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

Form 10-Q

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2021.

OR

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

FOR THE TRANSITION PERIOD FROM TO .

Commission File Number: 001-39144

DISH Network Corporation
(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation or organization)	**88-0336997** (I.R.S. Employer Identification No.)
9601 South Meridian Boulevard **Englewood, Colorado** (Address of principal executive offices)	**80112** (Zip code)

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

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, $0.01 par value	DISH	The Nasdaq Stock Market L.L.C.

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

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

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

As of April 19, 2021, the registrant's outstanding common stock consisted of 288,909,818 shares of Class A common stock and 238,435,208 shares of Class B common stock.

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PART I — FINANCIAL INFORMATION

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

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

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

SUMMARY OF RISK FACTORS

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 economic environment could have a material adverse effect on our business, financial condition and results of operations.

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.
- We face certain risks competing in the wireless services industry and operating a facilities-based wireless services business.
- Our pay-TV competitors may be able to leverage their relationships with programmers to reduce their programming costs and/or offer exclusive content that will place them at a competitive advantage to us.
- Through the MNSA, we depend primarily on T-Mobile in providing services to our retail wireless subscribers, and any system failure related to T-Mobile's wireless network, interruption in the services provided by T-Mobile, including the shutdown of its CDMA Network on or around January 1, 2022 and/or the termination of the MNSA could negatively impact our subscriber activations, our subscriber churn rate and our subscriber base, which in turn could have a material adverse effect our business, financial condition and results of operations.
- Changes in how network operators handle and charge for access to data that travels across their networks could adversely impact our Pay-TV business.
- Economic weakness and uncertainty may adversely affect our ability to grow or maintain our business.

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.
- With respect to our Pay-TV business, 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.
- Any failure or inadequacy of our information technology infrastructure and communications systems or those of third parties that we use in our operations, including, without limitation, those caused by cyber-attacks or other malicious activities, could disrupt or harm our business.
- 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 common ownership and management.
- We rely on highly skilled personnel for our business, and any inability to hire and retain key personnel or hire qualified personnel may negatively affect our business, financial condition and results of operations.

Acquisition and Capital Structure Risks

- We have made substantial investments to acquire certain wireless spectrum licenses and other related assets, and we may be unable to realize a return on these assets.
- We have made substantial non-controlling investments in the Northstar Entities and the SNR Entities related to AWS-3 wireless spectrum licenses, and we may be unable to obtain a profitable return on these investments.
- 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.
- We may need additional capital, which may not be available on acceptable terms or at all, to continue investing in our business and to finance acquisitions and other strategic transactions.
- The conditional conversion features of our 3 3/8% Convertible Notes due 2026 (the “Convertible Notes due 2026”), our 2 3/8% Convertible Notes due 2024 (the “Convertible Notes due 2024”) and 0% Convertible Notes due 2025 (the “Convertible Notes due 2025,” and collectively with the Convertible Notes due 2026 and the Convertible Notes due 2024, the “Convertible Notes”), if triggered, may adversely affect our financial condition.

- The convertible note hedge and warrant transactions that we entered into in connection with the offering of the Convertible Notes due 2026 may affect the value of the Convertible Notes due 2026 and our Class A common stock.
- We are subject to counterparty risk with respect to the convertible note hedge transactions.
- From time to time a portion of our investment portfolio may be invested in securities that have limited liquidity and may not be immediately accessible to support our financing needs.
- We are controlled by one principal stockholder who is also our Chairman.
- It may be difficult for a third party to acquire us, even if doing so may be beneficial to our shareholders, because of our ownership structure.

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 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, 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 of our most recent Annual Report on Form 10-K (the "10-K") filed with the SEC, those discussed in "Management's Discussion and Analysis of Financial Condition and Results of Operations" herein and in the 10-K 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.

Item 1. FINANCIAL STATEMENTS

DISH NETWORK CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Dollars in thousands, except share amounts)
(Unaudited)

	As of	
	March 31, 2021	December 31, 2020
Assets		
Current Assets:		
Cash and cash equivalents	$ 4,437,662	$ 3,370,092
Marketable investment securities	135,485	362,953
Trade accounts receivable, net of allowance for credit losses of $56,625 and $72,278, respectively	1,087,134	1,104,202
Inventory	375,076	380,349
Other current assets	480,549	1,804,562
Total current assets	6,515,906	7,022,158
Noncurrent Assets:		
Restricted cash, cash equivalents and marketable investment securities	108,304	108,369
Property and equipment, net	2,180,273	2,182,333
FCC authorizations	28,024,606	26,903,939
Other investment securities	152,719	149,706
Operating lease assets	110,232	104,271
Other noncurrent assets	1,005,454	1,009,045
Intangible assets, net	715,644	760,126
Total noncurrent assets	32,297,232	31,217,789
Total assets	$ 38,813,138	$ 38,239,947
Liabilities and Stockholders' Equity (Deficit)		
Current Liabilities:		
Trade accounts payable	$ 488,770	$ 395,397
Deferred revenue and other	816,060	855,718
Accrued programming	1,311,223	1,388,407
Accrued interest	187,155	264,118
Other accrued expenses	1,135,350	1,095,486
Current portion of long-term debt and finance lease obligations	1,875,482	2,085,620
Total current liabilities	5,814,040	6,084,746
Long-Term Obligations, Net of Current Portion:		
Long-term debt and finance lease obligations, net of current portion (Note 10)	14,682,903	13,616,408
Deferred tax liabilities	3,771,572	3,869,570
Operating lease liabilities	69,660	63,526
Long-term deferred revenue and other long-term liabilities	450,266	474,404
Total long-term obligations, net of current portion	18,974,401	18,023,908
Total liabilities	24,788,441	24,108,654
Commitments and Contingencies (Note 11)		
Redeemable noncontrolling interests (Note 2)	361,777	350,648
Stockholders' Equity (Deficit):		
Class A common stock, $.01 par value, 1,600,000,000 shares authorized, 288,891,958 and 287,720,957 shares issued and outstanding, respectively	2,889	2,877
Class B common stock, $.01 par value, 800,000,000 shares authorized, 238,435,208 shares issued and outstanding	2,384	2,384
Additional paid-in capital	4,651,264	5,400,774
Accumulated other comprehensive income (loss)	484	(855)
Accumulated earnings (deficit)	9,005,199	8,374,975
Total DISH Network stockholders' equity (deficit)	13,662,220	13,780,155
Noncontrolling interests	700	490
Total stockholders' equity (deficit)	13,662,920	13,780,645
Total liabilities and stockholders' equity (deficit)	$ 38,813,138	$ 38,239,947

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

DISH NETWORK CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
AND COMPREHENSIVE INCOME (LOSS)
(Dollars in thousands, except per share amounts)
(Unaudited)

	For the Three Months Ended March 31, 2021	2020
Revenue:		
Service revenue	$ 4,209,471	$ 3,166,041
Equipment sales and other revenue	288,382	51,348
Total revenue	4,497,853	3,217,389
Costs and Expenses (exclusive of depreciation):		
Cost of services	2,537,665	2,052,066
Cost of sales - equipment and other	423,541	41,710
Selling, general and administrative expenses	481,686	456,297
Impairment of long-lived assets (Note 2)	—	356,418
Depreciation and amortization	190,385	166,820
Total costs and expenses	3,633,277	3,073,311
Operating income (loss)	864,576	144,078
Other Income (Expense):		
Interest income	1,970	14,216
Interest expense, net of amounts capitalized	(3,873)	(15,606)
Other, net	(5,261)	1,592
Total other income (expense)	(7,164)	202
Income (loss) before income taxes	857,412	144,280
Income tax (provision) benefit, net	(215,849)	(45,006)
Net income (loss)	641,563	99,274
Less: Net income (loss) attributable to noncontrolling interests, net of tax	11,339	26,175
Net income (loss) attributable to DISH Network	$ 630,224	$ 73,099
Weighted-average common shares outstanding - Class A and B common stock:		
Basic	526,570	523,152
Diluted	633,760	581,381
Earnings per share - Class A and B common stock:		
Basic net income (loss) per share attributable to DISH Network	$ 1.20	$ 0.14
Diluted net income (loss) per share attributable to DISH Network	$ 0.99	$ 0.13
Comprehensive Income (Loss):		
Net income (loss)	$ 641,563	$ 99,274
Other comprehensive income (loss):		
Foreign currency translation adjustments	1,842	375
Unrealized holding gains (losses) on available-for-sale debt securities	(4)	(208)
Recognition of previously unrealized (gains) losses on available-for-sale securities included in net income (loss)	(1)	—
Deferred income tax (expense) benefit, net	(498)	49
Total other comprehensive income (loss), net of tax	1,339	216
Comprehensive income (loss)	642,902	99,490
Less: Comprehensive income (loss) attributable to noncontrolling interests, net of tax	11,339	26,175
Comprehensive income (loss) attributable to DISH Network	$ 631,563	$ 73,315

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

DISH NETWORK CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands)
(Unaudited)

	Class A and B Common Stock	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Earnings (Deficit)	Noncontrolling Interests	Total	Redeemable Noncontrolling Interests
Balance, December 31, 2019	$ 5,230	$ 4,947,007	$ (18)	$ 6,612,302	$ (449)	$ 11,564,072	$ 552,075
Issuance of Class A common stock:							
Exercise of stock awards	—	395	—	—	—	395	—
Employee Stock Purchase Plan	3	5,127	—	—	—	5,130	—
Non-cash, stock-based compensation	—	16,418	—	—	—	16,418	—
Change in unrealized holding gains (losses) on available-for-sale debt securities, net	—	—	(208)	—	—	(208)	—
Deferred income tax (expense) benefit attributable to other comprehensive income (loss)	—	—	49	—	—	49	—
Foreign currency translation	—	—	375	—	—	375	—
Net income (loss) attributable to noncontrolling interests	—	—	—	—	263	263	—
Net income (loss) attributable to DISH Network	—	—	—	73,099	—	73,099	25,912
Balance, March 31, 2020	$ 5,233	$ 4,968,947	$ 198	$ 6,685,401	$ (186)	$ 11,659,593	$ 577,987
Balance, December 31, 2020	$ 5,261	$ 5,400,774	$ (855)	$ 8,374,975	$ 490	$ 13,780,645	$ 350,648
Issuance of Class A common stock:							
Exercise of stock awards	1	2,046	—	—	—	2,047	—
Employee benefits	9	30,294	—	—	—	30,303	—
Employee Stock Purchase Plan	2	4,341	—	—	—	4,343	—
Non-cash, stock-based compensation	—	19,375	—	—	—	19,375	—
Change in unrealized holding gains (losses) on available-for-sale debt securities, net	—	—	(5)	—	—	(5)	—
Deferred income tax (expense) benefit attributable to other comprehensive income (loss)	—	—	(498)	—	—	(498)	—
Foreign currency translation	—	—	1,842	—	—	1,842	—
Convertible debt reclassified per ASU 2020-06, net of deferred taxes of $245,778 (Note 2)	—	(805,566)	—	—	—	(805,566)	—
Net income (loss) attributable to noncontrolling interests	—	—	—	—	210	210	—
Net income (loss) attributable to DISH Network	—	—	—	630,224	—	630,224	11,129
Balance, March 31, 2021	$ 5,273	$ 4,651,264	$ 484	$ 9,005,199	$ 700	$ 13,662,920	$ 361,777

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

DISH NETWORK CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	For the Three Months Ended March 31, 2021	2020
Cash Flows From Operating Activities:		
Net income (loss)	$ 641,563	$ 99,274
Adjustments to reconcile net income (loss) to net cash flows from operating activities:		
Depreciation and amortization	190,385	166,820
Impairment of long-lived assets (Note 2)	—	356,418
Realized and unrealized losses (gains) on investments and derivatives	6,283	(58)
Non-cash, stock-based compensation	19,375	16,418
Deferred tax expense (benefit)	147,285	28,942
Allowance for credit losses	(15,653)	21,450
Other, net	4,021	54,529
Changes in current assets and current liabilities, net	132,239	132,160
Net cash flows from operating activities	1,125,498	875,953
Cash Flows From Investing Activities:		
Purchases of marketable investment securities	(139,692)	(432,172)
Sales and maturities of marketable investment securities	381,595	287,960
Purchases of property and equipment	(115,096)	(97,164)
Capitalized interest related to FCC authorizations (Note 2)	(281,721)	(241,825)
Refund of FCC authorization deposit (Note 11)	337,490	—
Other, net	2,006	2,065
Net cash flows from investing activities	184,582	(481,136)
Cash Flows From Financing Activities:		
Repayment of long-term debt and finance lease obligations	(19,149)	(16,713)
Repurchases of senior notes	(205,354)	—
Early debt extinguishment	(2,517)	—
Net proceeds from Class A common stock options exercised and stock issued under the Employee Stock Purchase Plan	6,389	5,525
Other, net	(8,824)	2
Net cash flows from financing activities	(229,455)	(11,186)
Net increase (decrease) in cash, cash equivalents, restricted cash and cash equivalents	1,080,625	383,631
Cash, cash equivalents, restricted cash and cash equivalents, beginning of period (Note 6)	3,453,994	2,504,320
Cash, cash equivalents, restricted cash and cash equivalents, end of period (Note 6)	$ 4,534,619	$ 2,887,951

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

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Organization and Business Activities

Principal Business

DISH Network Corporation is a holding company. Its subsidiaries (which together with DISH Network Corporation are referred to as "DISH Network," the "Company," "we," "us" and/or "our," unless otherwise required by the context) operate two primary business segments, Pay-TV and Wireless. Our Wireless business segment operates in two business units, Retail Wireless and 5G Network Deployment.

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, 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 streaming over-the-top ("OTT") Internet-based domestic, international and Latino video programming services ("SLING TV"). As of March 31, 2021, we had 11.060 million Pay-TV subscribers in the United States, including 8.686 million DISH TV subscribers and 2.374 million SLING TV subscribers.

Wireless – Retail Wireless

As a result of the Boost Mobile Acquisition and the Ting Mobile Acquisition (as defined below), we have entered the retail wireless business. See Note 5 for further information. We offer nationwide prepaid and postpaid retail wireless services to subscribers under our Boost Mobile and Ting Mobile brands, as well as a competitive portfolio of wireless devices. Prepaid wireless subscribers generally pay in advance for monthly access to wireless talk, text, and data services. Postpaid wireless subscribers generally are qualified to pay after receiving wireless talk, text, and data services. We are currently operating our retail wireless business unit as a mobile virtual network operator ("MVNO") while we build our 5G broadband network. As an MVNO, we depend primarily on T-Mobile US, Inc., ("T-Mobile") to provide us with network services under the MNSA (as defined below). We acquired over 9 million subscribers as a result of the Boost Mobile Acquisition and acquired over 200,000 subscribers as a result of the Ting Mobile Acquisition. Our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) for the three months ended March 31, 2021 includes the results of the Boost Mobile Acquisition from July 1, 2020 and the Ting Mobile Acquisition from August 1, 2020. As of March 31, 2021, we had 8.894 million retail wireless subscribers.

Wireless – 5G Network Deployment

We have directly invested over $12 billion to acquire certain wireless spectrum licenses and related assets and made over $10 billion in non-controlling investments in certain entities, for a total of over $22 billion, as described further below. The $22 billion of investments related to wireless spectrum licenses does not include $6 billion of capitalized interest related to the carrying value of such licenses. See Note 2 for further information on capitalized interest.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

DISH Network Spectrum

We have directly invested over $12 billion to acquire certain wireless spectrum licenses and related assets. These wireless spectrum licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements. We plan to commercialize our wireless spectrum licenses through our 5G Network Deployment. To that end, we have undertaken several key steps including identifying markets to build out, making executive and management hires and entering into agreements with key vendors. For example, on November 16, 2020, we announced a long-term agreement with Crown Castle pursuant to which Crown Castle will lease us space on up to 20,000 communication towers. As part of the agreement, we will also receive certain fiber transport services and have the option to utilize Crown Castle for pre-construction services. We have also entered into multiple long-term agreements with vendors including, among others, Amazon, American Tower, Fujitsu, Palo Alto and VMware for communication towers, radios, software, and network security. During December 2020, we completed a successful field validation, utilizing our fully-virtualized standalone 5G core network and the industry's first O-RAN compliant radio. We began construction of our first major market, Las Vegas, Nevada, during the second quarter of 2021. We anticipate service for this market to begin by the end of the third quarter of 2021.

Prior to starting our 5G Network Deployment, we notified the FCC in March 2017 that we planned to deploy a narrowband IoT network on certain of these wireless licenses, which we expected to complete by March 2020, with subsequent phases to be completed thereafter. In light of, among other things, certain developments related to the Sprint-T-Mobile merger, during the first quarter 2020, we determined that the revision of certain of our build-out deadlines was probable and, therefore, we no longer intended to complete our narrowband IoT deployment. The FCC issued an Order effectuating the build-out deadline changes contemplated above on September 11, 2020. During the first quarter 2020, we impaired certain assets that would not be utilized in our 5G Network Deployment, resulting in a $253 million non-cash impairment charge in "Impairment of long-lived assets" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

We will need to make significant additional investments or partner with others to, among other things, complete our 5G Network Deployment and further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly. In addition, as we complete our 5G Network Deployment we will incur significant additional expenses and will have to make significant investments related to, among other things, research and development, wireless testing and wireless network infrastructure. We may also determine that additional wireless spectrum licenses may be required to complete our 5G Network Deployment and to compete with other wireless service providers. See Note 2 and Note 11 for further information.

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

During 2015, through our wholly-owned subsidiaries American AWS-3 Wireless II L.L.C. ("American II") and American AWS-3 Wireless III L.L.C. ("American III"), we initially made over $10 billion in certain non-controlling investments in Northstar Spectrum, LLC ("Northstar Spectrum"), the parent company of Northstar Wireless, L.L.C. ("Northstar Wireless," and collectively with Northstar Spectrum, the "Northstar Entities"), and in SNR Wireless HoldCo, LLC ("SNR HoldCo"), the parent company of SNR Wireless LicenseCo, LLC ("SNR Wireless," and collectively with SNR HoldCo, the "SNR Entities"), respectively. On October 27, 2015, the FCC granted certain AWS-3 wireless spectrum licenses (the "AWS-3 Licenses") to Northstar Wireless and to SNR Wireless, respectively, which are recorded in "FCC authorizations" on our Condensed Consolidated Balance Sheets.

Under the applicable accounting guidance in Accounting Standards Codification 810, *Consolidation* ("ASC 810"), Northstar Spectrum and SNR HoldCo are considered variable interest entities and, based on the characteristics of the structure of these entities and in accordance with the applicable accounting guidance, we consolidate these entities into our financial statements. See Note 2 for further information.

The AWS-3 Licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements. 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 us, 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 Northstar Re-Auction Payment and SNR Re-Auction Payment 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 Northstar Re-Auction Payment and SNR Re-Auction Payment, any loans, equity contributions or partnerships could vary significantly. There can be no assurance that we will be able to obtain a profitable return on our non-controlling investments in the Northstar Entities and the SNR Entities. See Note 11 for further information.

Recent Developments

Boost Mobile Acquisition

Asset Purchase Agreement

On July 26, 2019, we entered into an Asset Purchase Agreement (the "APA") with T-Mobile and Sprint Corporation ("Sprint" and together with T-Mobile, the "Sellers" and given the consummation of the Sprint- T-Mobile merger, sometimes referred to as "NTM") to acquire from NTM certain assets and liabilities associated with Sprint's Boost Mobile and Sprint-branded prepaid mobile services businesses (the "Prepaid Business") for an aggregate purchase price of $1.4 billion, as adjusted for specific categories of net working capital on the closing date (the "Boost Mobile Acquisition"). Effective July 1, 2020 (the "Closing Date"), upon the terms and subject to the conditions set forth in the APA and in accordance with the Final Judgment (as defined below), we and T-Mobile completed the Boost Mobile Acquisition.

In connection with the Boost Mobile Acquisition and the consummation of the Sprint- T-Mobile merger, we, T-Mobile, Sprint, Deutsche Telekom AG ("DT") and SoftBank Group Corporation ("SoftBank") came to an agreement with the United States Department of Justice (the "DOJ") on key terms and approval of the Transaction Agreements (as defined below) and our wireless service business and spectrum. On July 26, 2019, we, T-Mobile, Sprint, DT and SoftBank (collectively, the "Defendants") entered into a Stipulation and Order (the "Stipulation and Order") with the DOJ binding the Defendants to a Proposed Final Judgment (the "Proposed Final Judgment") which memorialized the agreement between the DOJ and the Defendants. The Stipulation and Order and the Proposed Final Judgment were filed in the United States District Court for the District of Columbia (the "District Court") on July 26, 2019 and on April 1, 2020, the Proposed Final Judgment was entered with the District Court (the Proposed Final Judgment as so entered with the District Court, the "Final Judgment") and the Sellers consummated the Sprint- T-Mobile merger.

The term of the Final Judgment is seven years from the date of its entry with the District Court or five years if the DOJ gives notice that the divestitures, build-outs and other requirements have been completed to its satisfaction. A Monitoring Trustee has been appointed by the District Court. The Monitoring Trustee has the power and authority to monitor the Defendants' compliance with the Final Judgment and settle disputes among the Defendants regarding compliance with the provisions of the Final Judgment and may recommend action to the DOJ in the event a party fails to comply with the Final Judgment. See Note 5 for further information on the Stipulation and Order and the Final Judgment, including our build-out commitments.

Also in connection with the closing of the Boost Mobile Acquisition, we and T-Mobile entered into a transition services agreement under which we will receive certain transitional services (the “TSA”), a master network services agreement for the provision of network services by T-Mobile to us (the “MNSA”), an option agreement entitling us to acquire certain decommissioned cell sites and retail stores of T-Mobile (the “Option Agreement”) and an agreement under which we would purchase all of Sprint’s 800 MHz spectrum licenses, totaling approximately 13.5 MHz of nationwide wireless spectrum for an additional approximately $3.59 billion (the “Spectrum Purchase Agreement” and together with the APA, the TSA, the MNSA and the Option Agreement, the “Transaction Agreements”). See Note 5 for further information on the Transaction Agreements.

Ting Mobile Acquisition

On August 1, 2020, we completed an asset purchase agreement with Tucows Inc. (“Tucows”) pursuant to which we purchased the assets of Ting Mobile, including over 200,000 Ting Mobile subscribers (the “Ting Mobile Acquisition”). In addition, we entered into a services agreement pursuant to which Tucows will act as a mobile virtual network enabler for certain of our retail wireless subscribers. The consideration for the Ting Mobile Acquisition is an earn out provision and the fair value of the earn out provision has been assigned to a customer relationship intangible that is recorded in “Intangible assets, net” with the offset recorded in “Long-term deferred revenue and other long-term liabilities” on our Condensed Consolidated Balance Sheets. See Note 5 for further information.

Republic Wireless Acquisition

On March 8, 2021, we entered into an asset purchase agreement with Republic Wireless Inc. (“Republic Wireless”) pursuant to which certain assets and liabilities of Republic Wireless, including approximately 200,000 wireless subscribers will transfer to us at closing, subject to certain regulatory approvals. We expect closing to occur in the second quarter of 2021. The consideration for the Republic Wireless Acquisition will consist of an upfront cash payment and an earn-out provision.

We accounted for the Boost Mobile Acquisition and Ting Mobile Acquisition as business combinations. The identifiable assets acquired and liabilities assumed were recorded at their preliminary fair values as of the acquisition date and are consolidated into our financial statements. See Note 5 for further information.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited Condensed Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) and with the instructions to Form 10-Q and Article 10 of Regulation S-X for interim financial information. Accordingly, these statements do not include all of the information and notes required for complete financial statements prepared under GAAP. In our opinion, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Our results of operations for the interim periods presented are not necessarily indicative of the results that may be expected for the full year. For further information, refer to the Consolidated Financial Statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2020. Certain prior period amounts have been reclassified to conform to the current period presentation.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

Principles of Consolidation

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 Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). All significant intercompany accounts and transactions have been eliminated in consolidation.

Redeemable Noncontrolling Interests

Northstar Wireless. Northstar Wireless is a wholly-owned subsidiary of Northstar Spectrum, which is an entity owned by Northstar Manager, LLC ("Northstar Manager") and us. Under the applicable accounting guidance in ASC 810, Northstar Spectrum is considered a variable interest entity and, based on the characteristics of the structure of this entity and in accordance with the applicable accounting guidance, we consolidate Northstar Spectrum into our financial statements. The Northstar Operative Agreements, as amended, provide for, among other things, that Northstar Manager has the ability, but not the obligation, to require Northstar Spectrum to purchase Northstar Manager's ownership interests in Northstar Spectrum (the "Northstar Put Right") for a purchase price that equals its equity contribution to Northstar Spectrum plus a fixed annual rate of return. The First Northstar Put Window began in the fourth quarter 2020 and the Second Northstar Put Window will begin in the fourth quarter 2021.

Northstar Purchase Agreement. On December 30, 2020, through our wholly owned subsidiary American II, we entered into a Purchase Agreement (the "Northstar Purchase Agreement") with Northstar Manager and Northstar Spectrum, pursuant to which American II purchased 80% of Northstar Manager's Class B Common Interests in Northstar Spectrum (the "Northstar Transaction") for a purchase price of approximately $312 million. As a result of the Northstar Transaction, through American II, we hold 97% of the Class B Common Interests in Northstar Spectrum and Northstar Manager holds 3% of the Class B Common Interests in Northstar Spectrum. Other than the change in ownership percentage of Northstar Spectrum, the Northstar Transaction did not modify or amend in any way the existing arrangements between or among the Northstar parties. In the Northstar Purchase Agreement, Northstar Manager waived its right to exercise the Northstar Put Right under the First Northstar Put Window. Northstar Manager retains its right to exercise the Northstar Put Right during the Second Northstar Put Window.

In the event that the Northstar Put Right is exercised by Northstar Manager, the consummation of the sale will be subject to FCC approval. Northstar Spectrum does not have a call right with respect to Northstar Manager's ownership interests in Northstar Spectrum. Although Northstar Manager is the sole manager of Northstar Spectrum, Northstar Manager's ownership interest is considered temporary equity under the applicable accounting guidance and is thus recorded as part of "Redeemable noncontrolling interests" in the mezzanine section of our Condensed Consolidated Balance Sheets. Northstar Manager's ownership interest in Northstar Spectrum was initially accounted for at fair value. Subsequently, Northstar Manager's ownership interest in Northstar Spectrum is increased by the fixed annual rate of return through "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets, with the offset recorded in "Net income (loss) attributable to noncontrolling interests, net of tax" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The operating results of Northstar Spectrum attributable to Northstar Manager are recorded as "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets, with the offset recorded in "Net income (loss) attributable to noncontrolling interests, net of tax" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). See Note 11 for further information.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

SNR Wireless. SNR Wireless is a wholly-owned subsidiary of SNR HoldCo, which is an entity owned by SNR Wireless Management, LLC ("SNR Management") and us. Under the applicable accounting guidance in ASC 810, SNR HoldCo is considered a variable interest entity and, based on the characteristics of the structure of this entity and in accordance with the applicable accounting guidance, we consolidate SNR HoldCo into our financial statements. The SNR Operative Agreements, as amended, provide for, among other things, that SNR Management has the ability, but not the obligation, to require SNR HoldCo to purchase SNR Management's ownership interests in SNR HoldCo (the "SNR Put Right") for a purchase price that equals its equity contribution to SNR HoldCo plus a fixed annual rate of return. The First SNR Put Window began in the fourth quarter 2020, was not exercised and expired in January 2021. The Second SNR Put Window will begin in the fourth quarter 2021.

In the event that the SNR Put Right is exercised by SNR Management, the consummation of the sale will be subject to FCC approval. SNR HoldCo does not have a call right with respect to SNR Management's ownership interests in SNR HoldCo. Although SNR Management is the sole manager of SNR HoldCo, SNR Management's ownership interest is considered temporary equity under the applicable accounting guidance and is thus recorded as part of "Redeemable noncontrolling interests" in the mezzanine section of our Condensed Consolidated Balance Sheets. SNR Management's ownership interest in SNR HoldCo was initially accounted for at fair value. Subsequently, SNR Management's ownership interest in SNR HoldCo is increased by the fixed annual rate of return through "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets, with the offset recorded in "Net income (loss) attributable to noncontrolling interests, net of tax" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The operating results of SNR HoldCo attributable to SNR Management are recorded as "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets, with the offset recorded in "Net income (loss) attributable to noncontrolling interests, net of tax" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). See Note 11 for further information.

As of March 31, 2021 and December 31, 2020, Northstar Manager's ownership interest in Northstar Spectrum and SNR Management's ownership interest in SNR HoldCo was $362 million and $351 million, respectively, recorded as "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets.

Use of Estimates

The preparation of financial statements in conformity with 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 used in accounting for, among other things, allowances for credit losses (including those related to our installment billing programs), 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 our stock-based compensation plans, fair value of assets and liabilities acquired in business combinations, the fair value of our option to purchase T-Mobile's 800 MHz spectrum, 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, 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 condensed consolidated financial statements. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected prospectively in the period they occur.

Impairment of Long-Lived 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. 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 Condensed 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 March 31, 2021 or December 31, 2020. We will continue to monitor the DBS satellite fleet for indicators of impairment, including monitoring the impact of the COVID-19 pandemic on all aspects of our business.

AWS-4 Satellites. We historically have evaluated our AWS-4 satellite fleet for impairment whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. In light of, among other things, certain developments related to the Sprint-T-Mobile merger, during the first quarter 2020, we determined that revisions to the AWS-4 build-out deadlines were probable, which we determined to be a triggering event. Accordingly, we quantitatively assessed the value of the AWS-4 satellites (T1 and D1) and wrote down the fair value of the satellites to their estimated fair value of zero, resulting in a $103 million non-cash impairment charge in “Impairment of long-lived assets” on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

Narrowband IoT network. As discussed in Note 11, in March 2017 we notified the FCC that we planned to deploy a narrowband IoT network. In October 2019, we paused work on the narrowband IoT deployment. In light of, among other things, certain developments related to the Sprint-T-Mobile merger, during the first quarter 2020, we determined that the revision of certain of our build-out deadlines were probable. Based on this, we no longer intended to complete our narrowband IoT deployment, which we considered a triggering event. As such, during the first quarter 2020, we reviewed the capitalized costs of equipment, labor and other assets related to the narrowband IoT deployment, including our operating lease assets, and impaired those items that would not be utilized in our ongoing 5G Network Deployment, resulting in a $253 million non-cash impairment charge in “Impairment of long-lived assets” on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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Impairment of long-lived assets recorded during the three months ended March 31, 2020 consisted of the following:

	For the Three Months Ended March 31, 2020	
	(In thousands)	
T1 satellite	$	48,120
D1 satellite		55,000
Construction in progress related to narrowband IoT deployment		226,742
Operating lease assets related to narrowband IoT deployment		26,556
Impairment of long-lived assets	$	356,418

Capitalized Interest

We capitalize interest associated with the acquisition or construction of certain assets, including, among other things, our wireless spectrum licenses, build-out costs associated with our 5G Network Deployment and satellites. Capitalization of interest begins when, among other things, steps are taken to prepare the asset for its intended use and ceases when the asset is ready for its intended use or when these activities are substantially suspended.

We are currently preparing for the commercialization of our wireless spectrum licenses, and Northstar Wireless and SNR Wireless are also preparing for the commercialization of their AWS-3 Licenses. As a result, the interest expense related to the carrying amount of these wireless spectrum licenses is being capitalized. As the carrying amount of these wireless spectrum licenses exceeds the carrying value of our long-term debt and finance lease obligations, materially all of our interest expense is being capitalized.

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 one to 20 years or in relation to the estimated discounted cash flows over the life of the intangible asset. See Note 5 for further information on the Boost Mobile Acquisition and Ting Mobile Acquisition.

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; quoted prices for identical or similar instruments in markets that are not active; and derivative financial instruments indexed to marketable investment securities; 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 March 31, 2021 and December 31, 2020, 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 6 for the fair value of our marketable investment securities and derivative instruments.

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 10 for the fair value of our long-term debt.

Convertible Long-Term Debt

Historically, for embedded conversion features, we have valued and bifurcated the conversion option associated with convertible notes (the "equity component") from the host debt instrument. The initial value of the equity component on the convertible notes was recorded in "Additional paid-in capital" within "Stockholders' equity (deficit)" on our Condensed Consolidated Balance Sheets with the offset recorded as the debt discount. In accordance with ASU 2020-06 *Debt – Debt with Conversion and Other Options and Derivatives and Hedging – Contracts in Entity's Own Equity* ("ASU 2020-06"), which we adopted during the first quarter of 2021, the equity component related to our convertible notes of $1.051 billion has been reclassified from "Additional paid-in capital" within "Stockholders' equity (deficit)" to "Long-term debt and finance lease obligations, net of current portion" and the associated deferred taxes of $246 million has been reclassified from "Additional paid-in capital" within "Stockholders' equity (deficit)" to "Deferred tax liabilities" on our Condensed Consolidated Balance Sheets.

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 in both our Pay-TV and Wireless segments, 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 three months ended March 31, 2021 and 2020, we capitalized $103 million and $38 million, respectively, under these programs. The amortization expense related to these programs was $75 million and $27 million for the three months ended March 31, 2021 and 2020, respectively. As of March 31, 2021 and December 31, 2020, we had a total of $484 million and $456 million, respectively, capitalized on our Condensed Consolidated Balance Sheets. These amounts are capitalized in "Other current assets" and "Other noncurrent assets, net" on our Condensed Consolidated Balance Sheets, and then amortized in "Selling, general and administrative expenses" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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Advertising Costs

We recognize advertising expense when incurred as a component of selling, general and administrative expense. Advertising expenses totaled $110 million and $131 million for the three months ended March 31, 2021 and 2020, respectively.

Research and Development

Research and development costs are expensed as incurred and are included in "Selling, general and administrative expenses" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). Research and development costs totaled $7 million and $6 million for the three months ended March 31, 2021 and 2020, respectively.

3. Basic and Diluted Net Income (Loss) Per Share

We present both basic earnings per share ("EPS") and diluted EPS. Basic EPS excludes potential dilution and is computed by dividing "Net income (loss) attributable to DISH Network" by the weighted-average number of common shares outstanding for the period. Diluted EPS reflects the potential dilution that could occur if stock awards were exercised and if our Convertible Notes were converted. The potential dilution from stock awards is accounted for using the treasury stock method based on the average market value of our Class A common stock. The potential dilution from conversion of the Convertible Notes is accounted for using the if-converted method, which requires that all of the shares of our Class A common stock issuable upon conversion of the Convertible Notes will be included in the calculation of diluted EPS assuming conversion of the Convertible Notes at the beginning of the reporting period (or at time of issuance, if later).

The following table presents EPS amounts for all periods and the basic and diluted weighted-average shares outstanding used in the calculation.

	For the Three Months Ended March 31,	
	2021	2020
	(In thousands, except per share amounts)	
Net income (loss)	$ 641,563	$ 99,274
Less: Net income (loss) attributable to noncontrolling interests, net of tax	11,339	26,175
Net income (loss) attributable to DISH Network - Basic	630,224	73,099
Interest on dilutive Convertible Notes, net of tax (1)	—	—
Net income (loss) attributable to DISH Network - Diluted	$ 630,224	$ 73,099
Weighted-average common shares outstanding - Class A and B common stock:		
Basic	526,570	523,152
Dilutive impact of Convertible Notes (2)	107,016	58,192
Dilutive impact of stock awards outstanding	174	37
Diluted	633,760	581,381
Earnings per share - Class A and B common stock:		
Basic net income (loss) per share attributable to DISH Network	$ 1.20	$ 0.14
Diluted net income (loss) per share attributable to DISH Network	$ 0.99	$ 0.13

(1) For both the three months ended March 31, 2021 and 2020, materially all of our interest expense was capitalized. See Note 2 for further information.
(2) The increase resulted from the issuance of our 0% Convertible Notes due 2025 on December 21, 2020.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

Certain stock awards to acquire our Class A common stock are not included in the weighted-average common shares outstanding above, as their effect is anti-dilutive. In addition, vesting of performance based options and rights to acquire shares of our Class A common stock granted pursuant to our performance based stock incentive plans ("Restricted Performance Units") are both contingent upon meeting certain goals, some of which are not yet probable of being achieved. Furthermore, the warrants that we issued to certain option counterparties in connection with the Convertible Notes due 2026 are only exercisable at their expiration if the market price per share of our Class A common stock is greater than the strike price of the warrants, which is approximately $86.08 per share, subject to adjustments. As a consequence, the following are not included in the diluted EPS calculation.

	As of March 31,	
	2021	**2020**
	(In thousands)	
Anti-dilutive stock awards	9,286	6,535
Performance based options (1)	16,940	7,918
Restricted Performance Units/Awards	1,632	1,456
Common stock warrants	46,029	46,029
Total	73,887	61,938

(1) The increase primarily resulted from the grant of the Ergen 2020 Performance Award during the fourth quarter 2020, as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2020.

4. Supplemental Data - Statements of Cash Flows

The following table presents certain supplemental cash flow and other non-cash data. See Note 9 for supplemental cash flow and non-cash data related to leases.

	For the Three Months Ended March 31,	
	2021	**2020**
	(In thousands)	
Cash paid for interest (including capitalized interest)	$ 277,849	$ 242,458
Cash received for interest	457	3,080
Cash paid for income taxes	1,082	158
Capitalized interest (1)	208,452	230,450
Employee benefits paid in Class A common stock	30,304	—
Convertible debt reclassified per ASU 2020-06 (1)	1,051,344	—
Deferred taxes reclassified per ASU 2020-06 (1)	245,778	—
Vendor financing	26,463	—
3550-3650 MHz licenses reclassification (2)	912,939	—

(1) See Note 2 for further information.
(2) See Note 11 for further information.

5. Acquisitions

When we acquire a business we recognize the assets acquired, liabilities assumed and any noncontrolling interests at fair value. We expense all transaction costs related to the acquisition as incurred.

Boost Mobile Acquisition

Asset Purchase Agreement

Effective on July 1, 2020, upon the terms and subject to the conditions set forth in the APA and in accordance with the Final Judgment, we completed the Boost Mobile Acquisition and DISH Network officially entered into the retail wireless market, serving more than 9 million subscribers under the Boost Mobile brand.

Consideration Transferred

The acquisition date fair value of consideration transferred in the Boost Mobile Acquisition totaled $1.346 billion, summarized in the following table:

	As of July 1, 2020	
	(In thousands)	
Cash consideration (1)	$	1,400,000
Net working capital (2)		33,524
Other funding (3)		(87,500)
Total consideration transferred	$	1,346,024

(1) Represents agreed upon purchase price pursuant to the APA paid to T-Mobile on July 1, 2020.
(2) Represents estimated net working capital acquired under the APA. We have not settled the net working capital under the APA, as certain amounts are currently in dispute and could ultimately change the net working capital settlement.
(3) Represents receipt of payment from Softbank in connection with the Boost Mobile Acquisition on July 1, 2020.

Fair Value of Assets Acquired and Liabilities Assumed

We accounted for the Boost Mobile Acquisition as a business combination. The identifiable assets acquired and liabilities assumed were recorded at their preliminary fair values as of the acquisition date and are consolidated into our financial statements. The assignment of fair value requires significant judgments regarding the estimates and assumptions used to value the acquired assets and liabilities assumed. For the preliminary fair values of the assets acquired and liabilities assumed, we utilized the cost, income and market approaches from the perspective of a market participant.

The following table summarizes the preliminary fair values for each major class of assets acquired and liabilities assumed at the acquisition date. We used third-party valuation professionals to aid in the determination of the acquisition date fair values of certain assets acquired. We are in the process of finalizing the purchase price allocation associated with this transaction, including income tax related amounts. In addition, we have not settled the net working capital under the APA as noted above. Any change in the preliminary net working capital presented above is expected to result in a change to the assigned value of goodwill. As such, the preliminary purchase allocation set forth below is subject to revision as additional information is obtained and the valuation process is completed.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

	As of July 1, 2020
	(In thousands)
Trade accounts receivable	$ 514,786
Inventory	141,718
Other current assets	3,000
Intangibles	591,000
Goodwill	91,220
Other noncurrent assets	713,000
Total assets	2,054,724
Trade accounts payable and other accrued expenses	533,967
Deferred revenue and other	174,733
Total liabilities	708,700
Total purchase price	$ 1,346,024

Acquired Receivables. The fair value of assets acquired, which represents the gross contractual amount, includes accounts receivable of $539 million, with an associated allowance for credit losses of $24 million. Accounts receivable is comprised of receivables due from master agents, BoostUp! receivables and other receivables. These amounts are provisional and have been updated as of December 31, 2020.

Inventory. Inventory assets include $142 million of wireless devices.

Intangible Assets and Goodwill. Intangible assets includes $458 million of subscriber relationships, the Boost Mobile tradename of $96 million and certain below market contracts for $37 million. The intangible assets will be amortized over their respective useful lives which range from one to ten years. Goodwill has an assigned value of $91 million, which represents the excess of the consideration transferred over the estimated fair values of assets acquired and liabilities assumed. The preliminary goodwill recognized includes, among other things, the assembled workforce of Boost Mobile and intangible assets that do not qualify for separate recognition. The goodwill resulting from the Boost Mobile Acquisition included in the wireless segment is expected to be deductible for tax purposes. All of the goodwill acquired is allocated to the Retail Wireless reporting unit.

Other Noncurrent Assets. Other noncurrent assets includes our option to purchase certain T-Mobile's 800 MHz spectrum licenses with an assigned fair value of $713 million. This instrument meets the definition of a derivative and all subsequent changes in the derivative's fair value are recorded in "Other, net" in our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) until the option is either exercised or expires.

Liabilities. Liabilities include accounts payable, deferred revenue and accrued expenses.

Indemnification Assets and Contingent Liabilities. Pursuant to the APA, T-Mobile agreed to indemnify us against certain specified matters and losses. As of the closing of the transaction and March 31, 2021, we have not recorded either an indemnification asset or liability as the potential liabilities and associated reimbursement by T-Mobile cannot be reasonably estimated. We expect that any liability incurred related to these indemnified matters would be indemnified and reimbursed by T-Mobile. See Note 11 for further information.

Sales of equipment to indirect dealers often include credits subsequently paid to the dealer as a reimbursement for promotions offered to the end consumer. These credits are accounted for as variable consideration when estimating the amount of revenue to recognize from the sales of equipment to indirect dealers. At acquisition, we recorded a contingent obligation related to these credits, based upon historical experience and other factors, such as expected promotional activity. This amounts is recorded in “Other accrued expenses” on our Condensed Consolidated Balance Sheets.

Ting Mobile Acquisition

On August 1, 2020, we completed the Ting Mobile Acquisition. In addition, we entered into a services agreement pursuant to which Tucows will act as a mobile virtual network enabler for certain of our retail wireless subscribers. The consideration for the Ting Mobile Acquisition is an earn out provision and the fair value of the earn out provision has been assigned to a customer relationship intangible that is recorded in “Intangible assets, net” with the offset recorded in “Long-term deferred revenue and other long-term liabilities” on our Condensed Consolidated Balance Sheets.

Republic Wireless Acquisition

On March 8, 2021, we entered into an asset purchase agreement with Republic Wireless pursuant to which certain assets and liabilities of Republic Wireless, including approximately 200,000 wireless subscribers will transfer to us at closing, subject to certain regulatory approvals. We expect closing to occur in the second quarter of 2021. The consideration for the Republic Wireless Acquisition will consist of an upfront cash payment and an earn-out provision.

Agreements in Connection with the APA

In connection with the Boost Mobile Acquisition and the consummation of the Sprint-T-Mobile merger, we, T-Mobile, Sprint, DT and SoftBank came to an agreement with the DOJ on key terms and approval of the Transaction Agreements and our wireless service business and spectrum. On July 26, 2019, the Defendants entered into the Stipulation and Order with the DOJ binding the Defendants to the Proposed Final Judgment, which memorialized the agreement between the DOJ and the Defendants. The Stipulation and Order and the Proposed Final Judgment were filed in the District Court on July 26, 2019 and on April 1, 2020, the Final Judgment was entered with the District Court.

The term of the Final Judgment is seven years from the date of its entry with the District Court or five years if the DOJ gives notice that the divestitures, build-outs and other requirements have been completed to its satisfaction. A Monitoring Trustee has been appointed by the District Court. The Monitoring Trustee has the power and authority to monitor the Defendants’ compliance with the Final Judgment and settle disputes among the Defendants regarding compliance with the provisions of the Final Judgment and may recommend action to the DOJ in the event a party fails to comply with the Final Judgment.

Also in connection with the closing of the Boost Mobile Acquisition, we and T-Mobile entered into the TSA, the MNSA, the Option Agreement, and the Spectrum Purchase Agreement for an additional approximately $3.59 billion.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

Transition Services Agreement

T-Mobile and DISH Network entered into the TSA upon the Closing Date of the Boost Mobile Acquisition, pursuant to which T-Mobile provides certain transition services to us for the Prepaid Business for a period of two years from July 1, 2020. Additionally, under the Final Judgment, we may apply to the DOJ for one or more extensions of the term of the TSA, which the DOJ can approve or deny in its sole discretion, and the TSA contemplates the option to renew the TSA for a third or additional years. The transition services are provided at cost, which shall not exceed a specific amount in the first year, plus certain pass-through costs and out-of-pocket expenses, during the first two years. If any transition services are renewed for a third year, the transition services will be provided at cost plus a certain mark-up, plus certain additional costs.

Master Network Services Agreement

T-Mobile and DISH Network entered into an MNSA upon the Closing Date of the Boost Mobile Acquisition, pursuant to which we also receive network services from T-Mobile for a period of seven years. As set forth in the MNSA, T- Mobile provides to us, among other things, (i) legacy network services for Boost Mobile and certain other prepaid end users on the Sprint network, (ii) T-Mobile network services for certain end users that have been migrated to the T-Mobile network or provisioned on the T-Mobile network by or on behalf of us and (iii) infrastructure mobile network operator services to assist in the access and integration of our network.

Pursuant to the terms of the MNSA, we face certain restrictions on making offerings that may combine the access to services provided under the MNSA with access to the facilities or services provided by certain third parties, subject to certain exceptions and carve-outs. We have the right to offer differentiated pricing, products and features to our end users under our brands in conjunction with the services provided under the MNSA, subject to certain qualifications and restrictions. We have certain restrictions on our ability to wholesale, sub-distribute or resell the services provided under the MNSA to third parties. During and after the term of the MNSA, T-Mobile has agreed to certain restrictions with respect to the use of certain information in the targeting of subscribers.

In the event of a “change of control” of DISH Network, the MNSA will terminate upon the earlier of two years following the consummation of the change of control or the date on which the MNSA would have otherwise terminated or expired in accordance with its terms. However, we would remain able to provision new users for six months after the change of control and also retain access to roaming services on the T-Mobile network for both new and existing users for the remainder of the original term of the MNSA. Generally, a change of control would occur in the first 36 months of the term of the MNSA if (A) certain “permitted owners” no longer own 50% or more of our voting power or a person or group of persons who are not permitted owners beneficially owns more than 50% of our aggregate economic value or (B) we sell more than 50% of our wireless communications business assets (excluding our wireless terrestrial spectrum licenses and entities that own our wireless terrestrial spectrum licenses). A permitted owner generally includes Charles W. Ergen (including his family and certain related trusts and entities) and certain financial investors. Following the first 36 months of the term of the MNSA (or earlier in certain circumstances), a change of control would generally occur if any restricted persons own (1) more than 50% of our voting power or economic value or (2) a majority of our wireless communications business assets (excluding our wireless terrestrial spectrum licenses and entities that own our wireless terrestrial spectrum licenses). A “restricted person” generally includes certain U.S. wireless providers and U.S. cable companies (with certain exceptions), as well as any other entities that do not enter into a network usage agreement with T-Mobile restricting such person from generally engaging in certain activities that are detrimental to the T-Mobile network.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

Spectrum Purchase Agreement

Pursuant to the Spectrum Purchase Agreement that was entered into upon the Closing Date of the Boost Mobile Acquisition, we are expected to purchase all of Sprint's 800 MHz spectrum (approximately 13.5 MHz of nationwide spectrum). The covered spectrum must be divested within the later of three years from the Closing Date and five days after receipt of FCC approval for the transfer, following an application for FCC approval to be filed three years following the closing of the Sprint- T-Mobile merger. The DOJ may in its sole discretion agree to extend the deadline for the spectrum divestiture for up to 60 days pursuant to the Final Judgment. T-Mobile may exercise an option to lease back 4 MHz (2 MHz downlink + 2 MHz uplink) of the spectrum for two years following the closing of the 800 MHz spectrum sale at the same per-Pop rate used to calculate the purchase price paid by us to T-Mobile – a rate of approximately $68 million per year.

We and T-Mobile have made customary representations, warranties and covenants pursuant to the Spectrum Purchase Agreement, including representations by T-Mobile regarding the validity of the licenses for the purchased spectrum. Pursuant to the Spectrum Purchase Agreement, we and T-Mobile each indemnify the other against losses suffered as a result of breaches of the other's representations and warranties or covenants. The indemnification provisions are subject to certain deductible and cap limitations and time limitations with respect to recovery for losses.

If we breach the Spectrum Purchase Agreement prior to the closing or fail to deliver the purchase price following the satisfaction or waiver of all closing conditions, our sole liability to T-Mobile will be to pay T-Mobile a fee of approximately $72 million. If T-Mobile fails to sell the spectrum to us following the satisfaction or waiver of all closing conditions, our sole recourse will be to seek specific performance, and if (and only if) specific performance is unavailable, to seek damages of up to approximately $72 million.

Option Agreement

The Option Agreement, which was entered into upon the Closing Date of the Boost Mobile Acquisition, provides us an exclusive option to assume certain assets and liabilities under certain circumstances for any of the cell sites and retail stores that T-Mobile decommissions during the term of the Option Agreement. T-Mobile must make a minimum of 20,000 cell sites and 400 retail stores available to us pursuant to the Final Judgment. With respect to each decommissioned site, we may choose to acquire: (a) only the lease for such site, (b) the lease and a predetermined list of equipment at the site or (c) the lease and all of the equipment at the site. Under the Final Judgment, T-Mobile must provide a detailed schedule which identifies each cell site that is scheduled to be decommissioned within five years of the Closing Date. The Option Agreement will remain in place for five years following the Closing Date.

Agreement with the DOJ: The Stipulation and Order and the Final Judgment

Certain of the provisions of the Stipulation and Order and the Final Judgment are also reflected in the terms of the Transaction Agreements. In addition to the terms reflected in the Transaction Agreements, the Stipulation and Order and the Final Judgment provide for other rights and obligations of the Sellers and us, including the following:

- For a period of one year after the Closing Date, if we determine that certain assets not included in the divestiture were previously used by the Prepaid Business and are reasonably necessary for the continued competitiveness of the Prepaid Business, subject to certain carve-outs, we may request that such assets be transferred to us, which the DOJ can approve or deny in its sole discretion.
- Within one year of the Closing Date, we are required to offer nationwide postpaid retail mobile wireless service.

- If we elect not to purchase the 800 MHz licenses pursuant to the Spectrum Purchase Agreement, we must pay $360 million (equal to 10% of the Spectrum Purchase Agreement purchase price) to the United States. However, we will not be required to make such payment if we have deployed a core network and offered 5G service to at least 20% of the U.S. population within three years of the Closing Date.
- If we buy the 800 MHz spectrum pursuant to the Spectrum Purchase Agreement but fail to deploy all of the 800 MHz spectrum licenses for use in the provision of retail mobile wireless services by the expiration of the Final Judgment, the DOJ may require us to forfeit to the FCC any of the 800 MHz licenses for spectrum that are not being used to provide retail mobile wireless services, unless we are already providing nationwide retail wireless service.
- We and T-Mobile were required to negotiate in good faith to reach an agreement for T-Mobile to lease some or all of our 600 MHz spectrum licenses for deployment to retail consumers by T-Mobile. On September 11, 2020, we and T-Mobile entered into an agreement to lease a portion of our 600 MHz spectrum licenses for an annual lease payment of approximately $56 million.
- We and T-Mobile must agree to support eSIM technology on smartphones.
- The Sellers must introduce the suppliers and distributors of the Prepaid Business to us and the Sellers may not interfere in our negotiations with such suppliers and distributors.
- On the first day of the fiscal quarter following the entry of the Final Judgment and of each 180-day period thereafter, we are obligated to provide the DOJ with a description of our deployment efforts over the prior quarter including: (i) the number of communication towers and small cells deployed, (ii) the spectrum bands on which we have deployed equipment, (iii) progress in obtaining devices that operate on our spectrum frequencies, (iv) POPs coverage of our network, (v) the number of our mobile wireless subscriptions, (vi) the amount of traffic transmitted to our subscribers using our network and using T-Mobile's network, and (vii) whether there are or have been any efforts by T-Mobile to interfere with our efforts to deploy and operate our network.
- We cannot sell, lease or otherwise provide the right to use any of the divested assets to any national facilities-based mobile wireless provider and may not sell any of the divested assets or similar assets back to T-Mobile during the term of the Final Judgment, except that we may lease back to T-Mobile up to 4 MHz of the 800 MHz spectrum we will acquire (as discussed above).
- We must comply with the June 14, 2023 AWS-4, Lower 700 MHz E Block, AWS H Block, and nationwide 5G broadband network build-out commitments made to the FCC, subject to verification by the FCC (as described below). If we fail to comply with such build-out commitments, we may be subject to civil contempt in addition to the substantial voluntary contributions and license forfeitures described below if we fail to meet these commitments (as described below).

FCC Build-Out Commitments

In a letter filed with the FCC on July 26, 2019, we voluntarily committed to deploy a nationwide 5G broadband network and meet revised timelines relating to the build-out of our AWS-4, Lower 700 MHz E Block, AWS H Block and 600 MHz spectrum assets, subject to certain penalties. Pursuant to these commitments, we requested multi-year extensions to deploy our AWS-4, Lower 700 MHz E Block, and AWS H Block spectrum, and we have committed to build-out our 600 MHz licenses on an accelerated schedule to better align with our 5G deployment. We have also committed to offer 5G broadband service to certain population coverage targets, along with minimum core network, communication tower and spectrum use targets, and have waived our right to deploy any technology of our choice under the FCC's "flexible use" rules with respect to these spectrum bands. Failure to meet the various commitments would require us to pay voluntary contributions totaling up to $2.2 billion to the FCC and would subject certain licenses in the AWS-4, Lower 700 MHz E Block, and AWS H Block spectrum to forfeiture. We have also agreed not to sell our AWS-4 and 600 MHz spectrum for six years without prior DOJ and FCC approval (unless such sale is part of a change of control of DISH Network). Additionally, we have agreed not to lease a certain percentage of network capacity on our AWS-4 and 600 MHz spectrum for six years to the three largest U.S. wireless carriers (i.e., AT&T, Verizon and T-Mobile), without prior FCC approval. On November 5, 2019, the FCC released an Order that, among other things, approved the Sprint- T-Mobile merger, tolled our existing March 7, 2020 build-out deadline for our AWS-4 and Lower 700 MHz E Block Licenses, and directed the FCC's Wireless Telecommunications Bureau to adopt our commitments after a 30 day review period (the "FCC Merger Order").

On September 11, 2020, the FCC's Wireless Telecommunications Bureau issued an Order adopting these commitments. Our 5G deployment obligations for each of the four spectrum bands are generally set forth below.

- With respect to the 600 MHz licenses, we must offer 5G broadband service to at least 75% of the population in each Partial Economic Area (which are service areas established by the FCC) no later than June 14, 2025. Note that these commitments are earlier than the previous 600 MHz Final Build-Out Requirement date of June 2029. See Note 11 for further information.
- With respect to the AWS-4 licenses, we must offer 5G broadband service to at least 20% of the U.S. population and have deployed a core network no later than June 14, 2022, and offer 5G broadband service to at least 70% of the U.S. population no later than June 14, 2023.
- With respect to the Lower 700 MHz E Block licenses, we must offer 5G broadband service to at least 20% of the U.S. population who are covered by such licenses and have deployed a core network no later than June 14, 2022, and offer 5G broadband service to at least 70% of the U.S. population who are covered by such licenses no later than June 14, 2023.
- With respect to the AWS H Block licenses, we must offer 5G broadband service to at least 20% of the U.S. population and have deployed a core network no later than June 14, 2022, and offer 5G broadband service to at least 70% of the U.S. population no later than June 14, 2023.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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6. 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:

	As of	
	March 31, 2021	December 31, 2020
	(In thousands)	
Marketable investment securities:		
Current marketable investment securities:		
Strategic - available-for-sale	$ 194	$ 195
Other	135,291	362,758
Total current marketable investment securities	135,485	362,953
Restricted marketable investment securities (1)	11,347	24,467
Total marketable investment securities	146,832	387,420
Restricted cash and cash equivalents (1)	96,957	83,902
Other investment securities:		
Other investment securities	152,719	149,706
Total other investment securities	152,719	149,706
Total marketable investment securities, restricted cash and cash equivalents, and other investment securities	$ 396,508	$ 621,028

(1) Restricted marketable investment securities and restricted cash and cash equivalents are included in “Restricted cash, cash equivalents and marketable investment securities” on our Condensed 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 Condensed 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 “Total stockholders’ equity (deficit),” net of related deferred income tax on our Condensed 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 Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

Current Marketable Investment Securities – Strategic

Our current strategic marketable investment securities portfolio includes and may include strategic and financial debt and/or equity investments in private and public companies that are highly speculative and have experienced and continue to experience volatility. As of March 31, 2021, this portfolio consisted of securities of a small number of issuers, and as a result the value of that portfolio depends, among other things, on the performance of those issuers. The fair value of certain of the debt and equity securities in this portfolio can be adversely impacted by, among other things, the issuers’ respective performance and ability to obtain any necessary additional financing on acceptable terms, or at all.

Current Marketable Investment Securities - Other

Our current other marketable investment securities portfolio includes 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 March 31, 2021 and December 31, 2020, 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 Condensed 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, DIRECTV, LLC, a wholly-owned indirect subsidiary of 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. The transaction closed in January 2017.

TerreStar Solutions, Inc. In March 2019, we closed a transaction with TerreStar Solutions, Inc. ("TSI") to acquire additional equity securities of TSI, an entity that holds certain 2 GHz wireless spectrum licenses in Canada, in exchange for certain Canadian assets, including, among other things, a portion of the satellite capacity on our T1 satellite, which we had acquired from TerreStar Networks, Inc. in 2012.

Our ability to realize value from our strategic investments in securities that are not publicly traded depends on 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.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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Fair Value Measurements

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

	As of							
	March 31, 2021				December 31, 2020			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
	(In thousands)							
Cash equivalents (including restricted)	$ 4,354,289	$ 63,388	$ 4,290,901	$ —	$ 3,330,296	$ 363,123	$ 2,967,173	$ —
Debt securities (including restricted):								
U.S. Treasury and agency securities	$ 2,500	$ 2,500	$ —	$ —	$ 65,992	$ 65,992	$ —	$ —
Commercial paper	139,781	—	139,781	—	298,435	—	298,435	—
Corporate securities	2,900	—	2,900	—	22,552	—	22,552	—
Other	1,651	—	1,457	194	441	—	246	195
Total	$ 146,832	$ 2,500	$ 144,138	$ 194	$ 387,420	$ 65,992	$ 321,233	$ 195

As of March 31, 2021, restricted and non-restricted marketable investment securities included debt securities of $147 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.

Derivative Instruments

We have the option to purchase certain of T-Mobile’s 800 MHz spectrum licenses from T-Mobile at a fixed price in the future as part of the Boost Mobile Acquisition. See Note 5 for further information. This instrument meets the definition of a derivative and was valued based upon, among other things, our estimate of the underlying asset price, the expected term, volatility and the risk free rate of return at its acquisition date fair value of $713 million. The derivative is remeasured quarterly. As of March 31, 2021 and December 31, 2020, the derivative’s fair value was $687 million and $691 million, respectively, and are included in “Other noncurrent assets, net” on our Condensed Consolidated Balance Sheets. All changes in the derivative’s fair value are recorded in “Other, net” in our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) until the option is either exercised or expires. See the table below. We account for our option to purchase certain T-Mobile’s 800 MHz spectrum licenses under the Spectrum Purchase Agreement as a Level 3 derivative.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

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

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

Other, net:	For the Three Months Ended March 31, 2021	2020
	(In thousands)	
Marketable investment securities - realized and unrealized gains (losses)	$ 317	$ 58
Derivative instruments - net realized and/or unrealized gains (losses)	(4,000)	—
Costs related to early redemption of debt	(2,600)	—
Equity in earnings (losses) of affiliates	817	867
Other	205	667
Total	$ (5,261)	$ 1,592

7. Inventory

Inventory consisted of the following:

	As of March 31, 2021	December 31, 2020
	(In thousands)	
Finished goods	$ 331,366	$ 337,787
Work-in-process and service repairs	23,012	25,621
Raw materials	20,698	16,941
Total inventory	$ 375,076	$ 380,349

8. Property and Equipment

Property and equipment consisted of the following:

	Depreciable Life (In Years)	As of March 31, 2021	December 31, 2020
		(In thousands)	
Equipment leased to customers	2 - 5	$ 1,688,075	$ 1,736,660
Satellites	2 - 15	1,734,024	1,734,024
Satellites acquired under finance lease agreements	10 - 15	888,940	888,940
Furniture, fixtures, equipment and other	2 - 20	2,144,806	2,091,271
Buildings and improvements	5 - 40	371,495	370,941
Land	-	17,810	17,810
Construction in progress	-	181,889	126,303
Total property and equipment		7,027,039	6,965,949
Accumulated depreciation		(4,846,766)	(4,783,616)
Property and equipment, net		$ 2,180,273	$ 2,182,333

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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Construction in progress consisted of the following:

	As of	
	March 31, 2021	December 31, 2020
	(In thousands)	
Pay-TV	$ 44,782	$ 53,486
Wireless	137,107	72,817
Total construction in progress	$ 181,889	$ 126,303

Depreciation and amortization expense consisted of the following:

	For the Three Months Ended March 31,	
	2021	2020
	(In thousands)	
Equipment leased to customers	$ 64,262	$ 79,714
Satellites	50,193	52,144
Buildings, furniture, fixtures, equipment and other	31,166	33,943
Intangible assets (1)	44,764	1,019
Total depreciation and amortization	$ 190,385	$ 166,820

(1) The increase resulted from the completion of the Boost Mobile Acquisition and the Ting Mobile Acquisition. See Note 5 for further information.

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

Satellites

Pay-TV Satellites. We currently utilize 13 satellites in geostationary orbit approximately 22,300 miles above the equator, eight of which we own and depreciate over their estimated useful life. We currently utilize certain capacity on one satellite that we lease from EchoStar, which is accounted for as an operating lease. We also lease four satellites from third parties: Ciel II, which is accounted for as an operating lease, and Anik F3, Nimiq 5 and QuetzSat-1, which are accounted for as financing leases and are each depreciated over their economic life.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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As of March 31, 2021, our pay-TV satellite fleet consisted of the following:

Satellites	Launch Date	Degree Orbital Location	Lease Termination Date
Owned:			
EchoStar VII	February 2002	119	N/A
EchoStar X	February 2006	110	N/A
EchoStar XI	July 2008	110	N/A
EchoStar XIV	March 2010	119	N/A
EchoStar XV	July 2010	61.5	N/A
EchoStar XVI	November 2012	61.5	N/A
EchoStar XVIII	June 2016	61.5	N/A
EchoStar XXIII	March 2017	67.9	N/A
Leased from EchoStar (1):			
EchoStar IX	August 2003	121	Month to month
Leased from Other Third Party:			
Anik F3	April 2007	118.7	April 2022
Ciel II	December 2008	129	January 2022
Nimiq 5	September 2009	72.7	September 2024
QuetzSat-1	September 2011	77	November 2021

(1) See Note 14 for further information on our Related Party Transactions with EchoStar.

9. Leases

We enter into operating and finance leases for, among other things, communication towers, satellites, office space, warehouses and distribution centers, vehicles and other equipment. Our leases have remaining lease terms from one to 16 years, some of which include renewal options, and some of which include options to terminate the leases within one year.

Our Anik F3, Nimiq 5 and QuetzSat-1 satellites are accounted for as financing leases. Substantially all of our remaining leases are accounted for as operating leases.

The components of lease expense were as follows:

	For the Three Months Ended March 31, 2021	For the Three Months Ended March 31, 2020
	(In thousands)	
Operating lease cost	$ 14,783	$ 17,731
Short-term lease cost (1)	3,472	2,667
Finance lease cost:		
Amortization of right-of-use assets	17,829	17,904
Interest on lease liabilities	4,288	5,813
Total finance lease cost	22,117	23,717
Total lease costs	$ 40,372	$ 44,115

(1) Leases that have terms of 12 months or less.

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

Supplemental cash flow information related to leases was as follows:

	For the Three Months Ended March 31,	
	2021	2020
	(In thousands)	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 16,919	$ 17,656
Operating cash flows from finance leases	$ 4,058	$ 5,813
Financing cash flows from finance leases	$ 17,157	$ 15,424
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases (1)	$ 20,073	$ 7,882
Finance leases	$ —	$ —

(1) The increase in operating lease assets primarily related to communication tower leases.

Supplemental balance sheet information related to leases was as follows:

	As of	
	March 31, 2021	December 31, 2020
	(In thousands)	
Operating Leases:		
Operating lease assets	$ 110,232	$ 104,271
Other current liabilities	$ 54,940	$ 56,856
Operating lease liabilities	69,660	63,526
Total operating lease liabilities	$ 124,600	$ 120,382
Finance Leases:		
Property and equipment, gross	$ 889,708	$ 889,708
Accumulated depreciation	(772,121)	(754,292)
Property and equipment, net	$ 117,587	$ 135,416
Other current liabilities	$ 53,564	$ 58,379
Other long-term liabilities	90,782	103,795
Total finance lease liabilities	$ 144,346	$ 162,174
Weighted Average Remaining Lease Term:		
Operating leases	2.8 years	2.8 years
Finance leases	2.9 years	3.1 years
Weighted Average Discount Rate:		
Operating leases	4.1%	4.2%
Finance leases	10.5%	10.4%

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
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Maturities of lease liabilities as of March 31, 2021 were as follows:

	Maturities of Lease Liabilities		
For the Years Ending December 31,	**Operating Leases**	**Finance Leases**	**Total**
		(In thousands)	
2021 (remaining nine months)	$ 47,397	$ 48,403	$ 95,800
2022	38,600	48,307	86,907
2023	20,312	40,942	61,254
2024	12,236	30,707	42,943
2025	4,947	—	4,947
Thereafter	13,062	—	13,062
Total lease payments	136,554	168,359	304,913
Less: Imputed interest	(11,954)	(24,013)	(35,967)
Total	124,600	144,346	268,946
Less: Current portion	(54,940)	(53,564)	(108,504)
Long-term portion of lease obligations	$ 69,660	$ 90,782	$ 160,442

10. 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 March 31, 2021 and December 31, 2020:

	As of			
	March 31, 2021		**December 31, 2020**	
	Carrying Amount	**Fair Value**	**Carrying Amount**	**Fair Value**
		(In thousands)		
6 3/4% Senior Notes due 2021 (1)	$ 1,794,646	$ 1,811,480	$ 2,000,000	$ 2,047,260
5 7/8% Senior Notes due 2022	2,000,000	2,094,220	2,000,000	2,095,820
5% Senior Notes due 2023	1,500,000	1,560,705	1,500,000	1,566,300
5 7/8% Senior Notes due 2024	2,000,000	2,101,980	2,000,000	2,099,580
2 3/8% Convertible Notes due 2024	1,000,000	968,280	1,000,000	949,350
0% Convertible Notes due 2025	2,000,000	2,125,240	2,000,000	2,010,000
7 3/4% Senior Notes due 2026	2,000,000	2,203,100	2,000,000	2,236,520
3 3/8% Convertible Notes due 2026	3,000,000	2,894,250	3,000,000	2,886,330
7 3/8% Senior Notes due 2028	1,000,000	1,052,940	1,000,000	1,070,130
Other notes payable	162,944	162,944	137,809	137,809
Subtotal	16,457,590	$ 16,975,139	16,637,809	$ 17,099,099
Unamortized debt discount on the Convertible Notes	—		(1,061,203)	
Unamortized deferred financing costs and other debt discounts, net	(43,551)		(36,752)	
Finance lease obligations (2)	144,346		162,174	
Total long-term debt and finance lease obligations (including current portion)	$ 16,558,385		$ 15,702,028	

(1) During the three months ended March 31, 2021, we repurchased $205 million of our 6 3/4% Senior Notes due 2021 in open market trades. The remaining balance of $1.795 billion matures on June 1, 2021.
(2) 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).

2 3/8% Convertible Notes due 2024

On March 17, 2017, we issued $1.0 billion aggregate principal amount of the Convertible Notes due March 15, 2024 in a private placement. Interest accrues at an annual rate of 2 3/8% and is payable semi-annually in cash, in arrears on March 15 and September 15 of each year.

The Convertible Notes due 2024 are:

- our general unsecured obligations;
- ranked senior in right of payment to any future indebtedness that is expressly subordinated in right of payment to the Convertible Notes due 2024;
- ranked equally in right of payment with all of our existing and future unsecured senior indebtedness;
- ranked effectively junior to any of our existing and future secured indebtedness to the extent of the value of the assets securing such indebtedness;
- ranked structurally junior to all indebtedness and other liabilities of our subsidiaries; and
- not guaranteed by our subsidiaries.

We may not redeem the Convertible Notes due 2024 prior to the maturity date. If a "fundamental change" (as defined in the related indenture) occurs prior to the maturity date of the Convertible Notes due 2024, holders may require us to repurchase for cash all or part of their Convertible Notes due 2024 at a repurchase price equal to 100% of the principal amount of such Convertible Notes due 2024, plus accrued and unpaid interest to, but not including, the fundamental change repurchase date.

The indenture related to the Convertible Notes due 2024 does not contain any financial covenants and does not restrict us from paying dividends, issuing or repurchasing our other securities, issuing new debt (including secured debt) or repaying or repurchasing our debt.

Subject to the terms of the related indenture, the Convertible Notes due 2024 may be converted at an initial conversion rate of 12.1630 shares of our Class A common stock per $1,000 principal amount of Convertible Notes due 2024 (equivalent to an initial conversion price of approximately $82.22 per share of our Class A common stock) (the "Initial Conversion Rate"), at any time on or after October 15, 2023 through the second scheduled trading day preceding the maturity date. Holders of the Convertible Notes due 2024 will also have the right to convert the Convertible Notes due 2024 at the Initial Conversion Rate prior to October 15, 2023, but only upon the occurrence of specified events described in the related indenture. The conversion rate is subject to anti-dilution adjustments if certain events occur. Upon any conversion, we will settle our conversion obligation in cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election.

0% Convertible Notes due 2025

On December 21, 2020, we issued $2.0 billion aggregate principal amount of the Convertible Notes due December 15, 2025 in a private placement. These notes will not bear interest, and the principal amount of the Notes will not accrete.

The Convertible Notes due 2025 are:

- our general unsecured obligations;
- ranked senior in right of payment to any future indebtedness that is expressly subordinated in right of payment to the Convertible Notes due 2025;
- ranked equally in right of payment with all of our existing and future unsecured senior indebtedness;
- ranked effectively junior to any of our existing and future secured indebtedness to the extent of the value of the assets securing such indebtedness;

- ranked structurally junior to all indebtedness and other liabilities of our subsidiaries; and
- not guaranteed by our subsidiaries.

We may not redeem the Convertible Notes due 2025 prior to the maturity date. If a "fundamental change" (as defined in the related indenture) occurs prior to the maturity date of the Convertible Notes due 2025, holders may require us to repurchase for cash all or part of their Convertible Notes due 2025 at a repurchase price equal to 100% of the principal amount of such Convertible Notes due 2025, plus accrued and unpaid interest to, but not including, the fundamental change repurchase date.

The indenture related to the Convertible Notes due 2025 does not contain any financial covenants and does not restrict us from paying dividends, issuing or repurchasing our other securities, issuing new debt (including secured debt) or repaying or repurchasing our debt.

Subject to the terms of the related indenture, the Convertible Notes due 2025 may be converted at an initial conversion rate of 24.4123 shares of our Class A common stock per $1,000 principal amount of the Convertible Notes due 2025 (equivalent to an initial conversion price of approximately $40.96 per share of our Class A common stock) (the "Initial Conversion Rate"), at any time on or after July 15, 2025 through the second scheduled trading day preceding the maturity date. Holders of the Convertible Notes due 2025 will also have the right to convert the Convertible Notes due 2025 at the Initial Conversion Rate prior to July 15, 2025, but only upon the occurrence of specified events described in the related indenture. The conversion rate is subject to anti-dilution adjustments if certain events occur. Upon any conversion, we will settle our conversion obligation in cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election.

3 3/8% Convertible Notes due 2026

On August 8, 2016, we issued $3.0 billion aggregate principal amount of the Convertible Notes due August 15, 2026 in a private unregistered offering. Interest accrues at an annual rate of 3 3/8% and is payable semi-annually in cash, in arrears on February 15 and August 15 of each year.

The Convertible Notes due 2026 are:

- our general unsecured obligations;
- ranked senior in right of payment to any future indebtedness that is expressly subordinated in right of payment to the Convertible Notes due 2026;
- ranked equally in right of payment with all of our existing and future unsecured senior indebtedness;
- ranked effectively junior to any of our existing and future secured indebtedness to the extent of the value of the assets securing such indebtedness;
- ranked structurally junior to all indebtedness and other liabilities of our subsidiaries; and
- not guaranteed by our subsidiaries.

We may not redeem the Convertible Notes due 2026 prior to the maturity date. If a "fundamental change" (as defined in the related indenture) occurs prior to the maturity date of the Convertible Notes due 2026, holders may require us to repurchase for cash all or part of their Convertible Notes due 2026 at a specified make-whole price equal to 100% of the principal amount of such Convertible Notes due 2026, plus accrued and unpaid interest to, but not including, the fundamental change repurchase date.

The indenture related to the Convertible Notes due 2026 does not contain any financial covenants and does not restrict us from paying dividends, issuing or repurchasing our other securities, issuing new debt (including secured debt) or repaying or repurchasing our debt.

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Subject to the terms of the related indenture, the Convertible Notes due 2026 may be converted at an initial conversion rate of 15.3429 shares of our Class A common stock per $1,000 principal amount of Convertible Notes due 2026 (equivalent to an initial conversion price of approximately $65.18 per share of our Class A common stock) (the "Initial Conversion Rate"), at any time on or after March 15, 2026 through the second scheduled trading day preceding the maturity date. Holders of the Convertible Notes due 2026 will also have the right to convert the Convertible Notes due 2026 at the Initial Conversion Rate prior to March 15, 2026, but only upon the occurrence of specified events described in the related indenture. The conversion rate is subject to anti-dilution adjustments if certain events occur. Upon any conversion, we will settle our conversion obligation in cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election.

Convertible Note Hedge and Warrant Transactions

In connection with the offering of the Convertible Notes due 2026, we entered into convertible note hedge transactions with certain option counterparties. The convertible note hedge transactions cover, subject to anti-dilution adjustments substantially similar to those applicable to the Convertible Notes due 2026, the number of shares of our Class A common stock underlying the Convertible Notes due 2026, which initially gives us the option to purchase approximately 46 million shares of our Class A common stock at a price of approximately $65.18 per share. The total cost of the convertible note hedge transactions was $635 million. Concurrently with entering into the convertible note hedge transactions, we also entered into warrant transactions with each option counterparty whereby we sold to such option counterparty warrants to purchase, subject to customary anti-dilution adjustments, up to the same number of shares of our Class A common stock, which initially gives the option counterparties the option to purchase approximately 46 million shares of our Class A common stock at a price of approximately $86.08 per share. We received $376 million in cash proceeds from the sale of these warrants. For us, the economic effect of these transactions is to effectively raise the initial conversion price from approximately $65.18 per share of our Class A common stock to approximately $86.08 per share of our Class A common stock (thus effectively raising the conversion premium on the Convertible Notes due 2026 from approximately 32.5% to approximately 75%). In accordance with accounting guidance on hedge and warrant transactions, the net cost incurred in connection with the convertible note hedge and warrant transactions are recorded as a reduction in "Additional paid-in capital" within "Stockholders' equity (deficit)" on our Consolidated Balance Sheets as of December 31, 2016.

We will not be required to make any cash payments to each option counterparty or its affiliates upon the exercise of the options that are a part of the convertible note hedge transactions, but will be entitled to receive from them a number of shares of Class A common stock, an amount of cash or a combination thereof. This consideration is generally based on the amount by which the market price per share of Class A common stock, as measured under the terms of the convertible note hedge transactions, is greater than the strike price of the convertible note hedge transactions during the relevant valuation period under the convertible note hedge transactions. Additionally, if the market price per share of Class A common stock, as measured under the terms of the warrant transactions, exceeds the strike price of the warrants during the measurement period at the maturity of the warrants, we will owe each option counterparty a number of shares of Class A common stock in an amount based on the excess of such market price per share of Class A common stock over the strike price of the warrants. However, as specified under the terms of the warrant transactions, we may elect to settle the warrants in cash.

11. Commitments and Contingencies

Commitments

We currently expect capital expenditures, excluding capitalized interest, for our 5G Network Deployment to be approximately $10 billion, of which approximately $756 million is included below in "Other long-term obligations."

As we continue our 5G Network Deployment, we have begun to enter into contracts for future operational expenses, such as communication tower leases. Minimum contractual commitments related to these obligations are also included below in "Other long-term obligations."

As noted above, "Other long-term obligations" represent minimum payments related to communication tower obligations, certain 5G Network Deployment commitments, and satellite related and other obligations. "Other long-term obligations" totaled $4.350 billion as of December 31, 2020 and $8.541 billion as of March 31, 2021, an increase of $4.191 billion as of March 31, 2021. We expect these totals to continue to increase as we continue our 5G Network Deployment.

As of March 31, 2021, our future "Other long-term obligations" were $790 million for the remaining nine months of 2021, $193 million for 2022, $301 million for 2023, $440 million for 2024, $560 million for 2025, and $6.257 billion thereafter, principally for tower obligations that extend out until 2036, for a total of $8.541 billion.

Future maturities of our long-term debt, finance lease and contractual obligations as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2020 have not changed materially, other than those disclosed above.

Wireless – 5G Network Deployment

We have directly invested over $12 billion to acquire certain wireless spectrum licenses and related assets and made over $10 billion in non-controlling investments in certain entities, for a total of over $22 billion. The $22 billion of investments related to wireless spectrum licenses does not include $6 billion of capitalized interest related to the carrying value of such licenses. See Note 2 for further information on capitalized interest.

Recent Wireless Spectrum Acquisitions

3550-3650 MHz. The auction for the Priority Access Licenses for the 3550-3650 MHz band began on July 23, 2020 and ended on August 25, 2020. On September 2, 2020, the FCC announced that Wetterhorn Wireless L.L.C. ("Wetterhorn"), a wholly-owned subsidiary of DISH Network, was the winning bidder of 5,492 Priority Access Licenses in the 3550-3650 MHz band, with Wetterhorn's aggregate winning bids totaling approximately $913 million. During the second and third quarters 2020, we paid $83 million and $100 million, respectively, to the FCC for our winning bids. On October 1, 2020, we paid the remaining balance of our winning bids of approximately $730 million. On March 12, 2021, the FCC issued an order granting Wetterhorn's application to acquire the 3550-3650 MHz licenses (the "3550-3650 MHz GHz Licenses"). The payments made in 2020 were included in "Other current assets" as of December 31, 2020 and have been reclassified to "FCC authorizations" as of March 31, 2021 on our Condensed Consolidated Balance Sheets.

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3.7-3.98 GHz. The auction for the Flexible-Use Service Licenses in the 3.7-3.98 GHz Band ("Auction 107") began on December 8, 2020 and ended on February 17, 2021. On February 24, 2021, the FCC announced that Little Bear Wireless L.L.C. ("Little Bear"), a wholly-owned subsidiary of DISH Network, was the winning bidder of one Flexible-Use Service License in the 3.7-3.98 GHz band, with Little Bear's aggregate winning bid totaling approximately $3 million. On November 2, 2020, we paid $340 million to the FCC as a deposit for Auction 107. On March 24, 2021, we received a $337 million refund for the balance of our deposit less our winning bid amount. On April 2, 2021, the FCC issued a public notice accepting for filing Little Bear's application to acquire the 3.7-3.98 GHz license (the "3.7-3.98 GHz License"). The FCC has not yet issued the licenses to Little Bear.

Wireless Spectrum Licenses

These wireless spectrum licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements that are summarized in the table below:

	As of March 31, 2021 Carrying Amount (In thousands)	Build-Out Deadlines Interim	Build-Out Deadlines Final	Expiration Date
Owned:				
DBS Licenses (1)	$ 677,409			
700 MHz Licenses	711,871	June 14, 2022 (2)	June 14, 2023 (4)	June 2023
AWS-4 Licenses	1,940,000	June 14, 2022 (2)	June 14, 2023 (4)	June 2023
H Block Licenses	1,671,506	June 14, 2022 (2)	June 14, 2023 (5)	June 2023
600 MHz Licenses	6,211,154		June 14, 2025 (6)	June 2029
MVDDS Licenses (1)	24,000			August 2024
LMDS Licenses (1)	—			September 2028
28 GHz Licenses	2,883		October 2, 2029 (7)	October 2029
24 GHz Licenses	11,772		December 11, 2029 (7)	December 2029
37 GHz, 39 GHz and 47 GHz Licenses	202,533		June 4, 2030 (7)	June 2030
3550-3650 MHz Licenses	912,939		March 12, 2031 (7)	March 2031
Subtotal	12,366,067			
Non-controlling Investments:				
Northstar	5,618,930	October 2021 (3)	October 2027 (8)	October 2027 (8)
SNR	4,271,459	October 2021 (3)	October 2027 (8)	October 2027 (8)
Total AWS-3 Licenses	9,890,389			
Capitalized Interest (9)	5,768,150			
Total	$ 28,024,606			

(1) The build-out deadlines for these licenses have been met.
(2) For these licenses, we must offer 5G broadband service to at least 20% of the United States population and have developed a core network by this date.
(3) For these licenses, Northstar Wireless and SNR Wireless must provide reliable signal coverage and offer service to at least 40% of the population of each license area by this date. See (8) below for final build-out deadlines.
(4) For these licenses, we must offer 5G broadband service to 70% of the United States population by this date; provided, however, if by June 14, 2023, we are offering 5G broadband service with respect to these licenses to at least 50% of the population of the United States, the final deadline shall be further extended automatically to June 14, 2025, for us to construct and offer 5G broadband service to at least 70% of the population in each Economic Area (which is a service area established by the FCC) with respect to these licenses.

(5) For these licenses, we must offer 5G broadband service to at least 70% of the United States population by this date; provided, however, that if by June 14, 2023, we are offering 5G broadband service with respect to these licenses to at least 50% of the population of the United States, the final deadline shall be further extended automatically to June 14, 2025, for us to construct and offer 5G broadband service to at least 75% of the population in each Economic Area with respect to these licenses.
(6) For these licenses, we must offer 5G broadband service to at least 75% of the population in each Partial Economic Area (which are service areas established by the FCC) by this date.
(7) There are a variety of build-out options and associated build-out metrics associated with these licenses.
(8) For these licenses, Northstar Wireless and SNR Wireless must provide reliable signal coverage and offer service to at least 75% of the population of each license area by this date. If the AWS-3 interim build-out requirement is not met, the AWS-3 expiration date and the AWS-3 final build-out requirement may be accelerated by two years (from October 2027 to October 2025) for each AWS-3 License area in which Northstar Wireless and SNR Wireless do not meet the requirement.
(9) See Note 2 for further information.

Commercialization of Our Wireless Spectrum Licenses and Related Assets. We plan to commercialize our wireless spectrum licenses through our 5G Network Deployment. To that end, we have undertaken several key steps including identifying markets to build out, making executive and management hires and entering into agreements with key vendors. For example, on November 16, 2020, we announced a long-term agreement with Crown Castle pursuant to which Crown Castle will lease us space on up to 20,000 communication towers. As part of the agreement, we will also receive certain fiber transport services and have the option to utilize Crown Castle for pre-construction services.
We have also entered into multiple long-term agreements with vendors including, among others, Amazon, American Tower, Fujitsu, Palo Alto and VMware for communication towers, radios, software, and network security. During December 2020, we completed a successful field validation, utilizing our fully-virtualized standalone 5G core network and the industry's first O-RAN compliant radio. We began construction of our first major market, Las Vegas, Nevada, during the second quarter of 2021. We anticipate service for this market to begin by the end of the third quarter of 2021. We currently expect capital expenditures, excluding capitalized interest, for our 5G Network Deployment to be approximately $10 billion.

Prior to starting our 5G Network Deployment, we notified the FCC in March 2017 that we planned to deploy a narrowband IoT network on certain of these wireless licenses, which we expected to complete by March 2020, with subsequent phases to be completed thereafter. In light of, among other things, certain developments related to the Sprint-T-Mobile merger, during the first quarter 2020, we determined that the revision of certain of our build-out deadlines was probable and, therefore, we no longer intended to complete our narrowband IoT deployment. The FCC issued an Order effectuating the build-out deadline changes contemplated above on September 11, 2020. During the first quarter 2020, we impaired certain assets that would not be utilized in our 5G Network Deployment, resulting in a $253 million non-cash impairment charge in "Impairment of long-lived assets" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

We will need to make significant additional investments or partner with others to, among other things, complete our 5G Network Deployment and further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly. In addition, as we complete our 5G Network Deployment we will incur significant additional expenses and will have to make significant investments related to, among other things, research and development, wireless testing and wireless network infrastructure. We may also determine that additional wireless spectrum licenses may be required to complete our 5G Network Deployment and to compete with other wireless service providers.

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We may need to raise significant additional capital in the future to fund the efforts described above, which may not be available on acceptable terms or at all. There can be no assurance that we will be able to develop and implement a business model that will realize a return on these wireless spectrum licenses or that we will be able to profitably deploy the assets represented by these wireless spectrum licenses, which may affect the carrying amount of these assets and our future financial condition or results of operations.

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

Non-Controlling Investments

During 2015, through our wholly-owned subsidiaries American II and American III, we initially made over $10 billion in certain non-controlling investments in Northstar Spectrum, the parent company of Northstar Wireless, and in SNR HoldCo, the parent company of SNR Wireless, respectively. Under the applicable accounting guidance in ASC 810, Northstar Spectrum and SNR HoldCo are considered variable interest entities and, based on the characteristics of the structure of these entities and in accordance with the applicable accounting guidance, we consolidate these entities into our financial statements. See Note 2 for further information.

Northstar Investment. As of 2015, through American II, we owned a non-controlling interest in Northstar Spectrum, which was comprised of 85% of the Class B Common Interests and 100% of the Class A Preferred Interests of Northstar Spectrum. Northstar Manager is the sole manager of Northstar Spectrum and owns a controlling interest in Northstar Spectrum, which was comprised of 15% of the Class B Common Interests of Northstar Spectrum. As of March 31, 2018, the total equity contributions from American II and Northstar Manager to Northstar Spectrum were approximately $7.621 billion and $133 million, respectively. As of March 31, 2018, the total loans from American II to Northstar Wireless under the Northstar Credit Agreement (as defined below) for payments to the FCC related to the Northstar Licenses (as defined below) were approximately $500 million. See below for further information.

Northstar Purchase Agreement. On December 30, 2020, through our wholly-owned subsidiary American II, we entered into a Purchase Agreement (the “Northstar Purchase Agreement”) with Northstar Manager and Northstar Spectrum, pursuant to which American II purchased 80% of Northstar Manager’s Class B Common Interests in Northstar Spectrum (the “Northstar Transaction”) for a purchase price of approximately $312 million. As a result of the Northstar Transaction, through American II, we hold 97% of the Class B Common Interests in Northstar Spectrum and Northstar Manager holds 3% of the Class B Common Interests in Northstar Spectrum. Other than the change in ownership percentage of Northstar Spectrum, the Northstar Transaction did not modify or amend in any way the existing arrangements between or among the Northstar parties. In the Northstar Purchase Agreement, Northstar Manager waived its right to exercise the Northstar Put Right under the First Northstar Put Window. Northstar Manager retains its right to exercise the Northstar Put Right during the Second Northstar Put Window. See below for further information.

SNR Investment. As of 2015, through American III, we own a non-controlling interest in SNR HoldCo, which is comprised of 85% of the Class B Common Interests and 100% of the Class A Preferred Interests of SNR HoldCo. SNR Management is the sole manager of SNR HoldCo and owns a controlling interest in SNR HoldCo, which is comprised of 15% of the Class B Common Interests of SNR HoldCo. As of March 31, 2018, the total equity contributions from American III and SNR Management to SNR HoldCo were approximately $5.590 billion and $93 million, respectively. As of March 31, 2018, the total loans from American III to SNR Wireless under the SNR Credit Agreement (as defined below) for payments to the FCC related to the SNR Licenses (as defined below) were approximately $500 million. See below for further information.

AWS-3 Auction

Northstar Wireless and SNR Wireless each filed applications with the FCC to participate in Auction 97 (the "AWS-3 Auction") for the purpose of acquiring certain AWS-3 Licenses. Each of Northstar Wireless and SNR Wireless applied to receive bidding credits of 25% as designated entities under applicable FCC rules. Northstar Wireless was the winning bidder for AWS-3 Licenses with gross winning bid amounts totaling approximately $7.845 billion, which after taking into account a 25% bidding credit, was approximately $5.884 billion. SNR Wireless was the winning bidder for AWS-3 Licenses with gross winning bid amounts totaling approximately $5.482 billion, which after taking into account a 25% bidding credit, was approximately $4.112 billion. In addition to the net winning bids, SNR Wireless made a bid withdrawal payment of approximately $8 million.

FCC Order and October 2015 Arrangements. On August 18, 2015, the FCC released a *Memorandum Opinion and Order*, FCC 15-104 (the "Order") in which the FCC determined, among other things, that DISH Network has a controlling interest in, and is an affiliate of, Northstar Wireless and SNR Wireless, and therefore DISH Network's revenues should be attributed to them, which in turn makes Northstar Wireless and SNR Wireless ineligible to receive the 25% bidding credits (approximately $1.961 billion for Northstar Wireless and $1.370 billion for SNR Wireless). On November 23, 2020, the FCC released a Memorandum Opinion and Order on Remand, FCC 20-160, that found that Northstar Wireless and SNR Wireless are not eligible for bidding credits based on the FCC's determination that they remain under DISH Network's *de facto* control. Northstar Wireless and SNR Wireless have appealed the FCC's order to the D.C. Circuit Court of Appeals.

Letters Exchanged between Northstar Wireless and the FCC Wireless Bureau. As outlined in letters exchanged between Northstar Wireless and the Wireless Telecommunications Bureau of the FCC (the "FCC Wireless Bureau"), Northstar Wireless paid the gross winning bid amounts for 261 AWS-3 Licenses (the "Northstar Licenses") totaling approximately $5.619 billion through the application of funds already on deposit with the FCC. Northstar Wireless also notified the FCC that it would not be paying the gross winning bid amounts for 84 AWS-3 Licenses totaling approximately $2.226 billion.

As a result of the nonpayment of those gross winning bid amounts, the FCC retained those licenses and Northstar Wireless owed the FCC an additional interim payment of approximately $334 million (the "Northstar Interim Payment"), which is equal to 15% of $2.226 billion. The Northstar Interim Payment was recorded as an expense during the fourth quarter 2015. Northstar Wireless immediately satisfied the Northstar Interim Payment through the application of funds already on deposit with the FCC and an additional loan from American II of approximately $69 million. As a result, the FCC will not deem Northstar Wireless to be a "current defaulter" under applicable FCC rules.

In addition, the FCC Wireless Bureau acknowledged that Northstar Wireless' nonpayment of those gross winning bid amounts does not constitute action involving gross misconduct, misrepresentation or bad faith. Therefore, the FCC concluded that such nonpayment will not affect the eligibility of Northstar Wireless, its investors (including DISH Network) or their respective affiliates to participate in future spectrum auctions (including Auction 1000 and any re-auction of the AWS-3 licenses retained by the FCC). At this time, DISH Network (through itself, a subsidiary or another entity in which it may hold a direct or indirect interest) expects to participate in any re-auction of those AWS-3 licenses.

If the winning bids from re-auction or other award of the AWS-3 licenses retained by the FCC are greater than or equal to the winning bids of Northstar Wireless, no additional amounts will be owed to the FCC. However, if those winning bids are less than the winning bids of Northstar Wireless, then Northstar Wireless will be responsible for the difference less any overpayment of the Northstar Interim Payment (which will be recalculated as 15% of the winning bids from re-auction or other award) (the "Northstar Re-Auction Payment"). For example, if the winning bids in a re-auction are $1, the Northstar Re-Auction Payment would be approximately $1.892 billion, which is calculated as the difference between $2.226 billion (the Northstar winning bid amounts) and $1 (the winning bids from re-auction) less the resulting $334 million overpayment of the Northstar Interim Payment. As discussed above, at this time, DISH Network (through itself, a subsidiary or another entity in which it may hold a direct or indirect interest) expects to participate in any re-auction. We cannot predict with any degree of certainty the timing or outcome of any re-auction or the amount of any Northstar Re-Auction Payment.

DISH Network Guaranty in Favor of the FCC for Certain Northstar Wireless Obligations. On October 1, 2015, DISH Network entered into a guaranty in favor of the FCC (the "FCC Northstar Guaranty") with respect to the Northstar Interim Payment (which was satisfied on October 1, 2015) and any Northstar Re-Auction Payment. The FCC Northstar Guaranty provides, among other things, that during the period between the due date for the payments guaranteed under the FCC Northstar Guaranty and the date such guaranteed payments are paid: (i) Northstar Wireless' payment obligations to American II under the Northstar Credit Agreement will be subordinated to such guaranteed payments; and (ii) DISH Network or American II will withhold exercising certain rights as a creditor of Northstar Wireless.

Letters Exchanged between SNR Wireless and the FCC Wireless Bureau. As outlined in letters exchanged between SNR Wireless and the FCC Wireless Bureau, SNR Wireless paid the gross winning bid amounts for 244 AWS-3 Licenses (the "SNR Licenses") totaling approximately $4.271 billion through the application of funds already on deposit with the FCC and a portion of an additional loan from American III in an aggregate amount of approximately $344 million (which included an additional bid withdrawal payment of approximately $3 million). SNR Wireless also notified the FCC that it would not be paying the gross winning bid amounts for 113 AWS-3 Licenses totaling approximately $1.211 billion.

As a result of the nonpayment of those gross winning bid amounts, the FCC retained those licenses and SNR Wireless owed the FCC an additional interim payment of approximately $182 million (the "SNR Interim Payment"), which is equal to 15% of $1.211 billion. The SNR Interim Payment was recorded as an expense during the fourth quarter 2015. SNR Wireless immediately satisfied the SNR Interim Payment through a portion of an additional loan from American III in an aggregate amount of approximately $344 million. As a result, the FCC will not deem SNR Wireless to be a "current defaulter" under applicable FCC rules.

In addition, the FCC Wireless Bureau acknowledged that SNR Wireless' nonpayment of those gross winning bid amounts does not constitute action involving gross misconduct, misrepresentation or bad faith. Therefore, the FCC concluded that such nonpayment will not affect the eligibility of SNR Wireless, its investors (including DISH Network) or their respective affiliates to participate in future spectrum auctions (including Auction 1000 and any re-auction of the AWS-3 licenses retained by the FCC). At this time, DISH Network (through itself, a subsidiary or another entity in which it may hold a direct or indirect interest) expects to participate in any re-auction of those AWS-3 licenses.

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If the winning bids from re-auction or other award of the AWS-3 licenses retained by the FCC are greater than or equal to the winning bids of SNR Wireless, no additional amounts will be owed to the FCC. However, if those winning bids are less than the winning bids of SNR Wireless, then SNR Wireless will be responsible for the difference less any overpayment of the SNR Interim Payment (which will be recalculated as 15% of the winning bids from re-auction or other award) (the "SNR Re-Auction Payment"). For example, if the winning bids in a re-auction are $1, the SNR Re-Auction Payment would be approximately $1.029 billion, which is calculated as the difference between $1.211 billion (the SNR winning bid amounts) and $1 (the winning bids from re-auction) less the resulting $182 million overpayment of the SNR Interim Payment. As discussed above, at this time, DISH Network (through itself, a subsidiary or another entity in which it may hold a direct or indirect interest) expects to participate in any re-auction. We cannot predict with any degree of certainty the timing or outcome of any re-auction or the amount of any SNR Re-Auction Payment.

DISH Network Guaranty in Favor of the FCC for Certain SNR Wireless Obligations. On October 1, 2015, DISH Network entered into a guaranty in favor of the FCC (the "FCC SNR Guaranty") with respect to the SNR Interim Payment (which was satisfied on October 1, 2015) and any SNR Re-Auction Payment. The FCC SNR Guaranty provides, among other things, that during the period between the due date for the payments guaranteed under the FCC SNR Guaranty and the date such guaranteed payments are paid: (i) SNR Wireless' payment obligations to American III under the SNR Credit Agreement will be subordinated to such guaranteed payments; and (ii) DISH Network or American III will withhold exercising certain rights as a creditor of SNR Wireless.

FCC Licenses. On October 27, 2015, the FCC granted the Northstar Licenses to Northstar Wireless and the SNR Licenses to SNR Wireless, respectively, which are recorded in "FCC authorizations" on our Condensed Consolidated Balance Sheets. The AWS-3 Licenses are subject to certain interim and final build-out requirements. By October 2021, Northstar Wireless and SNR Wireless must provide reliable signal coverage and offer service to at least 40% of the population in each area covered by an individual AWS-3 License (the "AWS-3 Interim Build-Out Requirement"). By October 2027, Northstar Wireless and SNR Wireless must provide reliable signal coverage and offer service to at least 75% of the population in each area covered by an individual AWS-3 License (the "AWS-3 Final Build-Out Requirement"). If the AWS-3 Interim Build-Out Requirement is not met, the AWS-3 License term and the AWS-3 Final Build-Out Requirement may be accelerated by two years (from October 2027 to October 2025) for each AWS-3 License area in which Northstar Wireless and SNR Wireless do not meet the requirement.

If the AWS-3 Final Build-Out Requirement is not met, the authorization for each AWS-3 License area in which Northstar Wireless and SNR Wireless do not meet the requirement may terminate. These wireless spectrum licenses expire in October 2027 unless they are renewed by the FCC. There can be no assurances that the FCC will renew these wireless spectrum licenses.

Qui Tam. On September 23, 2016, the United States District Court for the District of Columbia unsealed a qui tam complaint that was filed by Vermont National Telephone Company ("Vermont National") against us; our 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 our board of directors); Northstar Wireless; Northstar Spectrum; Northstar Manager; SNR Wireless; SNR HoldCo; SNR Management; and certain other parties. See "*Contingencies – Litigation – Vermont National Telephone Company"* for further information.

D.C. Circuit Court Opinion. On August 29, 2017, the United States Court of Appeals for the District of Columbia Circuit (the "D.C. Circuit") in *SNR Wireless LicenseCo, LLC, et al. v. Federal Communications Commission*, 868 F.3d 1021 (D.C. Cir. 2017) (the "Appellate Decision") affirmed the Order in part, and remanded the matter to the FCC to give Northstar Wireless and SNR Wireless an opportunity to seek to negotiate a cure of the issues identified by the FCC in the Order (a "Cure"). On January 26, 2018, SNR Wireless and Northstar Wireless filed a petition for a writ of certiorari, asking the United States Supreme Court to hear an appeal from the Appellate Decision, which the United States Supreme Court denied on June 25, 2018.

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Order on Remand. On January 24, 2018, the FCC released an Order on Remand, DA 18-70 (the "Order on Remand") purporting to establish a procedure to afford Northstar Wireless and SNR Wireless the opportunity to implement a Cure pursuant to the Appellate Decision. The Order on Remand provided that Northstar Wireless and SNR Wireless each had until April 24, 2018 to file the necessary documentation to demonstrate that, in light of such changes, each of Northstar Wireless and SNR Wireless qualifies for the very small business bidding credit that it sought in the AWS-3 Auction. Additionally, the Order on Remand provides that if either Northstar Wireless or SNR Wireless needs additional time to negotiate new or amended agreements, it may request to extend the deadline for such negotiations for an additional 45 days (extending the deadline to June 8, 2018). On April 16, 2018, the FCC approved Northstar Wireless' and SNR Wireless' requests to extend the deadline for such negotiations for an additional 45 days to June 8, 2018. On June 8, 2018, Northstar Wireless and SNR Wireless each filed amended agreements to demonstrate that, in light of such changes, each of Northstar Wireless and SNR Wireless qualifies for the very small business bidding credit that it sought in the AWS-3 Auction. The Order on Remand also provided, among other things, until July 23, 2018 for certain third-parties to file comments about any changes to the agreements proposed by Northstar Wireless and SNR Wireless and several third-parties filed comments (with one opposition). On October 22, 2018, Northstar Wireless and SNR Wireless filed a response to the third-party comments. Northstar Wireless and SNR Wireless filed a Joint Application for Review of the Order on Remand requesting, among other things, an iterative negotiation process with the FCC regarding a Cure, which was denied on July 12, 2018.

Northstar Operative Agreements

Northstar LLC Agreement. Northstar Spectrum is governed by a limited liability company agreement by and between American II and Northstar Manager (the "Northstar Spectrum LLC Agreement"). Pursuant to the Northstar Spectrum LLC Agreement, American II and Northstar Manager made pro-rata equity contributions in Northstar Spectrum.

On March 31, 2018, American II, Northstar Spectrum, and Northstar Manager amended and restated the Northstar Spectrum LLC Agreement, to, among other things: (i) exchange $6.870 billion of the amounts outstanding and owed by Northstar Wireless to American II pursuant to the Northstar Credit Agreement (as defined below) for 6,870,493 Class A Preferred Interests in Northstar Spectrum (the "Northstar Preferred Interests"); (ii) replace the existing investor protection provisions with the investor protections described by the FCC in Baker Creek Communications, LLC, Memorandum Opinion and Order, 13 FCC Rcd 18709, 18715 (1998); (iii) delete the obligation of Northstar Manager to consult with American II regarding budgets and business plans; and (iv) remove the requirement that Northstar Spectrum's systems be interoperable with ours.

The Northstar Preferred Interests: (a) are non-voting; (b) have a 12 percent mandatory quarterly distribution, which can be paid in cash or additional face amount of Northstar Preferred Interests at the sole discretion of Northstar Manager; and (c) have a liquidation preference equal to the then-current face amount of the Northstar Preferred Interests plus accrued and unpaid mandatory quarterly distributions in the event of certain liquidation events or deemed liquidation events (e.g., a merger or dissolution of Northstar Spectrum, or a sale of substantially all of Northstar Spectrum's assets). As a result of the exchange noted in (i) above, a principal amount of $500 million of debt remains under the Northstar Credit Agreement, as described below.

On June 7, 2018, American II, Northstar Spectrum, and Northstar Manager amended and restated the Second Amended and Restated Limited Liability Company Agreement, dated March 31, 2018, by and among American II, Northstar Spectrum, and Northstar Manager, to, among other things: (i) reduce the mandatory quarterly distribution for the Northstar Preferred Interests from 12 percent to eight percent from and after June 7, 2018; (ii) increase the window for Northstar Manager to "put" its interest in Northstar Spectrum to Northstar Spectrum after October 27, 2020 from 30 days to 90 days; (iii) provide an additional 90-day window for Northstar Manager to put its interest in Northstar Spectrum to Northstar Spectrum commencing on October 27, 2021; (iv) provide a right for Northstar Manager to require an appraisal of the fair market value of its interest in Northstar Spectrum at any time from October 27, 2022 through October 27, 2024, coupled with American II having the right to accept the offer to sell from Northstar Manager; (v) allow Northstar Manager to sell its interest in Northstar Spectrum without American II's consent any time after October 27, 2020 (previously October 27, 2025); (vi) allow Northstar Spectrum to conduct an initial public offering without American II's consent any time after October 27, 2022 (previously October 27, 2029); (vii) remove American II's rights of first refusal with respect to Northstar Manager's sale of its interest in Northstar Spectrum or Northstar Spectrum's sale of any AWS-3 Licenses; and (viii) remove American II's tag along rights with respect to Northstar Manager's sale of its interest in Northstar Spectrum. Northstar Manager had the right to put its interest in Northstar Spectrum to Northstar Spectrum for a 90-day period beginning October 27, 2020, which Northstar Manager waived in connection with the Northstar Purchase Agreement.

Northstar Wireless Credit Agreement. On October 1, 2015, American II, Northstar Wireless and Northstar Spectrum amended the First Amended and Restated Credit Agreement dated October 13, 2014, by and among American II, as Lender, Northstar Wireless, as Borrower, and Northstar Spectrum, as Guarantor (as amended, the "Northstar Credit Agreement"), to provide, among other things, that: (i) the Northstar Interim Payment and any Northstar Re-Auction Payment will be made by American II directly to the FCC and will be deemed as loans under the Northstar Credit Agreement; (ii) the FCC is a third-party beneficiary with respect to American II's obligation to pay the Northstar Interim Payment and any Northstar Re-Auction Payment; (iii) in the event that the winning bids from re-auction or other award of the AWS-3 licenses retained by the FCC are less than the winning bids of Northstar Wireless, the purchaser, assignee or transferee of any AWS-3 Licenses from Northstar Wireless is obligated to pay its pro-rata share of the difference (and Northstar Wireless remains jointly and severally liable for such pro-rata share); and (iv) during the period between the due date for the payments guaranteed under the FCC Northstar Guaranty (as discussed below) and the date such guaranteed payments are paid, Northstar Wireless' payment obligations to American II under the Northstar Credit Agreement will be subordinated to such guaranteed payments.

On March 31, 2018, American II, Northstar Wireless, and Northstar Spectrum amended and restated the Northstar Credit Agreement, to, among other things: (i) lower the interest rate on the remaining $500 million principal balance under the Northstar Credit Agreement from 12 percent per annum to six percent per annum; (ii) eliminate the higher interest rate that would apply in the case of an event of default; and (iii) modify and/or remove certain obligations of Northstar Wireless to prepay the outstanding loan amounts.

On June 7, 2018, American II, Northstar Wireless, and Northstar Spectrum amended and restated the Northstar Credit Agreement to, among other things: (i) extend the maturity date on the remaining loan balance from seven years to ten years; and (ii) remove the obligation of Northstar Wireless to obtain American II's consent for unsecured financing and equipment financing in excess of $25 million.

SNR Operative Agreements

SNR LLC Agreement. SNR HoldCo is governed by a limited liability company agreement by and between American III and SNR Management (the "SNR HoldCo LLC Agreement"). Pursuant to the SNR HoldCo LLC Agreement, American III and SNR Management made pro-rata equity contributions in SNR HoldCo.

On March 31, 2018, American III, SNR Holdco, SNR Wireless Management, and John Muleta amended and restated the SNR HoldCo LLC Agreement, to, among other things: (i) exchange $5.065 billion of the amounts outstanding and owed by SNR Wireless to American III pursuant to the SNR Credit Agreement (as defined below) for 5,065,415 Class A Preferred Interests in SNR Holdco (the "SNR Preferred Interests"); (ii) replace the existing investor protection provisions with the investor protections described by the FCC in Baker Creek Communications, LLC, Memorandum Opinion and Order, 13 FCC Rcd 18709, 18715 (1998); (iii) delete the obligation of SNR Management to consult with American III regarding budgets and business plans; and (iv) remove the requirement that SNR Management's systems be interoperable with ours. The SNR Preferred Interests: (a) are non-voting; (b) have a 12 percent mandatory quarterly distribution, which can be paid in cash or additional face amount of SNR Preferred Interests at the sole discretion of SNR Management; and (c) have a liquidation preference equal to the then-current face amount of the SNR Preferred Interests plus accrued and unpaid mandatory quarterly distributions in the event of certain liquidation events or deemed liquidation events (e.g., a merger or dissolution of SNR Holdco, or a sale of substantially all of SNR Holdco's assets). As a result of the exchange noted in (i) above, a principal amount of $500 million of debt remains under the SNR Credit Agreement, as described below.

On June 7, 2018, American III, SNR Holdco, SNR Management, and John Muleta amended and restated the Second Amended and Restated Limited Liability Company Agreement, dated March 31, 2018, by and among American III, SNR Holdco, SNR Management and John Muleta, to, among other things: (i) reduce the mandatory quarterly distribution for the SNR Preferred Interests from 12 percent to eight percent from and after June 7, 2018; (ii) increase the window for SNR Management to "put" its interest in SNR Holdco to SNR Holdco after October 27, 2020 from 30 days to 90 days; (iii) provide an additional 90-day window for SNR Management to put its interest in SNR Holdco to SNR Holdco commencing on October 27, 2021; (iv) provide a right for SNR Management to require an appraisal of the fair market value of its interest in SNR Holdco at any time from October 27, 2022 through October 27, 2024, coupled with American III having the right to accept the offer to sell from SNR Management; (v) allow SNR Management to sell its interest in SNR Holdco without American III's consent any time after October 27, 2020 (previously October 27, 2025); (vi) allow SNR Holdco to conduct an initial public offering without American III's consent any time after October 27, 2022 (previously October 27, 2029); (vii) remove American III's rights of first refusal with respect to SNR Management's sale of its interest in SNR Holdco or SNR Holdco's sale of any AWS-3 Licenses; and (viii) remove American III's tag along rights with respect to SNR Management's sale of its interest in SNR Holdco. SNR Management had the right to put its interest in SNR Holdco to SNR Holdco for a 90-day period from October 27, 2020. The First SNR Put Window was not exercised and expired in January 2021.

SNR Credit Agreement. On October 1, 2015, American III, SNR Wireless and SNR HoldCo amended the First Amended and Restated Credit Agreement dated October 13, 2014, by and among American III, as Lender, SNR Wireless, as Borrower, and SNR HoldCo, as Guarantor (as amended, the "SNR Credit Agreement"), to provide, among other things, that: (i) the SNR Interim Payment and any SNR Re-Auction Payment will be made by American III directly to the FCC and will be deemed as loans under the SNR Credit Agreement; (ii) the FCC is a third-party beneficiary with respect to American III's obligation to pay the SNR Interim Payment and any SNR Re-Auction Payment; (iii) in the event that the winning bids from re-auction or other award of the AWS-3 licenses retained by the FCC are less than the winning bids of SNR Wireless, the purchaser, assignee or transferee of any AWS-3 Licenses from SNR Wireless is obligated to pay its pro-rata share of the difference (and SNR Wireless remains jointly and severally liable for such pro-rata share); and (iv) during the period between the due date for the payments guaranteed under the FCC SNR Guaranty (as discussed below) and the date such guaranteed payments are paid, SNR Wireless' payment obligations to American III under the SNR Credit Agreement will be subordinated to such guaranteed payments.

On March 31, 2018, American III, SNR Wireless, and SNR Holdco amended and restated the SNR Credit Agreement, to, among other things: (i) lower the interest rate on the remaining $500 million principal balance under the SNR Credit Agreement from 12 percent per annum to six percent per annum; (ii) eliminate the higher interest rate that would apply in the case of an event of default; and (iii) modify and/or remove certain obligations of SNR Wireless to prepay the outstanding loan amounts.

On June 7, 2018, American III, SNR Wireless, and SNR Holdco amended and restated the SNR Credit Agreement to, among other things: (i) extend the maturity date on the remaining loan balance from seven years to ten years; and (ii) remove the obligation of SNR Wireless to obtain American III's consent for unsecured financing and equipment financing in excess of $25 million.

As of March 31, 2021 and December 31, 2020, Northstar Manager's ownership interest in Northstar Spectrum and SNR Management's ownership interest in SNR HoldCo was $362 million and $351 million, respectively, recorded as "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets.

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 us, 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 Northstar Re-Auction Payment and SNR Re-Auction Payment 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 Northstar Re-Auction Payment and SNR Re-Auction Payment, any loans, equity contributions or partnerships could vary significantly. There can be no assurance that we will be able to obtain a profitable return on our non-controlling investments in the Northstar Entities and the SNR Entities.

Contingencies

Separation Agreement

On January 1, 2008, we completed the distribution of our technology and set-top box business and certain infrastructure assets (the "Spin-off") into a separate publicly-traded company, EchoStar. In connection with the Spin-off, we 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 we 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 our acts or omissions following the Spin-off. On February 28, 2017, we and EchoStar and certain of our respective subsidiaries completed the transactions contemplated by the Share Exchange Agreement (the "Share Exchange Agreement") that was previously entered into on January 31, 2017 (the "Share Exchange"), pursuant to which certain assets that were transferred to EchoStar in the Spin-off were transferred back to us. On September 10, 2019, we and EchoStar and certain of our 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 us. The Share Exchange Agreement and the Master Transaction Agreement contain additional indemnification provisions between us 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.

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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.

American Patents

On November 23, 2020, American Patents LLC, filed a complaint against us, our wholly-owned subsidiaries DISH Network L.L.C. and Dish Network Service L.L.C., and a third party, Arcadyan Technology Corporation, in the United States District Court for the Eastern District of Texas. The complaint alleges infringement of United States Patent No. 7,088,782 (the "782 patent"), entitled "Time and Frequency Synchronization In Multi-Input and Multi-Output (MIMO) Systems"; United States Patent No. 7,310,304 (the "304 patent"), entitled "Estimating Channel Parameters in Multi-Input, Multi-Output (MIMO) Systems"; United States Patent No. 7,706,458 (the "458 patent"), entitled "Time And Frequency Synchronization in Multi-Input, Multi-Output (MIMO) Systems"; and United States Patent No. 6,847,803 (the "803 patent"), entitled "Method for Reducing Interference in a Receiver." The four patents are asserted against wireless 802.11 standard-compliant devices.

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. The plaintiff is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

Broadband iTV

On December 19, 2019, Broadband iTV, Inc. filed a complaint against 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. 10,028,026 (the "026 patent"), entitled "System for addressing on-demand TV program content on TV services platform of a digital TV services provider"; United States Patent No. 10,506,269 (the "269 patent"), entitled "System for addressing on-demand TV program content on TV services platform of a digital TV services provider"; United States Patent No. 9,998,791 ("the 791 patent"), entitled "Video-on-demand content delivery method for providing video-on-demand services to TV service subscribers"; and United States Patent No. 9,648,388 (the "388 patent"), entitled "Video-on-demand content delivery system for providing video-on-demand services to TV services subscribers." Generally, the asserted patents relate to providing video on demand content to subscribers.

On July 10, 2020, July 20, 2020, July 24, 2020 and July 31, 2020, DISH Network L.L.C. filed petitions with the United States Patent and Trademark Office challenging the validity of, respectively, the 026 patent, the 791 patent, the 269 patent and the 388 patent. On January 21, 2021, the United States Patent and Trademark Office agreed to institute proceedings on one of the petitions challenging the 026 patent; on January 27, 2021, it agreed to institute proceedings on one of the petitions challenging the 269 patent; on February 4, 2021, it agreed to institute proceedings on one of the petitions challenging the 791 patent; and on February 12, 2021, it agreed to institute proceedings on one of the petitions challenging the 388 patent. Trial in this matter has been set for November 15, 2021.

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.

Bunker IP

On January 27, 2021, Bunker IP LLC filed a complaint against our wholly-owned subsidiary, DISH Wireless L.L.C., in the United States District Court for the Northern District of Illinois. The complaint alleges infringement of U.S. Patent No. 7,181,237 (the "237 patent), entitled "Control of a Multi-Mode, Multi-Band Mobile Telephone via a Single Hardware and Software Man Machine Interface; and U.S. Patent No. 8,843,641 (the "641 patent"), entitled "Plug-In Connector System for Protected Establishment of a Network Connection." Generally, the 237 patent relates to a mobile phone that can switch between two different protocols within a single chipset, and the 641 patent relates to a plug-in connector to a device, where the connector's presence is authenticated to ensure protected access to network resources.

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. The plaintiff is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

Cedar Lane

On October 13, 2020, Cedar Lane Technologies filed a complaint against 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. 6,502,194 (the "194 patent"), entitled "System for playback of network audio material on demand"; United States Patent No. 6,526,411 (the "411 patent"), entitled "System and method for creating dynamic playlists"; United States Patent No. 6,721,489 (the "489 patent"), entitled "Play list manager"; United States Patent No. 7,173,177 (the "177 patent"), entitled "User interface for simultaneous management of owned and unowned inventory"; United States Patent No. 7,642,443 (the "443 patent"), entitled "User interface for simultaneous management of owned and unowned inventory"; and United States Patent No. 8,165,867 (the "867 patent"), entitled "Methods for translating a device command." Generally, the asserted patents relate to streaming digital audio to a home audio system; aspects of play lists and purchased content; and voice control. Cedar Lane Technologies is a non-practicing entity that has filed more than 75 patent infringement lawsuits. On March 11, 2021, pursuant to a stipulation of the parties, the Court dismissed the case without prejudice. This matter is now concluded.

City of Hallandale Beach Police Officers' and Firefighters' Personnel Retirement Trust

On July 2, 2019, a putative class action lawsuit was filed by a purported EchoStar stockholder in the District Court of Clark County, Nevada under the caption *City of Hallandale Beach Police Officers' and Firefighters' Personnel Retirement Trust v. Ergen, et al.,* Case No. A-19-797799-B. The lawsuit named as defendants Mr. Ergen, the other members of the EchoStar Board, as well as EchoStar, certain of its officers, DISH Network and certain of DISH Network's and EchoStar's affiliates. Plaintiff alleges, among other things, breach of fiduciary duties in approving the transactions contemplated under the Master Transaction Agreement for inadequate consideration and pursuant to an unfair and conflicted process, and that EchoStar, DISH Network and certain other defendants aided and abetted such breaches. In the operative First Amended Complaint, filed on October 11, 2019, the plaintiff dropped as defendants the EchoStar board members other than Mr. Ergen. The trial of this matter is scheduled to start sometime during the five-week "stack" beginning September 7, 2021. See Note 14 for further information on the Master Transaction Agreement. Plaintiff seeks equitable relief, including the issuance of additional DISH Network Class A common stock, monetary relief and other costs and disbursements, including attorneys' fees.

We intend to vigorously defend this case, but cannot predict with any degree of certainty the outcome of this suit or determine the extent of any potential liability or damages.

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ClearPlay, Inc.

On March 13, 2014, ClearPlay, Inc. (“ClearPlay”) filed a complaint against us, 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, 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 April 23, 2021, the United States Patent and Trademark Office issued a Notice of Intent to Issue Ex Parte Reexamination Certificate allowing claim 12 of the 970 patent, and on April 27, 2021, it issued a Notice of Intent to Issue Ex Parte Reexamination Certificate allowing claim 3 of the 784 patent. The trial date, which had been reset to September 26, 2021, has been vacated while the District Court weighs a fully-briefed motion to stay the case pending resolution of the ex parte reexamination proceedings. ClearPlay’s damages expert contends that ClearPlay is entitled to $543 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.

Contemporary Display LLC

On June 4, 2018, Contemporary Display LLC (“Contemporary”) filed a complaint against us and 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 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. On July 11, 2019, the Court entered an order staying the case pending resolution of the petitions. On January 31, 2020, pursuant to the parties' joint motion, the Court dismissed all claims arising from the 202 patent, and extended its stay of the litigation pending non-appealable determinations on all of the petitions before the United States Patent and Trademark Office.

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.

Customedia Technologies, L.L.C.

On February 10, 2016, Customedia Technologies, L.L.C. ("Customedia") filed a complaint against us 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. The litigation in the District Court has been stayed since August 8, 2017 pending resolution of the proceedings at the United States Patent and Trademark Office.

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 before the United States Patent and Trademark Office. 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 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, seeking to reverse our appellate victories on the 090 and 494 patents, 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.

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.

Gravel Rating Systems

On April 23, 2021, Gravel Ratings Systems LLC filed a complaint in the United States District Court for the Eastern District of Texas against our wholly-owned subsidiary DISH Wireless L.L.C. The complaint alleges infringement of U.S. Patent No. 7,590,636 (the "636 patent"), entitled "Knowledge Filter." The complaint accuses the Boost Mobile website of infringing the 636 patent in connection with the way in which it collects and stores user comments and ratings. Gravel Rating Systems has brought similar complaints against, among others, T-Mobile, Costco, Lowe's, Kohl's and Target.

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.

Innovative Foundry Technologies LLC

On December 20, 2019, Innovative Foundry Technologies LLC filed a complaint against us (as well as Semiconductor Manufacturing International Corporation; Broadcom Incorporated; Broadcom Corporation; and Cypress Semiconductor Corporation) in the United States District Court for the Western District of Texas. The complaint alleges infringement of United States Patent No. 6,580,122 (the "122 patent"), entitled "Transistor Device Having an Enhanced Width Dimension and a Method of Making Same"; United States Patent No. 6,806,126 (the "126 patent"), entitled "Method of Manufacturing a Semiconductor Component"; United States Patent No. 6,933,620 (the "620 patent"), entitled "Semiconductor Component and Method of Manufacture"; and United States Patent No. 7,009,226 (the "226 patent"), entitled "In-Situ Nitride/Oxynitride Processing with Reduced Deposition Surface Pattern Sensitivity." On April 9, 2020, Semiconductor Manufacturing International Corporation filed a petition with the United States Patent and Trademark Office challenging the validity of the asserted claims of the 226 patent, and on April 14, 2020, it filed petitions challenging the validity of the asserted claims of the 126 patent and 620 patent. On December 30, 2020, the Court entered an order severing and staying the claims against us and certain other defendants not involved in the manufacturing of the accused chips. On April 22, 2021, the parties filed a stipulation of dismissal with prejudice of all claims against us.

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. The plaintiff is an entity that seeks to license a patent portfolio without itself practicing any of the claims recited therein.

Optic153

On January 29, 2021, Optic153 LLC filed a complaint in the United States District Court for the Western District of Texas against us and our wholly-owned subsidiaries DISH Network L.L.C and Dish Network Service L.L.C. The complaint alleges infringement of U.S. Patent No. 6,115,174 (the "174 patent"), entitled "Optical Signal Varying Devices"; U.S. Patent No. 6,236,487 (the "487 patent"), entitled "Optical Communication Control System"; U.S. Patent No. 6,344,922 (the "922 patent"), entitled "Optical Signal Varying Devices"; U.S. Patent No. 6,356,383 (the "383 patent"), entitled "Optical Transmission Systems Including Optical Amplifiers Apparatuses and Methods"; U.S. Patent No. 6,587,261 (the "261 patent"), entitled "Optical Transmission Systems Including Optical Amplifiers Apparatuses and Methods of Use Therein"; and U.S. Patent No. 6,771,413 (the "413 patent"), entitled "Optical Transmission Systems Including Optical Amplifiers, Apparatuses and Methods." In general, the patents relate to various aspects of the provisioning of fiber optics communications. On April 26, 2021, Optic153 filed a request for dismissal of its claims against us, DISH Network L.L.C. and Dish Network Service L.L.C. This matter is now concluded.

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 us; 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 we, SLING TV, Sling Media and Arris 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 us, 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 us, 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 we nor any of our 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.

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 challenging all asserted claims of each of the asserted patents, 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 January 12, 2021, Realtime Adaptive Streaming filed a notice of dismissal of its claims on the 535 patent. The Colorado Action in the District Court was stayed on February 26, 2019, pending resolution of the petitions, but on January 15, 2021, the District Court lifted the stay and set trial on the remaining 610 patent for August 16, 2021. Realtime Adaptive Streaming's damages expert contends that Realtime Adaptive Streaming is entitled to $42 million in damages. On August 7, 2020, the United States Patent and Trademark Office granted a request for ex parte reexamination of the validity of the 610 patent.

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.

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."

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 December 18, 2020, DISH Network L.L.C., DISH Technologies L.L.C. and Sling TV L.L.C. filed 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 26, 2021, the District Court agreed to stay the case pending the outcome of the petitions to the United States Patent and Trademark Office.

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 the Company, 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 the Company'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 the Company's compliance with telemarketing laws, the Director Defendants exposed the Company to liability for telemarketing violations, including those in the Krakauer Action. It also contends that the Director Defendants caused the Company to pay improper compensation and benefits to themselves and others who allegedly breached their fiduciary duties to the Company. 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 the Company, 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. Our 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. On August 25, 2020, the derivative plaintiffs filed a notice of appeal to the Nevada Supreme Court.

We cannot predict with any degree of certainty the outcome of these suits or determine the extent of any potential liability or damages.

TQ Delta, LLC

On July 17, 2015, TQ Delta, LLC ("TQ Delta") filed a complaint against us and our wholly-owned subsidiaries DISH DBS Corporation and 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 have 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 has 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. 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 158 patent and the 243 patent.

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.

Turner Network Sales

On October 6, 2017, Turner Network Sales, Inc. ("Turner") filed a complaint against our wholly-owned subsidiary DISH Network L.L.C. in the United States District Court for the Southern District of New York. The operative First Amended Complaint alleges that DISH Network L.L.C. improperly calculated and withheld licensing fees owing to Turner in connection with its carriage of CNN and other networks. On December 14, 2017, DISH Network L.L.C. filed its operative first amended counterclaims against Turner. In the counterclaims, DISH Network L.L.C. seeks a declaratory judgment that it properly calculated the licensing fees owed to Turner for carriage of CNN, and also alleges claims for unrelated breaches of the parties' affiliation agreement. In its October 1, 2018 damage expert's report, Turner claimed damages of $159 million, plus $24 million in interest. On September 27, 2019, the Court granted, in part, Turner's motion for summary judgment, holding, in part, that Turner was entitled to recover approximately $20 million in license fee payments that DISH Network L.L.C. had withheld after it discovered previous over-payments. On February 12, 2020, the parties filed a stipulation to dismiss certain of their respective claims. Trial on the remaining claims in this matter has been re-set for October 3, 2021. Turner's damages expert contends that Turner is entitled to approximately $206 million in damages.

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

Uniloc

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 and Sling TV L.L.C. has filed a notice of appeal from that 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 was filed by Vermont National against us; our 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 our board of directors); Northstar Wireless; Northstar Spectrum; Northstar Manager; SNR Wireless; SNR HoldCo; SNR Management; and certain other parties. The complaint was unsealed after the United States Department of Justice notified the Court that it had declined to intervene in the action. The complaint is a civil action that was filed under seal on May 13, 2015 by Vermont National, which participated in the AWS-3 Auction through its wholly-owned subsidiary, VTel Wireless. 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 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 *"Commitments – DISH Network Non-Controlling Investments in the Northstar Entities and the SNR Entities Related to AWS-3 Wireless Spectrum Licenses"* above for further information.

Thereafter, the Court maintained the stay until October 26, 2018. On February 11, 2019, the 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 Court granted the motion to dismiss. On April 21, 2021, Vermont National filed a notice of appeal.

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We intend to vigorously defend this case. We 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 are investigating whether certain of our waste disposal policies, procedures and practices are in violation of the California Business and Professions Code and the California Health and Safety Code. We expect that these entities will seek injunctive and monetary relief. The investigation appears to be part of a broader effort to investigate waste handling and disposal processes of a number of industries. While we are unable to predict the outcome of this investigation, we do not believe that the outcome will have a material effect on our results of operations, financial condition or cash flows.

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.

12. Segment Reporting

Operating segments are components of an enterprise for which separate financial information is available and regularly evaluated by the chief operating decision maker(s) of an enterprise. Operating income is the primary measure used by our chief operating decision maker to evaluate segment operating performance. We currently operate two primary business segments: (1) Pay-TV; and (2) Wireless. See Note 1 for further information.

All other and eliminations primarily include intersegment eliminations related to intercompany debt and the related interest income and interest expense, which are eliminated in consolidation.

The total assets, revenue and operating income by segment were as follows:

	As of	
	March 31, 2021	**December 31, 2020**
	(In thousands)	
Total assets:		
Pay-TV	$ 36,602,189	$ 36,251,281
Wireless	29,929,444	29,921,237
Eliminations	(27,718,495)	(27,932,571)
Total assets	$ 38,813,138	$ 38,239,947

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	For the Three Months Ended March 31, 2021	2020
	(In thousands)	
Revenue:		
Pay-TV	$ 3,203,969	$ 3,218,024
Wireless	1,294,649	1,102
Eliminations	(765)	(1,737)
Total revenue	$ 4,497,853	$ 3,217,389
Operating income (loss):		
Pay-TV	$ 772,743	$ 541,642
Wireless (1)	91,833	(397,564)
Total operating income (loss)	$ 864,576	$ 144,078

(1) The three months ended March 31, 2020 was negatively impacted by an "Impairment of long-lived assets" of $356 million. See Note 2 for further information.

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:

Revenue:	For the Three Months Ended March 31, 2021	2020
	(In thousands)	
United States	$ 4,485,863	$ 3,201,448
Canada and Mexico	11,990	15,941
Total revenue	$ 4,497,853	$ 3,217,389

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

Category:	For the Three Months Ended March 31, 2021	2020
	(In thousands)	
Pay-TV subscriber and related revenue	$ 3,164,367	$ 3,166,041
Wireless services and related revenue	1,045,167	—
Pay-TV equipment sales and other revenue	39,602	51,983
Wireless equipment sales and other revenue	249,482	1,102
Eliminations	(765)	(1,737)
Total	$ 4,497,853	$ 3,217,389

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13. Contract Balances

Our valuation and qualifying accounts as of March 31, 2021 were as follows:

Allowance for credit losses	Balance at Beginning of Period	Current Period Provision for Expected Credit Losses	Write-offs Charged Against Allowance	Balance at End of Period
	(In thousands)			
For the three months ended March 31, 2021	$ 72,278	$ 11,168	$ (26,821)	$ 56,625

Deferred revenue related to contracts with our customers is recorded in "Deferred revenue and other" and "Long-term deferred revenue and other long-term liabilities" on our Condensed Consolidated Balance Sheets. Changes in deferred revenue related to contracts with our customers were as follows:

	Contract Liabilities
	(In thousands)
Balance as of December 31, 2020	$ 778,832
Recognition of unearned revenue	(3,050,520)
Deferral of revenue	3,059,704
Balance as of March 31, 2021	$ 788,016

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.

14. Related Party Transactions

Spin-off from EchoStar

Following the Spin-off, we 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.

Related Party Transactions with EchoStar

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 us certain assets and liabilities of its EchoStar Satellite Services segment. In connection with the Share Exchange and the Master Transaction Agreement, we and EchoStar and certain of their 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. The following is a summary of the terms of our principal agreements with EchoStar that may have an impact on our financial condition and results of operations.

"Trade accounts receivable"

As of March 31, 2021 and December 31, 2020, trade accounts receivable from EchoStar was $1 million. These amounts are recorded in "Trade accounts receivable" on our Condensed Consolidated Balance Sheets.

"Trade accounts payable"

As of March 31, 2021 and December 31, 2020, trade accounts payable to EchoStar was $8 million and $6 million, respectively. These amounts are recorded in "Trade accounts payable" on our Condensed Consolidated Balance Sheets.

"Equipment sales and other revenue"

During the three months ended March 31, 2021 and 2020, we received $1 million and $2 million, respectively, for services provided to EchoStar. These amounts are recorded in "Equipment sales and other revenue" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The agreements pertaining to these revenues are discussed below.

Real Estate Lease Agreements. We have entered into lease agreements pursuant to which we lease certain real estate to EchoStar. The rent on a per square foot basis for each of the leases is comparable to per square foot rental rates of similar commercial property in the same geographic areas, and EchoStar is responsible for its portion of the taxes, insurance, utilities and maintenance of the premises. The term of each lease is set forth below:

- *El Paso Lease Agreement.* During 2012, we began leasing certain space at 1285 Joe Battle Blvd., El Paso, Texas to EchoStar for an initial period ending on August 1, 2015, which also provides EchoStar with renewal options for four consecutive three-year terms. During the second quarter 2015, EchoStar exercised its first renewal option for a period ending on August 1, 2018 and in April 2018 EchoStar exercised its second renewal option for a period ending in August 2021.

- *90 Inverness Lease Agreement*. In connection with the completion of the Share Exchange, effective March 1, 2017, EchoStar leases certain space from us at 90 Inverness Circle East, Englewood, Colorado for a period ending in February 2022. EchoStar has the option to renew this lease for four three-year periods.

- *Cheyenne Lease Agreement*. In connection with the completion of the Share Exchange, effective March 1, 2017, EchoStar began leasing certain space from us at 530 EchoStar Drive, Cheyenne, Wyoming for a period ending in February 2019. In August 2018, EchoStar exercised its option to renew this lease for a one-year period ending in February 2020. EchoStar has the option to renew this lease for 12 one-year periods. In connection with the Master Transaction Agreement, we and EchoStar amended this lease to provide EchoStar with certain space for a period ending in September 2021, with the option for EchoStar to renew for a one-year period upon 180 days' written notice prior to the end of the term.

Collocation and Antenna Space Agreements. In connection with the completion of the Share Exchange, effective March 1, 2017, we entered into certain agreements pursuant to which we provide certain collocation and antenna space to HNS through February 2022 at the following locations: Cheyenne, Wyoming; Gilbert, Arizona; New Braunfels, Texas; Monee, Illinois; Englewood, Colorado; and Spokane, Washington. During August 2017, we entered into certain other agreements pursuant to which we provide certain collocation and antenna space to HNS through August 2022 at the following locations: Monee, Illinois and Spokane, Washington. HNS has the option to renew each of these agreements for four three-year periods. HNS may terminate certain of these agreements with 180 days' prior written notice to us at the following locations: New Braunfels, Texas; Englewood, Colorado; and Spokane, Washington.

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In September 2019, in connection with the Master Transaction Agreement, we entered into an agreement pursuant to which we provide HNS with certain additional collocation space in Cheyenne, Wyoming, which expired in September 2020. In October 2019, HNS provided a termination notice for its New Braunfels, Texas agreement, effective as of May 2020. The fees for the services provided under these agreements depend, among other things, on the number of racks leased and/or antennas present at the location.

Also in connection with the Master Transaction Agreement, in September 2019, we entered into an agreement pursuant to which we provide HNS with antenna space and power in Cheyenne, Wyoming for a period of five years commencing no later than October 2020, with four three-year renewal terms, with prior written notice no more than 120 days but no less than 90 days prior to the end of the then-current term.

TT&C Agreement – Master Transaction Agreement. In September 2019, in connection with the Master Transaction Agreement, we entered into an agreement pursuant to which we provide TT&C services to EchoStar for a period ending in September 2021, with the option for EchoStar to renew for a one-year period upon written notice at least 90 days prior to the initial expiration (the "MTA TT&C Agreement"). The fees for services provided under the MTA 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. Either party is able to terminate the MTA TT&C Agreement for any reason upon 12 months' notice.

"Cost of services"

During the three months ended March 31, 2021 and 2020, we incurred $4 million and $6 million, respectively, of costs for services provided to us by EchoStar. These amounts are recorded in "Cost of services" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The agreements pertaining to these expenses are discussed below.

Hughes Broadband Distribution Agreement. Effective October 1, 2012, dishNET Satellite Broadband L.L.C. ("dishNET Satellite Broadband"), our indirect wholly-owned subsidiary, and HNS entered into a Distribution Agreement (the "Distribution Agreement") pursuant to which dishNET Satellite Broadband has the right, but not the obligation, to market, sell and distribute the HNS satellite Internet service (the "Service"). dishNET Satellite Broadband pays HNS a monthly per subscriber wholesale service fee for the Service based upon the subscriber's service level, and, beginning January 1, 2014, certain volume subscription thresholds. The Distribution Agreement also provides that dishNET Satellite Broadband has the right, but not the obligation, to purchase certain broadband equipment from HNS to support the sale of the Service. On February 20, 2014, dishNET Satellite Broadband and HNS amended the Distribution Agreement which, among other things, extended the initial term of the Distribution Agreement through March 1, 2024.

Thereafter, the Distribution Agreement automatically renews for successive one year terms unless either party gives written notice of its intent not to renew to the other party at least 180 days before the expiration of the then-current term. Upon expiration or termination of the Distribution Agreement, the parties will continue to provide the Service to the then-current dishNET subscribers pursuant to the terms and conditions of the Distribution Agreement.

EchoStar IX. We lease certain satellite capacity from EchoStar on EchoStar IX. Subject to availability, we generally have the right to continue to lease satellite capacity from EchoStar on EchoStar IX on a month-to-month basis.

Nimiq 5 Agreement. During 2009, EchoStar entered into a fifteen-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"). The Telesat Transponder Agreement was transferred to us on September 10, 2019 pursuant to the Master Transaction Agreement. Also, in September 2019, we and EchoStar entered into an agreement whereby we compensate EchoStar for retaining certain obligations to Telesat related to our performance under the Telesat Transponder Agreement.

"Cost of sales – equipment and other"

During each of the three months ended March 31, 2021 and 2020, we incurred $1 million for satellite hosting, operations and maintenance services as well as transmission of certain data. These amounts are recorded in "Cost of sales – equipment and other" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The agreements pertaining to these expenses are discussed below.

DBSD North America Agreement. On March 9, 2012, we completed the DBSD Transaction. During the second quarter 2011, EchoStar acquired Hughes. Prior to our acquisition of DBSD North America and EchoStar's acquisition of Hughes, DBSD North America and HNS entered into an agreement pursuant to which HNS provides, among other things, hosting, operations and maintenance services for DBSD North America's satellite gateway and associated ground infrastructure. This agreement generally may be terminated by us at any time for convenience.

TerreStar Agreement. On March 9, 2012, we completed the TerreStar Transaction. Prior to our acquisition of substantially all the assets of TerreStar and EchoStar's acquisition of Hughes, TerreStar and HNS entered into various agreements pursuant to which HNS provides, among other things, hosting, operations and maintenance services for TerreStar's satellite gateway and associated ground infrastructure. These agreements generally may be terminated by us at any time for convenience.

Hughes Equipment and Services Agreement. In February 2019, we and HNS entered into an agreement pursuant to which HNS will provide us with HughesNet Service and HughesNet equipment for the transmission of certain data related to our 5G Network Deployment. This agreement has an initial term of five years with automatic renewal for successive one-year terms unless terminated by DISH Network with at least 180 days' written notice to HNS or by HNS with at least 365 days' written notice to DISH Network.

"Selling, general and administrative expenses"

During the three months ended March 31, 2021 and 2020, we incurred $3 million and $4 million, respectively, for selling, general and administrative expenses for services provided to us by EchoStar. These amounts are recorded in "Selling, general and administrative expenses" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The agreements pertaining to these expenses are discussed below.

Real Estate Lease Agreements. We have entered into lease agreements pursuant to which we lease certain real estate from EchoStar. The rent on a per square foot basis for each of the leases is comparable to per square foot rental rates of similar commercial property in the same geographic area, and we are responsible for our portion of the taxes, insurance, utilities and maintenance of the premises. The term of each lease is set forth below:

- *Meridian Lease Agreement.* The lease for all of 9601 S. Meridian Blvd. in Englewood, Colorado was for a period ending on December 31, 2019. In December 2020, we and EchoStar amended this lease to, among other things, extend the term thereof for one additional year until December 31, 2021.

- *100 Inverness Lease Agreement*. In connection with the completion of the Share Exchange, effective March 1, 2017, we lease certain space from EchoStar at 100 Inverness Terrace East, Englewood, Colorado for a period ending in December 2021. This agreement may be terminated by either party upon 180 days' prior notice.

Professional Services Agreement. Prior to 2010, in connection with the Spin-off, we entered into various agreements with EchoStar including the Transition Services Agreement, Satellite Procurement Agreement and Services Agreement, which all expired on January 1, 2010 and were replaced by a Professional Services Agreement. During 2009, we and EchoStar agreed that EchoStar shall continue to have the right, but not the obligation, to receive the following services from us, among others, certain of which were previously provided under the Transition Services Agreement: information technology, travel and event coordination, internal audit, legal, accounting and tax, benefits administration, program acquisition services and other support services. Additionally, we and EchoStar agreed that we shall continue to have the right, but not the obligation, to engage EchoStar to manage the process of procuring new satellite capacity for us (previously provided under the Satellite Procurement Agreement) and receive logistics, procurement and quality assurance services from EchoStar (previously provided under the Services Agreement) and other support services. In connection with the completion of the Share Exchange on February 28, 2017, DISH Network and EchoStar amended the Professional Services Agreement to, among other things, provide certain transition services to each other related to the Share Exchange Agreement. In addition, pursuant to the Master Transaction Agreement, we and EchoStar amended the Professional Services Agreement effective September 10, 2019 to, among other things, provide certain transition services to each other related to the Master Transaction Agreement and to remove certain services no longer necessary as a result of the Master Transaction Agreement. See above for further information on the Master Transaction Agreement. During March 2020, we and EchoStar added a service under the Professional Services Agreement whereby we provide EchoStar with rights to use certain satellite capacity in exchange for certain credits to amounts owed by us to EchoStar under the TerreStar Agreement described above. The Professional Services Agreement renewed on January 1, 2021 for an additional one-year period until January 1, 2022 and renews automatically for successive one-year periods thereafter, unless terminated earlier by either party upon at least 60 days' notice. However, either party may terminate the Professional Services Agreement in part with respect to any particular service it receives for any reason upon at least 30 days' notice.

Revenue for services provided by us to EchoStar under the Professional Services Agreement is recorded in "Equipment sales and other revenue" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

Other Agreements - EchoStar

Tax Sharing Agreement. In connection with the Spin-off, we entered into a tax sharing agreement (the "Tax Sharing Agreement") with EchoStar which governs our respective rights, responsibilities and obligations after the Spin-off with respect to taxes for the periods ending on or before the Spin-off. Generally, all pre-Spin-off taxes, including any taxes that are incurred as a result of restructuring activities undertaken to implement the Spin-off, are borne by us, and we will indemnify EchoStar for such taxes. However, we are not liable for and will not indemnify EchoStar for any taxes that are incurred as a result of the Spin-off or certain related transactions failing to qualify as tax-free distributions pursuant to any provision of Section 355 or Section 361 of the Internal Revenue Code of 1986, as amended (the "Code") because of: (i) a direct or indirect acquisition of any of EchoStar's stock, stock options or assets; (ii) any action that EchoStar takes or fails to take; or (iii) any action that EchoStar takes that is inconsistent with the information and representations furnished to the Internal Revenue Service ("IRS") in connection with the request for the private letter ruling, or to counsel in connection with any opinion being delivered by counsel with respect to the Spin-off or certain related transactions. In such case, EchoStar is solely liable for, and will indemnify us for, any resulting taxes, as well as any losses, claims and expenses. The Tax Sharing Agreement will only terminate after the later of the full period of all applicable statutes of limitations, including extensions, or once all rights and obligations are fully effectuated or performed.

In light of the Tax Sharing Agreement, among other things, and in connection with our consolidated federal income tax returns for certain tax years prior to and for the year of the Spin-off, during the third quarter 2013, we and EchoStar agreed upon a supplemental allocation of the tax benefits arising from certain tax items resolved in the course of the IRS' examination of these consolidated tax returns. As a result, we agreed to pay EchoStar $80 million of the tax benefit we received or will receive. This resulted in a reduction of our recorded unrecognized tax benefits and this amount was reclassified to a long-term payable to EchoStar within "Long-term deferred revenue and other long-term liabilities" on our Condensed Consolidated Balance Sheets during the third quarter 2013. Any payment to EchoStar, including accrued interest, will be made at such time as EchoStar would have otherwise been able to realize such tax benefit.

In addition, during the third quarter 2013, we and EchoStar agreed upon a tax sharing arrangement for filing certain combined state income tax returns and a method of allocating the respective tax liabilities between us and EchoStar for such combined returns, through the taxable period ending on December 31, 2017 (the "State Tax Arrangement"). During the third quarter 2018, we and EchoStar amended the Tax Sharing Agreement and the 2013 agreements (the "Amendment").

Under the Amendment, among other things, we are entitled to apply the benefit of EchoStar's 2009 net operating losses to our federal tax return for the year ended December 31, 2008, in exchange for paying EchoStar over time the value of the net annual federal income taxes paid by EchoStar that would have been otherwise offset by their 2009 net operating loss. In addition, the Amendment extends the term of the State Tax Arrangement for filing certain combined state income tax returns to the earlier to occur of (1) termination of the Tax Sharing Agreement, (2) a change in control of either us or EchoStar or, (3) for any particular state, if we and EchoStar no longer file a combined tax return for such state. Beginning in 2020, DISH Network and EchoStar no longer file combined tax returns in any states.

Tax Matters Agreement – Share Exchange. In connection with the completion of the Share Exchange, we and EchoStar entered into a Tax Matters Agreement, which governs certain rights, responsibilities and obligations with respect to taxes of the Transferred Businesses pursuant to the Share Exchange. Generally, EchoStar is responsible for all tax returns and tax liabilities for the Transferred Businesses for periods prior to the Share Exchange, and we are responsible for all tax returns and tax liabilities for the Transferred Businesses from and after the Share Exchange. Both we and EchoStar have made certain tax-related representations and are subject to various tax-related covenants after the consummation of the Share Exchange. Both we and EchoStar have agreed to indemnify each other if there is a breach of any such tax representation or violation of any such tax covenant and that breach or violation results in the Share Exchange not qualifying for tax free treatment for the other party. In addition, we have agreed to indemnify EchoStar if the Transferred Businesses are acquired, either directly or indirectly (e.g., via an acquisition of us), by one or more persons and such acquisition results in the Share Exchange not qualifying for tax free treatment. The Tax Matters Agreement supplements the Tax Sharing Agreement described above, which continues in full force and effect.

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Tax Matters Agreement – Master Transaction Agreement. In connection with the completion of the Master Transaction Agreement, we and EchoStar entered into a Tax Matters Agreement, which governs certain rights, responsibilities and obligations with respect to taxes of the BSS Business pursuant to the Master Transaction Agreement. Generally, EchoStar is responsible for all tax returns and tax liabilities for the BSS Business for periods prior to the Master Transaction Agreement, and we are responsible for all tax returns and tax liabilities for the BSS Business from and after the Master Transaction Agreement. Both we and EchoStar have made certain tax-related representations in contemplation of the Master Transaction Agreement. Both we and EchoStar have agreed to indemnify each other if there is a breach of any such tax representation and that breach results in the Master Transaction Agreement not qualifying for tax free treatment for the other party. In addition, we have agreed to indemnify EchoStar if the BSS Business is acquired, either directly or indirectly (e.g., via an acquisition of us), by one or more persons and such acquisition results in the Master Transaction Agreement not qualifying for tax free treatment. The Tax Matters Agreement - Master Transaction Agreement supplements the Tax Sharing Agreement described above, which continues in full force and effect.

Patent Cross-License Agreements. In December 2011, we and EchoStar entered into separate patent cross-license agreements with the same third party whereby: (i) EchoStar and such third-party licensed their respective patents to each other subject to certain conditions; and (ii) we and such third-party licensed our respective patents to each other subject to certain conditions (each, a “Cross-License Agreement”). Each Cross License Agreement covers patents acquired by the respective party prior to January 1, 2017 and aggregate payments under both Cross-License Agreements total less than $10 million. In December 2016, we and EchoStar independently exercised our respective options to extend each Cross-License Agreement to include patents acquired by the respective party prior to January 1, 2022.

Rovi License Agreement. On August 19, 2016, we entered into a ten-year patent license agreement (the “Rovi License Agreement”) with Rovi Corporation (“Rovi”) and, for certain limited purposes, EchoStar. EchoStar is a party to the Rovi License Agreement solely with respect to certain provisions relating to the prior patent license agreement between EchoStar and Rovi. There are no payments between us and EchoStar under the Rovi License Agreement.

Hughes Broadband Master Services Agreement. In March 2017, DISH Network L.L.C. (“DNLLC”) and HNS entered into the MSA pursuant to which DNLLC, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders for the Hughes broadband satellite service and related equipment; and (ii) installs Hughes service equipment with respect to activations generated by DNLLC. Under the MSA, HNS will make certain payments to DNLLC for each Hughes service activation generated, and installation performed, by DNLLC. Payments from HNS for services provided are recorded in “Service revenue” on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). For the three months ended March 31, 2021 and 2020, these payments were $2 million and $4 million, respectively. The MSA has an initial term of five years with automatic renewal for successive one-year terms. After the first anniversary of the MSA, either party has the ability to terminate the MSA, in whole or in part, for any reason upon at least 90 days’ notice to the other party. Upon expiration or termination of the MSA, HNS will continue to provide the Hughes service to subscribers and make certain payments to DNLLC pursuant to the terms and conditions of the MSA. For the three months ended March 31, 2021 and 2020, we purchased broadband equipment from HNS of $1 million and $4 million, respectively, under the MSA.

Employee Matters Agreement – Share Exchange. In connection with the completion of the Share Exchange, effective March 1, 2017, we and EchoStar entered into an Employee Matters Agreement that addresses the transfer of employees from EchoStar to us, including certain benefit and compensation matters and the allocation of responsibility for employee-related liabilities relating to current and past employees of the Transferred Businesses. We assumed employee-related liabilities relating to the Transferred Businesses as part of the Share Exchange, except that EchoStar will be responsible for certain existing employee-related litigation as well as certain pre-Share Exchange compensation and benefits for employees transferring to us in connection with the Share Exchange.

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Employee Matters Agreement – Master Transaction Agreement. In connection with the completion of the Master Transaction Agreement, effective September 10, 2019, we and EchoStar entered into an Employee Matters Agreement that addresses the transfer of employees from EchoStar to us, including certain benefit and compensation matters and the allocation of responsibility for employee-related liabilities relating to current and past employees of the BSS Business. We assumed employee-related liabilities relating to the BSS Business as part of the Master Transaction Agreement, except that EchoStar will be responsible for certain existing employee-related litigation as well as certain pre-Master Transaction Agreement compensation and benefits for employees transferring to us in connection with the Master Transaction Agreement.

Intellectual Property and Technology License Agreement – Share Exchange. In connection with the completion of the Share Exchange, effective March 1, 2017, we and EchoStar entered into an Intellectual Property and Technology License Agreement ("IPTLA"), pursuant to which we and EchoStar license to each other certain intellectual property and technology. The IPTLA will continue in perpetuity, unless mutually terminated by the parties. Pursuant to the IPTLA, EchoStar granted to us a license to its intellectual property and technology for use by us, among other things, in connection with our continued operation of the Transferred Businesses acquired pursuant to the Share Exchange Agreement, including a limited license to use the "ECHOSTAR" trademark during a transition period. EchoStar retains full ownership of the "ECHOSTAR" trademark. In addition, we granted a license back to EchoStar, among other things, for the continued use of all intellectual property and technology transferred to us pursuant to the Share Exchange Agreement that is used in EchoStar's retained businesses.

Intellectual Property and Technology License Agreement – Master Transaction Agreement. In connection with the completion of the Master Transaction Agreement, effective September 10, 2019, we and EchoStar entered into an IPTLA (the "MTA IPTLA"), pursuant to which we and EchoStar license to each other certain intellectual property and technology. The MTA IPTLA will continue in perpetuity, unless mutually terminated by the parties. Pursuant to the MTA IPTLA, EchoStar granted to us a license to its intellectual property and technology for use by us, among other things, in connection with our continued operation of the BSS Business acquired pursuant to the Master Transaction Agreement, including a limited license to use the "ESS" and "ECHOSTAR SATELLITE SERVICES" trademarks during a transition period. EchoStar retains full ownership of the "ESS" and "ECHOSTAR SATELLITE SERVICES" trademarks. In addition, we granted a license back to EchoStar, among other things, for the continued use of all intellectual property and technology transferred to us pursuant to the Master Transaction Agreement that is used in EchoStar's retained businesses.

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 Condensed 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 Condensed Consolidated Balance Sheets or expensed as "Selling, general and administrative expenses" or "Cost of services" on our Condensed 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 Condensed Consolidated Balance Sheets. Our investment in NagraStar is accounted for using the equity method.

DISH NETWORK CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Unaudited)

The table below summarizes our transactions with NagraStar:

	For the Three Months Ended March 31, 2021	2020
	(In thousands)	
Purchases (including fees):		
Purchases from NagraStar	$ 11,770	$ 14,092

	As of March 31, 2021	December 31, 2020
	(In thousands)	
Amounts Payable and Commitments:		
Amounts payable to NagraStar	$ 7,893	$ 9,038
Commitments to NagraStar	$ 4,171	$ 3,260

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 Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

The table below summarizes our transactions with Dish Mexico:

	For the Three Months Ended March 31, 2021	2020
	(In thousands)	
Sales:		
Satellite capacity	$ 5,462	$ 5,462
Uplink services	1,295	1,381
Total	$ 6,757	$ 6,843

	As of March 31, 2021	December 31, 2020
	(In thousands)	
Amounts Receivable:		
Amounts receivable from Dish Mexico	$ 16,628	$ 17,029

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following management's discussion and analysis of our financial condition and results of operations together with the condensed consolidated financial statements and notes to our financial statements included elsewhere in this Quarterly Report on Form 10-Q. This management's discussion and 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 in our Annual Report on Form 10-K for the year ended December 31, 2020 under the caption "Item 1A. Risk Factors." Furthermore, such forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q, and we expressly disclaim any obligation to update any forward-looking statements.

Overview

We currently operate two primary business segments, Pay-TV and Wireless. Our Wireless business segment consists of two business units, Retail Wireless and 5G Network Deployment.

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 (collectively "Pay-TV" services). The DISH branded pay-TV service consists of, among other things, 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 streaming over-the-top ("OTT") Internet-based domestic, international and Latino video programming services ("SLING TV"). We promote our Pay-TV services as providing our subscribers with a better "price-to-value" relationship than those available from other subscription television service providers. 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 Retail Wireless business unit offers prepaid and postpaid retail wireless services to subscribers under our Boost Mobile and Ting Mobile brands, as well as a competitive portfolio of wireless devices. We offer customers value by providing choice and flexibility in our wireless services. We offer competitive consumer plans with no annual service contracts. Our retail wireless business strategy is to expand our current target segments and profitably grow our subscriber base by acquiring and retaining high quality subscribers while we complete our 5G Network Deployment. We intend to acquire high quality subscribers by providing competitive offers with innovative new value-added services that better meet those subscribers' needs and budget. We intend on retaining those subscribers through compelling new value-added services and outstanding customer service. As we work to integrate our retail wireless brands one of our focuses will be to ensure that our Pay-TV subscribers are aware of the increased value available to them through our retail wireless brands.

Our 5G Network Deployment business unit strategy is to commercialize our wireless spectrum licenses through our 5G Network Deployment. To that end, we have undertaken several key steps including identifying markets to build out, making executive and management hires and entering into agreements with key vendors. For example, on November 16, 2020, we announced a long-term agreement with Crown Castle pursuant to which Crown Castle will lease us space on up to 20,000 communication towers. As part of the agreement, we will also receive certain fiber transport services and have the option to utilize Crown Castle for pre-construction services.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

We have also entered into multiple long-term agreements with vendors including, among others, Amazon, American Tower, Fujitsu, Palo Alto and VMware for communication towers, radios, software, and network security. During December 2020, we completed a successful field validation, utilizing our fully-virtualized standalone 5G core network and the industry's first O-RAN compliant radio. We began construction of our first major market, Las Vegas, Nevada, during the second quarter of 2021. We anticipate service for this market to begin by the end of the third quarter of 2021.

Recent Developments

COVID-19 Update

A novel strain of coronavirus which causes the disease COVID-19 has resulted in a worldwide pandemic. COVID-19 has surfaced in nearly all regions around the world and resulted in global travel restrictions and business slowdowns or shutdowns. The COVID-19 pandemic has also 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 and could materially and adversely affect our business, financial condition and results of operations. As the COVID-19 pandemic continues, many of our subscribers are impacted by recommendations and/or mandates from federal, state, and local authorities to practice social distancing, to refrain from gathering in groups and, in some areas, to refrain from non-essential movements outside of their homes. While certain government regulations and/or mandates have eased, or are expected to ease in 2021 and COVID-19 vaccines have become more available in certain areas, governmental authorities are continuing to take various actions in an effort to slow the spread of COVID-19. COVID-19 continues to impact our business during 2021, in particular in the following areas:

- In response to the outbreak and business disruption, first and foremost, we have prioritized the health and safety of our employees. We have implemented increased health and safety practices including, increased use of personal protective equipment for employees to protect them and our subscribers, and temperature checks at certain locations.

- Our commercial business is impacted as many bars, restaurants, and other commercial establishments have been and continue to be recommended and/or mandated to operate at reduced capacity. In addition, airlines and hotels have reduced operations as a result of government actions and/or related lower consumer demand.

- Beginning in the second half of March 2020, COVID-19 and the related governmental recommendations and/or mandates created reduced in person selling opportunities, and a reduction in subscribers' willingness to open direct mail marketing and allow in-home technicians into their homes. As a result, we reduced our marketing expenditures and our gross new DISH TV subscribers began to decrease.

- Our Retail Wireless business unit was impacted as governmental recommendations and/or mandates reduced in person selling opportunities.

- Our OnTech Smart Services and DISH Smart Home Services brands were impacted as in-home installation and support has been impacted by government actions and/or related lower consumer demand for these services.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

- Our supply chain has been impacted by COVID-19, and there have been and could be additional significant and unanticipated interruptions and/or delays in the supply of materials and/or equipment across our supply chain, due to, among other things, surges in COVID-19. Moreover, the recent surges in COVID-19 cases in areas outside the United States and the stringent lockdowns implemented in response to such surges are causing interruptions and/or delays that are adversely impacting, among other things, the software, hardware and testing related to our 5G Network Deployment. In addition, during 2021 there have been worldwide interruptions and delays in the supply of electronic components including semi-conductors, which may significantly impact our ability to obtain set-top boxes, wireless devices and wireless network equipment. Furthermore, we may not be able to diversify sources of supply in a timely manner to mitigate these interruptions and/or delays. These interruptions and/or delays in our supply chain could have a material adverse effect on our business, including our Pay-TV and Retail Wireless operations, our ability to meet our build-out requirement deadlines for our wireless spectrum licenses and our 5G Network Deployment generally.

- Due to the economic climate, combined with changing needs of our subscribers and how we can best serve them, during the second quarter of 2020, we made the decision to reevaluate our organization. This included a focused set of staffing reductions to align our workforce to best serve our subscribers.

We continue to monitor the rapidly evolving situation and guidance from international and domestic authorities, including federal, state and local public health agencies and may take additional actions based on their recommendations. In these circumstances, there may be developments beyond our control requiring us to adjust our operating plan. As such, given the dynamic nature of this situation, we cannot reasonably estimate the impacts of COVID-19 on our financial condition, results of operations or cash flows in the future.

Acquisitions

Boost Mobile Acquisition

Asset Purchase Agreement. On July 26, 2019, we entered into an Asset Purchase Agreement (the "APA") with T-Mobile and Sprint Corporation ("Sprint" and together with T-Mobile, the "Sellers" and given the consummation of the Sprint- T-Mobile merger, sometimes referred to as "NTM") to acquire from NTM certain assets and liabilities associated with Sprint's Boost Mobile and Sprint-branded prepaid mobile services businesses (the "Prepaid Business") for an aggregate purchase price of $1.4 billion, as adjusted for specific categories of net working capital on the closing date (the "Boost Mobile Acquisition"). Effective July 1, 2020 (the "Closing Date"), upon the terms and subject to the conditions set forth in the APA and in accordance with the Final Judgment (as defined below), we and T-Mobile completed the Boost Mobile Acquisition and DISH Network officially entered into the retail wireless market, serving more than 9 million subscribers under the Boost Mobile brand.

In connection with the Boost Mobile Acquisition and the consummation of the Sprint- T-Mobile merger, we, T-Mobile, Sprint, Deutsche Telekom AG ("DT") and SoftBank Group Corporation ("SoftBank") came to an agreement with the United States Department of Justice (the "DOJ") on key terms and approval of the Transaction Agreements (as defined in Note 5 in the Notes to our Condensed Consolidated Financial Statements) and our wireless service business and spectrum. On July 26, 2019, we, T-Mobile, Sprint, DT and SoftBank (collectively, the "Defendants") entered into a Stipulation and Order (the "Stipulation and Order") with the DOJ binding the Defendants to a Proposed Final Judgment (the "Proposed Final Judgment") which memorialized the agreement between the DOJ and the Defendants.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

The Stipulation and Order and the Proposed Final Judgment were filed in the United States District Court for the District of Columbia (the "District Court") on July 26, 2019 and on April 1, 2020, the Proposed Final Judgment was entered with the District Court (the Proposed Final Judgment as so entered with the District Court, the "Final Judgment") and the Sellers consummated the Sprint-T-Mobile merger.

Ting Mobile Acquisition

On August 1, 2020, we completed an asset purchase agreement with Tucows Inc. ("Tucows") pursuant to which we purchased the assets of Ting Mobile, including over 200,000 Ting Mobile subscribers (the "Ting Mobile Acquisition"). In addition, we entered into a services agreement pursuant to which Tucows will act as a mobile virtual network enabler for certain of our retail wireless subscribers. The consideration for the Ting Mobile Acquisition is an earn out provision and the fair value of the earn out provision has been assigned to a customer relationship intangible that is recorded in "Intangible assets, net" with the offset recorded in "Long-term deferred revenue and other long-term liabilities" on our Condensed Consolidated Balance Sheets. See Note 5 in the Notes to our Condensed Consolidated Financial Statements for further information.

Republic Wireless Acquisition

On March 8, 2021, we entered into an asset purchase agreement with Republic Wireless Inc. ("Republic Wireless") pursuant to which certain assets and liabilities of Republic Wireless, including approximately 200,000 wireless subscribers will transfer to us at closing, subject to certain regulatory approvals. We expect closing to occur in the second quarter of 2021. The consideration for the Republic Wireless Acquisition will consist of an upfront cash payment and an earn-out provision.

We accounted for the Boost Mobile Acquisition and Ting Mobile Acquisition (as defined above) as business combinations. The identifiable assets acquired and liabilities assumed were recorded at their preliminary fair values as of the acquisition date and are consolidated into our financial statements. See Note 5 in the Notes to our Condensed Consolidated Financial Statements for further information.

EXPLANATION OF KEY METRICS AND OTHER ITEMS

Service revenue. "Service revenue" consists principally of Pay-TV subscriber revenue and fixed monthly recurring charges for wireless voice, text, and data services and other fees earned from our retail wireless business unit. 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 sale of wireless devices and the non-subsidized sales of Pay-TV equipment.

Cost of services. "Cost of services" principally include Pay-TV programming expenses and other operating costs related to our Pay-TV segment and costs of wireless services (including costs incurred under the MNSA).

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

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

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 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 and/or conversion of marketable and non-marketable investment securities and derivative instruments, impairment of marketable and non-marketable investment securities, unrealized gains and losses from changes in fair value of certain marketable investment securities and derivative instruments, and equity in earnings and losses of our affiliates.

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA is defined as "Net income (loss) attributable to DISH Network" plus "Interest expense, net of amounts capitalized" net of "Interest income," "Income tax (provision) benefit, net" and "Depreciation and amortization." This "non-GAAP measure" is reconciled to "Net income (loss) attributable to DISH Network" 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 subscribers 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 segment "Service revenue," excluding revenue from broadband services, 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, 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 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 is calculated for the period by adding the average number of DISH TV subscribers for each month and dividing by the number of months in the period. The average number of DISH TV subscribers for each month is calculated by adding the beginning and ending DISH TV subscribers for the month and dividing by two.

DISH TV SAC. Subscriber acquisition cost measures are commonly used by those evaluating traditional companies in the pay-TV industry. We are not aware of any uniform standards for calculating the "average subscriber acquisition costs per new DISH TV subscriber activation," or DISH TV SAC, 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 of 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.

Wireless subscribers. We include prepaid and postpaid customers obtained through direct sales, independent third-party retailers and other independent third-party distribution relationships in our wireless subscriber count.

Wireless average monthly revenue per subscriber ("Wireless 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 average monthly revenue per wireless subscriber, or Wireless ARPU, by dividing average monthly Retail Wireless business unit "Service revenue" for the period by our average number of wireless subscribers for the period. The average number of wireless subscribers is calculated for the period by adding the average number of wireless subscribers for each month and dividing by the number of months in the period. The average number of wireless subscribers for each month is calculated by adding the beginning and ending wireless subscribers for the month and dividing by two.

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

Free cash flow. We define free cash flow as "Net cash flows from operating activities" less "Purchases of property and equipment" and "Capitalized interest related to FCC authorizations," as shown on our Condensed Consolidated Statements of Cash Flows.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

RESULTS OF OPERATIONS – Segments

Business Segments

We currently operate two primary business segments: (1) Pay-TV; and (2) Wireless. Our Wireless segment consists of two business units, the Retail Wireless business unit and 5G Network Deployment business unit. Revenue and operating income (loss) by segment are shown in the table below:

Three Months Ended March 31, 2021 Compared to the Three Months Ended March 31, 2020.

	For the Three Months Ended March 31,		Variance	
	2021	2020	Amount	%
	(In thousands)			
Revenue:				
Pay-TV	$ 3,203,969	$ 3,218,024	$ (14,055)	(0.4)
Wireless	1,294,649	1,102	1,293,547	*
Eliminations	(765)	(1,737)	972	56.0
Total revenue	$ 4,497,853	$ 3,217,389	$ 1,280,464	39.8
Operating income (loss):				
Pay-TV	$ 772,743	$ 541,641	$ 231,102	42.7
Wireless	91,833	(397,563)	489,396	*
Total operating income (loss)	$ 864,576	$ 144,078	$ 720,498	*

*Percentage is not meaningful

Total revenue. Our consolidated revenue totaled $4.498 billion for the three months ended March 31, 2021, an increase of $1.280 billion or 39.8% compared to the same period in 2020. The increase primarily resulted from the completion of the Boost Mobile Acquisition.

Total operating income (loss). Our consolidated operating income totaled $865 million for the three months ended March 31, 2021, an increase of $720 million compared to the same period in 2020. The change primarily resulted from an increase in the operating income from our Pay-TV segment and our Retail Wireless business unit. The three months ended March 31, 2020 was negatively impacted by operating losses associated with our 5G Network Deployment business unit, principally related to an "Impairment of long-lived assets" of $356 million. See Note 2 in the Notes to our Condensed Consolidated Financial Statements for further information.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Pay-TV Segment

We offer Pay-TV services under the DISH® brand and the SLING® brand. As of March 31, 2021, we had 11.060 million Pay-TV subscribers in the United States, including 8.686 million DISH TV subscribers and 2.374 million SLING TV subscribers.

We promote our Pay-TV services as 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 and regional 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 streaming media devices, TVs, tablets, computers, game consoles and phones. We offer SLING domestic, SLING International, and SLING Latino video programming services.

Trends in our Pay-TV Segment

Competition

Competition has intensified in recent years as the pay-TV industry has matured. We and our competitors increasingly 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, mostly 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 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 providers include, among others, Netflix, Hulu, Apple, Amazon, Alphabet, Disney, Verizon, AT&T, T-Mobile, ViacomCBS, STARZ, Peacock, Fubo and Philo.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Significant changes in consumer behavior with regard to 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-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, such as pay per view movies.

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

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 service or cause potential new Pay-TV subscribers to choose not to subscribe to our service. 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, such as pay-per-view movies.

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 before they expire. In the past, our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate have been negatively impacted as a result of programming interruptions and threatened programming interruptions in connection with the scheduled expiration of programming carriage contracts with content providers. There can be no assurance that channel removals will not have a material adverse effect on our business, results of operations and financial condition or otherwise disrupt our business.

We cannot predict with any certainty the impact to our net Pay-TV subscriber additions, gross new DISH TV subscriber activations, and DISH TV churn rate resulting from 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.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

RESULTS OF OPERATIONS – PAY-TV Segment

Three Months Ended March 31, 2021 Compared to the Three Months Ended March 31, 2020.

Statements of Operations Data	For the Three Months Ended March 31, 2021	For the Three Months Ended March 31, 2020	Variance Amount	Variance %
		(In thousands)		
Revenue:				
Service revenue	$ 3,164,367	$ 3,166,041	$ (1,674)	(0.1)
Equipment sales and other revenue	39,602	51,983	(12,381)	(23.8)
Total revenue	3,203,969	3,218,024	(14,055)	(0.4)
Costs and expenses:				
Cost of services	1,929,834	2,052,071	(122,237)	(6.0)
% of Service revenue	**61.0 %**	**64.8 %**		
Cost of sales - equipment and other	20,136	34,001	(13,865)	(40.8)
Selling, general and administrative expenses	338,409	427,837	(89,428)	(20.9)
% of Total revenue	**10.6 %**	**13.3 %**		
Depreciation and amortization	142,847	162,474	(19,627)	(12.1)
Total costs and expenses	2,431,226	2,676,383	(245,157)	(9.2)
Operating income (loss)	$ 772,743	$ 541,641	$ 231,102	42.7
Other data:				
Pay-TV subscribers, as of period end (in millions) **	11.060	11.323	(0.263)	(2.3)
DISH TV subscribers, as of period end (in millions) **	8.686	9.012	(0.326)	(3.6)
SLING TV subscribers, as of period end (in millions)	2.374	2.311	0.063	2.7
Pay-TV subscriber additions (losses), net (in millions)	(0.230)	(0.413)	0.183	44.3
DISH TV subscriber additions (losses), net (in millions)	(0.130)	(0.132)	0.002	1.5
SLING TV subscriber additions (losses), net (in millions)	(0.100)	(0.281)	0.181	64.4
Pay-TV ARPU	$ 93.63	$ 88.76	$ 4.87	5.5
DISH TV subscriber additions, gross (in millions)	0.210	0.299	(0.089)	(29.8)
DISH TV churn rate	1.30 %	1.54 %	(0.24)%	(15.6)
DISH TV SAC	$ 790	$ 861	$ (71)	(8.2)
Purchases of property and equipment	52,833	78,392	(25,559)	(32.6)
OIBDA	$ 915,590	$ 704,115	$ 211,475	30.0

* Percentage is not meaningful.

**During the first quarter 2020, we removed approximately 250,000 subscribers representing commercial accounts impacted by COVID-19 from our ending Pay-TV subscriber count. During the year ended December, 31, 2020, 80,000 of these subscribers came off pause or had temporary rate relief end and are included in our ending Pay-TV subscriber count and 69,000 of these subscribers disconnected. During the three months ended March 31, 2021, the remaining commercial accounts representing 101,000 subscribers disconnected. The effect of the removal of the 250,000 subscribers, the addition of these 80,000 subscribers and disconnect of 170,000 subscribers was excluded from the calculation of our gross new Pay-TV subscriber activations, net Pay-TV subscriber additions/losses and Pay-TV churn rate. See "Results of Operations – Pay-TV subscribers" for further information.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Pay-TV subscribers

DISH TV subscribers. We lost approximately 130,000 net DISH TV subscribers during the three months ended March 31, 2021 compared to the loss of approximately 132,000 net DISH TV subscribers during the same period in 2020. This decrease in net DISH TV subscriber losses primarily resulted from lower gross new DISH TV subscriber activations, offset by a lower DISH TV churn rate.

SLING TV subscribers. We lost approximately 100,000 net SLING TV subscribers during the three months ended March 31, 2021 compared to the loss of approximately 281,000 net SLING TV subscribers during the same period in 2020. The decrease in net SLING TV subscriber losses was primarily related to lower subscriber disconnects resulting from our emphasis on acquiring and retaining higher quality subscribers, partially offset by 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. The three months ended March 31, 2020 was negatively impacted by delays and cancellations of sporting events as a result of COVID-19.

DISH TV subscribers, gross. During the three months ended March 31, 2021, we activated approximately 210,000 gross new DISH TV subscribers compared to approximately 299,000 gross new DISH TV subscribers during the same period in 2020, a decrease of 29.8%. This decrease in our gross new DISH TV subscriber activations was primarily related to the impact of COVID-19. Beginning in the second half of March 2020, COVID-19 and the related governmental recommendations and/or mandates created reduced in person selling opportunities, and a reduction in customers' willingness to open direct mail marketing and allow in-home technicians into their homes. As a result, beginning in the first quarter 2020, we reduced our marketing expenditures and our gross new DISH TV subscribers began to decrease. We continue to assess the impact of COVID-19 and cannot predict with certainty the impact to our gross new DISH TV subscribers as a result of, among other things, lower discretionary spending and reduced ability to perform our in-home service operations due to the impact of social distancing. In addition, our gross new DISH TV subscriber activations continue to be negatively impacted by stricter customer acquisition policies for our DISH TV subscribers, including an emphasis on acquiring higher quality subscribers, and by increased competitive pressures, including aggressive short term introductory pricing and bundled offers combining broadband, video and/or wireless services and other discounted promotional offers, and channel removals.

DISH TV churn rate. Our DISH TV churn rate for the three months ended March 31, 2021 was 1.30% compared to 1.54% for the same period in 2020. This decrease primarily resulted from the impact of COVID-19, including, among other things, the recommendations and/or mandates from federal, state, and local authorities that customers refrain from non-essential movements outside of their homes and the resulting increased consumption of our Pay-TV services. In addition, COVID-19 had an impact on competitive pressures due to, among other things, a reduction in customers' willingness to allow competitors' technicians into their homes. We continue to assess the impact of COVID-19 and cannot predict with certainty the impact to our DISH TV churn rate as a result of, among other things, lower discretionary spending and reduced ability to perform our in-home service operations due to the impact of social distancing. In addition, this decrease also resulted from our emphasis on acquiring and retaining higher quality subscribers. Our DISH TV churn rate continues to be adversely impacted by external factors, such as, among other things, increased competitive pressures, including aggressive marketing, bundled discount offers combining broadband, video and/or wireless services and other discounted promotional offers, as well as cord cutting. 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, programming interruptions in connection with the scheduled expiration of certain programming carriage contracts, our ability to control piracy and other forms of fraud and the level of our retention efforts.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Beginning in March 2020, several federal, state, and local government agencies implemented recommendations, guidelines, and orders regarding "social distancing" in an attempt to slow or stop the spread of COVID-19. As a result of these actions, many bars, restaurants, and other commercial establishments were ordered to and in certain cases continue to be recommended and/or ordered to suspend all non-essential "in-person" business operations and/or operate at reduced capacity. In addition, airlines and hotels significantly reduced operations as a result of government actions and/or related lower consumer demand. In an effort to avoid charging commercial customers for services in their establishments which were or are no longer open to the public, we paused service or provided temporary rate relief for certain of those commercial accounts. For certain commercial accounts, each subscription is counted as one Pay-TV subscriber. For other commercial accounts, as discussed above, 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 Pay-TV subscriber count. During the first quarter 2020, we removed 250,000 subscribers from our ending Pay-TV subscriber count for commercial accounts we placed on pause, or received reduced revenue, or for which we anticipate the account to disconnect due to COVID-19. During the year ended December 31, 2020, 80,000 of these subscribers came off pause or had temporary rate relief end and 69,000 of these subscribers disconnected. We did not incur any significant expenses in connection with the return of the 80,000 commercial accounts and accordingly, those commercial accounts were added to our ending subscriber count during the periods they returned in 2020 and were not recorded as gross new Pay-TV subscriber activations. During the first quarter of 2021, the remaining commercial accounts representing 101,000 subscribers disconnected.

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 $3.164 billion for the three months ended March 31, 2021, a decrease of $2 million or 0.1% compared to the same period in 2020. The decrease in "Service revenue" compared to the same period in 2020 was primarily related to a lower average Pay-TV subscriber base, offset by an increase in Pay-TV ARPU, discussed below.

Pay-TV ARPU. Pay-TV ARPU was $93.63 during the three months ended March 31, 2021 versus $88.76 during the same period in 2020. The $4.87 or 5.5% increase in Pay-TV ARPU was primarily attributable to the DISH TV programming package price increases in the first quarter 2021 and 2020, the SLING TV programming package price increases in the first quarter 2021 and 2020 and higher ad sales revenue, partially offset by an increase in SLING TV subscribers as a percentage of our total Pay-TV subscriber base. SLING TV subscribers on average purchase lower priced programming services than DISH TV subscribers, and therefore, the increase in SLING TV subscribers as a percentage of our total Pay-TV subscriber base had a negative impact on Pay-TV ARPU.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Cost of services. "Cost of services" totaled $1.930 billion during the three months ended March 31, 2021, a decrease of $122 million or 6.0% compared to the same period in 2020. The decrease in "Cost of services" was primarily attributable to a lower average Pay-TV subscriber base and a decrease in variable and retention costs per subscriber, partially offset by higher programming costs per subscriber. Variable and retention costs per subscriber decreased due to, among other things, increased operational efficiencies, including a focused set of staffing reductions in 2020. Programming costs per subscriber increased during the three months ended March 31, 2021 due to rate increases in certain of our programming contracts, including the renewal of certain contracts at higher rates, particularly for local broadcast channels. "Cost of services" represented 61.0% and 64.8% of "Service revenue" during the three months ended March 31, 2021 and 2020, 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 $338 million during the three months ended March 31, 2021, an $89 million or 20.9% decrease compared to the same period in 2020. This change was primarily driven by a decrease in subscriber acquisition costs resulting from reduced marketing expenditures and fewer gross new DISH TV subscriber activations, and by cost cutting initiatives in the Pay-TV segment, including a focused set of staffing reductions in 2020.

DISH TV SAC. DISH TV SAC was $790 during the three months ended March 31, 2021 compared to $861 during the same period in 2020, a decrease of $71 or 8.2%. This change was primarily attributable to a decrease in advertising costs per subscriber and higher commercial additions compared to the same period in 2020. Commercial activations historically have lower DISH TV SAC than residential activations, and therefore the increase in commercial activations had a positive impact on DISH TV SAC. Beginning in the first quarter 2020, as a result of COVID-19 and the related governmental recommendations and/or mandates, our in person selling opportunities and our customers' willingness to open direct mail marketing and allow in-home technicians into their homes were reduced. Accordingly, we reduced our marketing expenditures starting in the first quarter 2020 and therefore our gross new DISH TV subscriber activations decreased.

During the three months ended March 31, 2021 and 2020, the amount of equipment capitalized under our lease program for new DISH TV subscribers totaled $22 million and $35 million, respectively. This decrease in capital expenditures primarily resulted from a decrease in gross new DISH TV subscriber activations.

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. See further information under *"Liquidity and Capital Resources – Subscriber Acquisition and Retention Costs."*

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Wireless Segment

Our Wireless business segment operates in two business units, Retail Wireless and 5G Network Deployment. Revenue, operating income (loss) and purchases of property and equipment by business unit are shown in the table below:

For the Three Months Ended March 31, 2021	Retail Wireless	5G Network Deployment	Total Wireless
		(In thousands)	
Total revenue	$ 1,279,955	$ 14,694	$ 1,294,649
Operating income (loss)	$ 123,879	$ (32,046)	$ 91,833
Purchases of property and equipment	$ 16,338	$ 45,925	$ 62,263

Wireless – Retail Wireless

As a result of the Boost Mobile Acquisition and the Ting Mobile Acquisition, we have entered the retail wireless business. See Note 5 for further information. We offer nationwide prepaid and postpaid retail wireless services to subscribers under our Boost Mobile and Ting Mobile brands, as well as a competitive portfolio of wireless devices. LG Electronics Inc., a large provider of wireless devices, recently announced they are closing their mobile business unit. We are working to procure wireless devices from alternative suppliers, however, there can be no assurances we will be able to procure the supply needed to meet subscriber demand and any inability to do so could negatively impact our wireless subscriber activations, retail wireless base and our result of operations. Prepaid wireless subscribers generally pay in advance for monthly access to wireless talk, text, and data services. Postpaid wireless subscribers generally are qualified to pay after receiving wireless talk, text, and data services. We are currently operating our retail wireless business unit as a mobile virtual network operator ("MVNO") while we build our 5G broadband network.

As an MVNO, we depend primarily on T-Mobile to provide us with network services under the MNSA. A majority of our Retail Wireless subscribers currently receive services through T-Mobile's CDMA Network, under the MNSA. T-Mobile provided notice for the first time in October 2020 that it intends to shutdown the CDMA Network on or around January 1, 2022, significantly earlier than the July 2023 date that T-Mobile had previously communicated to regulators would be the earliest shutdown date. In the event that this shutdown were to occur on this accelerated timeframe, this would disrupt our Retail Wireless subscriber base by, among other things, having our subscribers potentially lose service and/or face increased costs. A forced migration of this scale under this accelerated time frame will potentially leave millions of low-income Boost subscribers without service. DISH Network is working to mitigate the harms of this shutdown, however, there can be no assurance these attempts will be successful.

We acquired over 9 million subscribers as a result of the Boost Mobile Acquisition and acquired over 200,000 subscribers as a result of the Ting Mobile Acquisition. Our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) for the three months ended March 31, 2021 includes the results of the Boost Mobile Acquisition from July 1, 2020 and the Ting Mobile Acquisition from August 1, 2020. As of March 31, 2021, we had 8.894 million retail wireless subscribers.

Currently, we offer wireless subscribers competitive consumer plans with no annual service contracts and monthly service plans ranging from $10 for 1GB of high-speed data and unlimited talk and text to $60 for unlimited data, talk and text. We also offer promotional plans, including, among others, three lines for $90 for unlimited data, talk and text.

Competition

Boost Mobile operates within the prepaid wireless space and Ting Mobile operates within the postpaid wireless space. Retail Wireless is a mature market with moderate year-over-year organic growth. Competitors include providers who offer similar communication services, such as talk, text and data. Competitive factors within the wireless communications services industry include pricing, market saturation, service and product offerings, customer experience and service quality. We compete with a number of national wireless carriers, including Verizon, AT&T and T-Mobile, all of which are significantly larger than us, serve a significant percentage of all wireless subscribers and enjoy scale advantages compared to us. Verizon, AT&T, and T-Mobile are currently the only nationwide Mobile Network Operators ("MNOs") in the United States.

Primary competitors to our Retail Wireless business unit include, but are not limited to, Metro PCS (owned by T-Mobile), Cricket Wireless (owned by AT&T), Tracfone Wireless and other MVNOs such as Consumer Cellular and Mint Mobile. Verizon announced its pending acquisition of Tracfone Wireless in September 2020.

Wireless – 5G Network Deployment

We have directly invested over $12 billion to acquire certain wireless spectrum licenses and related assets and made over $10 billion in non-controlling investments in certain entities, for a total of over $22 billion. The $22 billion of investments related to wireless spectrum licenses does not include $6 billion of capitalized interest related to the carrying value of such licenses. See Note 2 in the Notes to our Condensed Consolidated Financial Statements for further information on capitalized interest.

DISH Network Spectrum

We have directly invested over $12 billion to acquire certain wireless spectrum licenses and related assets. These wireless spectrum licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements.

We plan to commercialize our wireless spectrum licenses through our 5G Network Deployment. To that end, we have undertaken several key steps including identifying markets to build out, making executive and management hires and entering into agreements with key vendors. For example, on November 16, 2020, we announced a long-term agreement with Crown Castle pursuant to which Crown Castle will lease us space on up to 20,000 communication towers. As part of the agreement, we will also receive certain fiber transport services and have the option to utilize Crown Castle for pre-construction services. We have also entered into multiple long-term agreements with vendors including, among others, Amazon, American Tower, Fujitsu, Palo Alto and VMware for communication towers, radios, software, and network security. During December 2020, we completed a successful field validation, utilizing our fully-virtualized standalone 5G core network and the industry's first O-RAN compliant radio. We began construction of our first major market, Las Vegas, Nevada, during the second quarter of 2021. We anticipate service for this market to begin by the end of the third quarter of 2021.

Prior to starting our 5G Network Deployment, we notified the FCC in March 2017 that we planned to deploy a narrowband IoT network on certain of these wireless licenses, which we expected to complete by March 2020, with subsequent phases to be completed thereafter. In light of, among other things, certain developments related to the Sprint-T-Mobile merger, during the first quarter 2020, we determined that the revision of certain of our build-out deadlines was probable and, therefore, we no longer intended to complete our narrowband IoT deployment. The FCC issued an Order effectuating the build-out deadline changes contemplated above on September 11, 2020. During the first quarter 2020, we impaired certain assets that would not be utilized in our 5G Network Deployment, resulting in a $253 million non-cash impairment charge in "Impairment of long-lived assets" on our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

We will need to make significant additional investments or partner with others to, among other things, complete our 5G Network Deployment and further commercialize, build-out and integrate these licenses and related assets and any additional acquired licenses and related assets, as well as to comply with regulations applicable to such licenses. Depending on the nature and scope of such activities, any such investments or partnerships could vary significantly. In addition, as we complete our 5G Network Deployment we will incur significant additional expenses and will have to make significant investments related to, among other things, research and development, wireless testing and wireless network infrastructure. We may also determine that additional wireless spectrum licenses may be required to complete our 5G Network Deployment and to compete with other wireless service providers. See Note 2 and Note 11 in the Notes to our Condensed Consolidated Financial Statements for further information.

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

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

The AWS-3 Licenses are subject to certain interim and final build-out requirements, as well as certain renewal requirements. 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 us, 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 Northstar Re-Auction Payment and SNR Re-Auction Payment 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 Northstar Re-Auction Payment and SNR Re-Auction Payment, any loans, equity contributions or partnerships could vary significantly. See Note 11 in the Notes to our Condensed Consolidated Financial Statements for further information.

We may need to raise significant additional capital in the future to fund the efforts described above, which may not be available on acceptable terms or at all. There can be no assurance that we, the Northstar Entities and/or the SNR Entities will be able to develop and implement business models that will realize a return on these wireless spectrum licenses or that we, the Northstar Entities and/or the SNR Entities will be able to profitably deploy the assets represented by these wireless spectrum licenses, which may affect the carrying amount of these assets and our future financial condition or results of operations. See Note 11 in the Notes to our Condensed Consolidated Financial Statements for further information.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

RESULTS OF OPERATIONS – Wireless Segment – Retail Wireless Business Unit

Three Months Ended March 31, 2021 Compared to the Three Months Ended March 31, 2020.

Statements of Operations Data	For the Three Months Ended March 31, 2021	2020	Variance Amount	%
	(In thousands)			
Revenue:				
Service revenue	$ 1,045,167	$ —	$ 1,045,167	*
Equipment sales and other revenue	234,788	—	234,788	*
Total revenue	1,279,955	—	1,279,955	*
Costs and expenses:				
Cost of services	607,835	—	607,835	*
% of Service revenue	**58.2 %**	*** %**		
Cost of sales - equipment and other	394,755	15	394,740	*
Selling, general and administrative expenses	109,135	1,555	107,580	*
% of Total revenue	**8.5 %**	* **%**		
Depreciation and amortization	44,351	—	44,351	*
Total costs and expenses	1,156,076	1,570	1,154,506	*
Operating income (loss)	$ 123,879	$ (1,570)	$ 125,449	*
Other data:				
Wireless subscribers, as of period end (in millions)	8.894	—	8.894	*
Wireless subscriber additions, gross (in millions)	1.032	—	1.032	*
Wireless subscriber additions (losses), net (in millions)	(0.161)	—	(0.161)	*
Wireless ARPU	$ 38.89	$ —	$ 38.89	*
Wireless churn rate	4.44 %	— %	4.44 %	*
OIBDA	$ 168,230	$ (1,570)	$ 169,800	*

* Percentage is not meaningful.

The results of the Boost Mobile Acquisition from July 1, 2020 and the Ting Mobile Acquisition from August 1, 2020 are included in our Retail Wireless business unit. During the third quarter 2020, we added over 9 million wireless subscribers as a result of these acquisitions. We are currently in the process of integrating our retail wireless operations and have made and continue to make certain changes to our marketing, sales, and operations to further enhance our profitability. We lost 161,000 net wireless subscribers for the three months ended March 31, 2021, primarily as a result of these operational changes and competitive pressures. Our current results of operations are not necessarily indicative of future results, in part based on the ongoing integration and operational changes we are currently implementing. In addition, we have and continue to face increased competitive pressures, including aggressive marketing, discounted monthly service plans and greater wireless device subsidies.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

RESULTS OF OPERATIONS – Wireless Segment – 5G Network Deployment Business Unit

Three Months Ended March 31, 2021 Compared to the Three Months Ended March 31, 2020.

Statements of Operations Data	For the Three Months Ended March 31, 2021	For the Three Months Ended March 31, 2020	Variance Amount	Variance %
		(In thousands)		
Revenue:				
Equipment sales and other revenue	$ 14,694	$ 1,102	$ 13,592	*
Total revenue	14,694	1,102	13,592	*
Costs and expenses:				
Cost of sales - equipment and other	8,650	7,693	957	12.4
Selling, general and administrative expenses	34,903	28,638	6,265	21.9
Depreciation and amortization	3,187	4,346	(1,159)	(26.7)
Impairment of long-lived assets	—	356,418	(356,418)	*
Total costs and expenses	46,740	397,095	(350,355)	(88.2)
Operating income (loss)	$ (32,046)	$ (395,993)	$ 363,947	91.9
Other data:				
Purchases of property and equipment	$ 45,925	$ 18,772	$ 27,153	*
OIBDA	$ (28,859)	$ (391,647)	$ 362,788	92.6

* Percentage is not meaningful.

Equipment sales and other revenue. "Equipment sales and other revenue" totaled $15 million for the three months ended March 31, 2021, an increase of $14 million compared to the same period in 2020. This increase primarily resulted from leasing a portion of our 600 MHz spectrum licenses to T-Mobile, which began on September 11, 2020. The spectrum lease with T-Mobile had an original annual value of $56 million during its 42 month term, however we expect this amount to decrease as we exercise our right to terminate individual licenses prior to the end of their term. The specific termination rights vary by license and we exercised our ability to terminate certain licenses in the first quarter of 2021 in accordance with our buildout schedule.

Impairment of long-lived assets. "Impairment of long-lived assets" of $356 million during the three months ended March 31, 2020 resulted from impairments of the T1 satellite and D1 satellites, as well as certain wireless equipment and operating lease assets related to our narrowband IoT deployment which we no longer intend to complete. See Note 2 in the Notes to our Condensed Consolidated Financial Statements for further information.

Purchases of property and equipment. "Purchases of property and equipment" totaled $46 million for the three months ended March 31, 2021, an increase of $27 million compared to the same period in 2020. Capital expenditures for the three months ended March 31, 2021 are related to our 5G Network Deployment. We anticipate expenditures for our 5G Network Deployment to increase substantially throughout the remainder of 2021 as we ramp up the build-out phase of our 5G Network Deployment.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

OTHER CONSOLIDATED RESULTS

Three Months Ended March 31, 2021 Compared to the Three Months Ended March 31, 2020.

	For the Three Months Ended March 31,		Variance	
Statements of Operations Data	**2021**	**2020**	**Amount**	**%**
		(In thousands)		
Operating income (loss)	$ 864,576	$ 144,078	$ 720,498	*
Other income (expense):				
Interest income	1,970	14,216	(12,246)	(86.1)
Interest expense, net of amounts capitalized	(3,873)	(15,606)	11,733	75.2
Other, net	(5,261)	1,592	(6,853)	*
Total other income (expense)	(7,164)	202	(7,366)	*
Income (loss) before income taxes	857,412	144,280	713,132	*
Income tax (provision) benefit, net	(215,849)	(45,006)	(170,843)	*
Effective tax rate	**25.2 %**	**31.2 %**		
Net income (loss)	641,563	99,274	542,289	*
Less: Net income (loss) attributable to noncontrolling interests, net of tax	11,339	26,175	(14,836)	(56.7)
Net income (loss) attributable to DISH Network	$ 630,224	$ 73,099	$ 557,125	*

* Percentage is not meaningful.

Interest income. "Interest income" totaled $2 million during the three months ended March 31, 2021, a decrease of $12 million or 86.1% compared to the same period in 2020. This decrease primarily resulted from lower percentage returns earned on our cash and marketable investment securities, partially offset by higher average cash and marketable investment securities balances during the three months ended March 31, 2021.

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" totaled $4 million during the three months ended March 31, 2021, a decrease in expense of $12 million compared to the same period in 2020 as a result of decreased interest expense not eligible for capitalization. For the three months ended March 31, 2021 and 2020, materially all of our interest expense was capitalized. See Note 2 in the Notes to our Condensed Consolidated Financial Statements for further information.

Other, net. "Other, net" expense totaled $5 million during the three months ended March 31, 2021, a decrease of $7 million compared to the same period in 2020. This change primarily resulted from a $4 million decrease in the fair value of our option to purchase certain of T-Mobile's 800 MHz spectrum licenses under the Spectrum Purchase Agreement. See Note 5 in the Notes to our Condensed Consolidated Financial Statements for further information.

Income tax (provision) benefit, net. Our income tax provision was $216 million during the three months ended March 31, 2021, an increase of $171 million compared to the same period in 2020. The increase in the provision was primarily related to an increase in "Income (loss) before income taxes," partially offset by a decrease in our effective tax rate.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Non-GAAP Performance Measures and Reconciliation

It is management's intent to provide non-GAAP financial information to enhance the understanding of our GAAP financial information, and it should be considered by the reader in addition to, but not instead of, the financial statements prepared in accordance with GAAP. Each non-GAAP financial measure is presented along with the corresponding GAAP measure so as not to imply that more emphasis should be placed on the non-GAAP measure. We believe that providing these non-GAAP measures in addition to the GAAP measures allows management, investors and other users of our financial information to more fully and accurately assess both consolidated and segment performance. The non-GAAP financial information presented may be determined or calculated differently by other companies and may not be directly comparable to that of other companies.

Consolidated EBITDA

Consolidated EBITDA is not a measure determined in accordance with GAAP and should not be considered a substitute for operating income, net income or any other measure determined in accordance with GAAP. Consolidated EBITDA is used as a measurement of operating efficiency and overall financial performance and we believe it is a helpful measure for those evaluating operating performance in relation to our competitors. Conceptually, EBITDA measures the amount of income generated each period that could be used to service debt, pay taxes and fund capital expenditures. EBITDA should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP.

	For the Three Months Ended March 31,	
	2021	**2020**
	(In thousands)	
Consolidated EBITDA	$ 1,038,361	$ 286,315
Interest, net	(1,903)	(1,390)
Income tax (provision) benefit, net	(215,849)	(45,006)
Depreciation and amortization	(190,385)	(166,820)
Net income (loss) attributable to DISH Network	$ 630,224	$ 73,099

The changes in Consolidated EBITDA during the three months ended March 31, 2021, compared to the same period in 2020, were primarily a result of the factors described in connection with operating revenues and operating expenses, including the negative impact of "Impairment of long-lived assets" of $356 million during the three months ended March 31, 2020.

Segment OIBDA

Segment OIBDA, which is presented below, is a non-GAAP measure and does not purport to be an alternative to operating income (loss) as a measure of operating performance. We believe this measure is useful to management, investors and other users of our financial information in evaluating operating profitability of our business units on a more variable cost basis as it excludes the depreciation and amortization expenses related primarily to capital expenditures and acquisitions for those business units, as well as in evaluating operating performance in relation to our competitors. Segment OIBDA is calculated by adding back depreciation and amortization expense to business unit operating income (loss). See Note 12 to the Notes to our Condensed Consolidated Financial Statements for further information.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

	For the Three Months Ended March 31,	
	2021	2020
	(In thousands)	
Pay-TV OIBDA	$ 915,590	$ 704,115
Depreciation and amortization	142,847	162,474
Segment operating income (loss)	$ 772,743	$ 541,641
Retail Wireless OIBDA	$ 168,230	$ (1,570)
Depreciation and amortization	44,351	—
Segment operating income (loss)	$ 123,879	$ (1,570)
5G Network Deployment OIBDA	$ (28,859)	$ (391,647)
Depreciation and amortization	3,187	4,346
Segment operating income (loss)	$ (32,046)	$ (395,993)
Consolidated OIBDA	$ 1,054,961	$ 310,898
Depreciation and amortization	190,385	166,820
Consolidated operating income (loss)	$ 864,576	$ 144,078

The changes in OIBDA during the three months ended March 31, 2021, compared to the same period in 2020, were primarily a result of the factors described in connection with operating revenues and operating expenses, including the negative impact of "Impairment of long-lived assets" of $356 million during the three months ended March 31, 2020.

LIQUIDITY AND CAPITAL RESOURCES

Cash, Cash Equivalents and Current Marketable Investment Securities

We consider all liquid investments purchased within 90 days of their maturity to be cash equivalents. See Note 5 in the Notes to our Condensed Consolidated Financial Statements for further information regarding our marketable investment securities. As of March 31, 2021, cash equivalents and current marketable investment securities totaled $4.573 billion compared to $3.733 billion as of December 31, 2020, an increase of $840 million. This increase in cash, cash equivalents and current marketable investment securities primarily resulted from cash generated from operating activities of $1.125 billion and a $337 million deposit refund from our participation in Auction 107. These increases were partially offset by capital expenditures of $397 million (including capitalized interest related to FCC authorizations), and $205 million of repurchases of our 6 ¾% Senior Notes due 2021 in open market trades.

Cash Flow

The following discussion highlights our cash flow activities during the three months ended March 31, 2021.

Cash flows from operating activities

For the three months ended March 31, 2021, we reported "Net cash flows from operating activities" of $1.125 billion primarily attributable to $1.005 billion of "Net income (loss)" adjusted to exclude the non-cash items for "Depreciation and amortization" expense, "Realized and unrealized losses (gains) on investments and derivatives," "Non-cash, stock-based compensation" expense, and "Deferred tax expense (benefit)." In addition, "Net cash flows from operating activities" was impacted by the timing difference between book expense and cash payments, including income taxes.

Cash flows from investing activities

For the three months ended March 31, 2021, we reported inflows from "Net cash flows from investing activities" of $185 million primarily related to a $337 million deposit refund from our participation in Auction 107 and $242 million in net sales of marketable investment securities, partially offset by capital expenditures of $397 million (including capitalized interest related to FCC authorizations). The capital expenditures included $282 million of capitalized interest related to FCC authorizations, $62 million for wireless equipment, $33 million for new and existing DISH TV subscriber equipment and $20 million of other corporate capital expenditures.

Cash flows from financing activities

For the three months ended March 31, 2021, we reported outflows from "Net cash flows from financing activities" of $229 million primarily related to $205 million of repurchases of our 6 ¾% Senior Notes due 2021 in open market trades.

Free Cash Flow

We define free cash flow as "Net cash flows from operating activities" less "Purchases of property and equipment," and "Capitalized interest related to FCC authorizations," as shown on our Condensed Consolidated Statements of Cash Flows. We believe free cash flow is an important liquidity metric because it measures, during a given period, the amount of cash generated that is available to repay debt obligations, make investments (including strategic wireless investments), fund acquisitions and for certain other activities. Free cash flow is not a measure determined in accordance with GAAP and should not be considered a substitute for "Operating income," "Net income," "Net cash flows from operating activities" or any other measure determined in accordance with GAAP. Since free cash flow includes investments in operating assets, we believe this non-GAAP liquidity measure is useful in addition to the most directly comparable GAAP measure "Net cash flows from operating activities."

Free cash flow can be significantly impacted from period to period by changes in "Net income (loss)" adjusted to exclude certain non-cash charges, operating assets and liabilities, "Purchases of property and equipment," and "Capitalized interest related to FCC authorizations." These items are shown in the "Net cash flows from operating activities" and "Net cash flows from investing activities" sections on our Condensed Consolidated Statements of Cash Flows included herein. Operating asset and liability balances can fluctuate significantly from period to period and there can be no assurance that free cash flow will not be negatively impacted by material changes in operating assets and liabilities in future periods, since these changes depend upon, among other things, management's timing of payments and control of inventory levels, and cash receipts. In addition to fluctuations resulting from changes in operating assets and liabilities, free cash flow can vary significantly from period to period depending upon, among other things, subscriber additions (losses), service revenue, subscriber churn, subscriber acquisition and retention costs including amounts capitalized under our equipment lease programs for DISH TV subscribers, operating efficiencies, increases or decreases in purchases of property and equipment, expenditures related to the commercialization of our 5G Network Deployment and other factors.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

The following table reconciles free cash flow to "Net cash flows from operating activities."

	For the Three Months Ended March 31,	
	2021	2020
	(In thousands)	
Free cash flow	$ 728,681	$ 536,964
Add back:		
Purchases of property and equipment (including capitalized interest related to FCC authorizations)	396,817	338,989
Net cash flows from operating activities	$ 1,125,498	$ 875,953

Operational Liquidity

We make general investments in property such as satellites, wireless devices, set-top boxes, information technology and facilities that support our Pay-TV segment and Retail Wireless business unit. We are also making significant additional investments and will need to continue making these investments and/or partner with others to, among other things, complete our 5G Network Deployment and further commercialize, build-out, and integrate our wireless spectrum licenses and related assets. Moreover, since we are primarily a subscriber-based company, we also make subscriber-specific investments to acquire new subscribers and retain existing subscribers. While the 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 assurances 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, a shift to lower priced Pay-TV programming packages and higher programming costs. Our Retail Wireless service margins are impacted by our MNSA agreement with T-Mobile and the speed with which we are able to convert retail wireless subscribers onto our 5G Network once operational. 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 the rate at which we complete our 5G Network Deployment, incur litigation expense, and any cash flow from financing activities. Declines in our Pay-TV subscriber base and subscriber related-margins continue to negatively impact our cash flow, and there can be no assurances that these declines will not continue.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Subscriber Base – Pay TV Segment and Retail Wireless Business Unit

See "Results of Operations" above for further information.

Subscriber Acquisition and Retention Costs

We incur significant upfront costs to acquire subscribers, including advertising, independent third-party retailer incentives, payments made to third-parties, equipment and wireless device subsidies, installation services, and/or new customer promotions. While we attempt to recoup these upfront costs over the lives of their subscription, there can be no assurance that we will be successful in achieving that objective. With respect to our DISH TV services, we employ business rules such as minimum credit requirements for prospective customers and contractual commitments to receive service for a minimum term. We strive to provide outstanding customer service to increase the likelihood of customers keeping their Pay-TV services over longer periods of time. Subscriber acquisition costs for SLING TV subscribers are significantly lower than those for DISH TV subscribers. Our subscriber acquisition costs for our Retail Wireless subscribers are primarily related to subsidies on wireless devices. Our subscriber acquisition costs may vary significantly from period to period.

We incur significant costs to retain our existing DISH TV subscribers, mostly as a result of upgrading their equipment to next generation receivers, primarily including our Hopper receivers, and by providing retention credits. As with our subscriber acquisition costs, our retention upgrade spending includes the cost of equipment and installation services. In certain circumstances, we also offer programming at no additional charge and/or promotional pricing for limited periods to existing customers in exchange for a contractual commitment to receive service for a minimum term. A component of our retention efforts includes the installation of equipment for customers who move. Retention costs for Retail Wireless subscribers are primarily related to promotional pricing on upgraded wireless devices for qualified existing subscribers. Our DISH TV subscriber retention costs may vary significantly from period to period.

Seasonality

Historically, the first half of the year generally produces fewer gross new DISH TV subscriber activations than the second half of the year, as is typical in the pay-TV industry. In addition, the first and fourth quarters generally produce a lower DISH TV churn rate than the second and third quarters. However, in recent years, as the pay-TV industry has matured, we and our competitors increasingly must seek to attract a greater proportion of new subscribers from each other's existing subscriber bases rather than from first-time purchasers of pay-TV services. As a result, historical trends in seasonality described above may not be indicative of future trends.

Our net SLING TV subscriber additions are impacted by, among other things, certain major sporting events and other major television events. The first and third quarters generally produce higher gross new Retail Wireless subscribers. Due to the COVID-19 pandemic the historical trends discussed above, for both net Pay-TV subscriber additions and net Retail Wireless subscriber additions, may not be indicative of future trends.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Satellites

Operation of our DISH TV services requires that we have adequate satellite transmission capacity for the programming that we offer. Moreover, current competitive conditions require that we continue to expand our offering of new programming. While we generally have had in-orbit satellite capacity sufficient to transmit our existing channels and some backup capacity to recover the transmission of certain critical programming, our backup capacity is limited. In the event of a failure or loss of any of our owned or leased satellites, we may need to acquire or lease additional satellite capacity or relocate one of our other satellites and use it as 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 cause us to expend a significant portion of our cash to acquire or lease additional satellite capacity.

Covenants and Restrictions Related to our Long-Term Debt

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 issued by DISH DBS Corporation ("DISH DBS") contain restrictive covenants that, among other things, impose limitations on the ability of DISH DBS and its restricted subsidiaries to: (i) incur additional indebtedness; (ii) enter into sale and leaseback transactions; (iii) pay dividends or make distributions on DISH DBS' capital stock or repurchase DISH DBS' capital stock; (iv) make certain investments; (v) create liens; (vi) enter into certain transactions with affiliates; (vii) merge or consolidate with another company; and (viii) transfer or sell assets. Should we fail to comply with these covenants, all or a portion of the debt under the senior notes and our other long-term debt could become immediately payable. The senior notes also provide that the debt may be required to be prepaid if certain change-in-control events occur. In addition, the Convertible Notes provide that, if a "fundamental change" (as defined in the related indenture) occurs, holders may require us to repurchase for cash all or part of their Convertible Notes. As of the date of filing of this Quarterly Report on Form 10-Q, we and DISH DBS were in compliance with the covenants and restrictions related to our respective long-term debt.

Other

We are also vulnerable to fraud, particularly in the acquisition of new subscribers. While we are addressing the impact of subscriber fraud through a number of actions, there can be no assurance that we will not continue to experience fraud, which could impact our subscriber growth and churn. Economic weakness may create greater incentive for signal theft, piracy and subscriber fraud, which could lead to higher subscriber churn and reduced revenue.

Obligations and Future Capital Requirements

Contractual Obligations

See Note 11 in the Notes to our Condensed Consolidated Financial Statements for further information.

Future Capital Requirements

We expect to fund our future working capital, capital expenditures and debt service requirements from cash generated from operations, existing cash, cash equivalents and marketable investment securities balances, and cash generated through raising additional capital. We will need to make significant additional investments to, among other things, complete our 5G Network Deployment and further commercialize, build-out and integrate our wireless spectrum licenses and related assets. The amount of capital required to fund our future working capital and capital expenditure needs varies, depending on, among other things, the rate at which we deploy our 5G network and the rate at which we acquire new subscribers and the cost of subscriber acquisition and retention, including capitalized costs associated with our new and existing subscriber equipment lease programs.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Continued

Certain of our capital expenditures for 2021 are expected to be driven by the rate at which we deploy our 5G network as well as costs associated with subscriber premises equipment. These expenditures are necessary for the deployment of our 5G network as well as to operate and maintain our DISH TV services. Consequently, we consider them to be non-discretionary. Our capital expenditures vary depending on the number of satellites leased or under construction at any point in time and could increase materially as a result of increased competition, significant satellite failures, or economic weakness and uncertainty. Our DISH TV subscriber base has been declining and there can be no assurance that our DISH TV subscriber base will not continue to decline and that the pace of such decline will not accelerate. In the event that our DISH TV subscriber base continues to decline, it will have a material adverse long-term effect on our cash flow. In addition, the Northstar and SNR Operative Agreements, as amended, provide for, among other things, the SNR Put Right and the Northstar Put Right for a purchase price that equals the equity contribution to Northstar Spectrum and SNR HoldCo, respectively, plus a fixed annual rate of return. As of March 31, 2021, Northstar Manager's ownership interest in Northstar Spectrum and SNR Management's ownership interest in SNR HoldCo was $362 million, recorded as "Redeemable noncontrolling interests" on our Condensed Consolidated Balance Sheets.

We expect to incur capital expenditures in 2021 related to our 5G Network Deployment, including capital expenditures associated with our wireless projects and 5G Network Deployment, and potential purchase of additional wireless spectrum licenses. The amount of capital required will also depend on the levels of investment necessary to support potential strategic initiatives that may arise from time to time. These factors, including a reduction in our available future cash flows, could require that we raise additional capital in the future.

Volatility in the financial markets has made it more difficult at times for issuers of high-yield indebtedness, such as us, to access capital markets at acceptable terms. These developments may have a significant effect on our cost of financing and our liquidity position.

Boost Mobile Acquisition

See Note 5 in the Notes to our Condensed Consolidated Financial Statements for further information.

Wireless – 5G Network Deployment

See Note 11 in the Notes to our Condensed Consolidated Financial Statements for further information.

Availability of Credit and Effect on Liquidity

The ability to raise capital has generally existed for us despite economic weakness and uncertainty. While modest fluctuations in the cost of capital will not likely impact our current operational plans, significant fluctuations could have a material adverse effect on our business, results of operations and financial condition.

Debt Issuances and Maturity

During the three months ended March 31, 2021, we repurchased $205 million of our 6 3/4% Senior Notes due 2021 in open market trades. The remaining balance of $1.795 billion matures on June 1, 2021. We expect to fund this obligation from cash and marketable investment securities balances at that time. However, depending on market conditions, we may refinance this obligation in whole or in part.

Off-Balance Sheet Arrangements

We generally do not engage in off-balance sheet financing activities.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes in our market risk during the three months ended March 31, 2021. For additional information, see Item 7A. Quantitative and Qualitative Disclosures About Market Risk in Part II of our Annual Report on Form 10-K for the year ended December 31, 2020.

Item 4. CONTROLS AND PROCEDURES

Conclusion regarding 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 from our Annual Report on Form 10-K for the year ended December 31, 2020 (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.

PART II — OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

See Note 11 "*Commitments and Contingencies – Litigation*" in the Notes to our Condensed Consolidated Financial Statements for information regarding certain legal proceedings in which we are involved.

Item 1A. RISK FACTORS

Item 1A, "Risk Factors," of our Annual Report on Form 10-K for the year ended December 31, 2020 includes a detailed discussion of our risk factors.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

The following table provides information regarding repurchases of our Class A common stock from January 1, 2021 through March 31, 2021:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs	Maximum Approximate Dollar Value of Shares that May Yet be Purchased Under the Programs (1)
	(In thousands, except share data)			
January 1, 2021 - January 31, 2021	—	$ —	—	$ 1,000,000
February 1, 2021 - February 28, 2021	—	$ —	—	$ 1,000,000
March 1, 2021 - March 31, 2021	—	$ —	—	$ 1,000,000
Total	—	$	—	$ 1,000,000

(1) On October 30, 2020, our Board of Directors authorized stock repurchases of up to $1.0 billion of our outstanding Class A common stock through and including December 31, 2021. Purchases under our repurchase program may be made through open market purchases, privately negotiated transactions, or Rule 10b5-1 trading plans, subject to market conditions and other factors. We may elect not to purchase the maximum amount of shares allowable under this program and we may also enter into additional share repurchase programs authorized by our Board of Directors.

Item 6. EXHIBITS

(a) *Exhibits.*

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 Quarterly Report on Form 10-Q of DISH Network for the quarter ended March 31, 2021 filed on April 29, 2021, formatted in Inline eXtensible Business Reporting Language ("iXBRL"): (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Operations and Comprehensive Income (Loss), (iii) Condensed Consolidated Statements of Changes in Stockholders' Equity (Deficit), (iv) Condensed 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).

* Filed herewith.

SIGNATURES

Pursuant to the requirements 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 NETWORK CORPORATION

By: /s/ *W. Erik Carlson*
W. Erik Carlson
President and Chief Executive Officer
(Duly Authorized Officer)

By: */s/ Paul W. Orban*
Paul W. Orban
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Date: April 29, 2021

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Section 302 Certification

I, W. Erik Carlson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of DISH Network Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 29, 2021

/s/ W. Erik Carlson
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Section 302 Certification

I, Paul W. Orban, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of DISH Network Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 29, 2021

/s/ Paul W. Orban
Executive Vice President and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Section 906 Certification

Pursuant to 18 U.S.C. § 1350, the undersigned officer of DISH Network Corporation (the "Company") hereby certifies that to the best of his knowledge the Company's Quarterly Report on Form 10-Q for the three months ended March 31, 2021 (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: April 29, 2021

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.

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Section 906 Certification

Pursuant to 18 U.S.C. § 1350, the undersigned officer of DISH Network Corporation (the “Company”) hereby certifies that to the best of his knowledge the Company’s Quarterly Report on Form 10-Q for the three months ended March 31, 2021 (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: April 29, 2021

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.