow from financing activities. In addition, declines in our Pay-TV 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.

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.

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.

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.

During the year ended December 31, 2022, we repurchased approximately \$57 million of our 5% Senior Notes due 2023 in open market trades. The remaining balance of approximately \$1.443 billion matured and was redeemed on March 15, 2023

Future Liquidity

We have made cash distributions and the Intercompany Loan to partially finance the development of DISH Network's 5G Network Deployment, including, but not limited to, the purchase of wireless spectrum licenses and the retail wireless business to date, and we may make additional funds available to DISH Network in the form of cash distributions or loans to finance, in whole or in part, DISH Network's future efforts. These factors, including, but not limited to, debt maturities, continuing investment in our business, financing acquisitions and other strategic transactions, may require us to raise additional capital in the future which may not be available on acceptable terms, or at all.

Covenants and Restrictions Related to our Senior Notes

We are subject to the covenants and restrictions set forth in the indentures related to our long-term debt. In particular, the indentures related to our outstanding senior notes and senior secured notes contain restrictive covenants that, among other things, impose limitations on our ability 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; (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. As of the date of filing of this Annual Report on Form 10-K, we were in compliance with the covenants and restrictions related to our respective long-term debt.

Notes Receivable - DISH Network

Concurrently with the issuance of the 5 1/4% Senior Secured Notes due 2026 and the 5 3/4% Senior Secured Notes due 2028 and using the proceeds thereof, we made the Intercompany Loan to DISH Network to be used by DISH Network to finance the purchase of certain wireless spectrum licenses and for general corporate purposes, including the buildout of wireless infrastructure. The aggregate principal amount of the Intercompany Loan was initially \$5.250 billion, and on February 11, 2022, we advanced an additional \$1.5 billion to DISH Network. As of December 31, 2022, the total Intercompany Loan amount outstanding plus interest paid in kind was \$7.160 billion, not including accrued interest receivable of \$37 million.

New Accounting Pronouncements

See Note 2 in the Notes to our Consolidated Financial Statements in this Annual Report on Form 10-K for further information.

EXPLANATION OF KEY METRICS AND OTHER ITEMS

Service revenue. "Service revenue" consists principally of Pay-TV subscriber revenue. Certain of the amounts included in "Service revenue" are not recurring on a monthly basis.

Equipment sales and other revenue. "Equipment sales and other revenue" principally includes the non-subsidized sales of Pay-TV equipment.

Cost of services. "Cost of services" principally includes Pay-TV programming expenses and other operating costs related to our Pay-TV services.

Cost of sales - equipment and other. "Cost of sales - equipment and other" principally includes the cost of the non-subsidized sales of Pay-TV equipment. Costs are generally recognized as products are delivered to customers and the related revenue is recognized.

Selling, general and administrative expenses. "Selling, general and administrative expenses" consists primarily of direct sales costs, advertising, third-party commissions related to the acquisition of subscribers, costs related to the installation of equipment for our new Pay-TV subscribers, the cost of subsidized sales of Pay-TV equipment for new subscribers and employee-related costs associated with administrative services such as legal, information systems, and accounting and finance.

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

Other, net. The main components of "Other, net" are gains and losses realized on the sale of investments, impairment of marketable and non-marketable investment securities, unrealized gains and losses from changes in fair value of certain marketable and non-marketable investment securities and equity in earnings and losses of our affiliates.

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA is defined as "Net income (loss)" plus "Interest expense, net of amounts capitalized" and net of "Interest income," "Income tax (provision) benefit, net" and "Depreciation and amortization." This "non-GAAP measure" is reconciled to "Net income (loss)" in our discussion of "Results of Operations" below.

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 distribution relationships in our DISH TV subscriber count. We also provide DISH TV services to hotels, motels and other commercial accounts. For certain of these commercial accounts, we divide our total revenue for these commercial accounts by \$34.99, and include the resulting number, which is substantially smaller 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 promotions, are excluded from our SLING TV subscriber count. For customers who subscribe to multiple SLING TV packages, each customer is only counted as one SLING TV 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.

Pay-TV average monthly revenue per subscriber ("Pay-TV ARPU"). We are not aware of any uniform standards for calculating ARPU and believe presentations of ARPU may not be calculated consistently by other companies in the same or similar businesses. We calculate Pay-TV average monthly revenue per Pay-TV subscriber, or Pay-TV ARPU, by dividing average monthly Pay-TV "Service revenue" for the period by our average number of Pay-TV subscribers for the period. The average number of Pay-TV subscribers is calculated for the period 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 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 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 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 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, and we believe 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.) which are included in "Selling, general and administrative expenses," plus capitalized payments made under certain sales incentive programs and the value of equipment capitalized under our lease program for new DISH TV subscribers, divided by gross new DISH TV subscriber activations. We include all new DISH TV subscribers in our calculation, including DISH TV subscribers added with little or no subscriber acquisition costs.

RESULTS OF OPERATIONS

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

	Fo	For the Years Ended December 31,				Variance		
Statements of Operations Data		2022		2021		Amount	%	
			(In	thousands)				
Revenue:								
Service revenue	\$	12,273,150	\$	12,649,285	\$	(376,135)	(3.0)	
Equipment sales and other revenue		105,058		112,578		(7,520)	(6.7)	
Total revenue		12,378,208		12,761,863	_	(383,655)	(3.0)	
Costs and Expenses:								
Cost of services		7,527,563		7,852,934		(325,371)	(4.1)	
% of Service revenue		61.3	%	62.1 %	%			
Cost of sales - equipment and other		79,905		87,578		(7,673)	(8.8)	
Selling, general and administrative expenses		1,593,723		1,442,897		150,826	10.5	
% of Total revenue		12.9	%	11.3 %	%			
Depreciation and amortization		354,361		439,004		(84,643)	(19.3)	
Total costs and expenses		9,555,552		9,822,413	_	(266,861)	(2.7)	
Operating income (loss)		2,822,656	_	2,939,450	_	(116,794)	(4.0)	
Other Income (Expense):								
Interest income		440,412		36,458		403,954	*	
Interest expense		(871,530)		(683,803)		(187,727)	(27.5)	
Other, net		4,466		(820)		5,286	*	
Total other income (expense)		(426,652)		(648,165)		221,513	34.2	
Income (loss) before income taxes		2,396,004		2,291,285		104,719	4.6	
Income tax (provision) benefit, net		(585,259)		(554,413)		(30,846)	(5.6)	
Effective tax rate		24.4	%	24.2 %	%			
Net income (loss)	\$	1,810,745	\$	1,736,872		73,873	4.3	
Other Data:								
Pay-TV subscribers, as of period end (in millions)		9.750		10.707		(0.957)	(8.9)	
DISH TV subscribers, as of period end (in millions)		7.416		8.221		(0.805)	(9.8)	
SLING TV subscribers, as of period end (in millions)		2.334		2.486		(0.152)	(6.1)	
Pay-TV subscriber additions (losses), net (in millions)		(0.957)		(0.583)		(0.374)	(64.2)	
DISH TV subscriber additions (losses), net (in millions)		(0.805)		(0.595)		(0.210)	(35.3)	
SLING TV subscriber additions (losses), net (in millions)		(0.152)		0.012		(0.164)	*	
Pay-TV ARPU	\$	101.20	\$	95.94	\$	5.26	5.5	
DISH TV subscriber additions, gross (in millions)	*	0.634	*	0.835	-	(0.201)	(24.1)	
DISH TV churn rate		1.54 % 1.40 %		6	0.14 %	10.0		
DISH TV SAC	\$	1,044	\$	823	\$	221	26.9	
Purchases of property and equipment	\$	122,477	\$	156,860	\$	(34,383)	(21.9)	
EBITDA	\$	3,181,483	\$	3,377,634	\$	(196,151)	(5.8)	
OIBDA	\$	3,177,017	\$	3,378,454	\$	(201,437)	(6.0)	

^{*} 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 net 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 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 other 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 pressures, 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.

DISH TV churn rate. Our DISH TV churn rate for the year ended December 31, 2022 was 1.54% compared to 1.40% for the same period in 2021. Our DISH TV churn rate for the year ended December 31, 2022 was negatively impacted by 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, cord cutting, shifting consumer behavior and increased competitive pressures, including aggressive marketing, bundled discount 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, the 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 the scheduled expiration of programming carriage contracts with content providers. On October 6, 2021, Tegna removed its 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 the 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.

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 subscriber base, 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. Our 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 \$12.273 billion for the year ended December 31, 2022, a decrease of \$376 million or 3.0% 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 \$7.528 billion during the year ended December 31, 2022, a decrease of \$325 million or 4.1% 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 rate increases in certain of our programming contracts, including the renewal of certain contracts at higher rates, particularly for 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 61.3% and 62.1% of "Service revenue" during the years ended December 31, 2022 and 2021, 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 \$1.594 billion during the year ended December 31, 2022, a \$151 million or 10.5% increase compared to the same period in 2021. This change was primarily driven by an increase in costs to support the business and an increase in subscriber acquisition costs resulting from higher marketing expenditures.

Depreciation and amortization. "Depreciation and amortization" expense totaled \$354 million during the year ended December 31, 2022, an \$85 million or 19.3% 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.

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 new 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.

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 newer technologies, introduce more aggressive promotions, or provide greater equipment subsidies.

Interest income. "Interest income" totaled \$440 million during the year ended December 31, 2022, a \$404 million increase compared to the same period in 2021. This change was primarily related to non-cash interest income associated with our Intercompany Loan to DISH Network.

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" totaled \$872 million during the year ended December 31, 2022, an increase of \$188 million compared to the same period in 2021. This increase was primarily related to higher interest expense as a result of the issuance of our 5 1/8% Senior Notes due 2029 in second quarter 2021 and our Senior Secured Notes during the fourth quarter of 2021, partially offset by a reduction in interest expense resulting from the redemption of our 6 3/4% Senior Notes due 2021 during the second quarter of 2021 and our 5 7/8% Senior Notes due 2022 on July 15, 2022.

Income tax (provision) benefit, net. Our income tax provision was \$585 million during the year ended December 31, 2022, an increase of \$31 million compared to the same period in 2021. The increase in the provision was primarily related to an increase in "Income (loss) before income taxes."

Non-GAAP Performance Measures and Reconciliation

It is management's intent to provide non-GAAP financial information to enhance the understanding of our financial information in accordance with accounting principles generally accepted in the United States ("GAAP"), 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.

EBITDA

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. 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.

	l	For the Years Ended December 31,				
	<u> </u>	2022	2021			
Net income (loss)	\$	1,810,745	\$	1,736,872		
Interest, net		431,118		647,345		
Income tax provision (benefit), net		585,259		554,413		
Depreciation and amortization		354,361		439,004		
EBITDA	\$	3,181,483	\$	3,377,634		

The changes in EBITDA during the year ended December 31, 2022, compared to the same period in 2021, were primarily a result of the factors described in connection with operating revenues and operating expenses.

OIBDA

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 on a more variable cost basis as it excludes the depreciation and amortization expenses related primarily to capital expenditures and acquisitions, as well as in evaluating operating performance in relation to our competitors. OIBDA is calculated by adding back depreciation and amortization expense to operating income (loss).

	For the Years Ended December 31,				
	2022 2021				
	(In thousands)				
Operating income (loss)	\$	2,822,656	\$	2,939,450	
Depreciation and amortization		354,361		439,004	
OIBDA	\$	3,177,017	\$	3,378,454	

The changes in OIBDA during the year ended December 31, 2022, compared to the same period in 2021, were primarily a result of the factors described in connection with operating revenues and operating expenses.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risks Associated with Financial Instruments

Our investments and debt are exposed to market risks, discussed below.

Cash, Cash Equivalents and Current Marketable Investment Securities

As of December 31, 2022, our cash, cash equivalents and current marketable investment securities had a fair value of \$905 million. Of that amount, a total of \$905 million 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; and/or (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, repay debt obligations and expand our business. Consequently, the size of this portfolio can fluctuate significantly as cash is received and used in our business for these or other purposes. The value of this portfolio 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 affect the fair value of our cash, cash equivalents and current marketable investment securities portfolio; however, we normally hold these investments to maturity. Based on our December 31, 2022 current non-strategic investment portfolio of \$905 million, a hypothetical 10% change in average interest rates would not have a material impact on the fair value due to the limited duration of our investments.

Our cash, cash equivalents and current marketable investment securities had an average annual rate of return for the year ended December 31, 2022 of 1.2%. 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 would result in a decrease of approximately \$2 million in annual interest income.

Restricted Cash, Cash Equivalents and Marketable Investment Securities

As of December 31, 2022, we had \$54 million of restricted cash and marketable investment securities invested in: (a) cash; (b) money market funds; (c) debt instruments of 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, 2022 investment portfolio, a hypothetical 10% increase in average interest rates would not have a material impact on the fair value of our restricted cash and marketable investment securities.

Long-Term Debt

As of December 31, 2022, we had long-term debt of \$13.212 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 \$10.987 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 \$400 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, 2022, all of our long-term debt consisted of fixed rate indebtedness.

Derivative Financial Instruments

From time to time, we invest in speculative financial instruments, including derivatives. As of December 31, 2022, we did not hold any derivative financial instruments.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our consolidated financial statements are included in this Annual Report on Form 10-K beginning on page F-1.

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

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

Disclosure controls and procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of the end of the period covered by this report. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

Changes in internal control over financial reporting

There has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. However, we are continually monitoring the COVID-19 pandemic and any potential impact to our internal controls.

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 United States generally accepted accounting principles.

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

- 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.

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

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

Item 9B. OTHER INFORMATION

None

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Appointment of Independent Registered Public Accounting Firm

Appointment of Independent Registered Public Accounting Firm for 2022. KPMG LLP served as our independent registered public accounting firm for the fiscal year ended December 31, 2022.

Our Board of Directors, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if the Board of Directors believes that a change would be in our best interests.

Fees Paid to KPMG LLP for 2022 and 2021

The following table presents fees for the aggregate professional audit services rendered by KPMG LLP for the audit of DISH Network's and our annual financial statements for the years ended December 31, 2022 and 2021, and fees billed for other services rendered by KPMG LLP to DISH Network and us during those periods. We have reported the fees billed for services rendered to both DISH Network and us because the services are not rendered or billed specifically for us but for the DISH Network consolidated group as a whole.

	 For the Years Ended December 31,					
	 2022		2021			
Audit Fees (1)	\$ 4,300,000	\$	4,029,199			
Audit-Related Fees	945,000		_			
Tax Compliance Fees	413,195		521,656			
All Other Fees (2)	133,161		370,401			
Total Fees	\$ 5,791,356	\$	4,921,256			

- (1) Consists of fees paid by DISH Network and us for the audit of DISH Network's and our consolidated financial statements included in DISH Network's and our Annual Reports on Form 10-K, review of DISH Network's and our unaudited financial statements included in DISH Network's and our Quarterly Reports on Form 10-Q and fees in connection with the audit of DISH Network's internal control over financial reporting.
- (2) Consists of fees for services related to review of contract compliance.

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

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

Requests are submitted to the Audit Committee of DISH Network in one of the following ways:

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

The request may be made with respect to either specific services or a type of service for predictable or recurring services. 100% of the fees paid to KPMG LLP for services rendered in 2022 and 2021 were pre-approved by the Audit Committee of DISH Network.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) The following documents are filed as part of this report:
 - (1) Financial Statements

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(2) Financial Statement Schedules

None. All schedules have been included in the consolidated financial statements or notes thereto.

(3) Exhibits

Exhibit No. Description

- 3.1(a)* Articles of Incorporation of DISH DBS Corporation (incorporated by reference to Exhibit 3.4(a) to the Registration Statement on Form S-4 of DISH DBS Corporation, Registration No. 333-31929), as amended by the Certificate of Amendment of the Articles of Incorporation of DISH DBS Corporation, dated as of August 25, 2003 (incorporated by reference to Exhibit 3.1(b) to the Annual Report on Form 10-K of DISH DBS Corporation for the year ended December 31, 2003, Commission File No. 333-31929), and as further amended by the Amendment of the Articles of Incorporation of DISH DBS Corporation, effective December 12, 2008 (incorporated by reference from Exhibit 3.1 to the Current Report on Form 8-K of DISH DBS Corporation filed December 12, 2008).
- 3.1(b)* Bylaws of DISH DBS Corporation (incorporated by reference from Exhibit 3.4(b) to the Registration Statement on Form S-4 of DISH DBS Corporation).
- 4.1* Indenture, relating to the 5% Senior Notes due 2023, dated as of December 27, 2012, among DISH DBS Corporation, the guarantors named on the signature pages thereto and Wells Fargo Bank, National Association, as Trustee (incorporated by reference from Exhibit 4.1 to the Current Report on Form 8-K of DISH DBS Corporation filed December 27, 2012).
- 4.2* 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 DBS

 Corporation filed November 21, 2014).
- 4.3* 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 DBS

 Corporation filed June 13, 2016).
- 4.4* 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 DBS

 Corporation filed July 1, 2020).

- 4.5* 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 DBS

 Corporation filed May 24, 2021).
- 4.6* 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 DBS Corporation filed November 26, 2021).
- 4.7* 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 DBS Corporation filed November 26, 2021).
- 4.8* 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 DBS Corporation filed November 26, 2021).
- 4.9* Supplemental Indenture relating to the 5% Senior Notes due 2023 (incorporated by reference from Exhibit 4.14 to the Annual Report on Form 10-K of DISH DBS Corporation filed March 29, 2018).
- 4.10* Supplemental Indenture relating to the 5 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).
- 4.11* Supplemental Indenture relating to the 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).
- 10.1* 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). **
- 10.2* Whole RF Channel Service Agreement, dated February 4, 2004, between Telesat Canada and DISH

 Network Corporation (incorporated by reference from Exhibit 10.4 to the Quarterly Report on Form 10-Q of

 DISH Network Corporation filed May 6, 2004). ***
- 10.3* Letter Amendment to Whole RF Channel Service Agreement, dated March 25, 2004, between Telesat

 Canada and DISH Network Corporation (incorporated by reference from Exhibit 10.5 to the Quarterly

 Report on Form 10-Q of DISH Network Corporation filed May 6, 2004). ***
- 10.4* Second Amendment to Whole RF Channel Service Agreement, dated May 5, 2004, between Telesat Canada and DISH Network Corporation (incorporated by reference from Exhibit 10.2 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed August 9, 2004). ***
- 10.5* Third Amendment to Whole RF Channel Service Agreement, dated October 12, 2004, between Telesat

 Canada and DISH Network Corporation (incorporated by reference from Exhibit 10.22 to the Annual Report on Form 10-K of DISH Network Corporation filed March 16, 2005). ***
- 10.6* Incentive Stock Option Agreement (Form A) (incorporated by reference from Exhibit 99.1 to the Current Report on Form 8-K of DISH Network Corporation filed July 7, 2005). **
- 10.7* Incentive Stock Option Agreement (Form B) (incorporated by reference from Exhibit 99.2 to the Current Report on Form 8-K of DISH Network Corporation filed July 7, 2005). **

10.21*

10.8*	Restricted Stock Unit Agreement (Form A) (incorporated by reference from Exhibit 99.3 to the Current Report on Form 8-K of DISH Network Corporation filed July 7, 2005). **
10.9*	Restricted Stock Unit Agreement (Form B) (incorporated by reference from Exhibit 99.4 to the Current Report on Form 8-K of DISH Network Corporation filed July 7, 2005). **
10.10*	Nonemployee Director Stock Option Agreement (incorporated by reference from Exhibit 99.6 to the Current Report on Form 8-K of DISH Network Corporation filed July 7, 2005). **
10.11*	Separation Agreement between EchoStar Corporation and DISH Network Corporation (incorporated by reference from Exhibit 2.1 to the Amendment No. 1 to the Form 10 of EchoStar Corporation filed December 12, 2007).
10.12*	Tax Sharing Agreement between EchoStar Corporation and DISH Network Corporation (incorporated by reference from Exhibit 10.2 to the Amendment No. 1 to the Form 10 of EchoStar Corporation filed December 12, 2007).
10.13*	Employee Matters Agreement between EchoStar Corporation and DISH Network Corporation (incorporated by reference from Exhibit 10.3 to the Amendment No. 1 to the Form 10 of EchoStar Corporation filed December 12, 2007).
10.14*	Intellectual Property Matters Agreement between EchoStar Corporation, EchoStar Acquisition L.L.C., Echosphere L.L.C., DISH DBS Corporation, EIC Spain SL, EchoStar Technologies L.L.C. and DISH Network Corporation (incorporated by reference from Exhibit 10.4 to the Amendment No. 1 to the Form 10 of EchoStar Corporation filed December 12, 2007).
10.15*	Form of Satellite Capacity Agreement between EchoStar Corporation and DISH Network L.L.C. (incorporated by reference from Exhibit 10.28 to the Amendment No. 2 to Form 10 of EchoStar Corporation filed December 26, 2007).
10.16*	DISH Network Corporation 2009 Stock Incentive Plan (incorporated by reference from Appendix A to DISH Network Corporation's Definitive Proxy Statement on Form 14A filed September 19, 2014). **
10.17*	Amended and Restated DISH Network Corporation 2001 Nonemployee Director Stock Option Plan (incorporated by reference from Appendix B to DISH Network Corporation's Definitive Proxy Statement on Form 14A filed March 31, 2009). **
10.18*	Amended and Restated DISH Network Corporation 1999 Stock Incentive Plan (incorporated by reference from Appendix C to DISH Network Corporation's Definitive Proxy Statement on Form 14A filed March 31, 2009). **
10.19*	NIMIQ 5 Whole RF Channel Service Agreement, dated September 15, 2009, between Telesat Canada and EchoStar Corporation (incorporated by reference from Exhibit 10.30 to the Annual Report on Form 10-K of EchoStar Corporation filed November 9, 2009). ***
10.20*	Professional Services Agreement, dated August 4, 2009, between EchoStar Corporation and DISH Network Corporation (incorporated by reference from Exhibit 10.3 to the Quarterly Report on Form 10-Q of EchoStar Corporation filed November 9, 2009), ***

<u>Description of the 2013 Long-Term Incentive Plan dated November 30, 2012 (incorporated by reference from the Current Report on Form 8-K of DISH Network Corporation filed December 6, 2012).</u> **

10.22*	Share Exchange Agreement dated January 31, 2017, between DISH Network Corporation, DISH Network L.L.C., DISH Operating L.L.C., EchoStar Corporation, EchoStar Broadcasting Holding Parent L.L.C., EchoStar Broadcasting Holding Corporation, EchoStar Technologies Holding Corporation, and EchoStar Technologies L.L.C. (incorporated by reference from Exhibit 10.1 to the Quarterly Report on Form 10-Q of DISH Network Corporation filed May 1, 2017). ***
10.23*	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). **
10.24*	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). **
10.25*	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). **
10.26*	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). **
10.27*	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). **
22□	List of Subsidiary Guarantors
31.1□	Section 302 Certification of Chief Executive Officer.
31.2□	Section 302 Certification of Chief Financial Officer.
32.1□	Section 906 Certification of Chief Executive Officer.
32.2□	Section 906 Certification of Chief Financial Officer.
101 □	The following materials from the Annual Report on Form 10-K of DISH DBS Corporation for the year ended December 31, 2022, filed on March 16, 2023, formatted in 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 Stockholder's Equity (Deficit), (iv) Consolidated Statements of Cash Flows, and (v) related notes to these financial statements.
104 □	Cover Page Interactive Data File (the cover page XBRL tags are embedded in the Inline XBRL document).
Incor Cons Certa	herewith. porated by reference. titutes a management contract or compensatory plan or arrangement. in portions of the exhibit have been omitted and separately filed with the Securities and Exchange Commission a request for confidential treatment.

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 of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

DISH DBS CORPORATION

By: /s/ Paul W. Orban

Paul W. Orban

Executive Vice President and Chief Financial Officer

Date: March 16, 2023

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

Signature	<u>Title</u>	Date
/s/ W. Erik Carlson W. Erik Carlson	President and Chief Executive Officer (Principal Executive Officer)	March 16, 2023
/s/ Paul W. Orban Paul W. Orban	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	March 16, 2023
/s/ James S. Allen James S. Allen	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)	March 16, 2023
/s/ Charles W. Ergen Charles W. Ergen	Chairman	March 16, 2023
/s/ James DeFranco James DeFranco	Director	March 16, 2023
/s/ Timothy A. Messner Timothy A. Messner	Director	March 16, 2023

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Report of Independent Registered Public Accounting Firm

To the Stockholder and Board of Directors DISH DBS Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of DISH DBS Corporation and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive income (loss), stockholder's equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

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

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Sufficiency of audit evidence over revenue

As discussed in Note 14 to the consolidated financial statements, the Company had \$12.4 billion in revenue for the year ended December 31, 2022. The Company's revenue includes multiple revenue streams and certain aspects of the Company's processes and information technology (IT) systems differ among the revenue streams.

We identified the evaluation of sufficiency of audit evidence over certain revenue streams as a critical audit matter. The number of revenue streams and the revenue-related IT applications required a high-degree of auditor judgment to evaluate the sufficiency of audit evidence over revenue. Subjective auditor judgment was required to evaluate that revenue data was captured and aggregated throughout these various IT applications. Additionally, IT professionals with specialized skills and knowledge were required to evaluate the nature and extent of evidence obtained over certain revenue streams.

The following are the primary procedures we performed to address this critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over revenue. For each revenue stream where procedures were performed, we evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's revenue recognition process, including recording of revenue. We also evaluated the design and tested the operating effectiveness of certain general IT and application controls. We involved IT professionals with specialized skills and knowledge, who assisted in testing certain IT applications used by the Company in its revenue recognition processes and the transfer of relevant revenue data between certain systems used in the revenue recognition processes. For certain revenue streams, we assessed the recorded revenue by comparing total cash received during the year, adjusted for reconciling items, to the revenue recognized. Such assessment also evaluated the relevance and reliability of reconciling items to underlying documentation, including the changes in accounts receivable and deferred revenue.

We evaluated the sufficiency of audit evidence obtained by assessing the results of the procedures performed, including the appropriateness of the nature and extent of such evidence.

/s/ KPMG LLP

We have served as the Company's auditor since 2002.

Denver, Colorado March 16, 2023

DISH DBS CORPORATION CONSOLIDATED BALANCE SHEETS

(Dollars in thousands, except share amounts)

		As of Dec	embe	r 31,
		2022	2021	
Assets				
Current Assets:				
Cash and cash equivalents	\$	621,975	\$	1,373,591
Marketable investment securities		282,733		1,670,739
Trade accounts receivable, net of allowance for credit losses of \$40,642 and \$32,861, respectively		660,808		601,553
Inventory		307,411		292,099
Other current assets		176,935		270,417
Total current assets		2,049,862		4,208,399
Noncurrent Assets:				
Restricted cash, cash equivalents and marketable investment securities		53,525		55,027
Property and equipment, net		990,886		1,233,180
FCC authorizations		611,794		611,794
Other investment securities		93,806		99,606
Operating lease assets		130,454		220,089
Note receivable - DISH Network (Note 17)		7,160,116		5,250,000
Interest receivable - DISH Network (Note 17)		36,912		31,840
Other noncurrent assets, net		116,026		152,747
Total noncurrent assets		9,193,519		7,654,283
Total assets	\$	11,243,381	\$	11,862,682
Liabilities and Stockholder's Equity (Deficit)				
Current Liabilities:	Ф	205.000	ф	500 500
Trade accounts payable	\$	385,899	\$	522,523
Deferred revenue and other		555,151		602,521
Accrued programming		1,298,777		1,376,770
Accrued interest Other accrued expenses		180,823 644,574		239,571
Current portion of long-term debt and finance lease obligations (Note 8)		1,484,101		588,201 2,042,641
	_		_	5.372.227
Total current liabilities		4,549,325	_	5,372,227
Long-Term Obligations, Net of Current Portion:				
Long-term debt and finance lease obligations, net of current portion (Note 8)		11,761,407		13,294,988
Deferred tax liabilities		352,748		469,418
Operating lease liabilities		75,142		83,725
Long-term deferred revenue and other long-term liabilities		209,288		197,147
Total long-term obligations, net of current portion		12,398,585		14,045,278
Total liabilities	_	16,947,910	_	19,417,505
Tom Internation		10,717,710		19,117,000
Commitments and Contingencies (Note 12)				
Stockholder's Equity (Deficit):				
Common stock, \$0.01 par value, 1,000,000 shares authorized, 1,015 shares issued and outstanding		_		_
Additional paid-in capital		1,532,906		1,492,174
Accumulated other comprehensive income (loss)		(2,445)		(1,262)
Accumulated earnings (deficit)		(7,234,990)		(9,045,735)
Total stockholder's equity (deficit)		(5,704,529)		(7,554,823)
Total liabilities and stockholder's equity (deficit)	\$	11,243,381	\$	11,862,682
Total manners and stockholder s equity (deficit)	Ψ	11,210,001	4	11,002,002

DISH DBS CORPORATION CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

(In thousands)

	For the Years Ended December 31,					
		2022		2021		2020
Revenue:						
Service revenue	\$	12,273,150	\$	12,649,285	\$	12,576,470
Equipment sales and other revenue		105,058		112,578		151,159
Total revenue		12,378,208		12,761,863		12,727,629
Costs and Expenses (exclusive of depreciation):						
Cost of services		7,527,563		7,852,934		7,916,036
Cost of sales - equipment and other		79,905		87,578		104,470
Selling, general and administrative expenses		1,593,723		1,442,897		1,440,553
Depreciation and amortization		354,361		439,004		504,638
Total costs and expenses		9,555,552		9,822,413		9,965,697
Operating income (loss)		2,822,656		2,939,450		2,761,932
Other Income (Expense):						
Interest income		440,412		36,458		3,548
Interest expense, net of amounts capitalized		(871,530)		(683,803)		(682,506)
Other, net		4,466		(820)		1,686
Total other income (expense)		(426,652)		(648,165)		(677,272)
Income (loss) before income taxes		2,396,004		2,291,285		2,084,660
Income tax (provision) benefit, net		(585,259)		(554,413)		(500,358)
Net income (loss)	\$	1,810,745	\$	1,736,872	\$	1,584,302
Comprehensive Income (Loss):						
Net income (loss)	\$	1,810,745	\$	1,736,872	\$	1,584,302
Other comprehensive income (loss):						
Foreign currency translation adjustments		(1,245)		(402)		(401)
Unrealized holding gains (losses) on available-for-sale debt securities		107		(122)		2
Deferred income tax (expense) benefit, net		(45)		67		43
Total other comprehensive income (loss), net of tax		(1,183)		(457)		(356)
Comprehensive income (loss)	\$	1,809,562	\$	1,736,415	\$	1,583,946

DISH DBS CORPORATION CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDER'S EQUITY (DEFICIT)

(In thousands)

			Accumulated		
		Additional	Other	Accumulated	
	Common	Paid-In	Comprehensive	Earnings	
D. D. 1 44 4040	Stock	Capital	Income (Loss)	(Deficit)	Total
Balance, December 31, 2019	<u>\$ —</u>	\$ 1,432,736	\$ (449)	\$ (12,366,909)	\$ (10,934,622)
Non-cash, stock-based compensation		30,671	_	_	30,671
Change in unrealized holding gains (losses) on available-for-sale debt					
securities, net	_	_	2	_	2
Deferred income tax (expense) benefit attributable to other			42		42
comprehensive income (loss)			43	_	43
Foreign currency translation	_	_	(401)		(401)
Net income (loss)				1,584,302	1,584,302
Balance, December 31, 2020	<u>\$</u>	\$ 1,463,407	\$ (805)	\$ (10,782,607)	\$ (9,320,005)
Non-cash, stock-based compensation		11,830	_	_	11,830
Change in unrealized holding gains (losses) on available-for-sale debt			(100)		(100)
securities, net	_	_	(122)	_	(122)
Deferred income tax (expense) benefit attributable to other			(7		(7
comprehensive income (loss)		1 6 027	67	_	67
Sale of assets to DISH Network, net of deferred taxes of \$2,292	_	16,937	(402)	_	16,937
Foreign currency translation		_	(402)		(402)
Net income (loss)				1,736,872	1,736,872
Balance, December 31, 2021	<u>\$</u>	\$ 1,492,174	\$ (1,262)	\$ (9,045,735)	\$ (7,554,823)
Non-cash, stock-based compensation	_	40,732	_	_	40,732
Change in unrealized holding gains (losses) on available-for-sale debt					
securities, net			107		107
Deferred income tax (expense) benefit attributable to other			(45)		(45)
comprehensive income (loss)	_	_	(45)	_	(45)
Foreign currency translation			(1,245)	1.010.715	(1,245)
Net income (loss)				1,810,745	1,810,745
Balance, December 31, 2022	<u> </u>	\$ 1,532,906	\$ (2,445)	\$ (7,234,990)	\$ (5,704,529)

DISH DBS CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	For the Years Ended December 31,					
		2022		2021		2020
Cash Flows From Operating Activities:						
Net income (loss)	\$	1,810,745	\$	1,736,872	\$	1,584,302
Adjustments to reconcile net income (loss) to net cash flows from operating activities:						
Depreciation and amortization		354,361		439,004		504,638
Realized and unrealized losses (gains) on investments and other		922		3,587		_
Non-cash, stock-based compensation		40,732		11,830		30,671
Deferred tax expense (benefit)		(116,715)		(41,304)		13,114
Changes in allowance for credit losses		7,781		(10,372)		23,953
Other, net		63,194		51,842		4,709
Non-cash interest income - DISH Network		(415,188)		_		_
Changes in current assets and current liabilities:						
Trade accounts receivable		(67,036)		24,037		(81,649)
Inventory		(11,143)		(38,405)		32,916
Other current assets		93,482		2,538		(108,188)
Trade accounts payable		(145,552)		206,862		49,244
Deferred revenue and other		(47,370)		(64,705)		(6,853)
Accrued programming and other accrued expenses		(840)		28,276		(167,399)
Net cash flows from operating activities		1,567,373		2,350,062		1,879,458
Cash Flows From Investing Activities:						
(Purchases) Sales and maturities of marketable investment securities, net		1,388,113		(1,538,268)		(132,591)
Purchases of property and equipment		(122,477)		(156,860)		(298,566)
Proceeds from sale of assets to DISH Network, net of tax		_		60,369		_
Notes receivable - DISH Network		(1,500,000)		(5,250,000)		_
Other, net		5,313		8,572		8,851
Net cash flows from investing activities		(229,051)		(6,876,187)		(422,306)
Cash Flows From Financing Activities:						
Repayment of long-term debt and finance lease obligations		(33,713)		(54,162)		(54,438)
Redemption and repurchases of senior notes		(2,056,821)		(2,000,000)		(1,100,000)
Proceeds from issuance of senior notes		_		6,750,000		1,000,000
Debt issuance costs		_		(34,459)		(1,670)
Advances to/from affiliates		_		_		(82,415)
Other, net		(906)		(3,368)		
Net cash flows from financing activities		(2,091,440)		4,658,011		(238,523)
Net increase (decrease) in cash, cash equivalents, restricted cash and cash equivalents		(753,118)		131,886		1,218,629
Cash, cash equivalents, restricted cash and cash equivalents, beginning of period (Note 4)		1,428,618		1,296,732		78,103
Cash, cash equivalents, restricted cash and cash equivalents, end of period (Note 4)	\$	675,500	\$	1,428,618	\$	1,296,732

1. Organization and Business Activities

Principal Business

DISH DBS Corporation (which together with its subsidiaries is referred to as "DISH DBS," the "Company," "we," "us" and/or "our," unless otherwise required by the context) is a holding company and an indirect, wholly-owned subsidiary of DISH Network Corporation ("DISH Network"). DISH DBS was formed under Colorado law in January 1996 and its common stock is held by DISH Orbital Corporation ("DOC"), a direct subsidiary of DISH Network. Our subsidiaries operate one business segment.

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 and Latino video programming services ("SLING TV"). As of December 31, 2022, we had 9.750 million Pay-TV subscribers in the United States, including 7.416 million DISH TV subscribers and 2.334 million SLING TV subscribers.

2. Summary of Significant Accounting Policies

Principles of Consolidation and Basis of Presentation

The accompanying consolidated financial statements include all balances and results of operations of DISH DBS and our consolidated subsidiaries. We consolidate all majority owned subsidiaries, investments in entities in which we have controlling influence and variable interest entities where we have been determined to be the primary beneficiary. Minority interests are recorded as noncontrolling interests or redeemable noncontrolling interests. See below for further information. Non-consolidated investments are accounted for using the equity method when we have the ability to significantly influence the operating decisions of the investee. When we do not have the ability to significantly influence the operating decisions of an investee, these equity securities are classified as either marketable investment securities or other investments and recorded at fair value with changes recognized in "Other, net" within "Other Income (Expense)" on our Consolidated Statements of Operations and Comprehensive Income (Loss). All significant intercompany accounts and transactions have been eliminated in consolidation. Certain prior period amounts have been reclassified to conform to the current period presentation.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense for each reporting period. Estimates are based on historical experience and other reasonable assumptions in accounting for, among other things, allowances for credit losses, self-insurance obligations, deferred taxes and related valuation allowances, uncertain tax positions, loss contingencies, fair value of financial instruments, fair value of options granted under DISH Network's stock-based compensation plans, fair value of assets and liabilities acquired in business combinations, relative standalone selling prices of performance obligations, finance leases, asset impairments, estimates of future cash flows used to evaluate and recognize impairments, useful lives of property, equipment and intangible assets, incremental borrowing rate ("IBR") on lease right of use assets, nonrefundable upfront fees, independent third-party retailer incentives, programming expenses and subscriber lives. Economic conditions may increase the inherent uncertainty in the estimates and assumptions indicated above. Actual results may differ from previously estimated amounts, and such differences may be material to our consolidated financial statements. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected prospectively in the period they occur.

Cash and Cash Equivalents

We consider all liquid investments purchased with a remaining maturity of 90 days or less at the date of acquisition to be cash equivalents. Cash equivalents as of December 31, 2022 and 2021 may consist of money market funds, government bonds, corporate notes and commercial paper. The cost of these investments approximates their fair value.

Marketable Investment Securities

All equity securities are carried at fair value, with changes in fair value recognized in "Other, net" within "Other Income (Expense)" on our Consolidated Statements of Operations and Comprehensive Income (Loss).

All debt securities are classified as available-for-sale and are recorded at fair value. We report the temporary unrealized gains and losses related to changes in market conditions of marketable debt securities as a separate component of "Accumulated other comprehensive income (loss)" within "Stockholder's Equity (Deficit)," net of related deferred income tax on our Consolidated Balance Sheets. The changes in the fair value of marketable debt securities, which are determined to be company specific credit losses are recorded in "Other, net" within "Other Income (Expense)" on our Consolidated Statements of Operations and Comprehensive Income (Loss).

We evaluate our debt investment portfolio to determine whether declines in the fair value of these securities are related to credit loss. Management estimates credit losses on marketable debt securities utilizing a credit loss impairment model on a quarterly basis. We estimate the expected credit losses, measured over the contractual life of marketable debt securities considering relevant issuer specific factors, including, but not limited to, a decrease in credit ratings or an entity's ability to pay.

Trade Accounts Receivable

Trade accounts receivable are recorded at cost less an allowance for expected credit losses that are not expected to be recovered. We maintain allowances for credit losses resulting from the expected failure or inability of our customers to make required payments. We recognize the allowance for expected credit losses at inception and reassess quarterly based on management's expectation of the asset's collectability. Management estimates credit losses on financial assets, including our trade accounts receivable, utilizing a current expected credit loss impairment model. We estimate the expected credit losses, measured over the contractual life of an asset considering relevant historical loss information, credit quality of the customer base, current economic conditions and forecasts of future economic conditions.

In determining the allowance for credit losses, management groups similar types of financial assets with consistent risk characteristics. Pools identified by management include, but are not limited to residential customers, commercial customers and advertising services. The risk characteristics of the financial asset portfolios are monitored by management and reviewed periodically. The forecasts for future economic conditions are based on several factors including, but not limited to, changes in the unemployment rate, external economic forecasts and current collection rates. Our estimates of the allowance for credit losses may not be indicative of our actual credit losses requiring additional charges to be incurred to reflect the actual amount collected.

Inventory

Inventory is stated at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method. The cost of manufactured inventory includes the cost of materials, labor, freight-in, royalties and manufacturing overhead. Net realizable value is calculated as the estimated selling price less reasonable costs necessary to complete, sell, transport and dispose of the inventory.

Property and Equipment

Property and equipment are stated at cost less depreciation and impairment losses, if any. Our set-top boxes are generally capitalized when they are installed in customers' homes. If a satellite were to fail while in-orbit, the resultant loss would be charged to expense in the period such loss was incurred. The amount of any such loss would be reduced to the extent of insurance proceeds estimated to be received, if any. Depreciation is recorded on a straight-line basis over useful lives ranging from two to 40 years. Repair and maintenance costs are charged to expense when incurred. Renewals and improvements that add value or extend the asset's useful life are capitalized. Costs related to the procurement and development of software for internal-use are capitalized and amortized using the straight-line method over the estimated useful life of the software.

Impairment of Long-Lived Assets and Finite-Lived Intangible Assets

We review our long-lived assets and identifiable finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Intangible assets that have finite lives are amortized over their estimated useful lives. For assets which are held and used in operations, the asset would be impaired if the carrying amount of the asset (or asset group) exceeded its undiscounted future net cash flows. Once an impairment is determined, the actual impairment recognized is the difference between the carrying amount and the fair value as estimated using one of the following approaches: income, cost and/or market. Assets which are to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. The carrying amount of a long-lived asset or asset group is considered impaired when the anticipated undiscounted cash flows from such asset or asset group is less than its carrying amount. In that event, a loss is recorded in "Impairment of long-lived assets" on our Consolidated Statements of Operations and Comprehensive Income (Loss) based on the amount by which the carrying amount exceeds the fair value of the long-lived asset or asset group. Fair value, using the income approach, is determined primarily using a discounted cash flow model that uses the estimated cash flows associated with the asset or asset group under review, discounted at a rate commensurate with the risk involved. Fair value, utilizing the cost approach, is determined based on the replacement cost of the asset reduced for, among other things, depreciation and obsolescence. Fair value, utilizing the market approach, benchmarks the fair value against the carrying amount.

DBS Satellites

We currently evaluate our DBS satellite fleet for impairment as one asset group whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. We do not believe any triggering event has occurred which would indicate impairment as of December 31, 2022 and 2021. We will continue to monitor the DBS satellite fleet for indicators of impairment.

Indefinite-Lived Intangible Assets and Goodwill

We do not amortize indefinite-lived intangible assets and goodwill but test these assets for impairment annually during the fourth quarter or more often if indicators of impairment arise. 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 performing the quantitative impairment test. Our intangible assets with indefinite lives primarily consist of FCC licenses. Generally, we have determined that our FCC licenses have indefinite useful lives due to the following:

- FCC licenses are a non-depleting asset;
- existing FCC licenses are integral to our business segments and will contribute to cash flows indefinitely;
- replacement DBS satellite applications are generally authorized by the FCC subject to certain conditions, without substantial cost under a stable regulatory, legislative and legal environment;
- maintenance expenditures to obtain future cash flows are not significant;
- FCC licenses are not technologically dependent; and
- we intend to use these assets indefinitely.

DBS Licenses

We combine all of our indefinite-lived DBS licenses that we currently utilize or plan to utilize in the future into a single unit of accounting. For 2022, 2021 and 2020, management performed a qualitative assessment to determine whether it is more likely than not that the fair value of the DBS licenses exceeds the carrying amount. In our assessment, we considered several factors, including, among others, overall financial performance, industry and market considerations, and relevant company specific events. In contemplating all factors in their totality, we concluded that it is more likely than not that the fair value of the DBS licenses exceeds its carrying amount. As such, no further analysis was required.

Goodwill

Goodwill represents the excess of the consideration transferred over the estimated fair values of assets acquired and liabilities assumed as of the acquisition date.

In conducting our annual impairment test for 2022, 2021 and 2020, we performed a qualitative assessment, which considered several factors, including, among others, macroeconomic conditions, industry and market conditions, and relevant company specific events and perception of the market. In contemplating all factors in their totality, we determined that the fair value was in excess of the carrying amount.

Business Combinations

When we acquire a business, we allocate the purchase price to the various components of the acquisition based upon the fair value of each component using various valuation techniques, including the market approach, income approach and/or cost approach. The accounting standard for business combinations requires identifiable assets, liabilities, noncontrolling interests and goodwill acquired to be recorded at acquisition-date fair values. Transaction costs related to the acquisition of the business are expensed as incurred. Costs associated with the issuance of debt associated with a business combination are capitalized and included as a yield adjustment to the underlying debt's stated rate. Acquired intangible assets other than goodwill are amortized over their estimated useful lives unless the lives are determined to be indefinite. Amortization of these intangible assets in general are recognized on a straight-line basis over an average finite useful life primarily ranging from approximately 13 to 20 years or in relation to the estimated discounted cash flows over the life of the intangible asset.

Long-Term Deferred Revenue and Other Long-Term Liabilities

Certain programmers provide us up-front payments. Such amounts are deferred and recognized as reductions to "Cost of services" on a straight-line basis over the relevant remaining contract term (generally up to ten years). The current and long-term portions of these deferred credits are recorded on our Consolidated Balance Sheets in "Deferred revenue and other" and "Long-term deferred revenue and other long-term liabilities," respectively.

Sales Taxes

We account for sales taxes imposed on our goods and services on a net basis on our Consolidated Statements of Operations and Comprehensive Income (Loss). Since we primarily act as an agent for the governmental authorities, the amount charged to the customer is collected and remitted directly to the appropriate jurisdictional entity.

Income Taxes

We establish a provision for income taxes currently payable or receivable and for income tax amounts deferred to future periods. Deferred tax assets and liabilities are recorded for the estimated future tax effects of differences that exist between the book and tax basis of assets and liabilities. Deferred tax assets are offset by valuation allowances when we believe it is more likely than not that such net deferred tax assets will not be realized.

From time to time, we engage in transactions where the tax consequences may be subject to uncertainty. We record a liability when, in management's judgment, a tax filing position does not meet the more likely than not threshold. For tax positions that meet the more likely than not threshold, we may record a liability depending on management's assessment of how the tax position will ultimately be settled. We adjust our estimates periodically for ongoing examinations by and settlements with various taxing authorities, as well as changes in tax laws, regulations and precedent. We classify interest and penalties, if any, associated with our uncertain tax positions as a component of "Interest expense, net of amounts capitalized" and "Other, net," respectively, on our Consolidated Statements of Operations and Comprehensive Income (Loss).

Fair Value Measurements

We determine fair value based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Market or observable inputs are the preferred source of values, followed by unobservable inputs or assumptions based on hypothetical transactions in the absence of market inputs. We apply the following hierarchy in determining fair value:

- Level 1, defined as observable inputs being quoted prices in active markets for identical assets;
- Level 2, defined as observable inputs other than quoted prices included in Level 1, including quoted prices for similar assets and liabilities in active markets; and quoted prices for identical or similar instruments in markets that are not active; and
- Level 3, defined as unobservable inputs for which little or no market data exists, consistent with reasonably
 available assumptions made by other participants therefore requiring assumptions based on the best information
 available.

As of December 31, 2022 and 2021, the carrying amount for cash and cash equivalents, trade accounts receivable (net of allowance for credit losses) and current liabilities (excluding the "Current portion of long-term debt and finance lease obligations") was equal to or approximated fair value due to their short-term nature or proximity to current market rates. See Note 4 for the fair value of our marketable investment securities.

Fair values for our publicly traded debt securities are based on quoted market prices, when available. The fair values of private debt are based on, among other things, available trade information, and/or an analysis in which we evaluate market conditions, related securities, various public and private offerings, and other publicly available information. In performing this analysis, we make various assumptions regarding, among other things, credit spreads, and the impact of these factors on the value of the debt securities. See Note 8 for the fair value of our long-term debt.

Deferred Debt Issuance Costs and Debt Discounts

Costs of issuing debt, including premiums and discounts relative to par value, are generally deferred and amortized to interest expense using the effective interest rate method over the terms of the respective notes. Any debt discount is deferred and amortized to interest expense using the effective interest rate method over the terms of the respective notes. See Note 8 for further information.

Revenue Recognition

Our revenue is primarily derived from Pay-TV subscriber revenue. We also generate revenue from equipment rental fees and other hardware related fees, including DVRs and fees from subscribers with multiple receivers; advertising services; fees earned from our in-home service operations; warranty services; sales of digital receivers and related equipment to third-party pay-TV providers; satellite uplink and telemetry, tracking and control ("TT&C") services; and revenue from in-home services. See Note 14 for further information, including revenue disaggregated by major source.

Our residential video subscribers contract for individual services or combinations of services, as discussed above, the majority of which are generally distinct and are accounted for as separate performance obligations. We consider our installations for first time DISH TV subscribers to be a service. However, since we provide a significant integration service combining the installation with programming services, we have concluded that the installation is not distinct from programming and thus the installation and programming services are accounted for as a single performance obligation. We generally satisfy these performance obligations and recognize revenue as the services are provided, for example as the programming is broadcast to subscribers, as this best represents the transfer of control of the services to the subscriber.

In cases where a subscriber is charged certain nonrefundable upfront fees, those fees are generally considered to be material rights to the subscriber related to the subscriber's option to renew without having to pay an additional fee upon renewal. These fees are deferred and recognized over the estimated period of time during which the fee remains material to the customer, which we estimate to be less than one year. Revenues arising from our in-home services that are separate from the initial installation, such as mounting a TV on a subscriber's wall, are generally recognized when these services are performed.

For our residential video subscribers, we have concluded that the contract term under Accounting Standard Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606") is one month and as a result the revenue recognized for these subscribers for a given month is equal to the amount billed in that month, except for certain nonrefundable upfront fees that are accounted for as material rights, as discussed above.

Revenues from our advertising services are typically recognized as the advertisements are broadcast. Sales of equipment to subscribers or other third parties are recognized when control is transferred under the contract. Revenue from our commercial video subscribers typically follows the residential model described above, with the exception that the contract term for most of our commercial subscribers exceeds one month and can be multiple years in length. However, commercial subscribers typically do not receive time-limited discounts or free service periods and accordingly, while they may have multiple performance obligations, revenue is equal to the amount billed in a given month.

Contract Balances

The timing of revenue recognition generally differs from the timing of invoicing to customers. When revenue is recognized prior to invoicing, we record a receivable. When revenue is recognized subsequent to invoicing, we record deferred revenue. Our residential video subscribers are typically billed monthly, and the contract balances for those customers arise from the timing of the monthly billing cycle. We do not adjust the amount of consideration for financing impacts as we apply a practical expedient when we anticipate that the period between transfer of goods and services and eventual payment for those goods and services will be less than one year. See Note 15 for further information, including balance and activity detail about our allowance for credit losses and deferred revenue related to contracts with subscribers.

Assets Recognized Related to the Costs to Obtain a Contract with a Subscriber

We recognize an asset for the incremental costs of obtaining a contract with a subscriber if we expect the benefit of those costs to be longer than one year. We have determined that certain sales incentive programs, including those with our independent third-party retailers, meet the requirements to be capitalized, and payments made under these programs are capitalized and amortized to expense over the estimated subscriber life. During the years ended December 31, 2022, 2021 and 2020, we capitalized \$87 million, \$117 million and \$162 million, respectively, under these programs. The amortization expense related to these programs was \$155 million, \$158 million and \$123 million for the years ended December 31, 2022, 2021 and 2020, respectively. As of December 31, 2022 and 2021, we had a total of \$230 million and \$298 million, respectively, capitalized on our Consolidated Balance Sheets. These amounts are capitalized in "Other current assets" and "Other noncurrent assets, net" on our Consolidated Balance Sheets, and then amortized in "Selling, general and administrative expenses" on our Consolidated Statements of Operations and Comprehensive Income (Loss).

Leases

We enter into non-cancelable operating and finance leases for, among other things, satellites, office space, warehouses and distribution centers, vehicles and other equipment. Our leases have remaining lease terms from one to nine years, some of which include renewal options, and some of which include options to terminate the leases within one year. For certain arrangements, the lease term includes the non-cancelable period plus the renewal period that we are reasonably certain to exercise.

We determine if an arrangement is a lease and classify that lease as either an operating or finance lease at inception. Operating leases are included in "Operating lease assets," "Other accrued expenses" and "Operating lease liabilities" on our Consolidated Balance Sheets. Finance leases are included in "Property and equipment, net," "Current portion of 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 not recorded on the balance sheet and we recognize lease expense for these leases on a straight-line basis over the lease term on our Consolidated Statements of Operations and Comprehensive Income (Loss). See Note 7 for further information on our lease expenses.

Right of use ("ROU") assets represent our right to use an underlying asset for the lease term and lease liabilities represent the present value of our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. When our leases do not provide an implicit rate, we use our IBR based on the information available at commencement date in determining the present value of lease payments. Our IBR is based on an estimated secured rate plus a credit spread as secured by our assets. The operating lease ROU asset also includes the impact of prepaid or deferred lease payments. The length of our lease term may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for operating lease payments is recognized on a straight-line basis over the lease term.

We have lease agreements with lease and non-lease components, which are generally accounted for separately. Our variable lease payments are immaterial and our lease agreements do not contain any material residual value guarantees or material restrictive covenants.

DISH TV subscribers have the choice of leasing or purchasing the satellite receiver and other equipment necessary to receive our DISH TV services. Most of our new DISH TV subscribers choose to lease equipment and thus we retain title to such equipment. Equipment leased to new and existing DISH TV subscribers is capitalized and depreciated over their estimated useful lives.

For equipment leased to new and existing DISH TV subscribers, we made an accounting policy election to combine the equipment with our programming services as a single performance obligation in accordance with the revenue recognition guidance as the programming services are the predominant component. The revenue related to equipment leased to new and existing DISH TV subscribers would have otherwise been accounted for as an operating lease.

Cost of Services

"Cost of services" on our Consolidated Statements of Operations and Comprehensive Income (Loss) principally includes Pay-TV programming expenses and other operating costs related to our Pay-TV services.

The cost of television programming distribution rights is generally incurred on a per subscriber basis and various upfront carriage payments are recognized when the related programming is distributed to subscribers. Long-term flat rate programming contracts are generally charged to expense using the straight-line method over the term of the agreement. The cost of television programming rights to distribute live sporting events for a season or tournament is charged to expense using the straight-line method over the course of the season or tournament.

Cost of Sales - Equipment and Other

"Cost of sales – equipment and other" on our Consolidated Statements of Operations and Comprehensive Income (Loss) principally includes the cost of non-subsidized sales of Pay-TV equipment. Costs are generally recognized as products are delivered to customers and the related revenue is recognized.

Advertising Costs

We recognize advertising expense when incurred as a component of "Selling, general and administrative expenses" on our Consolidated Statements of Operations and Comprehensive Income (Loss). Advertising expenses totaled \$480 million, \$431 million and \$432 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Research and Development

Research and development costs are expensed as incurred and are included as a component of "Selling, general and administrative expenses" on our Consolidated Statements of Operations and Comprehensive Income (Loss). Research and development costs totaled \$45 million, \$29 million and \$24 million for the years ended December 31, 2022, 2021 and 2020, respectively.

New Accounting Pronouncements

We do not expect that any recently issued accounting pronouncements will have a material effect on our consolidated financial statements.

3. Supplemental Data - Statements of Cash Flows

The following table presents certain supplemental cash flow and other non-cash data. See Note 7 for supplemental cash flow and non-cash data related to leases.

	For the Years Ended December 31,					
	2022		2021		2020	
	 	(In	thousands)			
Cash paid for interest	\$ 899,382	\$	636,934	\$	632,506	
Cash received for interest	20,967		4,263		3,548	
Cash paid for income taxes	31,896		38,411		22,968	
Cash paid for income taxes to DISH Network	489,819		562,268		473,793	
Vendor financing	_		164		_	

Our parent, DISH Network, provides a centralized system for the management of our cash and marketable investment securities as it does for all of its subsidiaries to, among other reasons, maximize yield of the portfolio. As a result, the cash and marketable investment securities included on our Consolidated Balance Sheets are a component or portion of the overall cash and marketable investment securities portfolio included on DISH Network's Consolidated Balance Sheets and are managed by DISH Network. We are reflecting the purchases and sales of marketable investment securities on a net basis for each period presented on our Consolidated Statements of Cash Flows as we believe the net presentation is more meaningful to our cash flows from investing activities.

4. Marketable Investment Securities, Restricted Cash and Cash Equivalents, and Other Investment Securities

Our marketable investment securities, restricted cash and cash equivalents, and other investment securities consisted of the following:

2021
ls)
1,670,739
55,027
99,606
1,825,372

Restricted marketable investment securities and restricted cash and cash equivalents are included in "Restricted cash, cash equivalents and marketable investment securities" on our Consolidated Balance Sheets.

Marketable Investment Securities

Our marketable investment securities portfolio may consist of debt and equity instruments. All equity securities are carried at fair value, with changes in fair value recognized in "Other, net" within "Other Income (Expense)" on our Consolidated Statements of Operations and Comprehensive Income (Loss). All debt securities are classified as available-for-sale and are recorded at fair value. We report the temporary unrealized gains and losses related to changes in market conditions of marketable debt securities as a separate component of "Accumulated other comprehensive income (loss)" within "Stockholder's Equity (Deficit)," net of related deferred income tax on our Consolidated Balance Sheets. The corresponding changes in the fair value of marketable debt securities, which are determined to be company specific credit losses are recorded in "Other, net" within "Other Income (Expense)" on our Consolidated Statements of Operations and Comprehensive Income (Loss). See Note 2 for further information.

Current Marketable Investment Securities

Our current marketable investment securities portfolio can include investments in various debt instruments including, among others, commercial paper, corporate securities and United States treasury and/or agency securities.

Commercial paper consists mainly of unsecured short-term, promissory notes issued primarily by corporations with maturities ranging up to 365 days. Corporate securities consist of debt instruments issued by corporations with various maturities normally less than 18 months. U.S. Treasury and agency securities consist of debt instruments issued by the federal government and other government agencies.

Restricted Cash, Cash Equivalents and Marketable Investment Securities

As of December 31, 2022 and 2021, our restricted marketable investment securities, together with our restricted cash and cash equivalents, included amounts required as collateral for our letters of credit and trusts.

Other Investment Securities

We have strategic investments in certain debt and/or equity securities that are included in noncurrent "Other investment securities" on our Consolidated Balance Sheets. Our debt securities are classified as available-for-sale and our equity securities are accounted for using the equity method of accounting or recorded at fair value. Certain of our equity method investments are detailed below.

NagraStar L.L.C. We own a 50% interest in NagraStar L.L.C. ("NagraStar"), a joint venture that is our primary provider of encryption and related security systems intended to assure that only authorized customers have access to our programming.

Invidi Technologies Corporation. In November 2016, we, AT&T Inc., and Cavendish Square Holding B.V., an affiliate of WPP plc, entered into a series of agreements to acquire Invidi Technologies Corporation ("Invidi"), an entity that provides proprietary software for the addressable advertising market.

Our ability to realize value from our strategic investments in securities that are not publicly traded depends on, among other things, the success of the issuers' businesses and their ability to obtain sufficient capital, on acceptable terms or at all, and to execute their business plans. Because private markets are not as liquid as public markets, there is also increased risk that we will not be able to sell these investments, or that when we desire to sell them, we will not be able to obtain fair value for them.

Fair Value Measurements

Our investments measured at fair value on a recurring basis were as follows:

		As of December 31,									
		20)22		2021						
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3			
				(In th	nousands)						
Cash equivalents (including restricted)	\$ 650,523	\$ 99,437	\$ 551,086	<u> </u>	\$ 1,404,505	\$ 60,085	\$ 1,344,420	<u>\$</u>			
Debt securities (including restricted):											
U.S. Treasury and agency securities	\$ 7,727	\$ 7,727	s —	\$ —	\$ —	\$ —	\$ —	\$ —			
Commercial paper	227,787	_	227,787	_	1,413,134	_	1,413,134	_			
Corporate securities	46,764	_	46,764	_	254,631	_	254,631	_			
Other	455		455		2,974		2,974				
Total	\$ 282,733	\$ 7,727	\$ 275,006	\$	\$ 1,670,739	\$ —	\$ 1,670,739	\$ —			

As of December 31, 2022, restricted and non-restricted marketable investment securities included debt securities of \$283 million with contractual maturities within one year. Actual maturities may differ from contractual maturities as a result of our ability to sell these securities prior to maturity.

Gains and Losses on Sales and Changes in Carrying Amounts of Investments and Other

"Other, net" within "Other Income (Expense)" included on our Consolidated Statements of Operations and Comprehensive Income (Loss) is as follows:

		For the Years Ended December 31,							
Other, net:	_	2022		2021		2020			
			(In	thousands)					
Costs related to early redemption of debt	\$	(922)	\$	(3,587)	\$	_			
Equity in earnings (losses) of affiliates		4,112		2,520		653			
Other		1,276		247		1,033			
Total	\$	4,466	\$	(820)	\$	1,686			

5. Inventory

Inventory consisted of the following:

		As of December 31,					
	2	2022					
		(In tho	usands)				
Finished goods	\$	252,939	\$	246,723			
Work-in-process and service repairs		19,351		19,074			
Raw materials		35,121		26,302			
Total inventory	\$	307,411	\$	292,099			

6. Property and Equipment and Intangible Assets

Property and Equipment

Property and equipment consisted of the following:

	Depreciable			
	Life		As of Dece	mber 31,
	(In Years)	2022		2021
			(In thou	sands)
Equipment leased to customers	2-5	\$	1,309,737	1,518,880
EchoStar XV	15		277,658	277,658
EchoStar XVIII	15		411,255	411,255
Satellites acquired under finance lease agreements	15		174,685	398,107
Furniture, fixtures, equipment and other	2-20		1,054,619	1,047,966
Software	3-5		859,911	834,644
Buildings and improvements	5-40		295,375	292,840
Land	-		12,505	12,505
Construction in progress	-		35,326	37,339
Total property and equipment			4,431,071	4,831,194
Accumulated depreciation			(3,440,185)	(3,598,014)
Property and equipment, net		\$	990,886	1,233,180

Depreciation and amortization expense consisted of the following:

	For the Years Ended December 31,							
	2022		2021			2020		
			(In	thousands)				
Equipment leased to customers	\$	191,712	\$	244,735	\$	290,006		
Satellites		84,016		95,187		95,187		
Buildings, furniture, fixtures, equipment and other		78,633		99,082		119,445		
Total depreciation and amortization	\$	354,361	\$	439,004	\$	504,638		

Cost of sales and operating expense categories included in our accompanying Consolidated Statements of Operations and Comprehensive Income (Loss) do not include depreciation expense related to satellites or equipment leased to customers.

Satellites

We currently utilize ten satellites in geostationary orbit approximately 22,300 miles above the equator, two of which we own and depreciate over their estimated useful life. We currently utilize certain capacity on five satellites that we lease from DISH Network and, one satellite that we lease from EchoStar, which are accounted for as operating leases, except for Nimiq 5 which is accounted for as a financing lease and is depreciated over its economic life. We also lease two satellites from third parties: the Ciel II satellite, which is accounted for as an operating lease and the Anik F3 satellite, which was accounted for as a finance lease until April 2022 and was fully depreciated. During April 2022, we extended the Anik F3 lease and as a result it is currently accounted for as an operating lease.

As of December 31, 2022, our pay-TV satellite fleet consisted of the following:

		Degree	
	Launch	Orbital	Lease
Satellites	Date	Location	Termination Date
Owned:			
EchoStar XV	July 2010	61.5	N/A
EchoStar XVIII	June 2016	61.5	N/A
Leased from EchoStar:			
EchoStar IX	August 2003	121	December 2022
Leased from DISH Network (1):			
EchoStar X	February 2006	110	February 2024
EchoStar XI	July 2008	110	September 2023
EchoStar XIV	March 2010	119	February 2024
EchoStar XVI	November 2012	61.5	January 2024
Nimiq 5	September 2009	72.7	September 2023
Leased from Other Third Party:			
Anik F3 (2)	April 2007	118.7	April 2025
Ciel II	December 2008	129	July 2023

- (1) See Note 17 for further information on our Related Party Transactions with DISH Network.
- (2) During April 2022, we extended the Anik F3 satellite lease for an additional two years with an option to renew for one additional year to April 2025.

EchoStar XXIII, which is owned by DISH Network, commenced commercial operations at the 110 degree orbital location on February 15, 2023. At that time, we began leasing EchoStar XXIII from DISH Network replacing EchoStar XI, which became an in-orbit spare.

Satellite Anomalies

Operation of our DISH TV services requires that we have adequate satellite transmission capacity for the programming that we offer. 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 owned or leased satellites and use it as a replacement for the failed or lost satellite. Such a failure could result in a prolonged loss of critical programming or a significant delay in our plans to expand programming as necessary to remain competitive and thus may have a material adverse effect on our business, financial condition and results of operations.

In the past, certain of our owned and leased satellites have experienced anomalies, some of which have had a significant adverse impact on their remaining useful life and/or commercial operation. There can be no assurance that future anomalies will not impact the remaining useful life and/or commercial operation of any of the owned and leased satellites in our fleet. See Note 2 for further information on evaluation of impairment. There can be no assurance that we can recover critical transmission capacity in the event one or more of our owned or leased in-orbit satellites were to fail. We generally do not carry commercial launch or in-orbit insurance on any of the satellites that we own and therefore, we will bear the risk associated with any uninsured launch or in-orbit satellite failures.

Intangible Assets

As of December 31, 2022 and 2021, our identifiable intangibles subject to amortization consisted of the following:

As of December 31, 2021 2022 Intangible Accumulated Intangible Accumulated **Assets** Amortization **Assets** Amortization (In thousands) Technology-based 58,162 (55,079) \$ 58,162 (54,535)Trademarks 18,251 (17,050)18,251 (16,928)Contract-based 4,500 4,500 (4,500)(4,500)(23,632)(23,632)Customer relationships 23,632 23,632 104,545 (100,261)104,545 (99.595)**Total**

These identifiable intangibles are included in "Other noncurrent assets, net" on our Consolidated Balance Sheets. Amortization of these intangible assets is recorded on a straight-line basis over an average finite useful life primarily ranging from approximately 13 to 20 years. Amortization was \$1 million, \$1 million and \$3 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Estimated future amortization of our identifiable intangible assets as of December 31, 2022 is as follows (in thousands):

For the Years Ended December 31,

2023	\$ 654
2024	654
2025	654
2026	654
2027	654
Thereafter	1,014
Total	\$ 4,284

As of December 31, 2022 and 2021, we had goodwill of \$6 million, which is included in "Other noncurrent assets, net" on our Consolidated Balance Sheets.

FCC Authorizations

As of December 31, 2022 and 2021, our FCC Authorizations consisted of the following:

		As of December 31,						
	2022			2021				
		(In the	ousands)					
DBS Licenses	\$	611,794	\$	611,794				
Total	\$	611,794	\$	611,794				

7. Leases

We enter into non-cancelable operating and finance leases for, among other things, satellites, office space, warehouses and distribution centers, vehicles and other equipment. Our leases have remaining lease terms from one to nine years, some of which include renewal options, and some of which include options to terminate the leases within one year. For certain arrangements, the lease term includes the non-cancelable period plus the renewal period that we are reasonably certain to exercise.

During the fourth quarter of 2021, our QuetzSat-1 operating lease expired. Through the first quarter of 2022, our Anik F3 satellite was accounted for as a finance lease. However, during April 2022, we extended our Anik F3 lease and as a result, it is currently accounted for as an operating lease. Nimiq 5 is accounted for as a finance lease. Substantially all of our remaining leases are accounted for as operating leases, including the remainder of our satellite fleet.

The components of lease expense were as follows:

	For the Years Ended December 31,						
	2022		2021		2020		
	 	(In	thousands)				
Operating lease cost (1)	\$ 166,599	\$	217,635	\$	246,523		
Short-term lease cost (1)(2)	74,514		33,456		11,409		
Finance lease cost:							
Amortization of right-of-use assets (3)	38,322		49,496		49,496		
Interest on lease liabilities (3)	8,566		13,122		17,595		
Total finance lease cost (3)	 46,888		62,618		67,091		
Total lease costs	\$ 288,001	\$	313,709	\$	325,023		

- (1) The decrease in operating lease cost primarily related to the QuetzSat-1 lease, which expired in November 2021. In addition, our EchoStar XI and EchoStar X satellites were reclassified to "Short-term lease costs."
- (2) Leases that have terms of 12 months or less.
- (3) The decrease in finance lease cost is primarily related to the Anik F3 finance lease which was extended in April 2022 and as a result is currently accounted for as an operating lease.

Supplemental cash flow information related to leases was as follows:

	For the Years Ended December 31,						
		2022		2021		2020	
			(In t	thousands)			
Cash paid for amounts included in the measurement of lease liabilities:							
Operating cash flows from operating leases	\$	138,318	\$	213,135	\$	247,413	
Operating cash flows from finance leases	\$	6,733	\$	13,002	\$	17,595	
Financing cash flows from finance leases	\$	31,030	\$	51,608	\$	49,231	
Right-of-use assets obtained in exchange for lease obligations:							
Operating leases	\$	74,317	\$	22,780	\$	37,899	
Finance leases	\$	_	\$	_	\$		

Supplemental balance sheet information related to leases was as follows:

	As of December 31,				
	 2022	2021			
	 (In tho	usands))		
Operating Leases:					
Operating lease assets	\$ 130,454	\$	220,089		
Other current liabilities	\$ 60,203	\$	139,492		
Operating lease liabilities	 75,142		83,725		
Total operating lease liabilities	\$ 135,345	\$	223,217		
Finance Leases:					
Property and equipment, gross	\$ 175,704	\$	399,126		
Accumulated depreciation	 (115,469)		(300,569)		
Property and equipment, net	\$ 60,235	\$	98,557		
Other current liabilities	\$ 38,102	\$	39,957		
Other long-term liabilities	 31,104		69,207		
Total finance lease liabilities	\$ 69,206	\$	109,164		
Weighted Average Remaining Lease Term:					
Operating leases	3.7 years		3.0 years		
Finance leases	1.8 years		2.6 years		
Weighted Average Discount Rate:					
Operating leases	7.2%		8.2%		
Finance leases	10.0%		9.9%		

Maturities of lease liabilities as of December 31, 2022 were as follows:

	Maturities of Lease Liabilities							
For the Years Ending December 31,		Operating Leases		Finance Leases (In thousands)	_	Total		
2023	\$	66,536	\$	42.950	\$	109,486		
2024		33,037		32,146		65,183		
2025		18,509		´ —		18,509		
2026		11,058		_		11,058		
2027		6,814		_		6,814		
Thereafter		23,408		_		23,408		
Total lease payments		159,362		75,096		234,458		
Less: Imputed interest		(24,017)		(5,890)		(29,907)		
Total		135,345		69,206		204,551		
Less: Current portion		(60,203)		(38,102)		(98,305)		
Long-term portion of lease obligations	\$	75,142	\$	31,104	\$	106,246		

8. Long-Term Debt and Finance Lease Obligations

Fair Value of our Long-Term Debt

The following table summarizes the carrying amount and fair value of our debt facilities as of December 31, 2022 and 2021:

	As of December 31,							
	2022			2021				
	Carrying					Carrying		
		Amount		Fair Value		Amount		Fair Value
			(In thousands)					
5 7/8% Senior Notes due 2022 (1)	\$	_	\$	_	\$	2,000,000	\$	2,039,700
5% Senior Notes due 2023 (2)		1,443,179		1,441,635		1,500,000		1,541,670
5 7/8% Senior Notes due 2024		2,000,000		1,870,940		2,000,000		2,060,180
7 3/4% Senior Notes due 2026		2,000,000		1,620,280		2,000,000		2,122,700
5 1/4% Senior Secured Notes due 2026 (3)		2,750,000		2,336,813		2,750,000		2,792,900
7 3/8% Senior Notes due 2028		1,000,000		708,320		1,000,000		1,017,060
5 3/4% Senior Secured Notes due 2028 (3)		2,500,000		2,013,675		2,500,000		2,520,650
5 1/8% Senior Notes due 2029		1,500,000		976,755		1,500,000		1,365,645
Other notes payable		18,329		18,329		21,012		21,012
Subtotal		13,211,508	\$	10,986,747		15,271,012	\$	15,481,517
Unamortized deferred financing costs and debt								
discounts, net		(35,206)				(42,547)		
Finance lease obligations (4)		69,206				109,164		
Total long-term debt and finance lease								
obligations (including current portion)	\$	13,245,508			\$	15,337,629		

- (1) As of July 15, 2022, we had repurchased or redeemed the principal balance of our 5 7/8% Senior Notes due 2022.
- (2) During the year ended December 31, 2022, we repurchased approximately \$57 million of our 5% Senior Notes due 2023 in open market trades. The remaining balance of approximately \$1.443 billion matured and was redeemed on March 15, 2023. Our 5 % Senior Notes due 2023 had been reclassified to "Current portion of long-term debt and finance lease obligations" on our Consolidated Balance Sheets as of December 31, 2022.
- (3) The net proceeds from the offering of our Senior Secured Notes (defined herein) were used to make an intercompany loan to DISH Network pursuant to a Loan and Security Agreement dated November 26, 2021 (together with potential future advances to DISH Network, the "Intercompany Loan") between us and DISH Network in order to finance the purchase of wireless spectrum licenses and for general corporate purposes, including the buildout of wireless infrastructure. See Note 17 Related Party Transactions for further information.
- (4) Disclosure regarding fair value of finance leases is not required.

We estimated the fair value of our publicly traded long-term debt using market prices in less active markets (Level 2).

Unsecured Senior Notes

Our Senior Notes are:

- general unsecured senior obligations of DISH DBS;
- ranked equally in right of payment with all of DISH DBS' and the guarantors' existing and future unsecured senior debt; and
- ranked effectively junior to our and the guarantors' current and future secured senior indebtedness up to the value
 of the collateral securing such indebtedness.

The indentures related to our Senior Notes contain restrictive covenants that, among other things, impose limitations on the ability of DISH DBS and its restricted subsidiaries to:

- incur additional debt;
- pay dividends or make distributions on DISH DBS' capital stock or repurchase DISH DBS' capital stock;
- make certain investments;
- create liens or enter into sale and leaseback transactions;
- enter into transactions with affiliates;
- merge or consolidate with another company; and
- transfer or sell assets.

In the event of a change of control, as defined in the related indentures, we would be required to make an offer to repurchase all or any part of a holder's Senior Notes at a purchase price equal to 101% of the aggregate principal amount thereof, together with accrued and unpaid interest thereon, to the date of repurchase.

5% Senior Notes due 2023

On December 27, 2012, we issued \$1.5 billion aggregate principal amount of our 5% Senior Notes due March 15, 2023. On May 9, 2013, we completed an exchange offer in which we exchanged substantially all of the notes for a like principal amount of notes with identical terms, except that such new notes have been registered under the Securities Act. We did not receive any proceeds in the exchange offer. Interest accrues at an annual rate of 5% and is payable semi-annually in cash, in arrears on March 15 and September 15 of each year.

The 5% Senior Notes are redeemable, in whole or in part, at any time at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest.

5 7/8% Senior Notes due 2024

On November 20, 2014, we issued \$2.0 billion aggregate principal amount of our ten-year 5 7/8% Senior Notes due November 15, 2024. On January 29, 2015, we completed an exchange offer in which we exchanged substantially all of the notes for a like principal amount of notes with identical terms, except that such new notes have been registered under the Securities Act. We did not receive any proceeds in the exchange offer. Interest accrues at an annual rate of 5 7/8% and is payable semi-annually in cash, in arrears on May 15 and November 15 of each year.

The 5 7/8% Senior Notes due 2024 are redeemable, in whole or in part, at any time at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest.

7 3/4% Senior Notes due 2026

On June 13, 2016, we issued \$2.0 billion aggregate principal amount of our ten-year 7 3/4% Senior Notes due July 1, 2026. On October 3, 2016, we completed an exchange offer in which we exchanged substantially all of the notes for a like principal amount of notes with identical terms, except that such new notes have been registered under the Securities Act. We did not receive any proceeds in the exchange offer. Interest accrues at an annual rate of 7 3/4% and is payable semi-annually in cash, in arrears on January 1 and July 1 of each year.

The 7 3/4% Senior Notes are redeemable, in whole or in part, at any time at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest.

7 3/8% Senior Notes due 2028

On July 1, 2020, we issued \$1.0 billion aggregate principal amount of our 7 3/8% Senior Notes due July 1, 2028. On September 29, 2020, we completed an exchange offer in which we exchanged substantially all of the notes for a like principal amount of notes with identical terms, except that such new notes have been registered under the Securities Act. We did not receive any proceeds in the exchange offer. Interest accrues at an annual rate of 7 3/8% and is payable semi-annually in cash, in arrears on January 1 and July 1 of each year.

The 7 3/8% Senior Notes are redeemable, in whole or in part, at any time prior to July 1, 2023 at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest. On or after July 1, 2023, we may redeem the Notes, in whole or in part, at any time at the redemption prices specified under the related indenture, together with accrued and unpaid interest. Prior to July 1, 2023, we may also redeem up to 35% of the 7 3/8% Senior Notes at a specified premium with the net cash proceeds from certain equity offerings or capital contributions.

5 1/8% Senior Notes due 2029

On May 24, 2021, we issued \$1.5 billion aggregate principal amount of our 5 1/8% Senior Notes due June 1, 2029. On August 30, 2021, we completed an exchange offer in which we exchanged substantially all of the notes for a like principal amount of notes with identical terms, except that such new notes have been registered under the Securities Act. We did not receive any proceeds in the exchange offer. 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.

The 5 1/8% Senior Notes are redeemable, in whole or in part, at any time at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest. Prior to June 1, 2024, we may also redeem up to 35% of the 5 1/8% Senior Notes at a specified premium with the net cash proceeds from certain equity offerings or capital contributions.

Senior Secured Notes

Our Senior Secured Notes are:

- general senior secured obligations of DISH DBS;
- secured by security interests in substantially all existing and future tangible and intangible assets of DISH DBS and its principal operating subsidiaries on a first priority basis, subject to certain exceptions;
- ranked equally in right of payment with all of DISH DBS' and the guarantors' existing and future senior debt;
- ranked senior in right of payment and effectively senior to any of DISH DBS' and the guarantors' junior lien or
 unsecured debt to the extent of the value of the pledged collateral that secures the Senior Secured Notes; and
- ranked effectively junior to DISH DBS' and the guarantors' obligations that are secured by assets that are not part of the pledged collateral that secures the Senior Secured Notes, to the extent of the value of such assets.

The indenture related to our Senior Secured Notes contain restrictive covenants that, among other things, impose limitations on the ability of DISH DBS and its restricted subsidiaries to:

- incur additional debt;
- pay dividends or make distributions on DISH DBS' capital stock or repurchase DISH DBS' capital stock;
- make certain investments;
- create liens or enter into sale and leaseback transactions;
- enter into transactions with affiliates;
- merge or consolidate with another company; and
- transfer or sell assets.

In the event of a change of control, as defined in the related indenture, we would be required to make an offer to repurchase all or any part of a holder's Senior Secured Notes at a purchase price equal to 101% of the aggregate principal amount thereof, together with accrued and unpaid interest thereon, to the date of repurchase.

The net proceeds from the offering of our Senior Secured Notes were used to make an intercompany loan to DISH Network pursuant to a Loan and Security Agreement dated November 26, 2021 (together with future advances to DISH Network, the "Intercompany Loan") between us and DISH Network in order to finance the potential purchase of wireless spectrum licenses and for general corporate purposes, including the buildout of wireless infrastructure. We may make additional advances to DISH Network under the Intercompany Loan, and on February 11, 2022, we advanced an additional \$1.5 billion to DISH Network under the Intercompany Loan. The Intercompany Loan is secured by (i) the cash proceeds of the loan and (ii) an interest in any wireless spectrum licenses acquired using such proceeds. In certain cases, DISH Network wireless spectrum licenses (valued based upon a third-party valuation) may be substituted for the collateral. The Intercompany Loan is not included as collateral for the Senior Secured Notes, and the Senior Secured Notes are subordinated to our existing and certain future unsecured notes with respect to certain realizations under the Intercompany Loan and any collateral pledged as security for the Intercompany Loan.

The initial cash proceeds of the Intercompany Loan were paid to the FCC by DISH Network in connection with DISH Network's wholly-owned subsidiary Weminuche L.L.C.'s ("Weminuche") winning bids in the FCC's auction for the Flexible-Use Service Licenses in the 3.45–3.55 GHz band ("Auction 110"). As a result, the Intercompany Loan is secured by Weminuche's interest in the wireless spectrum licenses acquired in Auction 110 with such cash proceeds.

5 1/4% Senior Secured Notes due 2026

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.

The 5 1/4% Senior Secured Notes due 2026 are redeemable, in whole or in part, at any time prior to June 1, 2026 (the "2026 Par Call Date") at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest. At any time on or after the 2026 Par Call Date, we may redeem the 5 1/4% Senior Secured Notes due 2026, in whole at any time or in part from time to time, at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest, if any, to the redemption date. Prior to December 1, 2024, we may also redeem up to 35% of the 5 1/4% Senior Secured Notes due 2026 at a specified premium with the net cash proceeds from certain equity offerings or capital contributions. At any time and from time to time during the 36-month period following the issue date of the 5 1/4% Senior Secured Notes due 2026, we may redeem up to 10% of the aggregate principal amount during each 12-month period commencing with the issue date at a redemption price of 103% of the aggregate principal amount thereof plus accrued and unpaid interest, if any, to, but excluding, the redemption date.

5 3/4% Senior Secured Notes due 2028

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.

The 5 3/4% Senior Secured Notes due 2028 are redeemable, in whole or in part, at any time prior to December 1, 2027 (the "2028 Par Call Date") at a redemption price equal to 100% of the principal amount plus a "make-whole" premium, as defined in the related indenture, together with accrued and unpaid interest. At any time on or after the 2028 Par Call Date, we may redeem the 5 3/4% Senior Secured Notes due 2028, in whole at any time or in part from time to time, at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest, if any, to the redemption date. Prior to December 1, 2024, we may also redeem up to 35% of the 5 3/4% Senior Secured Notes due 2028 at a specified premium with the net cash proceeds from certain equity offerings or capital contributions. At any time and from time to time during the 36-month period following the issue date of the 5 3/4% Senior Secured Notes due 2028, we may redeem up to 10% of the aggregate principal amount during each 12-month period commencing with the issue date at a redemption price of 103% of the aggregate principal amount thereof plus accrued and unpaid interest, if any, to, but excluding, the redemption date.

Interest on Long-Term Debt

	Semi-Annual Payment Dates	Annual Debt Service Requirements (In thousands)		
5% Senior Notes due 2023 (1)	March 15 and September 15	\$	75,000	
5 7/8% Senior Notes due 2024	May 15 and November 15	\$	117,500	
7 3/4% Senior Notes due 2026	January 1 and July 1	\$	155,000	
5 1/4% Senior Secured Notes due 2026	June 1 and December 1	\$	144,375	
7 3/8% Senior Notes due 2028	January 1 and July 1	\$	73,750	
5 3/4% Senior Secured Notes due 2028	June 1 and December 1	\$	143,750	
5 1/8% Senior Notes due 2029	June 1 and December 1	\$	76,875	

(1) Our 5% Senior Notes due 2023 matured and were redeemed on March 15, 2023 and had been reclassified to "Current portion of long-term debt and finance lease obligations" on our Consolidated Balance Sheets as of December 31, 2022.

Our ability to meet our debt service requirements will depend on, among other factors, the successful execution of our business strategy, which is subject to uncertainties and contingencies beyond our control.

Other Long-Term Debt and Finance Lease Obligations

Other long-term debt and finance lease obligations consisted of the following:

	As of December 31,						
	2022 2021						
		(In tho	n thousands)				
Satellites and other finance lease obligations	\$	69,206	\$	109,164			
Notes payable related to satellite vendor financing and other debt payable in installments							
through 2031 with interest rates ranging from approximately 4.0% to 6.0%		18,329		21,012			
Total		87,535		130,176			
Less: current portion		(40,922)		(42,641)			
Other long-term debt and finance lease obligations, net of current portion	\$	46,613	\$	87,535			

Finance Lease Obligations

Anik F3. Anik F3, an FSS satellite, was launched and commenced commercial operation in April 2007. This satellite is was previously accounted for as a finance lease and depreciated over the term of the satellite service agreement. We leased 100% of the Ku-band capacity on Anik F3 for an initial period of 15 years. During April 2022, we extended the Anik F3 lease and as a result it is currently accounted for as an operating lease.

Nimiq 5. On May 19, 2019, DISH Network entered into a Master Transaction Agreement pursuant to which, on September 10, 2019, the satellite service agreement for Nimiq 5 was transferred to DISH Network and we began leasing it from an indirect wholly-owned subsidiary of DISH Network. Nimiq 5 was launched in September 2009 and commenced commercial operation at the 72.7 degree west longitude orbital location during October 2009. This satellite is accounted for as a finance lease and depreciated over the term of the satellite service agreement which includes options to extend the lease that we are reasonably certain to exercise. We lease 100% of the capacity on Nimiq 5, and this lease expires in September 2023. See Note 17 for further information.

The summary of future maturities of our outstanding long-term debt as of December 31, 2022 is included in the commitments table in Note 12.

Future Liquidity

We have made cash distributions and the Intercompany Loan to partially finance the development of DISH Network's 5G Network Deployment, including, but not limited to, the purchase of wireless spectrum licenses and the retail wireless business to date, and we may make additional funds available to DISH Network in the form of cash distributions or loans to finance, in whole or in part, DISH Network's future efforts. These factors, including, but not limited to, debt maturities, continuing investment in our business, financing acquisitions and other strategic transactions, may require us to raise additional capital in the future which may not be available on acceptable terms, or at all.

9. Income Taxes and Accounting for Uncertainty in Income Taxes

Income Taxes

DISH DBS and its domestic subsidiaries join with DISH Network in filing U.S. consolidated federal income tax returns and, in some states, combined or consolidated returns. The federal and state income tax provisions or benefits recorded by DISH DBS are generally those that would have been recorded if DISH DBS and its domestic subsidiaries had filed returns as a consolidated group independent of DISH Network. Cash is due and paid to DISH Network based on amounts that would be payable based on DISH DBS consolidated or combined group filings. Amounts are receivable from DISH Network on a basis similar to when they would be receivable from the IRS or other state taxing authorities. The amounts paid to DISH Network during the years ended December 31, 2022, 2021 and 2020 were \$490 million, \$562 million and \$474 million, respectively.

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 on our Consolidated Balance Sheets, as well as probable operating loss, tax credit and other carryforwards. Deferred tax assets are offset by valuation allowances when we believe it is more likely than not that net deferred tax assets will not be realized. We periodically evaluate our need for a valuation allowance. Determining necessary valuation allowances requires us to make assessments about historical financial information as well as the timing of future events, including the probability of expected future taxable income and available tax planning opportunities.

As of December 31, 2022, we had no net operating loss carryforwards ("NOLs") for federal and state income tax purposes. In addition, there are \$10 million of tax benefits related to credit carryforwards which are fully offset by a valuation allowance. Portions of the credit carryforwards will begin to expire in 2023.

The components of the (benefit from) provision for income taxes were as follows:

	For the Years Ended December 31,								
	2022			2021		2020			
			(I	n thousands)					
Current (benefit) provision:									
Federal	\$	572,754	\$	486,736	\$	394,824			
State		133,475		106,594		88,449			
Foreign		(4,255)		2,387		3,971			
Total current (benefit) provision		701,974		595,717		487,244			
Deferred (benefit) provision:									
Federal		(95,995)		(31,424)		14,327			
State		(20,720)		(7,090)		(2,161)			
Increase (decrease) in valuation allowance		_		(2,790)		948			
Total deferred (benefit) provision		(116,715)		(41,304)		13,114			
Total (benefit) provision	\$	585,259	\$	554,413	\$	500,358			

Our \$2.396 billion of "Income (loss) before income taxes" on our Consolidated Statements of Operations and Comprehensive Income (Loss) included income of \$14 million related to our foreign operations.

The following table shows the principal reasons for the difference between the effective income tax rate and the statutory federal tax rate:

	For the Yea	For the Years Ended December 31,						
	2022	2022 2021						
	<u></u> % of p	ore-tax income/(loss)						
Statutory rate	21.0	21.0	21.0					
State income taxes, net of federal benefit	3.5	3.5	3.6					
Other, net	(0.1)	(0.3)	(0.6)					
Total (benefit) provision for income taxes	24.4	24.2	24.0					

Deferred taxes arise because of the differences in the book and tax bases of certain assets and liabilities. Significant components of deferred tax assets and liabilities were as follows:

	As of December 31,					
	2022		2021			
	(In tho	ısand	s)			
Deferred tax assets:						
NOL, interest, credit and other carryforwards	\$ 7,642	\$	7,679			
Accrued and prepaid expenses	8,526		6,588			
Stock-based compensation	19,374		11,545			
Deferred revenue	7,344		7,703			
Bases differences in partnerships and cost method investments	1,281					
Total deferred tax assets	 44,167		33,515			
Valuation allowance	(7,679)		(7,679)			
Deferred tax asset after valuation allowance	36,488		25,836			
Deferred tax liabilities:						
Depreciation	(235,498)		(316,002)			
FCC authorizations and other intangible amortization	(153,738)		(176,640)			
Bases difference in partnerships and other investments	_		(2,612)			
Total deferred tax liabilities	(389,236)		(495,254)			
Net deferred tax asset (liability)	\$ (352,748)	\$	(469,418)			

Accounting for Uncertainty in Income Taxes

In addition to filing federal income tax returns, we and one or more of our subsidiaries file income tax returns in all states that impose an income tax and a small number of foreign jurisdictions where we have immaterial operations. We are subject to United States federal, state and local income tax examinations by tax authorities for the years beginning in 2008 due to the carryover of previously incurred NOLs. We are currently under a federal income tax examination for years 2008 through 2011, 2013 through 2016, and 2018 through 2019.

A reconciliation of the beginning and ending amount of unrecognized tax benefits included in "Long-term deferred revenue and other long-term liabilities" on our Consolidated Balance Sheets was as follows:

	For the Yea	ars Ended De	cember 31,			
Unrecognized tax benefit	2022	2021	2020			
	(In thousands)					
Balance as of beginning of period	\$ 198,511	\$ 188,141	\$ 208,152			
Additions based on tax positions related to the current year	3,444	303	233			
Additions based on tax positions related to prior years	9,523	12,095	1,800			
Reductions based on tax positions related to prior years	(7,100)	(1,400)	(20,337)			
Reductions based on tax positions related to settlements with taxing authorities	_	_	(831)			
Reductions based on tax positions related to the lapse of the statute of						
limitations	_	(628)	(876)			
Balance as of end of period	\$ 204,378	\$ 198,511	\$ 188,141			

We have \$159 million in unrecognized tax benefits that, if recognized, could favorably affect our effective tax rate. We do not expect any material portion of this amount to be paid or settled within the next 12 months.

Accrued interest and penalties on uncertain tax positions are recorded as a component of "Interest expense, net of amounts capitalized" and "Other, net," respectively, on our Consolidated Statements of Operations and Comprehensive Income (Loss). During the years ended December 31, 2022, 2021 and 2020, we recorded \$8 million, \$6 million and \$2 million in net interest and penalty expense to earnings, respectively. Accrued interest and penalties were \$49 million, \$41 million and \$35 million at December 31, 2022, 2021 and 2020, respectively. The above table excludes these amounts.

10. Employee Benefit Plans

Employee Stock Purchase Plan

Our employees may participate in the DISH Network employee stock purchase plan (the "ESPP"), in which DISH Network is authorized to issue up to 6.8 million shares of Class A common stock. At December 31, 2022, DISH Network had 0.7 million shares of Class A common stock which remain available for issuance under the ESPP. Substantially all full-time employees who have been employed by DISH Network for at least one calendar quarter are eligible to participate in the ESPP. Employee stock purchases are made through payroll deductions. Under the terms of the ESPP, employees may not deduct an amount which would permit such employee to purchase DISH Network's capital stock under all of DISH Network's stock purchase plans at a rate which would exceed \$25,000 in fair value of capital stock in any one year. The purchase price of the stock is 85% of the closing price of DISH Network's Class A common stock on the last business day of each calendar quarter in which such shares of DISH Network's Class A common stock are deemed sold to an employee under the ESPP. During the years ended December 31, 2022, 2021 and 2020, employee purchases of DISH Network's Class A common stock through the ESPP totaled approximately 1.2 million, 0.6 million and 0.8 million shares, respectively.

401(k) Employee Savings Plan

DISH Network sponsors a 401(k) Employee Savings Plan (the "401(k) Plan") for eligible employees. Voluntary employee contributions to the 401(k) Plan may be matched 50% by DISH Network, subject to a maximum annual contribution of \$2,500 per employee. Forfeitures of unvested participant balances which are retained by the 401(k) Plan may be used to fund matching and discretionary contributions. DISH Network's Board of Directors may also authorize an annual discretionary contribution to the 401(k) plan with authorization by our Board of Directors, subject to the maximum deductible limit provided by the Internal Revenue Code of 1986, as amended. These contributions may be made in cash or in DISH Network's stock.

The following table summarizes the expense associated with our matching contributions and discretionary contributions:

		For the Y	ears l	Ended Dece	mbei	· 31,
Expense Recognized Related to the 401(k) Plan		2022		2021		2020
			(In t	housands)		
Matching contributions, net of forfeitures	\$	10,150	\$	7,525	\$	11,549
Discretionary stock contributions, net of forfeitures	\$	11,150	\$	24,347	\$	29,784

11. Stock-Based Compensation

Stock Incentive Plans

DISH Network maintains stock incentive plans to attract and retain officers, directors and key employees. Our employees participate in the DISH Network stock incentive plans. Stock awards under these plans include both performance and nonperformance based stock incentives. Many of our employees work on projects associated with our business and projects associated with DISH Network's Wireless business segment and other operations of DISH Network, such as broadband. Stock options, restricted stock units and non-cash stock-based compensation expense are included below only for employees who devote 50% or more of their time to our business. For each employee, a change in status in relation to the 50% threshold is reflected as a transfer to or from another DISH Network subsidiary that is not part of DISH DBS. See Note 17 Related Party Transactions with DISH Network for costs associated with services provided by our employees to DISH Network. As of December 31, 2022, there were outstanding under these plans stock options to acquire 11.1 million shares of DISH Network's Class A common stock and 1.1 million restricted stock units and awards associated with our employees. Stock options granted on or prior to December 31, 2022 were granted with exercise prices equal to or greater than the market value of DISH Network Class A common stock at the date of grant and with a maximum term of approximately ten years. DISH Network accounts for forfeitures as they are incurred. While historically DISH Network has issued stock awards subject to vesting, typically at the rate of 20% per year, certain stock awards have been granted with immediate vesting and certain other stock awards vest only upon the achievement of certain DISH Network-specific subscriber, operational and/or financial goals. As of December 31, 2022, DISH Network had 52.6 million shares of its Class A common stock available for future grant under its stock incentive plans.

Exchange offer. On June 24, 2022, DISH Network commenced a tender offer to eligible employees (which excludes DISH Network's co-founders and the independent members of DISH Network's Board of Directors) to exchange eligible stock options (which excludes DISH Network's Ergen 2020 Performance Award) for new options as detailed in its Schedule TO filed June 23, 2022 with the Securities and Exchange Commission (the "Exchange Offer"), to, among other things, further align employee incentives with the current market. The Exchange Offer expired on July 22, 2022. As a result of the Exchange Offer, the exercise price of approximately 9 million stock options associated with our employees, affecting approximately 500 eligible employees, was adjusted during the third quarter of 2022 to \$20.00. The total incremental non-cash stock-based compensation expense associated with our employees resulting from the Exchange Offer is \$17 million, which will be recognized over the remaining vesting period of the applicable options. During the year ended December 31, 2022, we recognized \$6 million of incremental non-cash, stock-based compensation expense on our Consolidated Statements of Operations and Comprehensive Income (Loss) as a result of the Exchange Offer.

Exercise prices for DISH Network stock options outstanding and exercisable associated with our employees as of December 31, 2022 were as follows:

As of December 31, 2022

			113 01 December 51, 2022											
		Optio	ons Outstandin	g		Options Exercisable								
			Weighted-				Weighted-							
			Average	W	eighted-		Average	W	eighted-					
			Remaining	A	Average		Remaining	A	verage					
		Number	Contractual	E	xercise	Number	Contractual	Exercise						
		Outstanding	Life		Price	Exercisable	Life	Price						
\$ 10.01 - \$	20.00	8,896,986	9.48	\$	19.90	2,160,717	9.46	\$	19.94					
\$ 20.01 - \$	30.00	102,131	5.78	\$	26.36	69,617	5.21	\$	25.90					
\$ 30.01 - \$	40.00	834,715	1.90	\$	36.05	204,406	3.76	\$	34.68					
\$ 40.01 - \$	50.00	70,376	3.24	\$	47.16	20,200	1.41	\$	47.43					
\$ 50.01 - \$	60.00	855,626	3.85	\$	57.79	_	_	\$	_					
\$ 60.01 - \$	70.00	290,500	3.31	\$	63.96	1,000	_	\$	63.90					
\$ 10.01 - \$	70.00	11,050,334	8.23	\$	25.45	2,455,940	8.80	\$	21.58					

Stock Award Activity

DISH Network stock option activity associated with our employees was as follows:

For the Years Ended December 31, 2022 2021 2020 Weighted-Weighted-Weighted-Average Average Average Exercise Exercise Exercise **Options** Price **Options** Price **Options** Price Total options outstanding, beginning of period (1) 8,834,045 42.15 10,183,615 41.99 12,792,812 41.52 Granted (2) 12,718,689 \$ 23.48 956,500 \$ 40.55 1,112,500 \$ 31.21 Exercised \$ 27.72 \$ \$ (16,600)(667, 179)33.87 (109, 195)28.53 Forfeited, cancelled and transferred (2)(3) (10,485,800) \$ 37.13 (1,638,891)\$ 43.59 (3,612,502)37.41 11,050,334 8,834,045 10,183,615 Total options outstanding, end of period 25.45 42.15 41.99 Performance-based options outstanding, 3,810,483 3.021.629 4.096,749 end of period (4) \$ 34.77 \$ 45.35 \$ 44.44 2,455,940 \$ 21.58 3,612,931 41.64 3,760,431 Exercisable at end of period 41.30

- (1) The beginning of period weighted-average exercise price for the year ended December 31, 2022 of \$42.15 does not reflect the Exchange Offer, which occurred subsequent to December 31, 2021.
- (2) Includes approximately 9 million stock options granted and cancelled in connection with the Exchange Offer.
- (3) Certain of these stock options include options that were granted to individuals who transferred to and/or from another DISH Network subsidiary not a part of DISH DBS.
- (4) These stock options are included in the caption "Total options outstanding, end of period." See discussion of the 2013 LTIP, 2017 LTIP, 2019 LTIP and Other Employee Performance Awards below.

We realized tax benefits from stock awards exercised as follows:

	 For the Years Ended December 31,								
	2022		2021		2020				
	 	(In t	housands)						
Tax benefit from stock awards exercised	\$ 206	\$	3,815	\$	3,361				

Based on the closing market price of DISH Network Class A common stock on December 31, 2022, the aggregate intrinsic value of stock options associated with our employees was as follows:

		As of December 31, 2022 Options Options						
	Or							
	Outs	Outstanding Exercisable						
		(In thousand	ls)					
Aggregate intrinsic value	\$	11 \$	1					

DISH Network restricted stock unit and award activity associated with our employees was as follows:

		For the Years Ended December 31,											
	20	22		20	21		20	j					
	Restricted Average Stock Grant Date Units/Awards Fair Value		Restricted Stock Units/Awards		Weighted- Average Grant Date Fair Value	Restricted Stock Units/Awards		Weighted- Average Grant Date Fair Value					
Total restricted stock units/awards outstanding, beginning of period	1,130,066	\$	35.26	1,550,245	\$	34.70	1,463,650	\$	50.82				
Granted	120,187	\$	29.67	53,877	\$	42.40	1,470,505	\$	32.92				
Vested (1)	(39,535)	\$	28.92	(7,035)	\$	60.76	(697,660)	\$	63.81				
Forfeited, cancelled and transferred (2)	(130,360)	\$	31.41	(467,021)	\$	33.84	(686,250)	\$	35.14				
Total restricted stock units/awards outstanding, end of period	1,080,358	\$	35.33	1,130,066	\$	35.26	1,550,245	\$	34.70				
Restricted Performance Units/Awards outstanding, end of period (3)	944,800	\$	35.37	1,078,425	\$	34.91	1,543,750	\$	34.58				

- (1) This change in 2020 resulted from certain Other Employee Performance Awards that vested during the third quarter of 2020.
- (2) Certain of these restricted stock units/awards include restricted stock units/awards that were granted to individuals who transferred to and/or from another DISH Network subsidiary not a part of DISH DBS.
- (3) These stock units/awards are included in the caption "Total restricted stock units/awards outstanding, end of period." See discussion of the 2013 LTIP and Other Employee Performance Awards below.

Long-Term Performance-Based Plans

2013 LTIP. During 2013, DISH Network adopted a long-term, performance-based stock incentive plan (the "2013 LTIP"). The 2013 LTIP provides stock options and restricted stock units in combination, which vest based on certain DISH Network-specific subscriber and financial performance conditions. Exercise of the stock awards is contingent on achieving these performance conditions by September 30, 2022. This plan expired on January 1, 2023 which resulted in the cancellation of 550,000 stock options and 335,000 restricted stock units and awards.

2017 LTIP. On December 2, 2016, DISH Network adopted a long-term, performance-based stock incentive plan (the "2017 LTIP"). The 2017 LTIP provided stock options, which were subject to vesting based on certain DISH Network-specific subscriber and financial performance conditions. Awards were initially granted under the 2017 LTIP as of January 1, 2017. Exercise of the stock awards was contingent on achieving these performance conditions by December 31, 2020, however, none of the performance conditions were achieved. This plan will expire on January 1, 2027 which as of December 31, 2022, would result in the cancellation of 1,229,067 stock options.

2019 LTIP. On August 17, 2018, DISH Network adopted a long-term, performance-based stock incentive plan (the "2019 LTIP"). The 2019 LTIP provides stock options, which vest based on certain DISH Network-specific subscriber, operational and/or financial performance conditions. Vesting of the stock awards is contingent on achieving these conditions by December 31, 2023.

Although no awards vest until DISH Network attains the performance conditions described above, compensation related to the 2019 LTIP will be recorded based on DISH Network's assessment of the probability of meeting the performance conditions. If the performance conditions are probable of being achieved, we will begin recognizing the associated non-cash, stock-based compensation expense on our Consolidated Statements of Operations and Comprehensive Income (Loss) over the estimated period to achieve the performance condition.

During the years ended December 31, 2022, 2021 and 2020, DISH Network determined that 89%, 90% and 95%, respectively, of the 2019 LTIP performance conditions were probable of achievement. As a result, non-cash, stock-based compensation expense was recorded for the years ended December 31, 2022, 2021 and 2020, as indicated in the table below titled "Non-Cash, Stock-Based Compensation Expense Recognized." As of December 31, 2022 and 2021, approximately 75% and 69%, respectively, of the 2019 LTIP awards had vested.

2022 Incentive Plan. On December 30, 2021, DISH Network adopted a performance-based incentive plan (the "2022 Incentive Plan"). The 2022 Incentive Plan provides stock options, which vest based on certain DISH Network-specific operational and/or financial performance conditions. Awards were initially granted under the 2022 Incentive Plan as of February 1, 2022. Exercise of the stock awards is contingent on achieving these conditions by December 31, 2026.

Although no awards vest until DISH Network attains the performance conditions described above, compensation related to the 2022 Incentive Plan will be recorded based on DISH Network's assessment of the probability of meeting the performance conditions. If the performance conditions are probable of being achieved, we will begin recognizing the associated non-cash, stock-based compensation expense on our Consolidated Statements of Operations and Comprehensive Income (Loss) over the estimated period to achieve the performance condition.

During the year ended December 31, 2022, DISH Network determined that 100% of the 2022 Incentive Plan performance conditions were probable of achievement. As a result, non-cash, stock-based compensation expense was recorded for the year ended December 31, 2022 as indicated in the table below titled "Non-Cash, Stock-Based Compensation Expense Recognized." As of December 31, 2022, approximately 33% of the 2022 Incentive Plan awards had vested.

Other Employee Performance Awards. In addition to the above long-term, performance stock incentive plans, DISH Network has other stock awards that vest based on certain other DISH Network-specific subscriber, operational and/or financial performance conditions. Exercise of these stock awards is contingent on achieving certain performance conditions.

Additional compensation related to these awards will be recorded based on DISH Network's assessment of the probability of meeting the remaining performance conditions. If the remaining performance conditions are probable of being achieved, we will begin recognizing the associated non-cash, stock-based compensation expense on our Consolidated Statements of Operations and Comprehensive Income (Loss) over the estimated period to achieve the performance condition. See the table below titled "Estimated Remaining Non-Cash, Stock-Based Compensation Expense."

Although no awards vest until the performance conditions are attained, DISH Network determined that certain performance conditions described above were probable of achievement and, as a result, we recorded non-cash, stock-based compensation expense for the years ended December 31, 2022, 2021 and 2020, as indicated in the table below titled "Non-Cash, Stock-Based Compensation Expense Recognized."

The non-cash, stock-based compensation expense associated with these awards for our employees was as follows:

	ears	ars Ended December 31,			
Non-Cash, Stock-Based Compensation Expense Recognized (1)	 2022		2021		2020
		(In	thousands))	
2022 Incentive Plan	\$ 15,024	\$	_	\$	_
2019 LTIP	(131)		370		12,526
2013 LTIP	_		(10,550)		(741)
Other employee performance awards	3,711		7,827		4,370
Total non-cash, stock-based compensation expense recognized for performance-based awards	\$ 18,604	\$	(2,353)	\$	16,155

(1) "Non-Cash, Stock-Based Compensation Expense Recognized" includes actual forfeitures.

Estimated Remaining Non-Cash, Stock-Based Compensation Expense	2022	Incentive Plan	20:	19 LTIP	F	Employee Performance Awards
			(In t	housands)		
Expense estimated to be recognized during 2023	\$	6,346	\$	1,676	\$	2,068
Estimated contingent expense in or subsequent to 2023		4,653		5,365		_
Total estimated remaining expense over the term of the plan	\$	10,999	\$	7,041	\$	2,068

Given the competitive nature of DISH Network's business, small variations in subscriber churn, gross new subscriber activation rates and certain other factors can significantly impact subscriber growth. Consequently, while it was determined that achievement of certain DISH Network-specific subscriber, operational and/or financial performance conditions were not probable as of December 31, 2022, that assessment could change in the future.

Of the 11.1 million stock options and 1.1 million restricted stock units and awards outstanding under the DISH Network stock incentive plans associated with our employees as of December 31, 2022, the following awards were outstanding pursuant to the performance-based stock incentive plans:

	As of De	As of December 31, 2022					
Performance-Based Stock Options	Number of Awards		Weighted- Average Grant Price				
2022 Incentive Plan	1,228,373	\$	19.80				
2019 LTIP	803,043	\$	20.56				
2017 LTIP	1,229,067	\$	56.50				
2013 LTIP (1)	550,000	\$	40.38				
Total	3,810,483	\$	34.77				
Restricted Performance Units/Awards							
2013 LTIP	335,000						
Other employee performance awards	609,800						
Total	944,800						

(1) This plan expired on January 1, 2023.

Stock-Based Compensation

Total non-cash, stock-based compensation expense for all of our employees is shown in the following table for the years ended December 31, 2022, 2021 and 2020 and was allocated to the same expense categories as the base compensation for such employees:

	For the Years Ended December 31,					
	2022			2021	2020	
			(In t	housands)		
Cost of services	\$	5,817	\$	4,170	\$	7,194
Selling, general and administrative		34,915		7,660		23,477
Total non-cash, stock based compensation	\$	40,732	\$	11,830	\$	30,671

As of December 31, 2022, our total unrecognized compensation cost related to the non-performance based unvested stock awards was \$39 million and will be recognized over a weighted-average period of approximately 4.4 years. Share-based compensation expense is recognized based on stock awards ultimately expected to vest.

Valuation

The fair value of each stock option granted for the years ended December 31, 2022, 2021 and 2020 was estimated at the date of the grant using a Black-Scholes option valuation model with the following assumptions:

		For the Years End	led December 31,	
Stock Options	2022	202	1	2020
Risk-free interest rate	0.91 % -	4.06 % 0.44 % -	1.02 %	0.17 % - 1.72 %
Volatility factor	44.00 % - 5	3.60 % 40.62 % -	43.48 % 28	8.91 % - 48.08 %
Expected term of options in years	2.8 -	5.6 5.5 -	5.6	3.3 - 5.5
Fair value of options granted	\$ 6.53 - \$ 14	4.17 \$ 12.46 -	\$ 18.23 \$ 5	5.50 - \$ 12.10

While DISH Network currently does not intend to declare dividends on its common stock, it may elect to do so from time to time. Accordingly, the dividend yield percentage used in the Black-Scholes option valuation model was set at zero for all periods. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded stock options which have no vesting restrictions and are fully transferable. Consequently, our estimate of fair value may differ from other valuation models. Further, the Black-Scholes option valuation model requires the input of highly subjective assumptions. Changes in these subjective input assumptions can materially affect the fair value estimate.

We will continue to evaluate the assumptions used to derive the estimated fair value of DISH Network's stock options as new events or changes in circumstances become known.

12. Commitments and Contingencies

Commitments

As of December 31, 2022, future maturities of our long-term debt, finance lease and contractual obligations are summarized as follows:

	Payments due by period							
		Total	2023	2024	2025	2026	2027	Thereafter
				(In t	thousands)			
Long-term debt obligations	\$	13,211,508	\$ 1,445,999	\$ 2,002,964	\$ 3,115	\$ 4,751,422	\$ 1,478	\$ 5,006,530
Interest expense on long-term debt		3,277,271	748,745	711,938	594,287	594,127	294,695	333,479
Finance lease obligations (1)		69,206	38,102	31,104	_	_	_	_
Interest expense on finance lease obligations								
(1)		5,890	4,848	1,042	_	_	_	_
Other long-term obligations (2)		5,146,361	2,464,960	1,290,955	740,519	524,843	125,084	_
Operating lease obligations (1)		159,362	66,536	33,037	18,509	11,058	6,814	23,408
Purchase obligations		1,445,805	1,423,389	11,736	6,369	4,311	_	_
Total	\$	23,315,403	\$ 6,192,579	\$ 4,082,776	\$ 1,362,799	\$ 5,885,761	\$ 428,071	\$ 5,363,417

- (1) See Note 7 for further information on leases and the adoption of ASC 842.
- (2) Represents obligations for satellite related executory costs, telemetry, tracking and control ("TT&C") services, short-term leases and certain expenses associated with DISH Network's Wireless segment.

In certain circumstances the dates on which we are obligated to make these payments could be delayed.

The table above does not include \$204 million of liabilities associated with unrecognized tax benefits that were accrued, as discussed in Note 9, and are included on our Consolidated Balance Sheets as of December 31, 2022. We do not expect any portion of this amount to be paid or settled within the next 12 months.

The table above includes certain obligations incurred by us on behalf of DISH Network's Wireless segment. These obligations will be either paid directly by DISH Network or settled monthly as part of our centralized cash management system with our parent, DISH Network. See Note 3 for further information.

Agreements in Connection with DISH Network's Asset Purchase Agreement

On July 1, 2020, DISH Network completed the Boost Mobile Acquisition. In connection with the closing of the Boost Mobile Acquisition, DISH Network and T-Mobile entered into the Spectrum Purchase Agreement (as defined in DISH Network's Annual Report on Form 10-K for the year ended December 31, 2021) for approximately \$3.59 billion. If DISH Network elects to not exercise the option to purchase the 800 MHz licenses pursuant to the Spectrum Purchase Agreement or it expires, DISH Network is potentially subject to pay T-Mobile a fee of approximately \$72 million per the Spectrum Purchase Agreement under certain circumstances. The \$3.59 billion and the \$72 million are not included in "Other long-term obligations" above.

DISH Network's 5G Network Deployment

DISH Network has invested a total of over \$30 billion in wireless spectrum licenses, which includes over \$10 billion in noncontrolling investments in certain entities, as described further below.

DISH Network Spectrum

DISH Network has directly invested approximately \$20 billion to acquire certain wireless spectrum licenses. DISH Network's wireless spectrum licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements. DISH Network plans to commercialize its wireless spectrum licenses through the completion of the nation's first cloud-native, Open Radio Access Network ("O-RAN") based 5G network (the "5G Network Deployment"). DISH Network currently expects capital expenditures, excluding capitalized interest, for its 5G Network Deployment to be approximately \$10 billion, including amounts incurred in 2021 and 2022. DISH Network may need to make significant additional investments or partner with others to, among other things, complete its 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 DISH Network completes its 5G Network Deployment, DISH Network has 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. DISH Network may also determine that additional wireless spectrum licenses may be required to complete its 5G Network Deployment and to compete effectively with other wireless service providers.

In connection with the development of DISH Network's wireless business, including, without limitation, the efforts described above, we have made cash distributions and the Intercompany Loan to partially finance these efforts to date and may make additional cash distributions or loans to finance, in whole or in part, DISH Network's future efforts. There can be no assurance that DISH Network will be able to develop and implement a business model that will realize a return on these wireless spectrum licenses or that DISH Network will be able to profitably deploy the assets represented by these wireless spectrum licenses.

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

During 2015, through its wholly-owned subsidiaries American AWS-3 Wireless II L.L.C. ("American II") and American AWS-3 Wireless III L.L.C. ("American III"), DISH Network initially made over \$10 billion in certain noncontrolling investments in Northstar Spectrum, LLC ("Northstar Spectrum"), the parent company of Northstar Wireless, LLC ("Northstar Wireless," and collectively with Northstar Spectrum, the "Northstar Entities"), and in SNR Wireless HoldCo, LLC ("SNR HoldCo"), the parent company of SNR Wireless LicenseCo, LLC ("SNR Wireless," and collectively with SNR HoldCo, the "SNR Entities"), respectively. On October 27, 2015, the FCC granted certain AWS-3 wireless spectrum licenses (the "AWS-3 Licenses") to Northstar Wireless (the "Northstar Licenses") and to SNR Wireless (the "SNR Licenses"), respectively. The Northstar Entities and/or the SNR Entities may need to raise significant additional capital in the future, which may be obtained from third party sources or from DISH Network, so that the Northstar Entities and the SNR Entities may commercialize, build-out and integrate these AWS-3 Licenses, comply with regulations applicable to such AWS-3 Licenses, and make any potential payments related to the re-auction of AWS-3 licenses retained by the FCC. Depending upon the nature and scope of such commercialization, build-out, integration efforts, regulatory compliance, and potential re-auction payments, any such loans, equity contributions or partnerships could vary significantly.

For further information regarding the potential re-auction of AWS-3 licenses retained by the FCC, see Note 15 "Commitments and Contingencies – Commitments – DISH Network Noncontrolling Investments in the Northstar Entities

and the SNR Entities Related to AWS-3 Wireless Spectrum Licenses" in the Notes to DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022.

We have made and may make additional cash distributions and loans to DISH Network so that DISH Network may fund the Northstar Entities and the SNR Entities related to DISH Network's noncontrolling investments in these entities. There can be no assurance that DISH Network will be able to obtain a profitable return on its noncontrolling investments in the Northstar Entities and the SNR Entities.

We may need to raise significant additional capital in the future, which may not be available on favorable terms, to among other things, continue investing in our business and to pursue acquisitions and other strategic transactions.

See Note 15 "Commitments and Contingencies – Wireless – 5G Network Deployment" in the Notes to DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022 for further information.

Satellite Insurance

We generally do not carry commercial launch or in-orbit insurance on any of the satellites we own. We generally do not use commercial insurance to mitigate the potential financial impact of launch or in-orbit failures because we believe that the cost of insurance premiums is uneconomical relative to the risk of such failures. 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 owned or leased satellites and use it as a replacement for the failed or lost satellite.

Purchase Obligations

Our 2023 purchase obligations primarily consist of binding purchase orders for certain fixed contractual commitments to purchase programming content, receiver systems and related equipment, broadband equipment, digital broadcast operations, transmission costs, streaming delivery technology and infrastructure, engineering services, and other products and services related to the operation of our Pay-TV services. In addition, our 2023 purchase obligations also include DISH Network's purchase obligations for certain wireless devices related to its retail wireless business as well as transition services pursuant to the TSA with T-Mobile. Our purchase obligations may fluctuate significantly from period to period due to, among other things, management's timing of payments and inventory purchases, which can materially impact our future operating asset and liability balances, and our future working capital requirements. The purchase obligations incurred by us on behalf of DISH Network's Wireless segment will be either paid directly by DISH Network or settled monthly as part of our centralized cash management system with our parent, DISH Network.

Programming Contracts

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. These programming commitments are not included in the "Commitments" table above. The terms of our contracts typically range from one to ten years with annual rate increases. Our programming expenses will increase to the extent we are successful in growing our Pay-TV subscriber base. In addition, programming costs per subscriber continue to increase due to contractual price increases and the renewal of long-term programming contracts on less favorable pricing terms.

Patents and Intellectual Property

Many entities, including some of our competitors, have or may in the future obtain patents and other intellectual property rights that cover or affect products or services that we offer or that we may offer in the future. We may not be aware of all intellectual property rights that our products or services may potentially infringe. Damages in patent infringement cases can be substantial, and in certain circumstances can be trebled. Further, we cannot estimate the extent to which we may be required in the future to obtain licenses with respect to patents held by others and the availability and cost of any such licenses. Various parties have asserted patent and other intellectual property rights with respect to components of our products and services. We cannot be certain that these persons do not own the rights they claim, that our products do not infringe on these rights, and/or that these rights are not valid. Further, we cannot be certain that we would be able to obtain licenses from these persons on commercially reasonable terms or, if we were unable to obtain such licenses, that we would be able to redesign our products to avoid infringement.

Contingencies

Separation Agreement

On January 1, 2008, DISH Network completed the distribution of its technology and set-top box business and certain infrastructure assets (the "Spin-off") into a separate publicly-traded company, EchoStar. In connection with the Spin-off, DISH Network entered into a separation agreement with EchoStar that provides, among other things, for the division of certain liabilities, including liabilities resulting from litigation. Under the terms of the separation agreement, EchoStar has assumed certain liabilities that relate to its business, including certain designated liabilities for acts or omissions that occurred prior to the Spin-off. Certain specific provisions govern intellectual property related claims under which, generally, EchoStar will only be liable for its acts or omissions following the Spin-off and DISH Network will indemnify EchoStar for any liabilities or damages resulting from intellectual property claims relating to the period prior to the Spin-off, as well as DISH Network's acts or omissions following the Spin-off.

On February 28, 2017, DISH Network and EchoStar and certain of their respective subsidiaries completed the transactions contemplated by the Share Exchange Agreement (the "Share Exchange Agreement") that was previously entered into on January 31, 2017 (the "Share Exchange"), pursuant to which certain assets that were transferred to EchoStar in the Spin-off were transferred back to DISH Network. On September 10, 2019, DISH Network and EchoStar and certain of their respective subsidiaries completed the transactions contemplated by the Master Transaction Agreement (the "Master Transaction Agreement") that was previously entered into on May 19, 2019, pursuant to which certain assets that were transferred to EchoStar in the Spin-off were transferred back to DISH Network. The Share Exchange Agreement and the Master Transaction Agreement contain additional indemnification provisions between DISH Network and EchoStar for certain liabilities and legal proceedings.

Litigation

We are involved in a number of legal proceedings (including those described below) concerning matters arising in connection with the conduct of our business activities. Many of these proceedings are at preliminary stages, and many of these proceedings seek an indeterminate amount of damages. We regularly evaluate the status of the legal proceedings in which we are involved to assess whether a loss is probable or there is a reasonable possibility that a loss or an additional loss may have been incurred and to determine if accruals are appropriate. If accruals are not appropriate, we further evaluate each legal proceeding to assess whether an estimate of the possible loss or range of possible loss can be made.

For certain cases described on the following pages, management is unable to provide a meaningful estimate of the possible loss or range of possible loss because, among other reasons, (i) the proceedings are in various stages; (ii) damages have not been sought; (iii) damages are unsupported and/or exaggerated; (iv) there is uncertainty as to the outcome of pending appeals or motions; (v) there are significant factual issues to be resolved; and/or (vi) there are novel legal issues or unsettled legal theories to be presented or a large number of parties. For these cases, however, management does not believe, based on currently available information, that the outcomes of these proceedings will have a material adverse effect on our financial condition, though the outcomes could be material to our operating results for any particular period, depending, in part, upon the operating results for such period.

ClearPlay, Inc.

On March 13, 2014, ClearPlay, Inc. ("ClearPlay") filed a complaint against DISH Network, our wholly-owned subsidiary DISH Network L.L.C., EchoStar, and its then wholly-owned subsidiary EchoStar Technologies L.L.C., in the United States District Court for the District of Utah. The complaint alleges willful infringement of United States Patent Nos. 6,898,799 (the "799 patent"), entitled "Multimedia Content Navigation and Playback"; 7,526,784 (the "784 patent"), entitled "Delivery of Navigation Data for Playback of Audio and Video Content"; 7,543,318 (the "318 patent"), entitled "Delivery of Navigation Data for Playback of Audio and Video Content"; 7,577,970 (the "970 patent"), entitled "Multimedia Content Navigation and Playback"; and 8,117,282 (the "282 patent"), entitled "Media Player Configured to Receive Playback Filters From Alternative Storage Mediums." ClearPlay alleges that the AutoHop™ feature of our Hopper® set-top box infringes the asserted patents. On February 11, 2015, the case was stayed pending various third-party challenges before the United States Patent and Trademark Office regarding the validity of certain of the patents asserted in the action.

In those third-party challenges, the United States Patent and Trademark Office found that all claims of the 282 patent are unpatentable, and that certain claims of the 784 patent and 318 patent are unpatentable. ClearPlay appealed as to the 784 patent and the 318 patent, and on August 23, 2016, the United States Court of Appeals for the Federal Circuit affirmed the findings of the United States Patent and Trademark Office. On October 31, 2016, the stay was lifted.

On October 16, October 21, November 2, 2020 and November 9, 2020, DISH Network L.L.C. filed petitions with the United States Patent and Trademark Office requesting ex parte reexamination of the validity of the asserted claims of, respectively, the 784 patent, the 799 patent, the 318 patent and the 970 patent; and on November 2, November 20, December 14 and December 15, 2020, the United States Patent and Trademark Office granted each request for reexamination. On May 7, 2021, May 25, 2021, June 25, 2021 and July 7, 2021, the United States Patent and Trademark Office issued Ex Parte Reexamination Certificates confirming the patentability of the challenged claims of, respectively, the 799 patent, the 784 patent, the 318 patent and the 970 patent.

In October and November 2021, DISH Network L.L.C. filed petitions with the United States Patent and Trademark Office requesting ex parte reexamination of the validity of certain asserted claims of the 784 patent, the 799 patent and the 970 patent. In November and December, 2021, the United States Patent and Trademark Office granted review of the challenged claims of the 799 patent and the 970 patent, but denied review of the challenged claims of the 784 patent. In December 2021, DISH Network L.L.C. petitioned for review of the denial as to the 784 patent. On January 24, 2022, an examiner of the United States Patent and Trademark Office affirmed the challenged claims of the 799 patent, and on January 19, 2023, an examiner of the United States Patent and Trademark Office affirmed the challenged claims of the 970 patent.

In an order dated January 31, 2023, the Court granted in part and denied in part DISH Network L.L.C.'s motion for summary judgment. Thereafter, ClearPlay narrowed its case to three asserted claims: one under the 799 patent and two under the 970 patent. Following a two-week trial, on March 10, 2023, the jury returned a verdict that DISH Network L.L.C. and DISH Technologies L.L.C. infringed each of the asserted patent claims, and awarded damages of \$469 million. The jury did not find that the infringement was willful. The trial court has not yet ruled on DISH Network L.L.C.'s and DISH Technologies L.L.C.'s motion for judgment as a matter of law.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Contemporary Display LLC

On June 4, 2018, Contemporary Display LLC ("Contemporary") filed a complaint against DISH Network and our wholly-owned subsidiary DISH Network L.L.C. in the United States District Court for the Western District of Texas. The complaint alleges infringement of United States Patent No. 6,028,643 (the "643 patent"), entitled "Multiple-Screen Video Adapter with Television Tuner"; United States Patent No. 6,429,903 (the "903 patent"), entitled "Video Adapter for Supporting at Least One Television Monitor"; United States Patent No. 6,492,997 (the "997 patent"), entitled "Method and System for Providing Selectable Programming in a Multi-Screen Mode"; United States Patent No. 7,500,202 (the "202 patent"), entitled "Remote Control for Navigating Through Content in an Organized and Categorized Fashion"; and United States Patent No. 7,809,842 (the "842 patent"), entitled "Transferring Sessions Between Devices." The 643 patent and the 903 patent are directed to video adapters for use with multiple displays. The 997 patent is directed to a system for presenting multiple video programs on a display device simultaneously. The 202 patent is directed to a remote control for interacting with a set-top box having programmable features and "operational controls" on at least three sides of the remote control. The 842 patent is directed to a system for managing online communication sessions between multiple devices. Contemporary is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

In a First Amended Complaint filed on August 6, 2018, Contemporary added our wholly-owned subsidiary DISH Network L.L.C. as a defendant. In a Second Amended Complaint filed on October 9, 2018, Contemporary named only our wholly-owned subsidiary DISH Network L.L.C. as a defendant and dropped certain indirect infringement allegations. On June 10, 2019, DISH Network L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of the asserted claims of the 842 patent, the 903 patent, the 643 patent and the 997 patent. On December 13, 2019 and January 7, 2020, the United States Patent and Trademark Office agreed to institute proceedings on each of our petitions. Following Contemporary's decision not to file Patent Owner Responses to DISH Network L.L.C.'s petitions on the 842 patent and the 903 patent, on April 24, 2020, the United States Patent and Trademark Office entered judgments granting those petitions and canceling the challenged claims of those patents. On November 25, 2020 and December 18, 2020, respectively, the United States Patent and Trademark Office issued final written decisions invalidating all challenged claims of, respectively, the 643 patent and the 997 patent. On January 31, 2020, pursuant to the parties' joint motion, the Court dismissed all claims arising from the 202 patent.

On February 12, 2021, Contemporary Display noticed an appeal to the United States Court of Appeals for the Federal Circuit challenging the final written decision as to the 997 patent, and the Court of Appeals heard oral argument on April 7, 2022 and summarily affirmed our victory on April 11, 2022. On April 21, 2022, Contemporary Display stipulated to the dismissal with prejudice of its case. This matter is now concluded.

Customedia Technologies, L.L.C.

On February 10, 2016, Customedia Technologies, L.L.C. ("Customedia") filed a complaint against DISH Network and our wholly-owned subsidiary DISH Network L.L.C. in the United States District Court for the Eastern District of Texas. The complaint alleges infringement of four patents: United States Patent No. 8,719,090 (the "090 patent"); United States Patent No. 9,053,494 (the "494 patent"); United States Patent No. 7,840,437 (the "437 patent"); and United States Patent No. 8,955,029 (the "029 patent"). Each patent is entitled "System for Data Management And On-Demand Rental And Purchase Of Digital Data Products." Customedia alleges infringement in connection with our addressable advertising services, our DISH Anywhere feature, and our Pay-Per-View and video-on-demand offerings. Customedia is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

In December 2016 and January 2017, DISH Network L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of the asserted claims of each of the asserted patents. On June 12, 2017, the United States Patent and Trademark Office agreed to institute proceedings on our petitions challenging the 090 patent and the 437 patent; on July 18, 2017, it agreed to institute proceedings on our petitions challenging the 029 patent; and on July 28, 2017, it agreed to institute proceedings on our petitions challenging the 494 patent. These instituted proceedings cover all asserted claims of each of the asserted patents.

Pursuant to an agreement between the parties, on December 20, 2017, DISH Network L.L.C. dismissed its petitions challenging the 029 patent in the United States Patent and Trademark Office, and on January 9, 2018, the parties dismissed their claims, counterclaims and defenses as to that patent in the litigation. On March 5, 2018, the United States Patent and Trademark Office conducted a trial on the remaining petitions. On June 11, 2018, the United States Patent and Trademark Office issued final written decisions on DISH Network L.L.C.'s petitions challenging the 090 patent and it invalidated all of the asserted claims. On July 25, 2018, the United States Patent and Trademark Office issued final written decisions on DISH Network L.L.C.'s petitions challenging the 437 patent and the 494 patent and it invalidated all of the asserted claims. Customedia appealed its losses. The Court of Appeals for the Federal Circuit heard oral argument on November 6, 2019 on the appeal involving the 437 patent, and summarily affirmed the patent's invalidity on November 8, 2019.

On January 7, 2020, Customedia petitioned the Court of Appeals for rehearing or rehearing en banc, raising issues about the constitutionality of the appointment of the administrative patent judges that heard the petition before the United States Patent and Trademark Office, but the Court of Appeals denied rehearing on March 5, 2020. On July 31, 2020, Customedia filed a petition with the United States Supreme Court asking it to hear a further appeal, but its petition was denied on October 13, 2020. On November 6, 2020, it filed a petition for rehearing on the United States Supreme Court's decision not to hear a further appeal, but on November 17, 2020, the Supreme Court rejected that petition.

The Court of Appeals heard oral argument on the appeal involving the 090 patent and the 494 patent on December 3, 2019, and affirmed those patents' invalidity on March 6, 2020. On May 5, 2020, Customedia filed petitions in the Federal Circuit for rehearing and rehearing en banc, but those petitions were denied on June 9, 2020. On November 6, 2020, Customedia served a petition to the United States Supreme Court asking it to hear a further appeal.

On June 16, 2021, the United States Patent and Trademark Office issued a certificate cancelling the challenged claims of the 437 patent and, on July 9, 2021, it issued certificates cancelling the challenged claims of the 090 and 494 patents. Customedia thereafter petitioned the United States Patent and Trademark Office to withdraw its cancellation certificates. On November 22, 2021, the United States Patent and Trademark Office denied Customedia's petition as to the 437 patent, and on June 14, 2022, it denied Customedia's petitions as to the 090 patent and the 494 patent. Accordingly, on August 10, 2022, the District Court granted DISH Network L.L.C.'s Motion to Dismiss with prejudice, and entered final judgment in its favor. This matter is now concluded.

Digital Broadcasting Solutions, LLC

On August 29, 2022, Digital Broadcasting Solutions, LLC filed a complaint against our wholly-owned subsidiaries DISH Network L.L.C. and DISH Technologies L.L.C. in the United States District Court for the Eastern District of Texas. The complaint alleges infringement of U.S. Patent No. 8,929,710 (the "710 patent") and U.S. Patent No. 9,538,122 (the "122 patent"), each entitled "System and method for time shifting at least a portion of a video program." Generally, the plaintiff contends that the AutoHop feature of our Hopper® set-top boxes infringes the asserted patents. The Court has set the case for trial on April 1, 2024.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Entropic Communications, LLC (first action)

On March 9, 2022, Entropic Communications, LLC ("Entropic") filed a complaint against DISH Network and our wholly-owned subsidiaries DISH Network L.L.C. and Dish Network Service L.L.C. in the United States District Court for the Eastern District of Texas. The complaint alleges infringement of U.S. Patent No. 7,130,576 (the "576 patent"), entitled "Signal Selector and Combiner for Broadband Content Distribution"; U.S. Patent No. 7,542,715 (the "715 Patent"), entitled "Signal Selector and Combiner for Broadband Content Distribution"; and U.S. Patent No. 8,792,008 (the "008 Patent"), entitled "Method and Apparatus for Spectrum Monitoring." On March 30, 2022, Entropic filed an amended complaint alleging infringement of the same patents. Generally, the plaintiff accuses satellite antennas, low-noise block converters, signal selector and combiners, and set-top boxes and the manner in which they process signals for satellite television customers of infringing the asserted patents. On October 24, 2022, this case was ordered to be transferred to the United States District Court for the Central District of California. A companion case against DirecTV was also ordered transferred to the United States District Court for the Central District of California.

In January and February of 2023, DISH Network L.L.C. and Dish Network Service L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of all claims of the 715 patent, all claims of the 008 patent and 25 claims of the 576 patent, which includes all of its asserted claims.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Entropic Communications, LLC (second action)

On February 10, 2023, Entropic filed a second lawsuit against us and our wholly-owned subsidiaries DISH Network L.L.C., Dish Network Service L.L.C. and Dish Network California Service Corporation in the United States District Court for the Central District of California. The complaint alleges infringement of U.S. Patent No. 7,295,518 (the "518 patent"), entitled "Broadband network for coaxial cable using multi-carrier modulation"; U.S. Patent No. 7,594,249 (the "249 patent"), entitled "Network interface device and broadband local area network using coaxial cable"; U.S. Patent Nos. 7,889,759 (the "759 patent"), entitled "Broadband cable network utilizing common bit-loading"; U.S. Patent No. 8,085,802 (the "802 Patent"), entitled "Multimedia over coaxial cable access protocol"; U.S. Patent No. 9,838,213 (the "213 patent"), entitled "Parameterized quality of service architecture in a network"; U.S. Patent No. 10,432,422 (the "422 patent"), entitled "Parameterized quality of service architecture in a network"; U.S. Patent No. 8,631,450 (the "450 patent"), entitled "Broadband local area network"; U.S. Patent No. 8,621,539 (the "539 patent"), entitled "Physical layer transmitter for use in a broadband local area network"; U.S. Patent No. 8,320,566 (the "0,566 patent"), entitled "Method and apparatus for performing constellation scrambling in a multimedia home network"; U.S. Patent No. 10,257,566 (the "7,566 patent"), entitled "Broadband local area network"; U.S. Patent No. 8,228,910 (the "910 Patent"), entitled "Aggregating network packets for transmission to a destination mode"; and U.S. Patent No. 8,363,681 (the "681 patent"), entitled "Method and apparatus for using ranging measurements in a multimedia home network." Generally, the patents relate to Multimedia over Coax Alliance standards and the manner in which we provide a whole-home DVR network over an on-premises coaxial cable network. Entropic has asserted the same patents in the same court against Comcast and Cox.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Jones 401(k) Litigation

On December 20, 2021, four former employees filed a class action complaint in the United States District Court for the District of Colorado against DISH Network, DISH Network's Board of Directors, and DISH Network's Retirement Plan Committee alleging fiduciary breaches arising from the management of our 401(k) Plan. The putative class, comprised of all participants in the Plan on or after January 20, 2016, alleges that the Plan had excessive recordkeeping and administrative expenses and that it maintained underperforming funds. On February 1, 2023, a Magistrate Judge issued a Recommendation that the defendants' motion to dismiss the complaint be granted.

DISH Network intends to vigorously defend this case. DISH Network cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Realtime Data LLC and Realtime Adaptive Streaming LLC

On June 6, 2017, Realtime Data LLC d/b/a IXO ("Realtime") filed an amended complaint in the United States District Court for the Eastern District of Texas (the "Original Texas Action") against DISH Network; our wholly-owned subsidiaries DISH Network L.L.C., DISH Technologies L.L.C. (then known as EchoStar Technologies L.L.C.), Sling TV L.L.C. and Sling Media L.L.C.; EchoStar, and EchoStar's wholly-owned subsidiary Hughes Network Systems, L.L.C. ("HNS"); and Arris Group, Inc. Realtime's initial complaint in the Original Texas Action, filed on February 14, 2017, had named only EchoStar and HNS as defendants.

The amended complaint in the Original Texas Action alleges infringement of United States Patent No. 8,717,204 (the "204 patent"), entitled "Methods for encoding and decoding data"; United States Patent No. 9,054,728 (the "728 patent"), entitled "Data compression systems and methods"; United States Patent No. 7,358,867 (the "867 patent"), entitled "Content independent data compression method and system"; United States Patent No. 8,502,707 (the "707 patent"), entitled "Data compression systems and methods"; United States Patent No. 8,275,897 (the "897 patent"), entitled "System and methods for accelerated data storage and retrieval"; United States Patent No. 8,867,610 (the "610 patent"), entitled "System and methods for video and audio data distribution"; United States Patent No. 8,934,535 (the "535 patent"), entitled "Systems and methods for video and audio data storage and distribution"; and United States Patent No. 8,553,759 (the "759 patent"), entitled "Bandwidth sensitive data compression and decompression." Realtime alleges that DISH Network, Sling TV L.L.C., Sling Media L.L.C. and Arris Group, Inc. streaming video products and services compliant with various versions of the H.264 video compression standard infringe the 897 patent, the 610 patent and the 535 patent, and that the data compression system in Hughes' products and services infringe the 204 patent, the 728 patent, the 867 patent, the 707 patent and the 759 patent.

On July 19, 2017, the Court severed Realtime's claims against DISH Network, DISH Network L.L.C., Sling TV L.L.C., Sling Media L.L.C. and Arris Group, Inc. (alleging infringement of the 897 patent, the 610 patent and the 535 patent) from the Original Texas Action into a separate action in the United States District Court for the Eastern District of Texas (the "Second Texas Action"). On August 31, 2017, Realtime dismissed the claims against DISH Network, Sling TV L.L.C., Sling Media Inc., and Sling Media L.L.C. from the Second Texas Action and refiled these claims (alleging infringement of the 897 patent, the 610 patent and the 535 patent) against Sling TV L.L.C., Sling Media Inc., and Sling Media L.L.C. in a new action in the United States District Court for the District of Colorado (the "Colorado Action"). Also on August 31, 2017, Realtime dismissed DISH Technologies L.L.C. from the Original Texas Action, and on September 12, 2017, added it as a defendant in an amended complaint in the Second Texas Action. On November 6, 2017, Realtime filed a joint motion to dismiss the Second Texas Action without prejudice, which the Court entered on November 8, 2017.

On October 10, 2017, Realtime Adaptive Streaming LLC ("Realtime Adaptive Streaming") filed suit against our wholly-owned subsidiaries DISH Network L.L.C. and DISH Technologies L.L.C., as well as Arris Group, Inc., in a new action in the United States District Court for the Eastern District of Texas (the "Third Texas Action"), alleging infringement of the 610 patent and the 535 patent. Also on October 10, 2017, an amended complaint was filed in the Colorado Action, substituting Realtime Adaptive Streaming as the plaintiff instead of Realtime, and alleging infringement of only the 610 patent and the 535 patent, but not the 897 patent. On November 6, 2017, Realtime Adaptive Streaming filed a joint motion to dismiss the Third Texas Action without prejudice, which the court entered on November 8, 2017. Also on November 6, 2017, Realtime Adaptive Streaming filed a second amended complaint in the Colorado Action, adding our wholly-owned subsidiaries DISH Network L.L.C. and DISH Technologies L.L.C., as well as Arris Group, Inc., as defendants.

As a result, neither DISH Network nor any of its subsidiaries is a defendant in the Original Texas Action; the Court has dismissed without prejudice the Second Texas Action and the Third Texas Action; and our wholly-owned subsidiaries DISH Network L.L.C., DISH Technologies L.L.C., Sling TV L.L.C. and Sling Media L.L.C. as well as Arris Group, Inc., are defendants in the Colorado Action, which now has Realtime Adaptive Streaming as the named plaintiff. Following a settlement with the plaintiff, Arris Group, Inc. was dismissed from the action on March 10, 2021.

On July 3, 2018, Sling TV L.L.C., Sling Media L.L.C., DISH Network L.L.C., and DISH Technologies L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of each of the asserted patents. On January 31, 2019, the United States Patent and Trademark Office agreed to institute proceedings on our petitions, and it held trial on the petitions on December 5, 2019. On January 17, 2020, the United States Patent and Trademark Office terminated the petitions as time-barred, but issued a final written decision invalidating the 535 patent to third parties that had timely joined in our petition (and, on January 10, 2020, issued a final written decision invalidating the 535 patent in connection with a third party's independent petition). On March 16, 2020, Sling TV L.L.C., Sling Media L.L.C., DISH Network L.L.C., and DISH Technologies L.L.C. filed a notice of appeal from the terminated petitions to the United States Court of Appeals for the Federal Circuit. On June 29, 2020, the United States Patent and Trademark Office filed a notice of intervention in the appeal. On March 16, 2021, the Court of Appeals dismissed the appeal for lack of jurisdiction. On April 29, 2021, Sling TV L.L.C., Sling Media L.L.C., DISH Network L.L.C., and DISH Technologies L.L.C. filed a petition for rehearing, which was denied on June 28, 2021. On January 12, 2021, Realtime Adaptive Streaming filed a notice of dismissal of its claims on the 535 patent.

On July 30, 2021, the District Court granted summary judgment in favor of DISH Network L.L.C., DISH Technologies L.L.C., Sling TV L.L.C. and Sling Media L.L.C., holding that the remaining asserted patent, the 610 patent, is invalid because it claims patent-ineligible abstract subject matter. Realtime Adaptive Streaming has filed a notice of appeal from that ruling to the United States Court of Appeals for the Federal Circuit, and that appeal was fully briefed as of October 21, 2022. On January 21, 2022, the District Court granted the motion by DISH Network L.L.C., DISH Technologies L.L.C., Sling TV L.L.C. and Sling Media L.L.C. to have the case declared "exceptional," and on September 20, 2022, awarded them \$3.9 million in attorneys' fees. Realtime Adaptive Streaming filed a notice of appeal to the United States Court of Appeals for the Federal Circuit from the exceptionality and fee award orders, and filed its opening brief on January 20, 2023. Independently, on September 21, 2021, in connection with an ex parte reexamination of the validity of the 610 patent, an examiner at the United States Patent and Trademark Office issued a final office action rejecting each asserted claim of the 610 patent. On February 15, 2022, Realtime Adaptive Streaming filed a notice of appeal from that final office action to the Patent Trial and Appeal Board, and that appeal is fully briefed.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages. Realtime Adaptive Streaming is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein.

SafeCast Limited

On June 27, 2022, SafeCast Limited filed a complaint against DISH Network in the United States District Court for the Western District of Texas. The complaint alleges that we infringe U.S. Patent No. 9,392,302, entitled "System for providing improved facilities in time-shifted broadcasts." On the same day, it brought complaints in the same court asserting infringement of the same patent against AT&T, Google, HBO, NBCUniversal, Paramount and Verizon. On October 24, 2022, in response to the parties' joint motion, the Court ordered the case transferred to the United States District Court for the District of Colorado.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patent, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages. The plaintiff is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

Scenic Licensing LLC

On October 27, 2021, Scenic Licensing LLC filed a complaint against our wholly-owned subsidiary Sling Media L.L.C. in the United States District Court for the District of Delaware. The complaint alleges that the Sling Studio product infringes U.S. Patent No. 8,677,420 (the "420 patent"), entitled "Personal monitoring and information apparatus." On February 28, 2022, Scenic Licensing LLC filed an amended complaint making the same primary allegation. Rather than responding to Sling Media L.L.C.'s motion to dismiss the amended complaint, which asserted that the 420 patent claims non-patentable subject matter, on April 21, 2022, Scenic Licensing LLC dismissed the case. This matter is now concluded.

Sound View Innovations, LLC

On December 30, 2019, Sound View Innovations, LLC filed one complaint against our wholly-owned subsidiaries DISH Network L.L.C. and DISH Technologies L.L.C. and a second complaint against our wholly-owned subsidiary Sling TV L.L.C. in the United States District Court for the District of Colorado. The complaint against DISH Network L.L.C. and DISH Technologies L.L.C. alleges infringement of United States Patent No 6,502,133 (the "133 patent"), entitled "Real-Time Event Processing System with Analysis Engine Using Recovery Information" and both complaints allege infringement of United States Patent No. 6,708,213 (the "213 patent), entitled "Method for Streaming Multimedia Information Over Public Networks"; United States Patent No. 6,757,796 (the "796 patent"), entitled "Method and System for Caching Streaming Live Broadcasts transmitted Over a Network"; and United States Patent No. 6,725,456 (the "456 patent"), entitled "Methods and Apparatus for Ensuring Quality of Service in an Operating System." All but the 133 patent are also asserted in the complaint against Sling TV L.L.C.

On May 21, 2020, June 3, 2020, June 5, 2020 and July 10, 2020, DISH Network L.L.C., DISH Technologies L.L.C. and Sling TV L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of, respectively, the 213 patent, the 133 patent, the 456 patent and the 796 patent. On November 25, 2020, the United States Patent and Trademark Office declined to review the validity of the 213 patent, and on September 29, 2021, denied a request for rehearing of that decision. On January 19, 2021, the United States Patent and Trademark Office agreed to institute proceedings on the 456 patent but declined to review the 133 patent. On February 24, 2021, the United States Patent and Trademark Office agreed to institute proceedings on the 796 patent. On January 18, 2022, the United States Patent and Trademark Office issued a final written decision holding that the challenged claim of the 456 patent is patentable, and on February 8, 2022, it issued a final written decision holding that the challenged claims of the 796 patent are patentable.

On March 22, 2022, DISH Network L.L.C., DISH Technologies L.L.C. and Sling TV L.L.C. filed a notice of appeal to the United States Court of Appeals for the Federal Circuit from the adverse final written decision regarding the 456 patent, and on April 8, 2022, they filed a notice of appeal to the same court from the adverse final written decision regarding the 796 patent. The appeal on the 456 patent was voluntarily dismissed on December 6, 2022. Appellate briefing on the 796 appeal was completed on January 19, 2023.

On April 20, 2022, DISH Network L.L.C., DISH Technologies L.L.C. and Sling TV L.L.C. filed a petition with the United States Patent and Trademark Office requesting ex parte reexamination of the validity of one of the asserted claims of the 213 patent, and reexamination was ordered on June 16, 2022. On January 18, 2023, they filed another petition requesting ex parte reexamination of the validity of the four additional asserted claims of the 213 patent.

We intend to vigorously defend these cases. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages. The plaintiff is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

Telemarketing Shareholder Derivative Litigation

On October 19, 2017, Plumbers Local Union No. 519 Pension Trust Fund ("Plumbers Local 519"), a purported shareholder of DISH Network, filed a putative shareholder derivative action in the District Court for Clark County, Nevada alleging, among other things, breach of fiduciary duty claims against the following current and former members of DISH Network's Board of Directors: Charles W. Ergen; James DeFranco; Cantey M. Ergen; Steven R. Goodbarn; David K. Moskowitz; Tom A. Ortolf; Carl E. Vogel; George R. Brokaw; and Gary S. Howard (collectively, the "Director Defendants").

In its complaint, Plumbers Local 519 contends that, by virtue of their alleged failure to appropriately ensure DISH Network's compliance with telemarketing laws, the Director Defendants exposed DISH Network to liability for telemarketing violations, including those in the Krakauer Action. It also contends that the Director Defendants caused DISH Network to pay improper compensation and benefits to themselves and others who allegedly breached their fiduciary duties to DISH Network. Plumbers Local 519 alleges causes of action for breach of fiduciary duties of loyalty and good faith, gross mismanagement, abuse of control, corporate waste and unjust enrichment. Plumbers Local 519 is seeking an unspecified amount of damages.

On November 13, 2017, City of Sterling Heights Police and Fire Retirement System ("Sterling Heights"), a purported shareholder of DISH Network, filed a putative shareholder derivative action in the District Court for Clark County, Nevada. Sterling Heights makes substantially the same allegations as Plumbers Union 519, and alleges causes of action against the Director Defendants for breach of fiduciary duty, waste of corporate assets and unjust enrichment. Sterling Heights is seeking an unspecified amount of damages. Pursuant to a stipulation of the parties, on January 4, 2018, the District Court agreed to consolidate the Sterling Heights action with the Plumbers Local 519 action, and on January 12, 2018, the derivative plaintiffs filed an amended consolidated complaint that largely duplicates the original Plumbers Local 519 complaint.

DISH Network's Board of Directors has established a Special Litigation Committee to review the factual allegations and legal claims in this action. On May 15, 2018, the District Court granted the Special Litigation Committee's motion to stay the case pending its investigation. The Special Litigation Committee's report was filed on November 27, 2018, and recommended that the Company not pursue the claims asserted by the derivative plaintiffs. On December 20, 2018, the Special Litigation Committee filed a motion seeking deferral to its determination that the claims should be dismissed. Following a two-day evidentiary hearing on July 6-7, 2020, on July 17, 2020, the District Court entered an order granting the Special Litigation Committee's motion and, thereafter, entered judgment in favor of the DISH Director Defendants.

On August 25, 2020, the derivative plaintiffs filed a notice of appeal to the Nevada Supreme Court, and on August 4, 2022, that Court unanimously affirmed the District Court's judgment in favor of the Director Defendants. This matter is now concluded.

TQ Delta, LLC

On July 17, 2015, TQ Delta, LLC ("TQ Delta") filed a complaint against us, DISH Network and our wholly-owned subsidiary DISH Network L.L.C. in the United States District Court for the District of Delaware. The Complaint alleges infringement of United States Patent No. 6,961,369 (the "369 patent"), which is entitled "System and Method for Scrambling the Phase of the Carriers in a Multicarrier Communications System"; United States Patent No. 8,718,158 (the "158 patent"), which is entitled "System and Method for Scrambling the Phase of the Carriers in a Multicarrier Communications System"; United States Patent No. 9,014,243 (the "243 patent"), which is entitled "System and Method for Scrambling Using a Bit Scrambler and a Phase Scrambler"; United States Patent No. 7,835,430 (the "430 patent"), which is entitled "Multicarrier Modulation Messaging for Frequency Domain Received Idle Channel Noise Information"; United States Patent No. 8,238,412 (the "412 patent"), which is entitled "Multicarrier Modulation Messaging for Power Level per Subchannel Information"; United States Patent No. 8,432,956 (the "956 patent"), which is entitled "Multicarrier Modulation Messaging for Power Level per Subchannel Information"; and United States Patent No. 8,611,404 (the "404 patent"), which is entitled "Multicarrier Transmission System with Low Power Sleep Mode and Rapid-On Capability."

On September 9, 2015, TQ Delta filed a first amended complaint that added allegations of infringement of United States Patent No. 9,094,268 (the "268 patent"), which is entitled "Multicarrier Transmission System With Low Power Sleep Mode and Rapid-On Capability." On May 16, 2016, TQ Delta filed a second amended complaint that added EchoStar Corporation and its then wholly-owned subsidiary EchoStar Technologies L.L.C. as defendants. TQ Delta alleges that our satellite TV service, Internet service, set-top boxes, gateways, routers, modems, adapters and networks that operate in accordance with one or more Multimedia over Coax Alliance Standards infringe the asserted patents.

TQ Delta has filed actions in the same court alleging infringement of the same patents against Comcast Corp., Cox Communications, Inc., DirecTV, Time Warner Cable Inc. and Verizon Communications, Inc. TQ Delta is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein.

On July 14, 2016, TQ Delta stipulated to dismiss with prejudice all claims related to the 369 patent and the 956 patent. On July 20, 2016, we filed petitions with the United States Patent and Trademark Office challenging the validity of all of the patent claims of the 404 patent and the 268 patent that have been asserted against us. Third parties filed petitions with the United States Patent and Trademark Office challenging the validity of all of the patent claims that have been asserted against us in the action. On November 4, 2016, the United States Patent and Trademark Office agreed to institute proceedings on the third-party petitions related to the 158 patent, the 243 patent, the 412 patent and the 430 patent.

On December 20, 2016, pursuant to a stipulation of the parties, the Court stayed the case until the resolution of all petitions to the United States Patent and Trademark Office challenging the validity of all of the patent claims at issue. On January 19, 2017, the United States Patent and Trademark Office granted our motions to join the instituted petitions on the 430 and 158 patents.

On February 9, 2017, the United States Patent and Trademark Office agreed to institute proceedings on our petition related to the 404 patent, and on February 13, 2017, the United States Patent and Trademark Office agreed to institute proceedings on our petition related to the 268 patent. On February 27, 2017, the United States Patent and Trademark Office granted our motions to join the instituted petitions on the 243 and 412 patents. On October 26, 2017, the United States Patent and Trademark Office issued final written decisions on the petitions challenging the 158 patent, the 243 patent, the 412 patent and the 430 patent, and it invalidated all of the asserted claims of those patents.

On February 7, 2018, the United States Patent and Trademark Office issued final written decisions on the petitions challenging the 404 patent, and it invalidated all of the asserted claims of that patent on the basis of our petition. On February 10, 2018, the United States Patent and Trademark Office issued a final written decision on our petition challenging the 268 patent, and it invalidated all of the asserted claims.

On March 12, 2018, the United States Patent and Trademark Office issued a final written decision on a third-party petition challenging the 268 patent, and it invalidated all of the asserted claims. All asserted claims have now been invalidated by the United States Patent and Trademark Office. TQ Delta filed notices of appeal from the final written decisions adverse to it. On May 9, 2019, the United States Court of Appeals for the Federal Circuit affirmed the invalidity of the 430 patent and the 412 patent. On July 10, 2019, the United States Court of Appeals for the Federal Circuit affirmed the invalidity of the asserted claims of the 404 patent. On July 15, 2019, the United States Court of Appeals for the Federal Circuit affirmed the invalidity of the asserted claims of the 268 patent. On November 22, 2019, the United States Court of Appeals for the Federal Circuit reversed the invalidity finding on the 243 patent and the 158 patent, and then, on March 29, 2020, denied a petition for panel rehearing as to those findings. On April 13, 2021, the Court lifted the stay, and the case is proceeding on the 243 patent and the 158 patent. On April 23 and April 26, 2021, the United States Patent and Trademark Office issued orders granting requests for ex parte reexamination of, respectively, the 243 patent and the 158 patent. In a proposed supplemental report, TQ Delta's damages expert contends that TQ Delta is entitled to \$251 million in damages.

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Uniloc 2017 LLC

On January 31, 2019, Uniloc 2017 LLC ("Uniloc") filed a complaint against our wholly-owned subsidiary Sling TV L.L.C. in the United States District Court for the District of Colorado. The Complaint alleges infringement of United States Patent No. 6,519,005 (the "005 patent"), which is entitled "Method of Concurrent Multiple-Mode Motion Estimation for Digital Video"; United States Patent No. 6,895,118 (the "118 patent"), which is entitled "Method of Coding Digital Image Based on Error Concealment"; United States Patent No. 9,721,273 (the "273 patent"), which is entitled "System and Method for Aggregating and Providing Audio and Visual Presentations Via a Computer Network"); and United States Patent No. 8,407,609 (the "609 patent"), which is entitled "System and Method for Providing and Tracking the Provision of Audio and Visual Presentations Via a Computer Network." Uniloc is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein.

On June 25, 2019, Sling TV L.L.C. filed a petition with the United States Patent and Trademark Office challenging the validity of all of the asserted claims of the 005 patent. On July 19, 2019 and July 22, 2019, respectively, Sling TV L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of all asserted claims of the 273 patent and the 609 patent. On August 12, 2019, Sling TV L.L.C. filed a petition with the United States Patent and Trademark Office challenging the validity of all of the asserted claims of the 118 patent. On October 18, 2019, pursuant to a stipulation of the parties, the Court entered a stay of the trial proceedings.

On January 9, 2020, the United States Patent and Trademark Office agreed to institute proceedings on the petition challenging the 005 patent. On January 15, 2020, the United States Patent and Trademark Office agreed to institute proceedings on the petition challenging the 273 patent. On February 4, 2020, the United States Patent and Trademark Office agreed to institute proceedings on the petition challenging the 609 patent. On February 25, 2020, the United States Patent and Trademark Office declined to institute proceedings on the petition challenging the 118 patent.

On December 28, 2020, the United States Patent and Trademark Office issued a final written decision upholding the validity of the challenged claims of the 273 patent. Sling TV L.L.C. appealed that decision to the United States Court of Appeals for the Federal Circuit, and on February 2, 2022, the Federal Circuit vacated the final written decision and remanded to the United States Patent and Trademark Office to reconsider its ruling. On remand, on September 7, 2022, the United States Patent and Trademark Office issued a revised final written decision finding all challenged claims of the 273 patent invalid. On November 9, 2022, Uniloc filed a notice of appeal of that revised final written decision.

On January 5, 2021, the United States Patent and Trademark Office issued a final written decision invalidating all challenged claims of the 005 patent. On January 19, 2021, the United States Patent and Trademark Office issued a final written decision invalidating all challenged claims of the 609 patent (and a second final written decision invalidating all challenged claims of the 609 patent based on a third party's petition).

We intend to vigorously defend this case. In the event that a court ultimately determines that we infringe the asserted patents, we may be subject to substantial damages, which may include treble damages, and/or an injunction that could require us to materially modify certain features that we currently offer to consumers. We cannot predict with any degree of certainty the outcome of the suit or determine the extent of any potential liability or damages.

Vermont National Telephone Company

On September 23, 2016, the United States District Court for the District of Columbia unsealed a qui tam complaint that, on May 13, 2015, Vermont National Telephone Company ("Vermont National") filed against DISH Network; DISH Network's wholly-owned subsidiaries, American AWS-3 Wireless I L.L.C., American II, American III, and DISH Wireless Holding L.L.C.; Charles W. Ergen (our Chairman) and Cantey M. Ergen (a member of DISH Network's Board of Directors); Northstar Wireless; Northstar Spectrum; Northstar Manager, LLC; SNR Wireless; SNR HoldCo; SNR Wireless Management, LLC; and certain other parties. The complaint alleges violations of the federal civil False Claims Act (the "FCA") based on, among other things, allegations that Northstar Wireless and SNR Wireless falsely claimed bidding credits of 25% in the AWS-3 Auction when they were allegedly under the de facto control of DISH Network and, therefore, were not entitled to the bidding credits as designated entities under applicable FCC rules. Vermont National participated in the AWS-3 Auction through its wholly-owned subsidiary, VTel Wireless. The complaint was unsealed after the United States Department of Justice notified the District Court that it had declined to intervene in the action. Vermont National seeks to recover on behalf of the United States government approximately \$10 billion, which reflects the \$3.3 billion in bidding credits that Northstar Wireless and SNR Wireless claimed in the AWS-3 Auction, trebled under the FCA. Vermont National also seeks civil penalties of not less than \$5,500 and not more than \$11,000 for each violation of the FCA. On March 2, 2017, the United States District Court for the District of Columbia entered a stay of the litigation until such time as the United States Court of Appeals for the District of Columbia (the "D.C. Circuit") issued its opinion in SNR Wireless LicenseCo, LLC, et al. v. F.C.C. The D.C. Circuit issued its opinion on August 29, 2017 and remanded the matter to the FCC for further proceedings. See Note 15 "Commitments and Contingencies - Commitments - DISH Network Noncontrolling Investments in the Northstar Entities and the SNR Entities Related to AWS-3 Wireless Spectrum Licenses" in the Notes to DISH Network's Annual Report on Form 10-K for the year ended December 31, 2022 for further information.

Thereafter, the District Court maintained the stay until October 26, 2018. On February 11, 2019, the District Court granted Vermont National's unopposed motion for leave to file an amended complaint. On March 28, 2019, the defendants filed a motion to dismiss Vermont National's amended complaint, and on March 23, 2021, the District Court granted the motion to dismiss. On April 21, 2021, Vermont National filed a notice of appeal to the United States Court of Appeals for the DC Circuit and, on May 17, 2022, that court reversed the District Court's dismissal of the complaint. On June 16, 2022, the Defendants-Appellees filed a petition for rehearing or rehearing en banc, but on August 17, 2022, that petition was denied.

DISH Network intends to vigorously defend this case. DISH Network cannot predict with any degree of certainty the outcome of this proceeding or determine the extent of any potential liability or damages.

Waste Disposal Inquiry

The California Attorney General and the Alameda County (California) District Attorney have investigated whether certain of our former waste disposal policies, procedures and practices violated the California Business and Professions Code and the California Health and Safety Code. On March 8, 2022, we entered into a settlement with those entities under which DISH Network agreed to pay certain civil penalties and other expenses, and to be subject to an injunction imposing certain waste management requirements for the next five years. On March 25, 2022, the Alameda County Superior Court entered the parties' stipulated judgment. This outcome did not have a material effect on our results of operations, financial condition or cash flows. This matter is now concluded.

Other

In addition to the above actions, we are subject to various other legal proceedings and claims that arise in the ordinary course of business, including, among other things, disputes with programmers regarding fees. In our opinion, the amount of ultimate liability with respect to any of these actions is unlikely to materially affect our financial condition, results of operations or liquidity, though the outcomes could be material to our operating results for any particular period, depending, in part, upon the operating results for such period.

13. Financial Information for Subsidiary Guarantors

Our registered senior notes are fully and unconditionally guaranteed, jointly and severally on a senior unsecured basis by certain of our wholly-owned subsidiaries (the "Guarantors").

Our 7 3/8% Senior Notes due 2028 and 5 1/8% Senior Notes due 2029 are guaranteed by our current principal operating subsidiaries. Our 5% Senior Notes due 2023, 5 7/8% Senior Notes due 2024 and 7 3/4% Senior Notes due 2026 are guaranteed by our current principal operating subsidiaries other than Sling TV Holding L.L.C. ("Sling TV Holding"). However, Sling TV Holding, including all of its assets and operations, is a wholly-owned subsidiary of DISH Network L.L.C., which is a Guarantor on all of our outstanding registered senior notes. Certain of our wholly-owned subsidiaries are designated as "Unrestricted Subsidiaries" and do not guarantee any of our registered senior notes. These Unrestricted Subsidiaries are non-operating entities that hold minimal or no assets.

We and our subsidiaries participate with our parent company, DISH Network, in a centralized system for the management of our cash and marketable investment securities. Please see Note 3 for further information.

The assets, liabilities and results of operations of the combined issuer and Guarantors (excluding Unrestricted Subsidiaries) of the guaranteed securities are not materially different than corresponding amounts presented in the consolidated financial statements of the parent company issuer. Therefore, summarized financial information of the issuer and the Guarantors is not required.

The below descriptions apply to all of our existing registered senior notes. There are no material differences between our registered senior notes guaranteed by all of our current principal operating subsidiaries and our registered senior notes guaranteed by our current principal operating subsidiaries other than Sling TV Holding, a wholly-owned subsidiary of DISH Network L.L.C., which is a Guarantor on all of our outstanding registered senior notes.

The guarantee of a Guarantor will be deemed automatically discharged and released in accordance with the terms of the applicable indenture: (i) in connection with any direct or indirect sale, conveyance or other disposition of all of the capital stock or all or substantially all of the assets of that Guarantor (including by way of merger or consolidation), if such sale or disposition is made in compliance with the applicable provisions of the indenture; (ii) if such Guarantor is dissolved or liquidated in accordance with the provisions of the indenture; (iii) if we designate any such Guarantor as an "Unrestricted Subsidiary" in compliance with the terms of the indenture; or (iv) with respect to a Guarantor which constitutes a Non-Core Asset (as such term is defined in the applicable indenture), upon the sale or other disposition of certain equity interests of such Guarantor, if such sale or disposition is made in compliance with the applicable provisions of the indenture. There are no restrictions on our ability to obtain cash dividends or other distributions of funds from the Guarantors, except those imposed by applicable law.

The rights of holders of the registered senior notes against the Guarantors may be limited under the U.S. Bankruptcy Code or state fraudulent transfer or conveyance law. Under certain circumstances (including a finding that a Guarantor was insolvent at the time its guarantee of the registered senior notes was issued), a court could hold that the obligations of a Guarantor under a guarantee may be voided or are subordinate to other obligations of the Guarantor. Each guarantee contains a provision intended to limit the Guarantor's liability to the maximum amount that it could incur without causing the incurrence of obligations under its guarantee to be a fraudulent conveyance or transfer under U.S. federal or state law.

14. Disaggregation of Revenue

Geographic Information. Revenue is attributed to geographic regions based upon the location where the goods and services are provided. All service revenue was derived from the United States. Substantially all of our long-lived assets reside in the United States.

The following table summarizes revenue by geographic region:

		For the Years Ended December 31,									
Revenue:	2022 2021					2020					
				(In thousands)	-						
United States	\$	12,338,428	\$	12,728,869	\$	12,692,940					
Canada and Mexico		39,780		32,994		34,689					
Total revenue	\$	12,378,208	\$	12,761,863	\$	12,727,629					

The revenue from external customers disaggregated by major revenue source was as follows:

	For the Years Ended December 31,									
Category:	2022 2021					2020				
			(In	thousands)						
Pay-TV subscriber and related revenue	\$	12,273,150	\$	12,649,285	\$	12,576,470				
Equipment sales and other revenue		105,058		112,578		151,159				
Total	\$	12,378,208	\$	12,761,863	\$	12,727,629				

15. Contract Balances

Our valuation and qualifying accounts as of December 31, 2022, 2021 and 2020 were as follows:

Allowance for credit losses	Beg	alance at ginning of Period	Pro E	Current Period ovision for expected edit Losses (In tho	A	Vrite-offs Charged Against dllowance	alance at I of Period
For the years ended:							
December 31, 2022	\$	32,861	\$	75,245	\$	(67,464)	\$ 40,642
December 31, 2021	\$	43,233	\$	48,150	\$	(58,522)	\$ 32,861
December 31, 2020	\$	19,280	\$	76,441	\$	(52,488)	\$ 43,233

Contract liabilities arise when we bill our customers and receive consideration in advance of providing the service. Contract liabilities are recognized as revenue when the service has been provided to the customer. Contract liabilities are recorded in "Deferred revenue and other" and "Long-term deferred revenue and other long-term liabilities" on our Consolidated Balance Sheets.

	As of Decemb	er 31,
	 2022	2021
	 (In thousand	ds)
ilities	\$ 506,815 \$	558,700

Our beginning of period contract liability recorded as customer contract revenue during 2022 was \$553 million.

We apply a practical expedient and do not disclose the value of the remaining performance obligations for contracts that are less than one year in duration, which represent a substantial majority of our revenue. As such, the amount of revenue related to unsatisfied performance obligations is not necessarily indicative of our future revenue.

16. Quarterly Financial Data (Unaudited)

Our quarterly results of operations are summarized as follows:

		F	or the Three	Moı	nths Ended		
	March 31		June 30	Se	ptember 30	Do	ecember 31
	 		(In tho	usan	ds)		
Year ended December 31, 2022:							
Total revenue	\$ 3,133,411	\$	3,121,014	\$	3,048,315	\$	3,075,468
Operating income (loss)	724,776		757,713		622,781		717,386
Net income (loss)	444,411		483,180		408,337		474,817
Year ended December 31, 2021:							
Total revenue	\$ 3,162,919	\$	3,211,488	\$	3,176,289	\$	3,211,167
Operating income (loss)	739,629		793,374		665,434		741,013
Net income (loss)	424,527		476,743		386,629		448,973

17. Related Party Transactions

Related Party Transactions with EchoStar

Following the Spin-off, DISH Network and EchoStar have operated as separate publicly-traded companies and neither entity has any ownership interest in the other. However, a substantial majority of the voting power of the shares of both companies is owned beneficially by Charles W. Ergen, our Chairman, and by certain entities established by Mr. Ergen for the benefit of his family. In connection with and following the Spin-off, we and EchoStar have entered into certain agreements pursuant to which we obtain certain products, services and rights from EchoStar, EchoStar obtains certain products, services and rights from us, and we and EchoStar have indemnified each other against certain liabilities arising from our respective businesses. Pursuant to the Share Exchange Agreement, among other things, EchoStar transferred to us certain assets and liabilities of the EchoStar technologies and EchoStar broadcasting businesses. Pursuant to the Master Transaction Agreement, among other things, EchoStar transferred to DISH Network certain assets and liabilities of its EchoStar Satellite Services segment. In connection with the Share Exchange and the Master Transaction Agreement, DISH Network and EchoStar and certain of their respective subsidiaries entered into certain agreements covering, among other things, tax matters, employee matters, intellectual property matters and the provision of transitional services. In addition, certain agreements that we had with EchoStar have terminated, and we entered into certain new agreements with EchoStar. We also may enter into additional agreements with EchoStar in the future. As of December 31, 2022 and 2021 and during the years ended December 31, 2022, 2021 and 2020, none of these agreements with EchoStar had a material impact on our financial condition or our results of operations.

Related Party Transactions with DISH Network

"Notes Receivable - DISH Network"

Concurrently with the issuance of the 5 1/4% Senior Secured Notes due 2026 and the 5 3/4% Senior Secured Notes due 2028 (our "Senior Secured Notes") and using the proceeds thereof, we made the Intercompany Loan to DISH Network to be used by DISH Network to finance the purchase of certain wireless spectrum licenses and for general corporate purposes, including the buildout of wireless infrastructure. The Intercompany Loan is secured by (i) the cash proceeds of the loan and (ii) an interest in the wireless spectrum licenses acquired using such proceeds. Such collateral may be replaced by other then-existing wireless spectrum licenses held directly or indirectly by DISH Network of equivalent value (based upon a third-party valuation). The Intercompany Loan will mature in two tranches, with the first tranche maturing on December 1, 2026 (the "2026 Tranche") and the second tranche maturing on December 1, 2028 (the "2028 Tranche"). The aggregate principal amount of the Intercompany Loan was initially \$5.250 billion, and on February 11, 2022, we advanced an additional \$1.5 billion to DISH Network under the 2026 Tranche. Interest will accrue and be payable semiannually, and interest payments with respect to the Intercompany Loan will, at DISH Network's option, be payable in kind for the first two years. In the third year, a minimum of 50% of each interest payment due with respect to each tranche of the Intercompany Loan must be paid in cash. Thereafter, interest payments must be paid in cash. Interest will accrue: (a) when paid in cash, at a fixed rate of 0.25% per annum in excess of the interest rate applicable to, in the case of the 2026 Tranche, the 5 1/4% Senior Secured Notes due 2026, and in the case of the 2028 Tranche, the 5 3/4% Senior Secured Notes due 2028 (each, the "Cash Accrual Rate" with respect to the applicable tranche); and (b) when paid in kind, at a rate of 0.75% per annum in excess of the Cash Accrual Rate for the applicable tranche. The Intercompany Loan will be repayable by DISH Network in whole or in part, at any time or from time to time, at a price equal to 100% of the principal amount thereof, plus accrued but unpaid interest thereon. We may use the proceeds of any such pre-payment for general corporate purposes, including refinancing of indebtedness, but may not use any such prepaid amounts to make a cash dividend or distribution to DISH Network prior to the repayment in full of the Intercompany Loan. The 5 1/4% Senior Secured Notes due 2026 and the 5 3/4% Senior Secured Notes due 2028 are subordinated to our existing and certain future unsecured notes with respect to certain realizations under the Intercompany Loan and any collateral pledged as security therefor. Any material amendments or modifications to the terms of the Intercompany Loan will require the written consent of the holders of a majority of the then-outstanding 5 1/4% Senior Secured Notes due 2026 and the 5 3/4% Senior Secured Notes due 2028.

During the years ended December 31, 2022 and 2021, we recorded \$415 million and \$32 million, respectively, of "Interest income" on our Consolidated Statements of Operations and Comprehensive Income (Loss). As of December 31, 2022 and 2021, "Notes receivable – DISH Network" was \$7.160 billion including interest paid in kind and \$5.250 billion, respectively, and "Interest receivable – DISH Network" was \$37 million and \$32 million, respectively, on our Consolidated Balance Sheets.

"Accrued Taxes and Accounts Payable - DISH Network"

During the fourth quarter of 2022, we accrued \$179 million related to taxes payable to DISH Network and \$61 million related to satellite capacity leased from DISH Network in "Other accrued expenses" and "Trade accounts payable," respectively, on our Consolidated Balance Sheets.

"Cost of services"

During the years ended December 31, 2022, 2021 and 2020, we incurred \$194 million, \$219 million and \$224 million, respectively, for satellite capacity leased from DISH Network and telemetry, tracking and control and other professional services provided to us by DISH Network. As a result of the Master Transaction Agreement, discussed above, DISH Network is now a supplier of the vast majority of our transponder capacity. These amounts are recorded in "Cost of services" on our Consolidated Statements of Operations and Comprehensive Income (Loss). The agreements pertaining to these expenses are discussed below.

Satellite Capacity Leased from DISH Network. On September 10, 2019, in connection with the Master Transaction Agreement, DISH Network entered into with EchoStar on May 19, 2019, we began leasing satellite capacity on satellites owned or leased by DISH Network from a wholly-owned subsidiary of DISH Network. See "Pay-TV Satellites" in Note 6 for further information. The term of each lease is set forth below:

• EchoStar X, XI and XIV. On March 1, 2014, we began leasing all available capacity from EchoStar on the EchoStar X, XI and XIV satellites. The term of each satellite capacity agreement generally terminates upon the earlier of: (i) the end-of-life of the satellite; (ii) the date the satellite fails; or (iii) a certain date, which depends upon, among other things, the estimated useful life of the satellite. We generally have the option to renew each satellite capacity agreement on a year-to-year basis through the end of the respective satellite's life. There can be no assurance that any options to renew such agreements will be exercised. Pursuant to the Master Transaction Agreement, on September 10, 2019, the satellite capacity agreement we previously had with EchoStar for EchoStar X, XI and XIV was transferred to DISH Network and we began leasing satellite capacity on these satellites from a wholly-owned subsidiary of DISH Network as of the same date.

EchoStar XVI. In December 2009, we entered into a transponder service agreement with EchoStar to lease all of the capacity on EchoStar XVI, a DBS satellite, after its service commencement date. EchoStar XVI was launched in November 2012. Effective December 21, 2012, we and EchoStar amended the transponder service agreement to, among other things, change the initial term to generally expire upon the earlier of: (i) the end-of-life or replacement of the satellite; (ii) the date the satellite fails; (iii) the date the transponder(s) on which service is being provided under the agreement fails; or (iv) four years following the actual service commencement date. In July 2016, we and EchoStar amended the transponder service agreement to, among other things, extend the initial term by one additional year and to reduce the term of the first renewal option by one year. Prior to expiration of the initial term, we had the option to renew for an additional five-year period. In May 2017, we exercised our first renewal option for an additional five-year period ending in January 2023. We also have the option to renew for an additional fiveyear period prior to expiration of the first renewal period in January 2023. There can be no assurance that the option to renew this agreement will be exercised. During 2018, we and EchoStar further amended the agreement to, among other things, allow us to place and use certain satellites at the 61.5 degree orbital location. Pursuant to the Master Transaction Agreement, on September 10, 2019, the transponder service agreement we previously had with EchoStar for EchoStar XVI was transferred to DISH Network and we began receiving transponder services from a wholly-owned subsidiary of DISH Network as of the same date.

Nimiq 5 Agreement. During 2009, EchoStar entered into a 15-year satellite service agreement with Telesat Canada ("Telesat") to receive service on all 32 DBS transponders on the Nimiq 5 satellite at the 72.7 degree orbital location (the "Telesat Transponder Agreement"). During 2009, EchoStar also entered into a satellite service agreement (the "DISH Nimiq 5 Agreement") with us, pursuant to which we received service from EchoStar on all 32 of the DBS transponders covered by the Telesat Transponder Agreement.

Under the terms of the DISH Nimiq 5 Agreement, we made certain monthly payments to EchoStar that commenced in 2009 when the Nimiq 5 satellite was placed into service and continued through the service term, which expired ten years following the date the Nimiq 5 satellite was placed into service. Upon expiration of the initial term, we had the option to renew on a year-to-year basis through the end-of-life of the Nimiq 5 satellite. Pursuant to the Master Transaction Agreement, on September 10, 2019, the Telesat Transponder Agreement was transferred to DISH Network and we began receiving transponder services on the Nimiq 5 satellite from a wholly-owned subsidiary of DISH Network as of the same date. We have exercised our option to renew for a one-year period through September 2023. As discussed in Note 6, "Property and Equipment and Intangible Assets," the Nimiq 5 satellite lease has been accounted for as a finance lease since September 2019. Expenses related to this lease are recorded in "Depreciation and amortization" and "Interest expense, net of amounts capitalized" on our Consolidated Statements of Operations and Comprehensive Income (Loss). During each of the years ended December 31, 2022, 2021 and 2020, we recorded \$34 million of "Depreciation and amortization" expense, respectively, and \$8 million, \$12 million and \$15 million of "Interest expense, net of amounts capitalized," respectively, related to Nimiq 5.

QuetzSat-1 Lease Agreement. During 2008, EchoStar entered into a ten-year satellite service agreement with SES Latin America S.A. ("SES"), which provided, among other things, for the provision by SES to EchoStar of service on 32 DBS transponders on the QuetzSat-1 satellite ("SES Transponder Agreement"). During 2008, EchoStar also entered into a transponder service agreement ("QuetzSat-1 Transponder Agreement") with us pursuant to which we received service from EchoStar on 24 DBS transponders. QuetzSat-1 was launched on September 29, 2011 and was placed into service during the fourth quarter of 2011 at the 67.1 degree orbital location. In January 2013, QuetzSat-1 was moved to the 77 degree orbital location and we commenced commercial operations at that location in February 2013. Our lease arrangement with DISH Network expired in November 2021.

TT&C Agreement. Effective January 1, 2012, we entered into a TT&C agreement pursuant to which we receive TT&C services from EchoStar for certain satellites (the "TT&C Agreement"). In February 2018, we amended the TT&C Agreement to, among other things, extend the term for one-year with four automatic one-year renewal periods. The fees for services provided under the TT&C Agreement are calculated at either: (i) a fixed fee; or (ii) cost plus a fixed margin, which will vary depending on the nature of the services provided. We and EchoStar are able to terminate the TT&C Agreement for any reason upon 12 months' notice. On May 19, 2019, DISH Network entered into a Master Transaction Agreement pursuant to which, on September 10, 2019, the assets and employees that provide these services were transferred to DISH Network. We began receiving TT&C services from a wholly-owned subsidiary of DISH Network as of the same date.

"Selling, general and administrative expenses"

During the years ended December 31, 2022, 2021 and 2020, we incurred \$11 million, \$8 million and \$7 million, respectively, for selling, general and administrative expenses for services provided to us by DISH Network. These amounts are recorded in "Selling, general and administrative expenses" on our Consolidated Statements of Operations and Comprehensive Income (Loss). The agreements pertaining to these expenses are discussed below.

Real Estate Lease Agreements. On September 10, 2019, in connection with the Master Transaction Agreement, we began leasing office space owned or leased by DISH Network from a wholly-owned subsidiary of DISH Network. The term of each lease is set forth below:

- Santa Fe Lease Agreement. The lease for all of 5701 S. Santa Fe Dr. in Littleton, Colorado originally from EchoStar to us was for a period ending on December 31, 2018. In December 2018, we and EchoStar amended this lease to, among other things, extend the term thereof for one additional year until December 31, 2019. Pursuant to the Master Transaction Agreement, on September 10, 2019, this lease was transferred to DISH Network and we began leasing all of 5701 S. Santa Fe Dr. in Littleton, Colorado from a wholly-owned subsidiary of DISH Network as of the same date. In December 2020, we and DISH Network amended this lease to, among other things, extend the term thereof for one additional year until December 31, 2021. This lease expired on December 31, 2021.
- Cheyenne Lease Agreement. The lease for certain space at 530 EchoStar Drive in Cheyenne, Wyoming is for a period ending on December 31, 2031. In connection with the completion of the Share Exchange, EchoStar transferred ownership of a portion of this property to DISH Network, and, effective March 1, 2017, DISH Network and EchoStar amended this lease agreement to (i) terminate the lease of certain space at the portion of the property that was transferred to DISH Network and (ii) provide for the continued lease to us of certain space at the portion of the property that EchoStar retained. Pursuant to the Master Transaction Agreement, the portion of the property EchoStar retained was transferred to DISH Network, and on September 10, 2019, this lease was transferred to DISH Network and we began leasing certain space from a wholly-owned subsidiary of DISH Network as of the same date.

Other Agreements - DISH Network

Broadband, Wireless and Other Operations. We provide certain administrative, call center, installation, marketing and other services to DISH Network's broadband, wireless and other operations. During the years ended December 31, 2022, 2021 and 2020, the costs associated with these services were \$116 million, \$91 million and \$72 million, respectively.

Sale of Assets to DISH Network. During the fourth quarter of 2021, we sold certain assets and equity interests to DISH Network at fair value for approximately \$60 million. This was accounted for as a transaction among entities under common control. The difference between our net carrying value of the assets sold to their fair value of \$17 million, net of tax, was recorded in "Additional paid-in capital" on our Consolidated Balance Sheets during the fourth quarter of 2021.

Related Party Transactions with NagraStar L.L.C.

We own a 50% interest in NagraStar, a joint venture that is our primary provider of encryption and related security systems intended to assure that only authorized customers have access to our programming. Certain payments related to NagraStar are recorded in "Cost of services" on our Consolidated Statements of Operations and Comprehensive Income (Loss). In addition, certain other payments are initially included in "Inventory" and are subsequently capitalized as "Property and equipment, net" on our Consolidated Balance Sheets or expensed as "Selling, general and administrative expenses" or "Cost of services" on our Consolidated Statements of Operations and Comprehensive Income (Loss) when the equipment is deployed. We record all payables in "Trade accounts payable" or "Other accrued expenses" on our Consolidated Balance Sheets. Our investment in NagraStar is accounted for using the equity method.

The table below summarizes our transactions with NagraStar.

	For the Years Ended December 31,					
		2022		2021		2020
			(In t	housands)		
Purchases (including fees):						
Purchases from NagraStar	\$	43,416	\$	45,944	\$	53,902
				As of Dec	ember	31,
				2022		2021
			,	(In tho	usands)
Amounts Payable and Commitments:						
Amounts payable to NagraStar			\$	7,422	\$	11,988
Commitments to NagraStar			\$	3,272	\$	5,630

Related Party Transactions with Dish Mexico

Dish Mexico, S. de R.L. de C.V. ("Dish Mexico") is an entity that provides direct-to-home satellite services in Mexico, which is owned 49% by EchoStar. We provide certain broadcast services and certain satellite services to Dish Mexico, which are recorded in "Equipment sales and other revenue" on our Consolidated Statements of Operations and Comprehensive Income (Loss).

The table below summarizes our transactions with Dish Mexico:

	For th	For the Years Ended December 31,						
	2022	2021 (In thousands)	2020					
Sales:								
Uplink services	\$ 2,709	\$ 4,025	\$ 5,095					
		As of Do	ecember 31,					
		2022	2021					
		(In th	ousands)					
Amounts Receivable:								
Amounts receivable from Dish Mexico		\$ 583	\$ 941					

18. Subsequent Events

On February 23, 2023, our parent, DISH Network, announced on its earnings call that it had experienced a network outage that affected internal servers and IT telephony. We immediately activated our incident response and business continuity plans designed to contain, assess and remediate the situation. The services of cyber-security experts and outside advisors were retained to assist in the evaluation of the situation. We have determined that the outage was due to a cyber-security incident and notified appropriate law enforcement authorities.

On February 27, 2023, we became aware that certain data was extracted from our IT systems as part of this incident. It is possible the investigation will reveal that the extracted data includes personal information. The measures described above are continuing while we, with the assistance of third-party experts and advisors, investigate the extent of the cyber-security incident.

The forensic investigation and assessment of the impact of this incident is ongoing. DISH TV and SLING TV remain operational; however our internal communications, customer call centers and internet sites have been affected. We are actively engaged in restoring the affected systems and are making steady progress.

During the quarter ending March 31, 2023, we are incurring certain cyber-security-related expenses, including costs to remediate the incident and provide additional customer support, and expect to incur additional expense in future periods resulting from the cyber-security incident. The cyber-security incident may also affect certain operating metrics, including, but not limited to, our subscriber activation and churn and may adversely affect our financial condition, results of operations and cash flows. Although the extent of any such adverse impact has not been determined, it may be material.

List of Guarantor Subsidiaries

The 5% Senior Notes due 2023, 5.875% Senior Notes due 2024 and 7.75% Senior Notes due 2026 issued by DISH DBS Corporation (incorporated in Colorado) are jointly and severally guaranteed on a full and unconditional basis by the following 100% owned subsidiaries of DISH DBS Corporation as of December 31, 2022:

Entity	Jurisdiction of Incorporation or Organization
DISH Network L.L.C.	Colorado
DISH Operating L.L.C. (1)	Colorado
Echosphere L.L.C.	Colorado
DISH Network Service L.L.C.	Colorado
DISH Broadcasting Corporation (1)	Colorado
DISH Technologies L.L.C. (1)	Colorado

⁽¹⁾ This is a wholly-owned subsidiary of DISH Network L.L.C.

Additionally, the 7.375% Senior Notes due 2028 and 5.125% Senior Notes due 2029 issued by DISH DBS Corporation are jointly and severally guaranteed on a full and unconditional basis by the following 100% owned subsidiaries of DISH DBS Corporation as of December 31, 2022:

Entity	Jurisdiction of Incorporation or Organization
DISH Network L.L.C.	Colorado
DISH Operating L.L.C. (1)	Colorado
Echosphere L.L.C.	Colorado
DISH Network Service L.L.C.	Colorado
DISH Broadcasting Corporation (1)	Colorado
DISH Technologies L.L.C. (1)	Colorado
Sling TV Holding L.L.C. (1)	Colorado

⁽¹⁾ This is a wholly-owned subsidiary of DISH Network L.L.C.

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

Section 302 Certification

I, W. Erik Carlson, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of DISH DBS Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2023	
/s/ W. Erik Carlson	
President and Chief Executive Officer	

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CERTIFICATION OF CHIEF FINANCIAL OFFICER

Section 302 Certification

I, Paul W. Orban, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of DISH DBS Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2023	
/s/ Paul W. Orban	
Executive Vice President and Chief Financial Officer	

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

Section 906 Certification

Pursuant to 18 U.S.C. § 1350, the undersigned officer of DISH DBS Corporation (the "Company") hereby certifies that to the best of his knowledge the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 16, 2023

Name: /s/ W. Erik Carlson

Title: President and Chief Executive Officer

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

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION OF CHIEF FINANCIAL OFFICER

Section 906 Certification

Pursuant to 18 U.S.C. § 1350, the undersigned officer of DISH DBS Corporation (the "Company") hereby certifies that to the best of his knowledge the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 16, 2023

Name: /s/ Paul W. Orban

Title: Executive Vice President and Chief Financial Officer

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

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.