Table of Contents

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, 2020.

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: 333-179121

Hughes Satellite Systems Corporation

(Exact name of registrant as specified in its charter)

Colorado	**45-0897865**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
100 Inverness Terrace East, Englewood, Colorado	**80112-5308**
(Address of principal executive offices)	(Zip Code)
(303) 706-4000	**Not Applicable**
(Registrant's telephone number, including area code)	(Former name, former address and former fiscal year, if changed since last report)

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 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. (Check one):

Large accelerated filer	☐	Accelerated filer	☐	Emerging growth company	☐
Non-accelerated filer	☒	Smaller reporting 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 30, 2020, the registrant's outstanding common stock consisted of 1,078 shares of common stock, $0.01 par value per share.

The registrant meets the conditions set forth in General Instructions (H)(1)(a) and (b) of Form 10-Q and is therefore filing this Form 10-Q with the reduced disclosure format.

* The registrant currently is not subject to the filing requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934 and is filing this Quarterly Report on Form 10-Q on a voluntary basis. The registrant 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 as if it were subject to such filing requirements during the entirety of such period.

TABLE OF CONTENTS

Disclosure Regarding Forward-Looking Statements		i

PART I - FINANCIAL INFORMATION

Item 1.	Financial Statements	1
	Condensed Consolidated Balance Sheets as of March 31, 2020 (unaudited) and December 31, 2019 (audited)	1
	Condensed Consolidated Statements of Operations for the three months ended March 31, 2020 and 2019 (unaudited)	2
	Condensed Consolidated Statements of Comprehensive Income (Loss) for the three months ended March 31, 2020 and 2019 (unaudited)	3
	Condensed Consolidated Statements of Changes in Shareholder's Equity for the three months ended March 31, 2020 and 2019 (unaudited)	4
	Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2020 and 2019 (unaudited)	5
	Notes to Condensed Consolidated Financial Statements (unaudited)	6
Item 2.	Management's Narrative Analysis of Results of Operations	47
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	*
Item 4.	Controls and Procedures	58

PART II - OTHER INFORMATION

Item 1.	Legal Proceedings	59
Item 1A.	Risk Factors	59
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	*
Item 3.	Defaults Upon Senior Securities	*
Item 4.	Mine Safety Disclosures	60
Item 5.	Other Information	61
Item 6.	Exhibits	61
	Signatures	62

* This item has been omitted pursuant to the reduced disclosure format as set forth in General Instructions (H)(2) of Form 10-Q.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q ("Form 10-Q") contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including but not limited to statements about our estimates, expectations, plans, objectives, strategies, financial condition, expected impact of regulatory developments and legal proceedings, opportunities in our industries and businesses and other trends and projections for the next fiscal quarter and beyond. All statements, other than statements of historical facts, may be forward-looking statements. Forward-looking statements may also be identified by words such as "anticipate," "intend," "plan," "goal," "seek," "believe," "estimate," "expect," "predict," "continue," "future," "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 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 potential known and unknown risks, uncertainties and other factors, many of which may be beyond our control and may pose a risk to our operating and financial condition. Accordingly, actual performance, events or results could differ materially from those expressed or implied in the forward-looking statements due to a number of factors including, but not limited to:

- significant risks related to the construction and operation of our satellites, such as the risk of not being able to timely complete the construction of or material malfunction on one or more of our satellites, changes in the space weather environment that could interfere with the operation of our satellites and our general lack of commercial insurance coverage on our satellites;
- our ability and the ability of third parties with whom we engage in order to operate our business, including customers, suppliers, vendors, financing sources, governmental entities and others, to successfully or fully operate as a result of outbreaks of viruses or widespread illness, including existing, continuing and future impacts and consequences of the COVID-19 pandemic caused by the novel coronavirus;
- our ability to implement and/or realize benefits of our domestic and/or international investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions;
- lawsuits relating to the BSS Transaction or AGR matter (each as defined herein), which could result in substantial costs and, for the AGR matter, material adverse effects on our business, results of operation, financial condition and prospects in India;
- our ability to realize the anticipated benefits of our current satellites and any future satellite we may construct or acquire;
- risks related to our foreign operations and other uncertainties associated with doing business internationally, including changes in foreign exchange rates between foreign currencies and the United States ("U.S.") dollar, economic instability, political disturbances and the consequences of being subject to foreign regulation and foreign legal proceedings, including increased operations costs and potential fines and penalties for violations, which may be substantial;
- the failure of third-party providers of components, manufacturing, installation services and customer support services to appropriately deliver the contracted goods or services; and
- our ability to bring advanced technologies to market to keep pace with our customers and competitors.

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 II, Item 1A of this Form 10-Q and in Part I, Item 1A of our most recent Annual Report on Form 10-K ("Form 10-K") filed with the Securities and Exchange Commission ("SEC"), those discussed in Management's Narrative Analysis of Results of Operations in Part I, Item 2 of this Form 10-Q and in Part II, Item 7 of our Form 10-K and those discussed in other documents we file with the SEC.

All cautionary statements made herein should be read as being applicable to all forward-looking statements wherever they appear. Investors should consider the risks and uncertainties described herein and should not place undue reliance on any forward-looking statements. We do not undertake, and specifically disclaim, any obligation to publicly release the results of any revisions that may be made to any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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

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

PART I — FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except share and per share amounts)
(Unaudited)

	As of	
	March 31, 2020	**December 31, 2019**
Assets		
Current assets:		
Cash and cash equivalents	$ 1,228,361	$ 1,139,435
Marketable investment securities	524,941	652,835
Trade accounts receivable and contract assets, net	187,812	196,520
Other current assets, net	315,371	301,652
Total current assets	2,256,485	2,290,442
Non-current assets:		
Property and equipment, net	1,750,561	1,857,581
Operating lease right-of-use assets	119,711	113,399
Goodwill	509,315	506,953
Regulatory authorizations, net	411,243	412,363
Other intangible assets, net	25,663	29,321
Other investments, net	108,952	110,040
Other non-current assets, net	256,775	251,936
Total non-current assets	3,182,220	3,281,593
Total assets	$ 5,438,705	$ 5,572,035
Liabilities and Shareholder's Equity		
Current liabilities:		
Trade accounts payable	$ 106,339	$ 121,552
Contract liabilities	99,266	101,060
Accrued expenses and other current liabilities	231,890	258,417
Total current liabilities	437,495	481,029
Non-current liabilities:		
Long-term debt	2,390,218	2,389,168
Deferred tax liabilities, net	381,221	380,316
Operating lease liabilities	105,457	96,879
Other non-current liabilities	88,596	90,480
Total non-current liabilities	2,965,492	2,956,843
Total liabilities	3,402,987	3,437,872
Commitments and contingencies		
Shareholder's equity:		
Preferred stock, $0.001 par value, 1,000,000 shares authorized, none issued and outstanding at both March 31, 2020 and December 31, 2019	—	—
Common stock, $0.01 par value, 1,000,000 shares authorized, 1,078 shares issued and outstanding at both March 31, 2020 and December 31, 2019	—	—
Additional paid-in capital	1,483,747	1,478,636
Accumulated other comprehensive income (loss)	(154,033)	(84,636)
Accumulated earnings (losses)	647,775	664,415
Total Hughes Satellite Systems Corporation shareholder's equity	1,977,489	2,058,415
Non-controlling interests	58,229	75,748
Total shareholder's equity	2,035,718	2,134,163
Total liabilities and shareholder's equity	$ 5,438,705	$ 5,572,035

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Amounts in thousands)
(Unaudited)

	For the three months ended March 31,	
	2020	**2019**
Revenue:		
Services and other revenue	$ 410,238	$ 403,485
Equipment revenue	57,309	51,714
Total revenue	467,547	455,199
Costs and expenses:		
Cost of sales - services and other (exclusive of depreciation and amortization)	143,885	142,086
Cost of sales - equipment (exclusive of depreciation and amortization)	45,908	45,007
Selling, general and administrative expenses	115,860	102,337
Research and development expenses	6,254	6,888
Depreciation and amortization	125,965	112,411
Total costs and expenses	437,872	408,729
Operating income (loss)	29,675	46,470
Other income (expense):		
Interest income, net	8,892	17,997
Interest expense, net of amounts capitalized	(42,192)	(57,915)
Gains (losses) on investments, net	(164)	(346)
Equity in earnings (losses) of unconsolidated affiliates, net	(1,087)	(1,072)
Foreign currency transaction gains (losses), net	(7,528)	211
Other, net	(278)	(165)
Total other income (expense), net	(42,357)	(41,290)
Income (loss) from continuing operations before income taxes	(12,682)	5,180
Income tax benefit (provision), net	(5,231)	(4,872)
Net income (loss) from continuing operations	(17,913)	308
Net income (loss) from discontinued operations	—	22,724
Net income (loss)	(17,913)	23,032
Less: Net loss (income) attributable to non-controlling interests	3,442	(806)
Net income (loss) attributable to Hughes Satellite Systems Corporation	$ (14,471)	$ 22,226

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Amounts in thousands)
(Unaudited)

	For the three months ended March 31,	
	2020	2019
Net income (loss)	$ (17,913)	$ 23,032
Other comprehensive income (loss), net of tax:		
Foreign currency translation	(82,836)	(838)
Unrealized gains (losses) on available-for-sale debt securities	(2,479)	2,353
Other	(405)	33
Amounts reclassified to net income (loss):		
Realized losses (gains) on available-for-sale debt securities	—	(385)
Total other comprehensive income (loss), net of tax	(85,720)	1,163
Comprehensive income (loss)	(103,633)	24,195
Less: Comprehensive loss (income) attributable to non-controlling interests	19,765	(806)
Comprehensive income (loss) attributable to Hughes Satellite Systems Corporation	$ (83,868)	$ 23,389

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDER'S EQUITY
FOR THE THREE MONTHS ENDED MARCH 31, 2020 AND 2019
(Amounts in thousands)
(Unaudited)

	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Earnings (Losses)	Non-controlling Interests	Total
Balance, December 31, 2018	$ 1,767,037	$ (83,774)	$ 693,957	$ 15,275	$ 2,392,495
Stock-based compensation	1,433	—	—	—	1,433
Purchase of non-controlling interest	(2,666)	—	—	(4,647)	(7,313)
Other comprehensive income (loss)	—	1,163	—	—	1,163
Net income (loss)	—	—	22,226	806	23,032
Other, net	(323)	—	—	—	(323)
Balance, March 31, 2019	$ 1,765,481	$ (82,611)	$ 716,183	$ 11,434	$ 2,410,487
Balance, December 31, 2019	$ 1,478,636	$ (84,636)	$ 664,415	$ 75,748	$ 2,134,163
Cumulative effect of accounting changes	—	—	(2,169)	(240)	(2,409)
Balance, January 1, 2020	1,478,636	(84,636)	662,246	75,508	2,131,754
Stock-based compensation	1,457	—	—	—	1,457
Issuance of equity and contribution of assets pursuant to the Yahsat JV formation	4,338	—	—	(1,514)	2,824
Contribution by non-controlling interest holder	—	—	—	4,000	4,000
Other comprehensive income (loss)	—	(69,397)	—	(16,323)	(85,720)
Net income (loss)	—	—	(14,471)	(3,442)	(17,913)
Other, net	(684)	—	—	—	(684)
Balance, March 31, 2020	$ 1,483,747	$ (154,033)	$ 647,775	$ 58,229	$ 2,035,718

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)
(Unaudited)

	For the three months ended March 31, 2020	2019
Cash flows from operating activities:		
Net income (loss)	$ (17,913)	$ 23,032
Adjustments to reconcile net income (loss) to net cash flows from operating activities:		
Depreciation and amortization	125,965	143,530
Losses (gains) on investments, net	164	346
Equity in losses (earnings) of unconsolidated affiliates, net	1,087	1,072
Foreign currency transaction losses (gains), net	7,528	(211)
Deferred tax provision (benefit), net	1,526	9,936
Stock-based compensation	1,457	1,433
Amortization of debt issuance costs	1,050	2,010
Other, net	(810)	1,370
Changes in assets and liabilities, net:		
Trade accounts receivable and contract assets, net	(8,162)	(19,228)
Other current assets, net	(21,268)	(11,098)
Trade accounts payable	(10,984)	8,122
Contract liabilities	(3,213)	17,931
Accrued expenses and other current liabilities	(5,007)	(13,450)
Non-current assets and non-current liabilities, net	(6,196)	6,170
Net cash flows from operating activities	65,224	170,965
Cash flows from investing activities:		
Purchases of marketable investment securities	(365,877)	(240,188)
Sales and maturities of marketable investment securities	490,020	468,745
Expenditures for property and equipment	(91,517)	(73,929)
Expenditures for externally marketed software	(8,638)	(7,600)
Net cash flows from investing activities	23,988	147,028
Cash flows from financing activities:		
Repurchase of the 2019 Senior Secured Notes	—	(8,046)
Payment of finance lease obligations	(215)	(9,882)
Payment of in-orbit incentive obligations	(203)	(1,573)
Contribution by non-controlling interest holder	4,000	—
Purchase of non-controlling interest	—	(7,312)
Other, net	979	—
Net cash flows from financing activities	4,561	(26,813)
Effect of exchange rates on cash and cash equivalents	(4,618)	(117)
Net increase (decrease) in cash and cash equivalents	89,155	291,063
Cash and cash equivalents, including restricted amounts, beginning of period	1,140,322	848,619
Cash and cash equivalents, including restricted amounts, end of period	$ 1,229,477	$ 1,139,682

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1. ORGANIZATION AND BUSINESS ACTIVITIES

Principal Business

Hughes Satellite Systems Corporation (which, together with its subsidiaries, is referred to as "HSSC," the "Company," "we," "us" and "our") is a holding company and a subsidiary of EchoStar Corporation ("EchoStar"). We are a global provider of broadband satellite technologies, broadband internet services for consumer customers, which include home and small to medium-sized businesses, and satellite services. We also deliver innovative network technologies, managed services and communications solutions for enterprise customers, which include aeronautical and government enterprises. We operate in the following two business segments:

- ***Hughes*** — which provides broadband satellite technologies and broadband internet services to domestic and international consumer customers and broadband network technologies, managed services, equipment, hardware, satellite services and communication solutions to service providers and enterprise customers. The Hughes segment also designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment designs, develops, constructs and provides telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and our enterprise customers.
- ***ESS*** — which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite services on a full-time and/or occasional-use basis to U.S. government service providers, internet service providers, broadcast news organizations, content providers and private enterprise customers.

Our operations also include various corporate departments (primarily Executive, Treasury, Strategic Development, Human Resources, IT, Finance, Accounting, Real Estate and Legal) and other activities that have not been assigned to our business segments such as costs incurred in certain satellite development programs and other business development activities, and gains or losses from certain of our investments. These activities, costs and income, as well as eliminations of intersegment transactions, are accounted for in *Corporate and Other*. We also divide our operations by primary geographic market as follows: (i) North America (the U.S. and its territories, Mexico, and Canada); (ii) South and Central America and; (iii) All other (Asia, Africa, Australia, Europe, India, and the Middle East). Refer to *Note 13. Segment Reporting* for further detail.

In September 2019, pursuant to a master transaction agreement (the "Master Transaction Agreement") with DISH Network Corporation ("DISH") and a wholly-owned subsidiary of DISH ("Merger Sub"), (i) EchoStar and its subsidiaries and we and our subsidiaries transferred certain real property and the various businesses, products, licenses, technology, revenues, billings, operating activities, assets and liabilities primarily related to the former portion of our ESS segment that managed, marketed and provided (1) broadcast satellite services primarily to DISH and its subsidiaries (together with DISH, "DISH Network") and EchoStar's joint venture Dish Mexico, S. de R.L. de C.V. ("Dish Mexico") and its subsidiaries, and (2) telemetry, tracking and control ("TT&C") services for satellites owned by DISH Network and a portion of EchoStar's and our other businesses (collectively, the "BSS Business") to one of our former subsidiaries, EchoStar BSS Corporation ("BSS Corp."), (ii) EchoStar distributed to each holder of shares of EchoStar's Class A or Class B common stock entitled to receive consideration in the transaction an amount of shares of common stock of BSS Corp., par value $0.001 per share ("BSS Common Stock"), equal to one share of BSS Common Stock for each share of EchoStar's Class A or Class B common stock owned by such EchoStar stockholder (the "Distribution"); and (iii) immediately after the Distribution, (1) Merger Sub merged with and into BSS Corp. (the "Merger"), such that BSS Corp. became a wholly-owned subsidiary of DISH and with DISH then owning and operating the BSS Business, and (2) each issued and outstanding share of BSS Common Stock owned by EchoStar stockholders was converted into the right to receive 0.23523769 shares of DISH Class A common stock, par value $0.001 per share ("DISH Common Stock") ((i) - (iii) collectively, the "BSS Transaction").

Following the consummation of the BSS Transaction, we no longer operate the BSS Business, which was a substantial portion of our ESS segment. As a result of the BSS Transaction, the financial results of the BSS Business, except for certain real estate that transferred in the transaction, are presented as discontinued operations and, as such, excluded from continuing operations and segment results for the three months ended March 31, 2019, as presented in these unaudited Condensed Consolidated Financial Statements and the accompanying notes (collectively, the “Condensed Consolidated Financial Statements”).

All amounts in the following footnotes reference results from continuing operations unless otherwise noted. Refer to *Note 4. Discontinued Operations* for further detail.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

These Condensed Consolidated Financial Statements are prepared in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) and the instructions to Form 10-Q and Article 10 of Regulation S-X for interim financial information. Accordingly, they do not include all of the information and notes required for complete financial statements prepared in conformity with U.S. GAAP. In our opinion, all adjustments, consisting of normal recurring adjustments, considered necessary for a fair presentation have been included. However, our results of operations for the interim periods presented are not necessarily indicative of the results that may be expected for the full year.

All amounts presented in these Condensed Consolidated Financial Statements are expressed in thousands of U.S. dollars, except share and per share amounts and unless otherwise noted.

Refer to *Note 2. Summary of Significant Accounting Policies* to the consolidated financial statements in our Form 10-K for a summary and discussion of our significant accounting policies, except as updated below.

Use of Estimates

We are required to make certain estimates and assumptions that affect the amounts reported in these Condensed Consolidated Financial Statements. The most significant estimates and assumptions are used in determining: (i) inputs used to recognize revenue over time, including amortization periods for deferred contract acquisition costs; (ii) allowances for doubtful accounts; (iii) deferred taxes and related valuation allowances, including uncertain tax positions; (iv) loss contingencies; (v) fair value of financial instruments; (vi) fair value of assets and liabilities acquired in business combinations; and (vii) asset impairment testing.

We base our estimates and assumptions on historical experience, observable market inputs and on various other factors that we believe to be relevant under the circumstances. Due to the inherent uncertainty involved in making estimates, actual results may differ from previously estimated amounts and such differences may be material to our consolidated financial statements. Additionally, changing economic and other conditions may increase the inherent uncertainty in the estimates and assumptions indicated above. We review our estimates and assumptions periodically and the effects of revisions thereto are reflected in the period they occur or prospectively if the revised estimates or assumptions affect future periods.

Principles of Consolidation

We consolidate all entities in which we have a controlling financial interest. We are deemed to have a controlling financial interest in variable interest entities in which we are the primary beneficiary and in other entities in which we own more than 50% of the outstanding voting shares and other shareholders do not have substantive rights to participate in management. For entities we control but do not wholly own, we record a non-controlling interest within shareholder’s equity for the portion of the entity’s equity attributed to the non-controlling ownership interests. All significant intercompany balances and transactions have been eliminated in consolidation.

Reclassification

Certain prior period amounts have been reclassified to conform with the current period presentation.

Recently Adopted Accounting Pronouncements

Credit Losses

On January 1, 2020, we adopted Accounting Standards Update ("ASU") No. 2016-13 - *Financial Instruments - Credit Losses (Topic 326)*, as amended, and codified in Accounting Standards Codification Topic 326 ("ASC 326"). ASC 326 introduces a new approach to the periodic estimation of credit losses for certain financial assets based on expected losses instead of incurred losses. It also modifies the impairment model for available-for-sale debt securities and provides a simplified accounting model for purchased financial assets that have experienced credit deterioration since their original purchase. We have elected to apply the requirements of the new standard prospectively and we recognized a cumulative effect of adoption of $2.2 million to *Accumulated earnings (losses)* as of January 1, 2020. Based on this election, we did not restate our comparative Condensed Consolidated Financial Statements and they continue to be reported under the accounting standards in effect for the periods before January 1, 2020.

The following describes the accounting impacts, by major balance sheet line item, of our adoption of this new standard based on the relevant types of losses that we and our equity method investees may be subject to:

- ***Trade Accounts Receivable and Contract Assets, Net*** — Our trade accounts receivables and contract assets consist of amounts due from both our consumer and enterprise customers. Our receivables and related credit losses for our consumer customers are limited due to policies that require advance payment for services, predominant use of credit card and ACH payment processes, and our ability to promptly terminate service when timely payments are not received. However, for our enterprise customers, we estimate expected credit losses on a collective basis based on our historical loss experience, as adjusted to reflect changes in relevant factors, such as macroeconomic conditions and customer mix, that can significantly impact collectability.

  We apply our collective estimation processes separately to several pools of receivables that share common risk characteristics, generally based on the customers' geographical location. Customers with significant past-due balances or other atypical characteristics are excluded from our collective analysis and evaluated on a case-by-case basis. Our estimates of expected credit losses for such receivables reflect significant judgments that consider customer-specific matters such as the customer's financial condition, payment history, and recent developments in the customer's business and industry. Due to the short-term nature of our trade receivables and contract assets, forecasts about the future have limited relevance to our expected credit loss estimates.

  We record our customer related estimated credit losses as a component of our bad debt expense as reported in *Selling, general and administrative expenses.*

- ***Other Current Assets, Net,*** **and** ***Other Non-current Assets, Net*** — We estimate expected credit losses for receivables with payment terms longer than one year separately by borrower, due to the unique risk characteristics of such receivables. We generally use discounted cash flow techniques to estimate such credit losses. In applying such techniques, we may estimate principal and interest cash flows under probability-weighted scenarios that consider entity-specific matters and forecasted economic conditions. The majority of our other non-current receivables are from entities in the telecommunications industry. The collection of contractual principal and interest on these receivables is highly dependent on the future business operations of those entities. Our estimation of expected credit losses for such receivables requires significant judgment about matters specific to the borrower and their industry. Accordingly, our actual collection experience may differ from the assumptions reflected in our expected credit loss estimates.

  We record our estimated credit losses as a component of our bad debt expense as reported in *Selling, general and administrative expenses.*

Financial Impact of Adoption. Our adoption of this new standard resulted in the following adjustments to our Condensed Consolidated Balance Sheet:

	Balance at December 31, 2019	Adoption of ASC 326 Increase (Decrease)	Balance at January 1, 2020
Trade accounts receivable and contract assets, net	$ 196,520	$ (13,672)	$ 182,848
Other current assets, net	$ 301,652	$ 6,723	$ 308,375
Other non-current assets, net	$ 251,936	$ 4,050	$ 255,986
Total assets	$ 5,572,035	$ (2,899)	$ 5,569,136
Deferred tax liabilities, net	$ 380,316	$ (490)	$ 379,826
Accumulated earnings (losses)	$ 664,415	$ (2,169)	$ 662,246
Non-controlling interests	$ 75,748	$ (240)	$ 75,508
Total shareholder's equity	$ 2,134,163	$ (2,409)	$ 2,131,754
Total liabilities and shareholder's equity	$ 5,572,035	$ (2,899)	$ 5,569,136

The application of ASC 326 requirements did not materially affect our Condensed Consolidated Statements of Operations for the three months ended March 31, 2020.

Recently Issued Accounting Pronouncements Not Yet Adopted

In December 2019, the Financial Accounting Standards Board ("FASB") issued ASU No. 2019-12 - *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"). ASU 2019-12 is part of the FASB's overall simplification initiative and seeks to simplify the accounting for income taxes by updating certain guidance and removing certain exceptions. The updated guidance is effective for fiscal years beginning after December 15, 2020 and interim periods within those fiscal years. Early adoption is permitted. We are currently assessing the impact of adopting this new guidance.

In March 2020, the FASB issued ASU No. 2020-04 - *Reference Rate Reform (Topic 848),* codified as ASC 848 ("ASC 848"). The purpose of ASC 848 is to provide optional guidance to ease the potential effects on financial reporting of the market-wide migration away from Interbank Offered Rates ("IBORs") to alternative reference rates. ASC 848 applies only to contracts, hedging relationships, and other transactions that reference a reference rate expected to be discontinued because of reference rate reform. The guidance may be applied upon issuance of ASC 848 through December 31, 2022. We are currently assessing the impact of adopting this new guidance, but do not expect it to have a material impact on our consolidated financial statements.

NOTE 3. REVENUE RECOGNITION

Contract Balances

The following table presents the components of our contract balances:

	As of	
	March 31, 2020	December 31, 2019
Trade accounts receivable and contract assets, net:		
Sales and services	$ 147,288	$ 152,632
Leasing	4,194	4,016
Total trade accounts receivable	151,482	156,648
Contract assets	46,938	63,649
Allowance for doubtful accounts	(10,608)	(23,777)
Total trade accounts receivable and contract assets, net	$ 187,812	$ 196,520
Contract liabilities:		
Current	$ 99,266	$ 101,060
Non-current	9,426	10,572
Total contract liabilities	$ 108,692	$ 111,632

For the three months ended March 31, 2020 and 2019, we recognized revenue of $52.2 million and $39.5 million, respectively, that were previously included in the contract liability balances as of December 31, 2019 and 2018, respectively.

The following table presents the activity in our allowance for doubtful accounts:

	Balance at Beginning of Period	Credit Losses [1]	Deductions	Foreign Currency Translation	Balance at End of Period
For the three months ended:					
March 31, 2020	$ 23,777	$ (5,754)	$ (6,325)	$ (1,090)	$ 10,608
March 31, 2019	$ 16,604	$ 4,177	$ (6,738)	$ (15)	$ 14,028

[1] The impact of adopting ASC 326 on January 1, 2020 was a net decrease to our allowance for doubtful accounts largely driven by a $13.4 million reclassification to *Other current assets, net* and *Other non-current assets, net*, offset by a $2.9 million adjustment to *Accumulated earnings (losses)*.

Contract Acquisition Costs

The following table presents our unamortized contract acquisition costs:

	As of	
	March 31, 2020	December 31, 2019
Unamortized contract acquisition costs	$ 110,397	$ 113,592

The following table presents the amortization of our contract acquisition costs:

	For the three months ended March 31,	
	2020	2019
Amortization expense	$ 25,431	$ 21,115

Transaction Price Allocated to Remaining Performance Obligations

As of March 31, 2020, the remaining performance obligations for our customer contracts with original expected durations of more than one year was $736.6 million. We expect to recognize 39.6% of our remaining performance obligations of these contracts as revenue in the next twelve months. This amount excludes agreements with consumer customers in our Hughes segment, our leasing arrangements and agreements with certain customers under which collectability of all amounts due through the term of contracts is uncertain.

Disaggregation of Revenue

Geographic Information

The following table presents our revenue from customer contracts disaggregated by primary geographic market and by segment:

	Hughes	ESS	Corporate and Other	Consolidated Total
For the three months ended March 31, 2020				
North America	$ 382,715	$ 4,652	$ (285)	$ 387,082
South and Central America	33,956	—	—	33,956
Other	41,811	—	4,698	46,509
Total revenue	$ 458,482	$ 4,652	$ 4,413	$ 467,547
For the three months ended March 31, 2019				
North America	$ 367,829	$ 4,033	$ 1,005	$ 372,867
South and Central America	26,863	—	—	26,863
Other	50,645	—	4,824	55,469
Total revenue	$ 445,337	$ 4,033	$ 5,829	$ 455,199

Nature of Products and Services

The following table presents our revenue disaggregated by the nature of products and services and by segment:

	Hughes	ESS	Corporate and Other	Consolidated Total
For the three months ended March 31, 2020				
Services and other revenue:				
Services	$ 390,000	$ 2,765	$ —	$ 392,765
Lease revenue	11,173	1,887	4,413	17,473
Total services and other revenue	401,173	4,652	4,413	410,238
Equipment revenue:				
Equipment	24,839	—	—	24,839
Design, development and construction services	31,557	—	—	31,557
Lease revenue	913	—	—	913
Total equipment revenue	57,309	—	—	57,309
Total revenue	$ 458,482	$ 4,652	$ 4,413	$ 467,547
For the three months ended March 31, 2019				
Services and other revenue:				
Services	$ 380,783	$ 2,817	$ 322	$ 383,922
Lease revenue	12,840	1,216	5,507	19,563
Total services and other revenue	393,623	4,033	5,829	403,485
Equipment revenue:				
Equipment	25,960	—	—	25,960
Design, development and construction services	25,066	—	—	25,066
Lease revenue	688	—	—	688
Total equipment revenue	51,714	—	—	51,714
Total revenue	$ 445,337	$ 4,033	$ 5,829	$ 455,199

Lease Revenue

The following table presents our lease revenue by type of lease:

	For the three months ended March 31,	
	2020	2019
Sales-type lease revenue:		
Revenue at lease commencement	$ 913	$ 688
Interest income	69	252
Total sales-type lease revenue	982	940
Operating lease revenue	17,404	19,311
Total lease revenue	$ 18,386	$ 20,251

Substantially all of our net investment in sales-type leases consisted of lease receivables totaling $6.6 million and $6.5 million as of March 31, 2020 and December 31, 2019, respectively.

The following table presents future operating lease payments to be received as of March 31, 2020:

Year ending December 31,	Amounts
2020 (remainder)	$ 27,691
2021	34,910
2022	32,052
2023	30,285
2024	28,219
2025 and beyond	123,520
Total lease payments	$ 276,677

The following table presents amounts for assets subject to operating leases, which are included in *Property and equipment, net*:

	As of					
	March 31, 2020			December 31, 2019		
	Cost	Accumulated Depreciation	Net	Cost	Accumulated Depreciation	Net
Customer premises equipment	$ 1,488,031	$ (1,123,861)	$ 364,170	$ 1,458,298	$ (1,074,968)	$ 383,330
Satellites	104,620	(33,104)	71,516	104,620	(31,360)	73,260
Total	$ 1,592,651	$ (1,156,965)	$ 435,686	$ 1,562,918	$ (1,106,328)	$ 456,590

The following table presents depreciation expense for assets subject to operating leases, which is included in *Depreciation and amortization*:

	For the three months ended March 31,	
	2020	2019
Customer premises equipment	$ 49,504	$ 49,712
Satellites	1,744	1,737
Real estate	—	217
Total	$ 51,248	$ 51,666

Table of Contents

NOTE 4. DISCONTINUED OPERATIONS

BSS Business

The following table presents the financial results of our discontinued operations for the BSS Business for the three months ended March 31, 2019:

		Amounts
Revenue:		
Services and other revenue - DISH Network	$	70,826
Services and other revenue - other		6,400
Total revenue		77,226
Costs and expenses:		
Cost of sales - services and other (exclusive of depreciation and amortization)		10,217
Selling, general and administrative expenses		20
Depreciation and amortization		31,119
Total costs and expenses		41,356
Operating income (loss)		35,870
Other income (expense):		
Interest expense		(6,498)
Total other income (expense), net		(6,498)
Income (loss) from discontinued operations before income taxes		29,372
Income tax benefit (provision), net		(6,648)
Net income (loss) from discontinued operations	$	22,724

No assets or liabilities attributable to our discontinued operations of the BSS Business were held by us as of March 31, 2020 or December 31, 2019.

The following table presents the significant supplemental cash flow information and adjustments to reconcile net income to net cash flow from operating activities for discontinued operations of the BSS Business for the three months ended March 31, 2019:

		Amounts
Operating activities:		
Net income (loss) from discontinued operations	$	22,724
Depreciation and amortization	$	31,119
Investing activities:		
Expenditures for property and equipment	$	108
Financing activities:		
Payment of finance lease obligations	$	9,597
Payment of in-orbit incentive obligations	$	1,035

Terminated or Transferred Related Party Agreements

Effective September 10, 2019, the following agreements were terminated or transferred to DISH Network as part of the BSS Transaction. Unless noted differently below, we have no further obligations and have neither earned additional revenue nor incurred additional expense, as applicable, under or in connection with these agreements after the consummation of the BSS Transaction.

DBS Transponder Lease. EchoStar leased satellite capacity from us on eight direct broadcast satellite ("DBS") transponders on the QuetzSat-1 satellite through November 2021, after which EchoStar had certain options to renew the agreement on a year-to year basis through the end of life of the QuetzSat-1 satellite.

EchoStar XXIII Launch Facilitation and Operational Control Agreement. As part of applying for the launch license for the EchoStar XXIII satellite through the UK Space Agency, we and a subsidiary of EchoStar, EchoStar Operating L.L.C. ("EOC"), entered into an agreement in March 2016 to transfer to us EOC's launch service contracts for the EchoStar XXIII satellite and to grant us certain rights to control its in-orbit operations. EOC retained ownership of the satellite and agreed to make additional payments to us for amounts that we were required to pay under the launch service contract. In 2016, we recorded additions to *Other non-current assets, net* and corresponding increases in *Additional paid-in capital* in the Condensed Consolidated Balance Sheet to reflect EOC's cumulative payments under the launch service contract prior to the transfer date and to reflect EOC's funding of additional cash payments to the launch service provider. The EchoStar XXIII satellite was successfully launched in March 2017. We recorded decreases in *Other non-current assets, net* and *Additional paid-in capital* of $62.0 million, representing the carrying amount of the launch service contract at the time of launch to reflect the consumption of the contract's economic benefits by EOC.

Satellite Capacity Leased to DISH Network. We entered into certain agreements to lease satellite capacity pursuant to which we provided satellite services to DISH Network on certain satellites, as listed below, owned or leased by us. The fees for the services provided under these agreements depended, among other things, upon the orbital location of the applicable satellite, the number of transponders that provided services on the applicable satellite and the length of the service arrangements. The terms of each of the agreements are set forth below:

- ***EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV*** — In March 2014, we began leasing certain satellite capacity to DISH Network on the EchoStar VII satellite, the EchoStar X satellite, the EchoStar XI satellite and the EchoStar XIV satellite.

- ***EchoStar XII*** — DISH Network leased satellite capacity from us on the EchoStar XII satellite.

- ***EchoStar XVI*** — In December 2009, we entered into an agreement to lease satellite capacity to DISH Network, pursuant to which DISH Network leased satellite capacity from us on the EchoStar XVI satellite beginning in January 2013.

- ***Nimiq 5 Agreement*** — In September 2009, we entered into an agreement with Telesat Canada to lease satellite capacity from Telesat Canada on all 32 direct broadcast satellite ("DBS") transponders on the Nimiq 5 satellite at the 72.7 degree west longitude orbital location (the "Telesat Transponder Agreement"). In September 2009, we entered into an agreement with DISH Network, pursuant to which DISH Network leased satellite capacity from us on all 32 of the DBS transponders covered by the Telesat Transponder Agreement (the "DISH Nimiq 5 Agreement"). Under the terms of the DISH Nimiq 5 Agreement, DISH Network made certain monthly payments to us that commenced in September 2009, when the Nimiq 5 satellite was placed into service. Following the consummation of the BSS Transaction, we retained certain obligations related to DISH Network's performance under the Telesat Transponder Agreement.

- ***QuetzSat-1 Agreement*** — In November 2008, we entered into an agreement to lease satellite capacity from SES Latin America, which provided, among other things, for the provision by SES Latin America to us of leased satellite capacity on 32 DBS transponders on the QuetzSat-1 satellite. Concurrently, in 2008, we entered into an agreement pursuant to which DISH Network leased from us satellite capacity on 24 of the DBS transponders on the QuetzSat-1 satellite. The QuetzSat-1 satellite was launched in September 2011 and was placed into service in November 2011 at the 67.1 degree west longitude orbital location. In January 2013, the QuetzSat-1 satellite was moved to the 77 degree west longitude orbital location. In February 2013, we and DISH Network entered into an agreement pursuant to which we leased back from DISH Network certain satellite capacity on five DBS transponders on the QuetzSat-1 satellite.

TT&C Agreement. Effective January 2012, we entered into a TT&C agreement pursuant to which we provided TT&C services to DISH Network, which we subsequently amended (the "2012 TT&C Agreement"). The fees for services provided under the 2012 TT&C Agreement were calculated at either: (i) a fixed fee or (ii) cost plus a fixed margin, which varied depending on the nature of the services provided.

Real Estate Lease. During 2017, EchoStar and certain of its and our subsidiaries entered into a share exchange agreement (the "Share Exchange Agreement") with DISH and certain of its subsidiaries whereby EchoStar and certain of its and our subsidiaries received all the shares of preferred tracking stock previously issued by EchoStar and Hughes Satellite Systems Corporation (the "Tracking Stock") in exchange for 100% of the equity interests of certain of EchoStar's subsidiaries that held substantially all of the former EchoStar Technologies businesses and certain other assets (collectively, the "Share Exchange"). Prior to the Share Exchange, a subsidiary of EchoStar leased to DISH Network certain space at 530 EchoStar Drive, Cheyenne, Wyoming. In connection with the Share Exchange, EchoStar transferred ownership of a portion of this property to DISH Network and contributed a portion to us and we and DISH Network amended this agreement to, among other things, provide for a continued lease to DISH Network of the portion of the property we retained (the "Cheyenne Data Center"). The rent on a per square foot basis for the lease was comparable to per square foot rental rates of similar commercial property in the same geographic area at the time of the lease or subsequent amendments, and DISH Network was responsible for its portion of the taxes, insurance, utilities and maintenance of the premises. In connection with the BSS Transaction, we transferred the Cheyenne Data Center to DISH Network. This lease does not qualify for discontinued operations treatment, and therefore the revenue from it has not been treated as discontinued operations.

NOTE 5. BUSINESS COMBINATIONS

In May 2019, we entered into an agreement with Al Yah Satellite Communications Company PrJSC ("Yahsat") pursuant to which, in November 2019, Yahsat contributed its satellite communications services business in Brazil to one of our Brazilian subsidiaries in exchange for a 20% equity ownership interest in that subsidiary (the "Yahsat Brazil JV Transaction"). The combined business provides broadband internet services and enterprise solutions in Brazil using the Telesat T19V satellite, the Eutelsat 65W satellite and Yahsat's Al Yah 3 satellite. The results of operations related to the business we acquired from Yahsat have been included in these Condensed Consolidated Financial Statements from the date of acquisition. Through March 31, 2020, we have incurred $1.6 million of costs associated with the closing of the Yahsat Brazil JV Transaction.

All assets and liabilities acquired from Yahsat have been recorded at fair value. The following table presents our updated preliminary allocation of the purchase price:

	Amounts
Assets:	
Cash and cash equivalents	$ 7,858
Other current assets, net	7,106
Property and equipment	86,983
Regulatory authorization	4,498
Goodwill	6,328
Other non-current assets, net	1,502
Total assets	$ 114,275
Liabilities:	
Trade accounts payable	$ 3,879
Accrued expenses and other current liabilities	4,796
Total liabilities	$ 8,675
Total purchase price [(1)]	$ 105,600

(1) Based on the value determined for the equity ownership interest issued by our Brazilian subsidiary as consideration for the business acquired by us in the Yahsat Brazil JV Transaction.

The following preliminary valuation of the acquired assets was derived using primarily unobservable Level 3 inputs, which require significant management judgment and estimation:

	Amounts
Satellite payload	$ 49,363
Regulatory authorization	4,498
Total	$ 53,861

The satellite payload and regulatory authorization were valued using an income approach and are being amortized over seven and 11 years, respectively.

We recognized goodwill of $6.3 million, including a currency translation adjustment of $1.2 million. The goodwill is attributable to expected synergies, the projected long-term business growth in current and new markets and an assembled workforce. This goodwill has been allocated entirely to our Hughes segment.

NOTE 6. MARKETABLE INVESTMENT SECURITIES

The following table presents our *Marketable investment securities*:

	As of	
	March 31, 2020	December 31, 2019
Marketable investment securities:		
Debt securities:		
Available-for-sale:		
Corporate bonds	$ 319,295	$ 411,706
Other debt securities	205,569	240,888
Total available-for-sale debt securities	524,864	652,594
Equity securities	77	241
Total marketable investment securities	$ 524,941	$ 652,835

Debt Securities

Our corporate bond portfolio includes debt instruments issued by individual corporations, primarily in the industrial and financial services industries. Our other debt securities portfolio includes investments in various debt instruments, including U.S. government bonds and commercial paper.

Available-for-Sale

The following table presents the components of our available-for-sale debt securities:

	Amortized	Unrealized		Estimated
	Cost	Gains	Losses	Fair Value
As of March 31, 2020				
Corporate bonds	$ 321,466	$ —	$ (2,171)	$ 319,295
Other debt securities	205,569	—	—	205,569
Total available-for-sale debt securities	$ 527,035	$ —	$ (2,171)	$ 524,864
As of December 31, 2019				
Corporate bonds	$ 411,312	$ 395	$ (1)	$ 411,706
Other debt securities	240,887	1	—	240,888
Total available-for-sale debt securities	$ 652,199	$ 396	$ (1)	$ 652,594

The following table presents the activity on our available-for-sale debt securities:

	For the three months ended March 31,	
	2020	2019
Proceeds from sales	$ 10,000	$ 311,823
Gains (losses) on sales, net	$ —	$ 385

As of March 31, 2020, we have $491.9 million of available-for-sale debt securities with contractual maturities of one year or less and $33.0 million with contractual maturities greater than one year.

Equity Securities

The following table presents the activity of our equity securities:

	For the three months ended March 31,	
	2020	2019
Gains (losses) on investments, net	$ (164)	$ (732)

For the three months ended March 31, 2020 and 2019, we did not have any sales of equity securities.

Fair Value Measurements

The following table presents our marketable investment securities categorized by the fair value hierarchy, certain of which have historically experienced volatility:

	As of					
	March 31, 2020			December 31, 2019		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Available-for-sale debt securities:						
Corporate bonds	$ —	$ 319,295	$ 319,295	$ —	$ 411,706	$ 411,706
Other debt securities	—	205,569	205,569	—	240,888	240,888
Total available-for-sale debt securities	—	524,864	524,864	—	652,594	652,594
Equity securities	77	—	77	241	—	241
Total marketable investment securities	$ 77	$ 524,864	$ 524,941	$ 241	$ 652,594	$ 652,835

As of March 31, 2020 and December 31, 2019, we did not have any investments that were categorized within Level 3 of the fair value hierarchy.

NOTE 7. PROPERTY AND EQUIPMENT

The following tables presents the components of *Property and equipment, net*:

	As of	
	March 31, 2020	December 31, 2019
Property and equipment, net:		
Satellites, net	$ 1,059,542	$ 1,127,521
Other property and equipment, net	691,019	730,060
Total property and equipment, net	$ 1,750,561	$ 1,857,581

Satellites

As of March 31, 2020, our operating satellite fleet consisted of eight satellites, five of which are owned and three of which are leased. They are all in geosynchronous orbit, approximately 22,300 miles above the equator.

The following table presents our owned and leased satellites:

Satellite	Segment	Launch Date	Nominal Degree Orbital Location (Longitude)	Depreciable Life (In Years)
Owned:				
SPACEWAY 3 [(1)]	Hughes	August 2007	95 W	10
EchoStar XVII	Hughes	July 2012	107 W	15
EchoStar XIX	Hughes	December 2016	97.1 W	15
Al Yah 3 [(2)]	Hughes	January 2018	20 W	7
EchoStar IX [(3)]	ESS	August 2003	121 W	12
Finance leases:				
Eutelsat 65 West A	Hughes	March 2016	65 W	15
Telesat T19V	Hughes	July 2018	63 W	15
EchoStar 105/SES-11	ESS	October 2017	105 W	15

(1) Depreciable life represents the remaining useful life as of June 8, 2011, the date EchoStar completed its acquisition of Hughes Communications, Inc. and its subsidiaries (the "Hughes Acquisition").
(2) Upon consummation of our joint venture with Yahsat in Brazil in November 2019, we acquired the Brazilian Ka-band payload on this satellite. Depreciable life represents the remaining useful life as of November 2019.
(3) We own the Ka-band and Ku-band payloads on this satellite.

The following table presents the components of our satellites, net:

	Depreciable Life (In Years)	As of March 31, 2020	As of December 31, 2019
Satellites, net:			
Satellites - owned	7 to 15	$ 1,503,580	$ 1,516,006
Satellites - acquired under finance leases	15	352,206	381,162
Total satellites		1,855,786	1,897,168
Accumulated depreciation:			
Satellites - owned		(739,859)	(713,259)
Satellites - acquired under finance leases		(56,385)	(56,388)
Total accumulated depreciation		(796,244)	(769,647)
Total satellites, net		$ 1,059,542	$ 1,127,521

The following table presents the depreciation expense and capitalized interest associated with our satellites:

	For the three months ended March 31,	
	2020	2019
Depreciation expense:		
Satellites - owned	$ 27,068	$ 27,010
Satellites acquired under finance leases	6,013	6,490
Total depreciation expense	$ 33,081	$ 33,500
Capitalized interest	$ 637	$ 147

Satellite Commitments

As of March 31, 2020 and December 31, 2019, our satellite-related obligations were $245.5 million and $256.9 million, respectively. These primarily include payments pursuant to regulatory authorizations, non-lease costs associated with our finance lease satellites, in-orbit incentives relating to certain satellites and commitments for satellite service arrangements.

In certain circumstances, the dates on which we are obligated to pay our contractual obligations could change.

Satellite Anomalies and Impairments

We are not aware of any anomalies with respect to our owned or leased satellites or payloads that have had any significant adverse effect on their remaining useful lives, the commercial operation of the satellites or payloads or our operating results or financial position as of and for the three months ended March 31, 2020.

Satellite Insurance

We generally do not carry in-orbit insurance on our satellites or payloads because we have assessed that the cost of insurance is not economical relative to the risk of failures. Therefore, we generally bear the risk of any in-orbit failures. Pursuant to the terms of the agreements governing certain portions of our long-term debt and our joint venture agreements with Yahsat, we are required, subject to certain limitations on coverage, to maintain only for the SPACEWAY 3 satellite, the EchoStar XVII satellite and the Al Yah 3 Brazilian payload, insurance or other contractual arrangements during the commercial in-orbit service of such satellite or payload. Our other satellites and payloads, either in orbit or under construction, are not covered by launch or in-orbit insurance or other contractual arrangements. We will continue to assess circumstances going forward and make insurance-related decisions on a case-by-case basis.

Fair Value of In-Orbit Incentives

As of March 31, 2020 and December 31, 2019, the fair values of our in-orbit incentive obligations from our continuing operations, based on measurements categorized within Level 2 of the fair value hierarchy, approximated their carrying amounts of $56.2 million and $57.0 million, respectively.

NOTE 8. REGULATORY AUTHORIZATIONS

The following table presents the components of our *Regulatory authorizations, net*:

	Finite lived				
	Cost	Accumulated Amortization	Total	Indefinite lived	Total
Balance, December 31, 2018	$ —	$ —	$ —	$ 400,043	$ 400,043
Balance, March 31, 2019	$ —	$ —	$ —	$ 400,043	$ 400,043
Balance, December 31, 2019	$ 12,524	$ (161)	$ 12,363	$ 400,000	$ 412,363
Amortization expense	—	(100)	(100)	—	(100)
Foreign currency translation	(1,020)	—	(1,020)	—	(1,020)
Balance, March 31, 2020	$ 11,504	$ (261)	$ 11,243	$ 400,000	$ 411,243
Weighted average useful life		14 years			

Finite Lived Assets

In November 2019, we were granted an S-Band spectrum license for terrestrial rights in Mexico for $7.9 million. The acquired asset is subject to amortization over a period of 15 years.

In November 2019, we also acquired Ka-band spectrum rights for $4.5 million, upon consummation of the Yahsat Brazil JV Transaction, which are subject to amortization over a period of 11 years.

NOTE 9. OTHER INVESTMENTS

The following table presents the components of *Other investments, net*:

	As of	
	March 31, 2020	December 31, 2019
Other investments, net:		
Equity method investments	$ 101,601	$ 102,689
Other equity investments	7,351	7,351
Total other investments, net	$ 108,952	$ 110,040

Equity Method Investments

Deluxe/EchoStar LLC

We own 50% of Deluxe/EchoStar LLC (“Deluxe”), a joint venture that we entered into in 2010 to build an advanced digital cinema satellite distribution network targeting delivery to digitally equipped theaters in the U.S. and Canada. We recognized revenue from Deluxe for transponder services and the sale of broadband equipment of $1.3 million and $0.9 million for the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020 and December 31, 2019, we had trade accounts receivable from Deluxe of $1.0 million and $0.6 million, respectively.

Broadband Connectivity Solutions (Restricted) Limited

In August 2018, we entered into an agreement with Yahsat to establish a new entity, Broadband Connectivity Solutions (Restricted) Limited (together with its subsidiaries, “BCS”), to provide commercial Ka-band satellite broadband services across Africa, the Middle East and southwest Asia operating over Yahsat’s Al Yah 2 and Al Yah 3 Ka-band satellites. The transaction was consummated in December 2018 when we invested $100.0 million in cash in exchange for a 20%

interest in BCS. Under the terms of the agreement, we may also acquire, for further cash investments, additional ownership interests in BCS in the future provided certain conditions are met. We supply network operations and management services and equipment to BCS. We recognized revenue from BCS for such services and equipment of $1.7 million and $2.3 million for the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020 and December 31, 2019, we had trade accounts receivable from BCS of $4.5 million and $5.2 million, respectively.

Other Equity Investments

During the three months ended March 31, 2020 and 2019, we did not identify any observable price changes requiring an adjustment to our investments.

NOTE 10. LONG-TERM DEBT

The following table presents the carrying amounts and fair values of our *Long-term debt*:

		As of			
		March 31, 2020		December 31, 2019	
	Effective interest rates	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Senior Secured Notes:					
5 1/4% Senior Secured Notes due 2026	5.320%	$ 750,000	$ 748,133	$ 750,000	$ 825,308
Senior Unsecured Notes:					
7 5/8% Senior Unsecured Notes due 2021	8.062%	900,000	922,527	900,000	963,783
6 5/8% Senior Unsecured Notes due 2026	6.688%	750,000	770,715	750,000	833,903
Less: Unamortized debt issuance costs		(9,782)		(10,832)	
Total long-term debt		$ 2,390,218	$ 2,441,375	$ 2,389,168	$ 2,622,994

No amounts on our long-term debt are due during the next twelve months.

NOTE 11. INCOME TAXES

Our income tax provision for interim periods is determined using an estimate of our annual effective tax rate, adjusted for discrete items, if any, that are taken into account in the relevant period. Each quarter we update our estimate of the annual effective tax rate, and if our estimated tax rate changes, we make a cumulative adjustment.

Our interim income tax provision and our interim estimate of our annual effective tax rate are influenced by several factors, including foreign losses and capital gains and losses for which related deferred tax assets are partially offset by a valuation allowance, changes in tax laws and relative changes in unrecognized tax benefits. Additionally, our effective tax rate can be affected by the amount of pre-tax income or loss. For example, the impact of discrete items and non-deductible expenses on our effective tax rate is greater when our pre-tax income or loss is lower.

Our income tax provision was $5.2 million for the three months ended March 31, 2020 compared to $4.9 million for the three months ended March 31, 2019. Our estimated effective income tax rate was (41.2)% and 94.1% for the three months ended March 31, 2020 and 2019, respectively. The variations in our effective tax rate from the U.S. federal statutory rate for the three months ended March 31, 2020 were primarily due to the increase in our valuation allowance associated with certain foreign losses and the impact of state and local taxes, partially offset by the change in net unrealized losses that are capital in nature, permanent book tax differences and research and experimentation credits. The variations in our effective tax rate from the U.S. federal statutory rate for the three months ended March 31, 2019 were primarily due to the increase in our valuation allowance associated with certain foreign losses and the impact of state and local taxes, partially offset by the change in net unrealized losses that are capital in nature and research and experimentation credits.

The Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was enacted in March 2020. The CARES Act features significant tax provisions and other measures to assist individuals and businesses impacted by the economic effects of the COVID-19 pandemic, including a five-year carryback of net operating losses, relaxation of Section 163(j) interest deduction limitations, acceleration of Alternative Minimum Tax refunds, relief for payroll tax and tax credits for employers who retain employees. These provisions did not affect our income tax provision for the three months ended March 31, 2020.

NOTE 12. CONTINGENCIES

Patents and Intellectual Property

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

Certain Arrangements with DISH Network

In connection with EchoStar's spin-off from DISH in 2008 (the "Spin-off"), EchoStar entered into a separation agreement with DISH Network that provides, among other things, for the division of certain liabilities, including liabilities resulting from litigation. Under the terms of the separation agreement, EchoStar assumed certain liabilities that relate to its and our 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 EchoStar will generally only be liable for its and its subsidiaries' acts or omissions following the Spin-off and DISH Network will indemnify EchoStar for any liabilities or damages resulting from intellectual property claims relating to the period prior to the Spin-off as well as DISH Network's acts or omissions following the Spin-off. In connection with the Share Exchange and the BSS Transaction, EchoStar and certain of its and our subsidiaries entered into the Share Exchange Agreement and the Master Transaction Agreement, respectively, and other agreements which provide, among other things, for the division of certain liabilities, including liabilities relating to taxes, intellectual property and employees and liabilities resulting from litigation and the assumption of certain liabilities that relate to the transferred businesses and assets. These agreements also contain additional indemnification provisions between EchoStar and us and DISH Network for, in the case of the Share Exchange, certain pre-existing liabilities and legal proceedings and, in the case of the BSS Transaction, certain losses with respect to breaches of certain representations and covenants and certain liabilities.

Litigation

We are involved in a number of legal proceedings against us concerning matters arising in connection with the conduct of our business activities. Many of these proceedings are at preliminary stages and/or 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 and to determine if accruals are appropriate. We record an accrual for litigation and other loss contingencies when we determine that a loss is probable and the amount of the loss can be reasonably estimated. If accruals are not appropriate, we further evaluate each legal proceeding to assess whether an estimate of possible loss or range of loss can be made. There can be no assurance that legal proceedings against us will be resolved in amounts that will not differ from the amounts of our recorded accruals. Legal fees and other costs of defending legal proceedings are charged to expense as incurred.

For certain proceedings, management is unable to predict with any degree of certainty the outcome or 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 or specified; (iii) damages are unsupported, indeterminate and/or exaggerated in management's opinion; (iv) there is uncertainty as to the outcome of pending trials, appeals, motions or other proceedings; (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 are involved (as with many patent-related cases). Except as described below, however, management does not believe, based on currently available information, that the outcomes of these proceedings will have a material effect on our financial condition, operating results or cash flows, though there is no assurance that the resolution and outcomes of these proceedings, individually or in the aggregate, will not be material to our financial condition, operating results or cash flows for any particular period, depending, in part, upon the operating results for such period.

We intend to vigorously defend the proceedings against us. In the event that a court, tribunal, other body or jury ultimately rules against us, we may be subject to adverse consequences, including, without limitation, substantial damages, which may include treble damages, fines, penalties, compensatory damages and/or other equitable or injunctive relief that could require us to materially modify our business operations or certain products or services that we offer to our consumers.

Elbit

On January 23, 2015, Elbit Systems Land and C4I LTD and Elbit Systems of America Ltd. (together referred to as “Elbit”) filed a complaint against our subsidiary Hughes Network Systems, L.L.C. (“HNS”), as well as against Black Elk Energy Offshore Operations, LLC, Bluetide Communications, Inc. and Helm Hotels Group, in the U.S. District Court for the Eastern District of Texas, alleging infringement of U.S. Patent Nos. 6,240,073 (the “073 patent”) and 7,245,874 (“874 patent”). In December 2019, we entered into a comprehensive settlement agreement with Elbit pursuant to which we paid a total of $33.0 million in satisfaction of all amounts relating to these matters and all open proceedings, including appeals, were dismissed with prejudice.

Shareholder Litigation

On July 2, 2019, the City of Hallandale Beach Police Officers’ and Firefighters’ Personnel Retirement Trust, purporting to sue on behalf of a class of EchoStar’s stockholders, filed a complaint in the District Court of Clark County, Nevada against EchoStar’s directors, Charles W. Ergen, R. Stanton Dodge, Anthony M. Federico, Pradman P. Kaul, C. Michael Schroeder, Jeffrey R. Tarr, William D. Wade, and Michael T. Dugan; our and EchoStar’s officer, David J. Rayner; EchoStar; Hughes Satellite Systems Corporation; our former subsidiary BSS Corp.; and DISH and its subsidiary Merger Sub. On September 5, 2019, the defendants filed motions to dismiss. On October 11, 2019, the plaintiffs filed an amended complaint removing Messrs. Dodge, Federico, Kaul, Schroeder, Tarr and Wade as defendants. The amended complaint alleges that Mr. Ergen, as EchoStar’s controlling stockholder, breached fiduciary duties to EchoStar’s minority stockholders by structuring the BSS Transaction with inadequate consideration and improperly influencing EchoStar’s and Hughes Satellite Systems Corporation’s boards of directors to approve the BSS Transaction. The amended complaint also alleges that the other defendants aided and abetted such alleged breaches. The plaintiffs seek equitable and monetary relief, including the issuance of additional DISH Common Stock, and other costs and disbursements, including attorneys’ fees on behalf of the purported class. On November 11, 2019, we and the other defendants filed separate motions to dismiss plaintiff’s amended complaint and during a hearing on January 13, 2020 the court denied these motions. On February 10, 2020, we and the other defendants filed answers to the amended complaint. We intend to vigorously defend this case. We cannot predict its outcome with any degree of certainty.

License Fee Dispute with Government of India, Department of Telecommunications

In 1994, the Government of India promulgated a “National Telecommunications Policy” under which the government liberalized the telecommunications sector and required telecommunications service providers to pay fixed license fees. Pursuant to this policy, our subsidiary Hughes Communications India Private Limited (“HCIPL”), formerly known as Hughes Escorts Communications Limited, obtained a license to operate a data network over satellite using VSAT systems. In 1999, HCIPL’s license was amended pursuant to a new government policy that eliminated the fixed license fees and instead required each telecommunications service provider to pay license fees based on its adjusted gross revenue (“AGR”). In March 2005, the Indian Department of Telecommunications (“DOT”) notified HCIPL that, based on its review of HCIPL’s audited accounts and AGR statements, HCIPL must pay additional license fees, interest on such fees and penalties and interest on the penalties. HCIPL responded that the DOT had improperly calculated its AGR by including revenue from licensed and unlicensed activities. The DOT rejected this explanation and in 2006, HCIPL filed a petition with an administrative tribunal (the “Tribunal”), challenging the DOT’s calculation of its AGR. The DOT also issued license fee assessments to other telecommunications service providers and a number of similar petitions were filed by several other such providers with the Tribunal. These petitions were amended, consolidated, remanded and re-appealed several times. On April 23, 2015, the Tribunal issued a judgment affirming the DOT's calculation of AGR for the telecommunications service providers but reversing the DOT's imposition of interest, penalties and interest on such penalties as excessive. Over subsequent years, the DOT and HCIPL and other telecommunications service providers, respectively, filed several appeals of the Tribunal's ruling. On October 24, 2019, the Supreme Court of India ("Supreme Court") issued an order (the "Order") affirming the license fee assessments imposed by the DOT, including its imposition of interest, penalties and interest on the penalties, but without indicating the amount HCPIL is required to pay the DOT, and ordering payment by January 23, 2020. On November 23, 2019, HCIPL and other telecommunication service providers filed a petition asking the Supreme Court to reconsider its decision. The petition was denied on January 20, 2020. On January 22, 2020, HCIPL and other telecommunication service providers filed an application requesting that the Supreme Court modify the Order to permit the DOT to calculate the final amount due and extend HCPIL's and the other telecommunication service providers' payment deadline. On February 14, 2020, the Supreme Court denied this application and directed us and the other telecommunication service providers to explain why the Supreme Court should not initiate contempt proceedings for failure to pay the amounts due. During a hearing on March 18, 2020, the Supreme Court ordered that all amounts that were due before the Supreme Court in October 2019 must be paid, including interest, penalties and interest on the penalties. The Supreme Court also ordered that the parties appear for a further hearing addressing, potentially among other things, a proposal by the DOT to allow for extended or deferred payments of amounts due. This hearing was postponed due to the COVID-19 pandemic and not yet rescheduled. To date, the DOT has issued HCIPL written assessments totaling $28.4 million, comprised of $4.0 million for additional license fees, $4.1 million for penalties and $20.3 million for interest and interest on penalties. In the first quarter of 2020, HCIPL paid the DOT $2.9 million with respect to this matter. As a result of the Supreme Court's orders in this matter, HCIPL's payments to date and the impact of foreign exchange rates, and using the DOT's methodology as reflected in the assessments HCIPL has received as of the date of the Order, we have recorded an accrual of $77.1 million as of March 31, 2020, comprised of $3.8 million for additional license fees, $3.9 million for penalties and $69.4 million for interest and interest on penalties. We had recorded an accrual of $80.2 million as of December 31, 2019. Any eventual payments made with respect to the ultimate outcome of this matter may be different from our accrual and such differences could be significant.

Other

In addition to the above actions, we are subject to various other legal proceedings and claims, which arise in the ordinary course of business. As part of our ongoing operations, we are subject to various inspections, audits, inquiries, investigations and similar actions by third parties, as well as by governmental/regulatory authorities responsible for enforcing the laws and regulations to which we may be subject. Further, under the federal False Claims Act, private parties have the right to bring qui tam, or "whistleblower," suits against companies that submit false claims for payments to, or improperly retain overpayments from, the federal government. Some states have adopted similar state whistleblower and false claims provisions. In addition, we from time to time receive inquiries from federal, state and foreign agencies regarding compliance with various laws and regulations.

In our opinion, the amount of ultimate liability with respect to any of these other actions is unlikely to materially affect our financial position, results of operations or cash flows, though the resolutions and outcomes, individually or in the aggregate, could be material to our financial position, operating results or cash flows for any particular period, depending, in part, upon the operating results for such period.

We also indemnify our directors, officers and employees for certain liabilities that might arise from the performance of their responsibilities for us. Additionally, in the normal course of its business, we enter into contracts pursuant to which we may make a variety of representations and warranties and indemnify the counterparty for certain losses. Our possible exposure under these arrangements cannot be reasonably estimated as this involves the resolution of claims made, or future claims that may be made, against us or our officers, directors or employees, the outcomes of which are unknown and not currently predictable or estimable.

NOTE 13. SEGMENT REPORTING

Business segments are components of an enterprise for which separate financial information is available and regularly evaluated by our chief operating decision maker ("CODM"), who is our Chief Executive Officer. We operate in two business segments, Hughes and ESS, as described in *Note 1. Organization and Business Activities*.

The primary measure of segment profitability that is reported regularly to our CODM is earnings before interest, taxes, depreciation and amortization, net income (loss) from discontinued operations and net income (loss) attributable to non-controlling interests ("EBITDA").

Total assets by segment have not been reported herein because the information is not provided to our CODM on a regular basis.

The following table presents revenue, EBITDA and capital expenditures for each of our business segments. Capital expenditures are net of refunds and other receipts related to our property and equipment.

	Hughes	ESS	Corporate and Other	Consolidated Total
For the three months ended March 31, 2020				
External revenue	$ 458,482	$ 4,367	$ 4,698	$ 467,547
Intersegment revenue	—	285	(285)	—
Total revenue	$ 458,482	$ 4,652	$ 4,413	$ 467,547
EBITDA	$ 154,641	$ 2,030	$ (6,646)	$ 150,025
Capital expenditures	$ 91,517	$ —	$ —	$ 91,517
For the three months ended March 31, 2019				
External revenue	$ 445,337	$ 3,852	$ 6,010	$ 455,199
Intersegment revenue	—	181	(181)	—
Total revenue	$ 445,337	$ 4,033	$ 5,829	$ 455,199
EBITDA	$ 161,132	$ 1,729	$ (6,158)	$ 156,703
Capital expenditures	$ 73,821	$ —	$ —	$ 73,821

The following table reconciles *Income (loss) from continuing operations before income taxes* in the Condensed Consolidated Statements of Operations to EBITDA:

	For the three months ended March 31, 2020	For the three months ended March 31, 2019
Income (loss) from continuing operations before income taxes	$ (12,682)	$ 5,180
Interest income, net	(8,892)	(17,997)
Interest expense, net of amounts capitalized	42,192	57,915
Depreciation and amortization	125,965	112,411
Net loss (income) attributable to non-controlling interests	3,442	(806)
EBITDA	$ 150,025	$ 156,703

NOTE 14. RELATED PARTY TRANSACTIONS - ECHOSTAR

The following is a summary of the transactions and the terms of the underlying principal agreements that have had or may have an impact on our consolidated financial condition and results of operations.

Services and Other Revenue - EchoStar

The following table presents our *Services and other revenue* from EchoStar:

	For the three months ended March 31,	
	2020	2019
Services and other revenue - EchoStar	$ 4,699	$ 4,474

The following table presents the corresponding related party receivables:

	As of	
	March 31, 2020	December 31, 2019
Related party receivables - EchoStar - current	$ 131,948	$ 131,892
Related party receivables - EchoStar - non-current	19,412	19,759
Total related party receivables - EchoStar	$ 151,360	$ 151,651

Receivables. EchoStar and its other subsidiaries reimburse us from time to time for amounts paid by us for costs and expenses attributable to EchoStar and its other subsidiaries. We report receivables under these arrangements within Related party receivables - EchoStar - current. No repayment schedule for these receivables has been determined.

EchoStar Mobile Limited Service Agreements. We provide services and lease equipment to support the business of EchoStar Mobile Limited, a subsidiary of EchoStar that is licensed by the European Union and its member states (“EU”) to provide mobile satellite services and complementary ground component services covering the entire EU using S-band spectrum. Generally, the amounts EchoStar’s other subsidiaries pay for these services are based on cost plus a fixed margin. We recorded the revenue related to these services within *Services and other revenue* - EchoStar of $4.7 million and $5.0 million for the three months ended March 31, 2020 and 2019, respectively. Additionally, we have converted the receivables for certain of these services into loans, bearing an annual interest rate of 5%, that mature in 2023. We report these loans within Related party receivables - EchoStar - non-current.

Operating Expenses - EchoStar

The following table presents our operating expenses related to EchoStar:

	For the three months ended March 31,	
	2020	2019
Operating expenses - EchoStar	$ 12,642	$ 13,306

The following table presents the corresponding related party payables:

	As of	
	March 31, 2020	December 31, 2019
Related party payables - EchoStar - current	$ 13,793	$ 11,132
Related party payables - EchoStar - non-current	23,748	23,980
Total related party payables - EchoStar	$ 37,541	$ 35,112

Payables. We reimburse EchoStar and its other subsidiaries from time to time for amounts paid by EchoStar and its other subsidiaries for costs and expenses attributable to us. We report payables under these arrangements within Related party payables - EchoStar - current. No repayment schedule for these payables has been determined.

***Shared Corporate Services*.** We and EchoStar, including EchoStar’s other subsidiaries, have agreed that we shall each have the right, but not the obligation, to receive from the other certain shared corporate services, including among other things: treasury, tax, accounting and reporting, risk management, cybersecurity, legal, internal audit, human resources, and information technology. These shared corporate services are generally provided at cost. Effective March 2017, and as a result of the Share Exchange, we implemented a new methodology for determining the cost of these shared corporate services. We and EchoStar, including EchoStar’s other subsidiaries, may each terminate a particular shared corporate service for any reason upon at least 30 days’ notice. We recorded these expenses within Operating expenses - EchoStar for shared corporate services received from EchoStar and its other subsidiaries of $4.4 million and $2.8 million for the three months ended March 31, 2020 and 2019, respectively.

***Real Estate*.** We occupy certain office space in buildings owned or leased by EchoStar and its other subsidiaries and pay a portion of the taxes, insurance, utilities and maintenance of the premises in accordance with the percentage of the space we occupy.

Cash Advances. EchoStar and certain of its other subsidiaries have also provided cash advances to certain of our foreign subsidiaries to fund certain expenditures pursuant to loan agreements that mature in 2021 and 2022. Advances under these agreements bear interest at annual rates ranging from one to three percent, subject to periodic adjustment based on the one-year U.S. LIBOR rate. We report amounts payable under these agreements within Related party payables - EchoStar - non-current.

Construction Management Services for EchoStar XXIV Satellite. In August 2017, a subsidiary of EchoStar entered into a contract with Space Systems Loral, LLC for the design and construction of the EchoStar XXIV satellite, a new, next-generation, high throughput geostationary satellite. We provide construction management services to EchoStar’s subsidiary for the construction of the EchoStar XXIV satellite. We charged EchoStar’s subsidiary and reduced our operating expenses by the costs of such services of $0.3 million and $0.4 million for the three months ended March 31, 2020 and 2019, respectively.

Other Agreements

***BSS Transaction**.* Pursuant to the pre-closing restructuring contemplated by the Master Transaction Agreement, and as part of the BSS Transaction, we and our subsidiaries transferred certain of the BSS Business to BSS Corp., and we distributed all of the shares of BSS Corp. to EchoStar as a dividend. See *Note 1. Organization and Business Activities* for further information.

***Share Exchange Agreement**.* Prior to consummation of the Share Exchange, EchoStar was required to complete steps necessary for the transferring of certain assets and liabilities to DISH and certain of its subsidiaries. As part of these steps, subsidiaries of EchoStar that, prior to the consummation of the Share Exchange, owned EchoStar's business of providing online video delivery and satellite video delivery for broadcasters and pay-TV operators, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management and other services and related assets and liabilities were contributed to one of our subsidiaries in consideration for additional shares of HSSC's common stock that were then issued to a subsidiary of EchoStar.

NOTE 15. RELATED PARTY TRANSACTIONS - DISH NETWORK

Overview

EchoStar and DISH have operated as separate publicly-traded companies since 2008. A substantial majority of the voting power of the shares of each of EchoStar and DISH is owned beneficially by Charles W. Ergen, our Chairman, and by certain entities established for the benefit of his family. In addition, prior to March 2017, DISH Network owned the Tracking Stock, which in the aggregate represented an 80% economic interest in the residential retail satellite broadband business of our Hughes segment. The Tracking Stock was retired in March 2017.

In connection with and following the Spin-off, the Share Exchange and the BSS Transaction, EchoStar, we and certain other of EchoStar's subsidiaries and DISH Network entered into certain agreements pursuant to which we, EchoStar and certain of its other subsidiaries, on the one hand, obtain certain products, services and rights from DISH Network, on the other hand; DISH Network, on the one hand, obtains certain products, services and rights from us, EchoStar and certain of its other subsidiaries, on the other hand; and such entities indemnify each other against certain liabilities arising from their respective businesses. Generally, the amounts we and/or EchoStar and its other subsidiaries or DISH Network pay for products and services provided under the agreements are based on cost plus a fixed margin (unless noted differently below), which varies depending on the nature of the products and services provided. We and/or EchoStar and its other subsidiaries may also enter into additional agreements with DISH Network in the future.

The following is a summary of the transactions and the terms of the underlying principal agreements that have had or may have an impact on our consolidated financial condition and results of operations.

Services and Other Revenue — DISH Network

The following table presents our *Services and other revenue* from DISH Network:

	For the three months ended March 31,	
	2020	2019
Services and other revenue - DISH Network	$ 7,587	$ 11,545

The following table presents the related trade accounts receivable:

	As of	
	March 31, 2020	December 31, 2019
Trade accounts receivable - DISH Network	$ 9,955	$ 8,876

Satellite Capacity Leased to DISH Network. We have entered into an agreement and have previously entered into a now terminated agreement to lease satellite capacity pursuant to which we have provided satellite services to DISH Network on certain satellites owned or leased by us. The fees for the services provided under these agreements depend upon, among other things, the orbital location of the applicable satellite, the number of transponders that are providing services on the applicable satellite and the length of the service arrangements. The terms of these agreements are set forth below:

- ***EchoStar IX*** — Effective January 2008, DISH Network began leasing satellite capacity from us on the EchoStar IX satellite. Subject to availability, DISH Network generally has the right to continue leasing satellite capacity from us on the EchoStar IX satellite on a month-to-month basis.

- ***103 Degree Orbital Location/SES-3*** — In May 2012, we entered into a spectrum development agreement (the “103 Spectrum Development Agreement”) with Ciel Satellite Holdings Inc. (“Ciel”) to develop certain spectrum rights at the 103 degree west longitude orbital location (the “103 Spectrum Rights”). In June 2013, we and DISH Network entered into a spectrum development agreement (the “DISH 103 Spectrum Development Agreement”) pursuant to which DISH Network may use and develop the 103 Spectrum Rights. Effective in March 2018, DISH Network exercised its right to terminate the DISH 103 Spectrum Development Agreement and we exercised our right to terminate the 103 Spectrum Development Agreement.

  In connection with the 103 Spectrum Development Agreement, in May 2012, we also entered into a ten-year agreement with Ciel pursuant to which we leased certain satellite capacity from Ciel on the SES-3 satellite at the 103 degree west longitude orbital location (the “Ciel 103 Agreement”). In June 2013, we and DISH Network entered into an agreement pursuant to which DISH Network leased certain satellite capacity from us on the SES-3 satellite (the “DISH 103 Agreement”). Under the terms of the DISH 103 Agreement, DISH Network made certain monthly payments to us through the service term. Effective in March 2018, DISH Network exercised its right to terminate the DISH 103 Agreement and we exercised our right to terminate the Ciel 103 Agreement.

TerreStar Agreement. In March 2012, DISH Network completed its acquisition of substantially all the assets of TerreStar Networks Inc. (“TerreStar”). Prior to DISH Network’s acquisition of substantially all the assets of TerreStar and EchoStar’s completion of the Hughes Acquisition, TerreStar and HNS entered into various agreements pursuant to which we provide, among other things, warranty, operations and maintenance and hosting services for TerreStar’s ground-based communications equipment (the “TerreStar Agreements”). In December 2017, we and DISH Network amended these agreements, effective as of January 1, 2018, to reduce certain pricing terms through December 31, 2023 and to modify certain termination provisions. DISH Network generally has the right to continue to receive warranty services from us for our products on a month-to-month basis unless terminated by DISH Network upon at least 21 days’ written notice to us. DISH Network generally has the right to continue to receive operations and maintenance services from us on a quarter-to-quarter basis unless operations and maintenance services are terminated by DISH Network upon at least 90 days’ written notice to us. The provision of hosting services will continue until May 2022. In addition, DISH Network generally may terminate any and all services for convenience subject to providing us with prior notice and/or payment of termination charges. In March 2020, we entered into an agreement with DISH Network pursuant to which we perform certain work and provide certain credits to amounts owed to us under the TerreStar Agreements in exchange for DISH Network’s granting us rights to use certain satellite capacity under the Amended and Restated Professional Services Agreement (as defined below).

Hughes Broadband Distribution Agreement. Effective October 2012, we and DISH Network, entered into a distribution agreement (the “Distribution Agreement”) pursuant to which DISH Network has the right, but not the obligation, to market, sell and distribute our HughesNet service. DISH Network pays us a monthly per subscriber wholesale service fee for the HughesNet service based upon a subscriber’s service level and based upon certain volume subscription thresholds. The Distribution Agreement also provides that DISH Network has the right, but not the obligation, to purchase certain broadband equipment from us to support the sale of the HughesNet service. The Distribution Agreement had an initial term of five years with automatic renewal for successive one year terms unless terminated by either party with a written notice at least 180 days’ before the expiration of the then-current term. In February 2014, we and DISH Network entered into an amendment to the Distribution Agreement which, among other things, extended the initial term of the Distribution Agreement until March 2024. Upon expiration or termination of the

Distribution Agreement, we and DISH Network will continue to provide our HughesNet service to the then-current DISH Network subscribers pursuant to the terms and conditions of the Distribution Agreement.

DBSD North America Agreement. In March 2012, DISH Network completed its acquisition of all of the equity of reorganized DBSD North America, Inc. ("DBSD North America"). Prior to DISH Network's acquisition of DBSD North America and EchoStar's completion of the Hughes Acquisition, DBSD North America and HNS entered into various agreements pursuant to which we provide, among other things, warranty, operations and maintenance and hosting services of DBSD North America's gateway and ground-based communications equipment. In December 2017, we and DBSD North America amended these agreements, effective as of January 1, 2018, to reduce certain pricing terms through December 31, 2023 and to modify certain termination provisions. DBSD North America has the right to continue to receive operations and maintenance services from us on a quarter-to-quarter basis, unless terminated by DBSD North America upon at least 120 days' written notice to us. In February 2019, we further amended these agreements to provide DBSD North America with the right to continue to receive warranty services from us on a month-to-month basis until December 2023, unless terminated by DBSD North America upon at least 21 days' written notice to us. The provision of hosting services will continue until February 2022 and will automatically renew for an additional five-year period until February 2027 unless terminated by DBSD North America upon at least 180 days' written notice to us. In addition, DBSD North America generally may terminate any and all such services for convenience, subject to providing us with prior notice and/or payment of termination charges.

Hughes Equipment and Services Agreement. In February 2019, we and DISH Network entered into an agreement pursuant to which we will sell to DISH Network our HughesNet Service and HughesNet equipment that has been modified to meet DISH Network's internet-of-things specifications for the transfer of data to DISH Network's network operations centers. This agreement has an initial term of five years expiring February 2024 with automatic renewal for successive one-year terms unless terminated by DISH Network with at least 180 days' written notice to us or by us with at least 365 days' written notice to DISH Network.

Operating Expenses — DISH Network

The following table presents our operating expenses related to DISH Network:

	For the three months ended March 31,	
	2020	2019
Operating expenses - DISH Network	$ 1,137	$ 714

The following table presents the related trade accounts payable:

	As of	
	March 31, 2020	December 31, 2019
Trade accounts payable - DISH Network	$ 610	$ 502

Amended and Restated Professional Services Agreement. In connection with the Spin-off, EchoStar entered into various agreements with DISH Network including a transition services agreement, satellite procurement agreement and services agreement, all of which expired in January 2010 and were replaced by a professional services agreement (the "Professional Services Agreement"). In January 2010, EchoStar and DISH Network agreed that EchoStar and its subsidiaries shall continue to have the right, but not the obligation, to receive the following services from DISH Network, among others, certain of which were previously provided under a 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, EchoStar and DISH Network agreed that DISH Network would continue to have the right, but not the obligation, to engage EchoStar and its subsidiaries to manage the process of procuring new satellite capacity for DISH Network (previously provided under a satellite procurement agreement), receive logistics, procurement and quality assurance services from EchoStar and its subsidiaries (previously provided under a services agreement) and provide other support services. In connection with the consummation of the Share Exchange, EchoStar and DISH amended and restated the Professional Services Agreement (as amended to date, the

"Amended and Restated Professional Services Agreement") to provide that EchoStar and its subsidiaries and DISH Network shall have the right to receive additional services that either EchoStar and its subsidiaries or DISH Network may require as a result of the Share Exchange, including access to antennas owned by DISH Network for our use in performing TT&C services and maintenance and support services for our antennas (collectively, the "TT&C Antennas"). In September 2019, in connection with the BSS Transaction, EchoStar and DISH further amended the Amended and Restated Professional Services Agreement to provide that EchoStar and its subsidiaries and DISH Network shall have the right to receive additional services that either EchoStar and its subsidiaries or DISH Network may require as a result of the BSS Transaction and to remove our access to and the maintenance and support services for the TT&C Antennas. A portion of these costs and expenses have been allocated to us in the manner described in *Note 14. Related Party Transactions - EchoStar.* The term of the Amended and Restated Professional Services Agreement is through January 2021 and renews automatically for successive one-year periods thereafter, unless the agreement is terminated earlier by either party upon at least 60 days' notice. However, either party may generally terminate the Amended and Restated Professional Services Agreement in part with respect to any particular service it receives for any reason upon at least 30 days' notice, unless the statement of work for particular services states otherwise. Certain services being provided for under the Amended and Restated Professional Services Agreement may survive the termination of the agreement.

Real Estate Lease from DISH Network. Effective March 2017, we entered into an agreement with DISH Network for certain space at 796 East Utah Valley Drive in American Fork, Utah for a period ending in August 2017. We exercised our option to renew this agreement for a five-year period ending in August 2022. We and DISH Network amended this agreement to, among other things, terminate this agreement in March 2019. The rent on a per square foot basis for the lease was comparable to per square foot rental rates of similar commercial property in the same geographic area at the time of the lease, and we were responsible for our portion of the taxes, insurance, utilities and maintenance of the premises.

Collocation and Antenna Space Agreements. We and DISH Network have entered into an agreement pursuant to which DISH Network provides us with collocation space in El Paso, Texas. This agreement was for an initial period ending in August 2015, and provides us with renewal options for four consecutive years. Effective August 2015, we exercised our first renewal option for a period ending in August 2018 and in April 2018 we exercised our second renewal option for a period ending in August 2021. In connection with the Share Exchange, effective March 2017, we also entered into certain agreements pursuant to which DISH Network provides collocation and antenna space to EchoStar through February 2022 at the following locations: Cheyenne, Wyoming; Gilbert, Arizona; New Braunfels, Texas; Monee, Illinois; Spokane, Washington; and Englewood, Colorado. In October 2019, we provided a termination notice for our New Braunfels, Texas agreement to be effective May 2020. In August 2017, we and DISH Network also entered into certain other agreements pursuant to which DISH Network provides additional collocation and antenna space to us in Monee, Illinois and Spokane, Washington through August 2022. Generally, we may renew our collocation and antenna space agreements for three-year periods by providing DISH Network with prior written notice no more than 120 days but no less than 90 days prior to the end of the then-current term. We may terminate certain of these agreements with 180 days' prior written notice. The fees for the services provided under these agreements depend on the number of racks located at the location.

In connection with the BSS Transaction, in September 2019, we entered into an agreement pursuant to which DISH Network will provide us 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.

Hughes Broadband Master Services Agreement. In March 2017, we and DISH Network entered into a master service agreement (the "Hughes Broadband MSA") pursuant to which DISH Network, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for our HughesNet service and related equipment and other telecommunication services and (ii) installs HughesNet service equipment with respect to activations generated by DISH Network. Under the Hughes Broadband MSA, we and DISH Network make certain payments to each other relating to sales, upgrades, purchases and installation services. The Hughes Broadband MSA has an initial term of five years through March 2022 with automatic renewal for successive one-year terms. Either party has the ability to terminate the Hughes Broadband 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 Hughes Broadband MSA, we will continue to provide our HughesNet service to subscribers and make certain payments to DISH Network pursuant to the terms and conditions of the Hughes Broadband MSA. We incurred sales incentives and other costs under the Hughes Broadband MSA totaling $4.6 million and $4.8 million for the three months ended March 31, 2020 and 2019, respectively.

2019 TT&C Agreement. In September 2019, in connection with the BSS Transaction, we and a subsidiary of EchoStar entered into an agreement pursuant to which DISH Network provides TT&C services to us and EchoStar and its other subsidiaries for a period ending in September 2021, with the option for a subsidiary of EchoStar to renew for a one-year period upon written notice at least 90 days prior to the initial expiration (the "2019 TT&C Agreement"). The fees for services provided under the 2019 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. Any party is able to terminate the 2019 TT&C Agreement for any reason upon 12 months' notice.

Other Receivables - DISH Network

Tax Sharing Agreement. Effective December 2007, EchoStar and DISH Network entered into a tax sharing agreement (the "Tax Sharing Agreement") in connection with the Spin-off. This agreement governs EchoStar and DISH and their respective subsidiaries' 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 DISH Network and DISH Network indemnifies EchoStar and its subsidiaries for such taxes. However, DISH Network is not liable for and does not indemnify EchoStar or its subsidiaries 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 Code, because of: (i) a direct or indirect acquisition of any of EchoStar's stock, stock options or assets; (ii) any action that EchoStar or its subsidiaries take or fail to take or (iii) any action that EchoStar or its subsidiaries take that is inconsistent with the information and representations furnished to the 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 and its subsidiaries will be solely liable for, and will indemnify DISH Network for any resulting taxes, as well as any losses, claims and expenses. The Tax Sharing Agreement will 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 EchoStar's consolidated federal income tax returns for certain tax years prior to and for the year of the Spin-off, in September 2013, EchoStar and DISH Network agreed upon a supplemental allocation of the tax benefits arising from certain tax items resolved in the course of the IRS's examination of EchoStar's consolidated tax returns. As a result, DISH Network agreed to pay EchoStar an amount of that includes the federal tax benefit DISH received as a result of our operations.

In August 2018, EchoStar and DISH Network amended the Tax Sharing Agreement and the 2013 agreements (the "Tax Sharing Amendment"). Under the Tax Sharing Amendment, DISH Network is required to compensate EchoStar for certain past and future excess California research and development tax credits generated by EchoStar and its subsidiaries and used by DISH Network.

Other Agreements

Master Transaction Agreement. In May 2019, EchoStar and BSS Corp. entered into the Master Transaction Agreement with DISH and Merger Sub with respect to the BSS Transaction. Pursuant to the terms of the Master Transaction Agreement, on September 10, 2019: (i) EchoStar and its subsidiaries and we and our subsidiaries transferred the BSS Business to BSS Corp.; (ii) we completed the Distribution; and (iii) immediately after the Distribution, (1) BSS Corp. became a wholly-owned subsidiary of DISH such that DISH owns and operates the BSS Business and (2) each issued and outstanding share of BSS Common Stock owned by EchoStar stockholders was converted into the right to receive 0.23523769 shares of DISH Common Stock. Following the consummation of the BSS Transaction, we no longer operate the BSS Business, which was a substantial portion of our ESS segment. The Master Transaction Agreement contained customary representations and warranties by the parties, including EchoStar's representations relating to the assets, liabilities and financial condition of the BSS Business, and representations by DISH Network relating to its financial condition and liabilities. EchoStar and DISH Network have agreed to indemnify each other against certain losses with respect to breaches of certain representations and covenants and certain retained and assumed liabilities, respectively.

BSS Transaction Intellectual Property and Technology License Agreement. Effective September 2019, in connection with the BSS Transaction, we, EchoStar and DISH Network entered into an intellectual property and technology license agreement (the “BSS IPTLA”) pursuant to which we, EchoStar and its other subsidiaries and DISH Network license to each other certain intellectual property and technology. The BSS IPTLA will continue in perpetuity, unless mutually terminated by the parties. Pursuant to the BSS IPTLA, we, EchoStar and its other subsidiaries granted to DISH Network a license to our and their intellectual property and technology for use by DISH Network, among other things, in connection with its continued operation of the BSS Business acquired pursuant to the BSS Transaction, 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, DISH Network granted a license back to us, EchoStar and its other subsidiaries, among other things, for the continued use of all intellectual property and technology that is used in our, EchoStar and its other subsidiaries’ retained businesses but the ownership of which was transferred to DISH Network pursuant to the BSS Transaction.

BSS Transaction Tax Matters Agreement. Effective September 2019, in connection with the BSS Transaction, EchoStar, BSS Corp. and DISH entered into a tax matters agreement. This agreement governs certain rights, responsibilities and obligations of EchoStar and its subsidiaries with respect to taxes of the BSS Business transferred pursuant to the BSS Transaction. Generally, EchoStar is responsible for all tax returns and tax liabilities for the BSS Business for periods prior to the BSS Transaction and DISH is responsible for all tax returns and tax liabilities for the BSS Business from and after the BSS Transaction. Both EchoStar and DISH made certain tax-related representations and are subject to various tax-related covenants after the consummation of the BSS Transaction. Both EchoStar and DISH Network have agreed to indemnify each other for certain losses if there is a breach of any the tax representations or violation of any of the tax covenants in the tax matters agreement and that breach or violation results in the failure of the BSS Transaction being treated as a transaction that is tax-free for EchoStar or its stockholders for U.S. federal income tax purposes. In addition, DISH Network has agreed to indemnify EchoStar if the BSS Business is acquired, either directly or indirectly (e.g., via an acquisition of DISH Network), by one or more persons, where either it took an action, or knowingly facilitated, consented to or assisted with an action by its stockholders, that resulted in the failure of the BSS Transaction being treated as a transaction that is tax-free for EchoStar and its stockholders for U.S. federal income tax purposes. This tax matters agreement supplements the Tax Sharing Agreement outlined above and the Share Exchange Tax Matters Agreement outlined below, both of which continue in full force and effect.

BSS Transaction Employee Matters Agreement . Effective September 2019, in connection with the BSS Transaction, EchoStar and DISH Network entered into an employee matters agreement that addressed the transfer of employees from us to DISH Network, 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. DISH Network assumed employee-related liabilities relating to the BSS Business as part of the BSS Transaction, except that EchoStar is responsible for certain pre-BSS Transaction compensation and benefits for employees who transferred to DISH Network in connection with the BSS Transaction.

Share Exchange Agreement. In January 2017, EchoStar and certain of its and our subsidiaries entered into the Share Exchange Agreement with DISH and certain of its subsidiaries pursuant to which, in February 2017, EchoStar and certain of its and our subsidiaries received all of the shares of the Tracking Stock in exchange for 100% of the equity interests of certain EchoStar subsidiaries that held substantially all of EchoStar’s EchoStar Technologies businesses and certain other assets. Following consummation of the Share Exchange, EchoStar no longer operates the transferred EchoStar Technologies businesses and the Tracking Stock was retired and is no longer outstanding and all agreements, arrangements and policy statements with respect to such Tracking Stock terminated and are of no further effect. Pursuant to the Share Exchange Agreement, EchoStar transferred certain assets, investments in joint ventures, spectrum licenses and real estate properties and DISH Network assumed certain liabilities relating to the transferred assets and businesses. The Share Exchange Agreement contained customary representations and warranties by the parties, including representations by EchoStar related to the transferred assets, assumed liabilities and the financial condition of the transferred businesses. EchoStar and DISH Network also agreed to customary indemnification provisions whereby each party indemnifies the other against certain losses with respect to breaches of representations, warranties or covenants and certain liabilities and if certain actions undertaken by EchoStar or DISH causes the transaction to be taxable to the other party after closing.

Share Exchange Intellectual Property and Technology License Agreement. Effective March 2017, in connection with the Share Exchange, EchoStar and one of its other subsidiaries and DISH Network entered into an intellectual property and technology license agreement ("IPTLA") pursuant to which we, EchoStar and one of its other subsidiaries and DISH Network 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, we, EchoStar and one of its other subsidiaries granted to DISH Network a license to our and their intellectual property and technology for use by DISH Network, among other things, in connection with its continued operation of the businesses acquired pursuant to the Share Exchange, including a limited license to use the "ECHOSTAR" trademark during a transition period. EchoStar retains full ownership of the "ECHOSTAR" trademark. In addition, DISH Network granted a license back to us, EchoStar and one of its other subsidiaries, among other things, for the continued use of all intellectual property and technology that is used in our, EchoStar and one of its other subsidiaries' retained businesses but the ownership of which was transferred to DISH Network pursuant to the Share Exchange.

Share Exchange Tax Matters Agreement. Effective March 2017, in connection with the Share Exchange, EchoStar and DISH entered into a tax matters agreement. This agreement governs certain rights, responsibilities and obligations of EchoStar and its subsidiaries 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 and assets for periods prior to the Share Exchange and DISH Network is responsible for all tax returns and tax liabilities for the transferred businesses and assets from and after the Share Exchange. Both EchoStar and DISH Network made certain tax-related representations and are subject to various tax-related covenants after the consummation of the Share Exchange. Both EchoStar and DISH Network 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, DISH Network has agreed to indemnify EchoStar if the transferred businesses are acquired, either directly or indirectly (e.g., via an acquisition of DISH Network), 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 outlined above, which continues in full force and effect.

NOTE 16. RELATED PARTY TRANSACTIONS - OTHER

Hughes Systique Corporation

We contract with Hughes Systique Corporation ("Hughes Systique") for software development services. In addition to our approximately 43% ownership in Hughes Systique, Mr. Pradman Kaul, the President of our subsidiary Hughes Communications, Inc. and a member of EchoStar's board of directors, and his brother, who is the Chief Executive Officer and President of Hughes Systique, in the aggregate, own approximately 25%, on an undiluted basis, of Hughes Systique's outstanding shares as of March 31, 2020. Furthermore, Mr. Pradman Kaul serves on the board of directors of Hughes Systique. Hughes Systique is a variable interest entity and we are considered the primary beneficiary of Hughes Systique due to, among other factors, our ability to direct the activities that most significantly impact the economic performance of Hughes Systique. As a result, we consolidate Hughes Systique's financial statements in these Condensed Consolidated Financial Statements.

TerreStar Solutions, Inc.

DISH Network owns more than 15% of TerreStar Solutions, Inc. ("TSI"). In May 2018, we and TSI entered into an equipment and services agreement pursuant to which we design, manufacture and install upgraded ground communications network equipment for TSI's network and provide, among other things, warranty and support services. We recognized revenue of $2.2 million and $5.1 million for the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020 and December 31, 2019, we had trade accounts receivable from TSI of $2.3 million and $2.7 million, respectively.

Global-IP Cayman

In May 2017, we entered into an agreement with Global-IP Cayman ("Global IP") providing for the sale of certain equipment and services to Global IP. Mr. William David Wade, a member of EchoStar's board of directors, served as a member of the board of directors of Global IP and as an executive advisor to the Chief Executive Officer of Global IP from September 2017 until April 2019 and from September 2017 until December 2019, respectively. In August 2018, we and Global IP amended the agreement to: (i) change certain of the equipment and services to be provided to Global IP, (ii) modify certain payment terms, (iii) provide Global IP an option to use one of our test lab facilities and (iv) effectuate the assignment of the agreement from Global IP to one of its wholly-owned subsidiaries. In February 2019, we terminated the agreement as a result of Global IP's defaults resulting from its failure to make payments to us as required under the terms of the agreement and we reserved our rights and remedies against Global IP under the agreement. We recognized revenue under this agreement of zero for each of the three months ended March 31, 2020 and 2019. As of both March 31, 2020 and December 31, 2019, we were owed $7.5 million from Global IP.

Maxar Technologies Inc.

Mr. Jeffrey Tarr, who joined EchoStar's board of directors in March 2019, served as a consultant and advisor to Maxar Technologies Inc. and its subsidiaries ("Maxar Tech") through May 2019. We previously entered into agreements with Maxar Tech for the manufacture and certain other services of the EchoStar IX satellite, the EchoStar XVII satellite, the EchoStar XIX satellite and the EchoStar XXI satellite and our former EchoStar XI satellite, EchoStar XIV satellite, EchoStar XVI satellite and EchoStar XXIII satellite. Maxar Tech provides us with anomaly support for these satellites once launched pursuant to the terms of the agreements. Maxar Tech also provides a warranty on one of these satellites and may be required to pay us certain amounts should the satellite not operate according to certain performance specifications. Our obligations to pay Maxar Tech under these agreements during the design life of the applicable satellites may be reduced if the applicable satellites do not operate according to certain performance specifications. We incurred aggregate costs payable to Maxar Tech under these agreements of $3.5 million and $4.9 million for the three months ended March 31, 2020 and 2019, respectively. At both March 31, 2020 and December 31, 2019, we had no trade accounts payable to Maxar Tech.

NOTE 17. SUPPLEMENTAL FINANCIAL INFORMATION

Research and Development

The following table presents the research and development costs incurred in connection with customers' orders:

	For the three months ended March 31,	
	2020	2019
Cost of sales - equipment (exclusive of depreciation and amortization)	$ 6,692	$ 5,395
Research and development expenses	$ 6,254	$ 6,888

Cash and Cash Equivalents and Restricted Cash

The following table reconciles *Cash and cash equivalents* and restricted cash, as presented in the Condensed Consolidated Balance Sheets, to the total of the same as presented in the Condensed Consolidated Statements of Cash Flows:

	For the three months ended March 31,	
	2020	2019
Cash and cash equivalents, including restricted amounts, beginning of period:		
Cash and cash equivalents	$ 1,139,435	$ 847,823
Restricted cash	887	796
Total cash and cash equivalents, included restricted amounts, beginning of period	$ 1,140,322	$ 848,619
Cash and cash equivalents, including restricted amounts, end of period:		
Cash and cash equivalents	$ 1,228,361	$ 1,138,711
Restricted cash	1,116	971
Total cash and cash equivalents, included restricted amounts, end of period	$ 1,229,477	$ 1,139,682

Other Current Assets, Net and Other Non-Current Assets, Net

The following table presents the components of *Other current assets, net*, and *Other non-current assets, net*:

	As of	
	March 31, 2020	December 31, 2019
Other current assets, net:		
Trade accounts receivable - DISH Network	$ 9,955	$ 8,876
Inventory	88,302	79,474
Prepaids and deposits	47,055	42,324
Contract acquisition costs, net	14,290	16,869
Related party receivables - EchoStar	131,948	131,892
Other, net	23,821	22,217
Total other current assets, net	$ 315,371	$ 301,652
Other non-current assets, net:		
Restricted cash	$ 1,116	$ 887
Deferred tax assets, net	7,098	7,215
Capitalized software, net	104,401	101,786
Contract acquisition costs, net	96,107	96,723
Contract fulfillment costs, net	2,782	3,010
Related party receivables - EchoStar	19,412	19,759
Other, net	25,859	22,556
Total other non-current assets, net	$ 256,775	$ 251,936

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED
(Unaudited)

The following table presents the activity in our allowance for doubtful accounts, which is included within Other, net in each of *Other current assets, net* and *Other non-current assets, net* in the table above:

	Balance at Beginning of Period	Credit Losses [1]	Deductions	Foreign Currency Translation	Balance at End of Period
For the three months ended March 31, 2020					
Other current assets, net	$ —	$ 1,595	$ —	$ —	$ 1,595
Other non-current assets, net	$ —	$ 13,379	$ —	$ (358)	$ 13,021

[1] The impact of adopting ASC 326 on January 1, 2020 was a net increase to our allowance for doubtful accounts largely driven by a $13.4 million reclassification from *Trade accounts receivables and contracts assets, net*.

Accrued Expenses and Other Current Liabilities and Other Non-Current Liabilities

The following table presents the components of *Accrued expenses and other current liabilities* and *Other non-current liabilities*:

	As of	
	March 31, 2020	December 31, 2019
Accrued expenses and other current liabilities:		
Trade accounts payable - DISH Network	$ 610	$ 502
Accrued interest	35,905	32,184
Accrued compensation	31,707	42,846
Accrued taxes	7,534	18,493
Operating lease obligation	13,393	14,112
Related party payables - EchoStar	13,793	11,132
Other	128,948	139,148
Total accrued expenses and other current liabilities	$ 231,890	$ 258,417
Other non-current liabilities:		
Related party payables - EchoStar	$ 23,748	$ 23,980
Other	64,848	66,500
Total other non-current liabilities	$ 88,596	$ 90,480

Inventory

The following table presents the components of inventory:

	As of	
	March 31, 2020	December 31, 2019
Raw materials	$ 8,399	$ 4,240
Work-in-process	9,421	6,979
Finished goods	70,482	68,255
Total inventory	$ 88,302	$ 79,474

Supplemental and Non-cash Investing and Financing Activities

The following table presents the supplemental and non-cash investing and financing activities:

	For the three months ended March 31,	
	2020	**2019**
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amounts capitalized	$ 49,563	$ 54,277
Cash paid for income taxes	$ 716	$ 652
Non-cash investing and financing activities:		
Increase (decrease) in capital expenditures included in accounts payable, net	$ (5,359)	$ (2,163)

NOTE 18. SUPPLEMENTAL GUARANTOR AND NON-GUARANTOR FINANCIAL INFORMATION

Certain of our wholly-owned subsidiaries (together, the “Guarantor Subsidiaries”) have fully and unconditionally guaranteed, on a joint and several basis, the obligations of our 5 1/4% Senior Secured Notes due August 1, 2026, 7 5/8% Senior Unsecured Notes due 2021 and 6 5/8% Senior Unsecured Notes due August 1, 2026 (collectively, the “Notes”).

The indentures governing the Notes contain restrictive covenants that, among other things, impose limitations on our ability and the ability of certain of our subsidiaries to pay dividends or make distributions, incur additional debt, make certain investments, create liens or enter into sale and leaseback transactions, merge or consolidate with another company, transfer and sell assets, enter into transactions with affiliates or allow to exist certain restrictions on the ability of certain of our subsidiaries to pay dividends, make distributions, make other payments, or transfer assets to us.

In lieu of separate financial statements of the Guarantor Subsidiaries, we have prepared the accompanying condensed consolidating financial information in accordance with Rule 3-10(f) of Regulation S-X. This includes:

- the accompanying condensed balance sheet;
- the accompanying condensed statement of operations and comprehensive income (loss); and
- the accompanying condensed statement of cash flows.

This also includes consolidating financial information as follows:

- the Guarantor Subsidiaries on a combined basis;
- the non-guarantor subsidiaries of HSSC on a combined basis; and
- the eliminations necessary to arrive at the corresponding information of HSSC on a consolidated basis.

This accompanying condensed consolidating financial information should be read in conjunction with these Condensed Consolidated Financial Statements.

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED
(Unaudited)

Condensed Consolidating Balance Sheet as of March 31, 2020

	HSSC	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Assets					
Current assets:					
Cash and cash equivalents	$ 1,174,650	$ 19,878	$ 33,833	$ —	$ 1,228,361
Marketable investment securities	524,864	77	—	—	524,941
Trade accounts receivable and contract assets, net	—	131,579	56,233	—	187,812
Other current assets	93,526	655,191	109,288	(542,634)	315,371
Total current assets	1,793,040	806,725	199,354	(542,634)	2,256,485
Non-current assets:					
Property and equipment, net	—	1,425,670	324,891	—	1,750,561
Operating lease right-of-use assets	—	96,944	22,767	—	119,711
Goodwill	—	504,173	5,142	—	509,315
Regulatory authorizations, net	—	400,000	11,243	—	411,243
Other intangible assets, net	—	25,663	—	—	25,663
Other investments, net	—	108,952	—	—	108,952
Investment in subsidiaries	2,823,219	207,664	—	(3,030,883)	—
Other non-current assets, net	18,179	288,132	43,055	(92,591)	256,775
Total non-current assets	2,841,398	3,057,198	407,098	(3,123,474)	3,182,220
Total assets	$ 4,634,438	$ 3,863,923	$ 606,452	$ (3,666,108)	$ 5,438,705
Liabilities and Shareholder's Equity					
Current liabilities:					
Trade accounts payable	$ —	$ 87,132	$ 19,207	$ —	$ 106,339
Contract liabilities	—	93,741	5,525	—	99,266
Accrued expenses and other current liabilities	266,731	311,723	196,070	(542,634)	231,890
Total current liabilities	266,731	492,596	220,802	(542,634)	437,495
Non-current liabilities:					
Long-term debt	2,390,218	—	—	—	2,390,218
Deferred tax liabilities, net	—	398,786	—	(17,565)	381,221
Operating lease liabilities	—	86,603	18,854	—	105,457
Other non-current liabilities	—	63,401	100,221	(75,026)	88,596
Total non-current liabilities	2,390,218	548,790	119,075	(92,591)	2,965,492
Total liabilities	2,656,949	1,041,386	339,877	(635,225)	3,402,987
Shareholder's equity:					
Total Hughes Satellite Systems Corporation shareholder's equity	1,977,489	2,822,537	208,346	(3,030,883)	1,977,489
Non-controlling interests	—	—	58,229	—	58,229
Total shareholder's equity	1,977,489	2,822,537	266,575	(3,030,883)	2,035,718
Total liabilities and shareholder's equity	$ 4,634,438	$ 3,863,923	$ 606,452	$ (3,666,108)	$ 5,438,705

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED
(Unaudited)

Condensed Consolidating Balance Sheet as of December 31, 2019

	HSSC	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Assets					
Current assets:					
Cash and cash equivalents	$ 1,057,903	$ 32,338	$ 49,194	$ —	$ 1,139,435
Marketable investment securities	652,594	241	—	—	652,835
Trade accounts receivable and contract assets, net	—	129,722	66,798	—	196,520
Other current assets	93,536	602,337	107,959	(502,180)	301,652
Total current assets	1,804,033	764,638	223,951	(502,180)	2,290,442
Non-current assets:					
Property and equipment, net	—	1,459,151	398,430	—	1,857,581
Operating lease right-of-use assets	—	89,106	24,293	—	113,399
Goodwill	—	504,173	2,780	—	506,953
Regulatory authorizations, net	—	400,000	12,363	—	412,363
Other intangible assets, net	—	29,321	—	—	29,321
Other investments, net	—	110,040	—	—	110,040
Investment in subsidiaries	2,876,572	282,163	—	(3,158,735)	—
Other non-current assets, net	10,672	772,193	42,557	(573,486)	251,936
Total non-current assets	2,887,244	3,646,147	480,423	(3,732,221)	3,281,593
Total assets	$ 4,691,277	$ 4,410,785	$ 704,374	$ (4,234,401)	$ 5,572,035
Liabilities and Shareholder's Equity					
Current liabilities:					
Trade accounts payable	$ —	$ 102,744	$ 18,808	$ —	$ 121,552
Contract liabilities	—	96,485	4,575	—	101,060
Accrued expenses and other current liabilities	243,694	314,583	202,320	(502,180)	258,417
Total current liabilities	243,694	513,812	225,703	(502,180)	481,029
Non-current liabilities:					
Long-term debt	2,389,168	—	—	—	2,389,168
Deferred tax liabilities, net	—	390,288	—	(9,972)	380,316
Operating lease liabilities	—	77,366	19,513	—	96,879
Other non-current liabilities	—	553,518	100,476	(563,514)	90,480
Total non-current liabilities	2,389,168	1,021,172	119,989	(573,486)	2,956,843
Total liabilities	2,632,862	1,534,984	345,692	(1,075,666)	3,437,872
Shareholder's equity:					
Total Hughes Satellite Systems Corporation shareholder's equity	2,058,415	2,875,801	282,934	(3,158,735)	2,058,415
Non-controlling interests	—	—	75,748	—	75,748
Total shareholder's equity	2,058,415	2,875,801	358,682	(3,158,735)	2,134,163
Total liabilities and shareholder's equity	$ 4,691,277	$ 4,410,785	$ 704,374	$ (4,234,401)	$ 5,572,035

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED
(Unaudited)

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
For the Three Months Ended March 31, 2020

	HSSC	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue	$ —	$ 354,399	$ 64,928	$ (9,089)	$ 410,238
Equipment revenue	—	65,586	5,410	(13,687)	57,309
Total revenue	—	419,985	70,338	(22,776)	467,547
Costs and expenses:					
Cost of sales - services and other (exclusive of depreciation and amortization)	—	110,471	42,063	(8,649)	143,885
Cost of sales - equipment (exclusive of depreciation and amortization)	—	55,374	4,221	(13,687)	45,908
Selling, general and administrative expenses	—	95,818	20,482	(440)	115,860
Research and development expenses	—	6,109	145	—	6,254
Depreciation and amortization	—	99,359	26,606	—	125,965
Total costs and expenses	—	367,131	93,517	(22,776)	437,872
Operating income (loss)	—	52,854	(23,179)	—	29,675
Other income (expense):					
Interest income	7,953	971	891	(923)	8,892
Interest expense, net of amounts capitalized	(40,472)	(613)	(2,030)	923	(42,192)
Gains (losses) on investments, net	—	(164)	—	—	(164)
Equity in earnings (losses) of unconsolidated affiliates, net	—	(1,087)	—	—	(1,087)
Equity in earnings (losses) of subsidiaries, net	10,630	(29,167)	—	18,537	—
Foreign currency transaction gains (losses), net	—	(2)	(7,526)	—	(7,528)
Other, net	—	(275)	(3)	—	(278)
Total other income (expense), net	(21,889)	(30,337)	(8,668)	18,537	(42,357)
Income (loss) from continuing operations before income taxes	(21,889)	22,517	(31,847)	18,537	(12,682)
Income tax benefit (provision), net	7,418	(11,804)	(845)	—	(5,231)
Net income (loss)	(14,471)	10,713	(32,692)	18,537	(17,913)
Less: Net loss (income) attributable to non-controlling interests	—	—	3,442	—	3,442
Net income (loss) attributable to Hughes Satellite Systems Corporation	$ (14,471)	$ 10,713	$ (29,250)	$ 18,537	$ (14,471)
Comprehensive income (loss):					
Net income (loss)	$ (14,471)	$ 10,713	$ (32,692)	$ 18,537	$ (17,913)
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	(82,836)	—	(82,836)
Unrealized gains (losses) on available-for-sale securities	(2,479)	—	—	—	(2,479)
Other	—	—	(405)	—	(405)
Equity in other comprehensive income (loss) of subsidiaries, net	(66,918)	(66,918)	—	133,836	—
Total other comprehensive income (loss), net of tax	(69,397)	(66,918)	(83,241)	133,836	(85,720)
Comprehensive income (loss)	(83,868)	(56,205)	(115,933)	152,373	(103,633)
Less: Comprehensive loss (income) attributable to non-controlling interests	—	—	19,765	—	19,765
Comprehensive income (loss) attributable to Hughes Satellite Systems Corporation	$ (83,868)	$ (56,205)	$ (96,168)	$ 152,373	$ (83,868)

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED
(Unaudited)

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
For the Three Months Ended March 31, 2019

	HSSC	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue	$ —	$ 352,591	$ 59,696	$ (8,802)	$ 403,485
Equipment revenue	—	52,649	9,415	(10,350)	51,714
Total revenue	—	405,240	69,111	(19,152)	455,199
Costs and expenses:					
Cost of sales - services and other (exclusive of depreciation and amortization)	—	110,862	39,333	(8,109)	142,086
Cost of sales - equipment (exclusive of depreciation and amortization)	—	48,499	6,858	(10,350)	45,007
Selling, general and administrative expenses	—	86,465	16,565	(693)	102,337
Research and development expenses	—	6,743	145	—	6,888
Depreciation and amortization	—	96,704	15,707	—	112,411
Total costs and expenses	—	349,273	78,608	(19,152)	408,729
Operating income (loss)	—	55,967	(9,497)	—	46,470
Other income (expense):					
Interest income	17,409	926	559	(897)	17,997
Interest expense, net of amounts capitalized	(56,361)	(1,134)	(1,317)	897	(57,915)
Gains (losses) on investments, net	—	(346)	—	—	(346)
Equity in earnings (losses) of unconsolidated affiliates, net	—	(1,072)	—	—	(1,072)
Equity in earnings (losses) of subsidiaries, net	52,199	(8,788)	—	(43,411)	—
Foreign currency transaction gains (losses), net	—	(19)	230	—	211
Other, net	309	(398)	(76)	—	(165)
Total other income (expense), net	13,556	(10,831)	(604)	(43,411)	(41,290)
Income (loss) from continuing operations before income taxes	13,556	45,136	(10,101)	(43,411)	5,180
Income tax benefit (provision), net	8,670	(15,568)	2,026	—	(4,872)
Net income (loss) from continuing operations	22,226	29,568	(8,075)	(43,411)	308
Net income (loss) from discontinued operations	—	22,724	—	—	22,724
Net income (loss)	22,226	52,292	(8,075)	(43,411)	23,032
Less: Net loss (income) attributable to non-controlling interests	—	—	(806)	—	(806)
Net income (loss) attributable to Hughes Satellite Systems Corporation	$ 22,226	$ 52,292	$ (8,881)	$ (43,411)	$ 22,226
Comprehensive income (loss):					
Net income (loss)	$ 22,226	$ 52,292	$ (8,075)	$ (43,411)	$ 23,032
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	(838)	—	(838)
Unrealized gains (losses) on available-for-sale securities	2,353	—	—	—	2,353
Other	—	—	33	—	33
Equity in other comprehensive income (loss) of subsidiaries, net	(805)	(805)	—	1,610	—
Amounts reclassified to net income (loss):					
Realized losses (gains) on available-for-sale securities	(385)	—	—	—	(385)
Total other comprehensive income (loss), net of tax	1,163	(805)	(805)	1,610	1,163
Comprehensive income (loss)	23,389	51,487	(8,880)	(41,801)	24,195
Less: Comprehensive loss (income) attributable to non-controlling interests	—	—	(806)	—	(806)
Comprehensive income (loss) attributable to Hughes Satellite Systems Corporation	$ 23,389	$ 51,487	$ (9,686)	$ (41,801)	$ 23,389

Condensed Consolidating Statement of Cash Flows
For the Three Months Ended March 31, 2020

	HSSC	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash flows from operating activities:					
Net income (loss)	$ (14,471)	$ 10,713	$ (32,692)	$ 18,537	$ (17,913)
Adjustments to reconcile net income (loss) to net cash flows from operating activities	(22,215)	95,031	28,858	(18,537)	83,137
Net cash flows from operating activities	(36,686)	105,744	(3,834)	—	65,224
Cash flows from investing activities:					
Purchases of marketable investment securities	(365,877)	—	—	—	(365,877)
Sales and maturities of marketable investment securities	490,020	—	—	—	490,020
Expenditures for property and equipment	—	(61,134)	(30,383)	—	(91,517)
Expenditures for externally marketed software	—	(8,638)	—	—	(8,638)
Distributions (contributions) and advances from (to) subsidiaries, net	29,290	(18,939)	—	(10,351)	—
Net cash flows from investing activities	153,433	(88,711)	(30,383)	(10,351)	23,988
Cash flows from financing activities:					
Payment of finance lease obligations	—	—	(215)	—	(215)
Payment of in-orbit incentive obligations	—	(203)	—	—	(203)
Contribution by non-controlling interest holder	—	—	4,000	—	4,000
Other, net	—	—	979	—	979
Contributions (distributions) and advances (to) from parent, net	—	(29,290)	18,939	10,351	—
Net cash flows from financing activities	—	(29,493)	23,703	10,351	4,561
Effect of exchange rates on cash and cash equivalents	—	—	(4,618)	—	(4,618)
Net increase (decrease) in cash and cash equivalents	116,747	(12,460)	(15,132)	—	89,155
Cash and cash equivalents, including restricted amounts, beginning of period	1,057,903	32,338	50,081	—	1,140,322
Cash and cash equivalents, including restricted amounts, end of period	$ 1,174,650	$ 19,878	$ 34,949	$ —	$ 1,229,477

HUGHES SATELLITE SYSTEMS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - CONTINUED
(Unaudited)

Condensed Consolidating Statement of Cash Flows
For the Three Months Ended March 31, 2019

	HSSC	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash flows from operating activities:					
Net income (loss)	$ 22,226	$ 52,292	$ (8,075)	$ (43,411)	$ 23,032
Adjustments to reconcile net income (loss) to net cash flows from operating activities	(48,467)	163,032	(10,043)	43,411	147,933
Net cash flows from operating activities	(26,241)	215,324	(18,118)	—	170,965
Cash flows from investing activities:					
Purchases of marketable investment securities	(240,188)	—	—	—	(240,188)
Sales and maturities of marketable investment securities	468,748	(3)	—	—	468,745
Expenditures for property and equipment	—	(54,207)	(19,722)	—	(73,929)
Expenditures for externally marketed software	—	(7,600)	—	—	(7,600)
Distributions (contributions) and advances from (to) subsidiaries, net	111,020	(32,949)	—	(78,071)	—
Net cash flows from investing activities	339,580	(94,759)	(19,722)	(78,071)	147,028
Cash flows from financing activities:					
Repurchase of the 2019 Senior Secured Notes	(8,046)	—	—	—	(8,046)
Payment of finance lease obligations	—	(9,597)	(285)	—	(9,882)
Payment of in-orbit incentive obligations	—	(1,573)	—	—	(1,573)
Purchase of non-controlling interest	(7,312)	—	—	—	(7,312)
Contributions (distributions) and advances (to) from parent, net	—	(111,020)	32,949	78,071	—
Net cash flows from financing activities	(15,358)	(122,190)	32,664	78,071	(26,813)
Effect of exchange rates on cash and cash equivalents	—	—	(117)	—	(117)
Net increase (decrease) in cash and cash equivalents	297,981	(1,625)	(5,293)	—	291,063
Cash and cash equivalents, including restricted amounts, beginning of period	771,718	46,353	30,548	—	848,619
Cash and cash equivalents, including restricted amounts, end of period	$ 1,069,699	$ 44,728	$ 25,255	$ —	$ 1,139,682

ITEM 2. MANAGEMENT'S NARRATIVE ANALYSIS OF RESULTS OF OPERATIONS

Unless the context indicates otherwise, the terms "we," "us," "HSSC," the "Company" and "our" refer to Hughes Satellite Systems Corporation and its subsidiaries. The following Management's Narrative Analysis of Results of Operations ("Management's Narrative Analysis") should be read in conjunction with our accompanying Condensed Consolidated Financial Statements and notes thereto ("Accompanying Condensed Consolidated Financial Statements") in Item 1 of this Quarterly Report on Form 10-Q ("Form 10-Q"). This Management's Narrative Analysis is intended to help provide an understanding of our financial condition, changes in our financial condition and our results of operations. Many of the statements in this Management's Narrative Analysis are forward-looking statements that involve assumptions and are subject to risks and uncertainties that are often difficult to predict and beyond our control. Actual results could differ materially from those expressed or implied by such forward-looking statements. Refer to the Disclosure Regarding Forward-Looking Statements in this Form 10-Q for further discussion. For a discussion of additional risks, uncertainties and other factors that could impact our results of operations or financial condition, refer to the Risk Factors in Part II, Item 1A of this Form 10-Q and in Part I, Item 1A of our most recent Annual Report on Form 10-K ("Form 10-K") filed with the Securities and Exchange Commission ("SEC"). Further, such forward-looking statements speak only as of the date of this Form 10-Q and we undertake no obligation to update them.

EXECUTIVE SUMMARY

We are a holding company and a subsidiary of EchoStar Corporation ("EchoStar"). We were formed as a Colorado corporation in March 2011. We are a global provider of broadband satellite technologies, broadband internet services for consumer customers, which include home and small to medium-sized businesses, and satellite services. We also deliver innovative network technologies, managed services and communications solutions for enterprise customers, which include aeronautical and government enterprises.

In September 2019, pursuant to a master transaction agreement (the "Master Transaction Agreement") with DISH Network Corporation ("DISH") and a wholly-owned subsidiary of DISH ("Merger Sub"), (i) EchoStar and its subsidiaries and we and our subsidiaries transferred certain real property and the various businesses, products, licenses, technology, revenues, billings, operating activities, assets and liabilities primarily related to the former portion of our ESS segment that managed, marketed and provided (1) broadcast satellite services primarily to DISH and its subsidiaries (together with DISH, "DISH Network") and EchoStar's joint venture Dish Mexico, S. de R.L. de C.V. ("Dish Mexico") and its subsidiaries, and (2) telemetry, tracking and control ("TT&C") services for satellites owned by DISH Network and a portion of EchoStar's and our other businesses (collectively, the "BSS Business") to one of our former subsidiaries, EchoStar BSS Corporation ("BSS Corp."), (ii) EchoStar distributed to each holder of shares of EchoStar's Class A or Class B common stock entitled to receive consideration in the transaction an amount of shares of common stock of BSS Corp., par value $0.001 per share ("BSS Common Stock"), equal to one share of BSS Common Stock for each share of EchoStar's Class A or Class B common stock owned by such EchoStar stockholder (the "Distribution"); and (iii) immediately after the Distribution, (1) Merger Sub merged with and into BSS Corp. (the "Merger"), such that BSS Corp. became a wholly-owned subsidiary of DISH and with DISH then owning and operating the BSS Business, and (2) each issued and outstanding share of BSS Common Stock owned by EchoStar stockholders was converted into the right to receive 0.23523769 shares of DISH Class A common stock, par value $0.001 per share ("DISH Common Stock") ((i) - (iii) collectively, the "BSS Transaction").

Following the consummation of the BSS Transaction, we no longer operate the BSS Business, which was a substantial portion of our ESS segment. As a result of the BSS Transaction, the financial results of the BSS Business, except for certain real estate that transferred in the transaction, are presented as discontinued operations and, as such, excluded from continuing operations and segment results for the three months ended March 31, 2019 in our Accompanying Condensed Consolidated Financial Statements. Refer to *Note 4. Discontinued Operations* in our Accompanying Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q.

We currently operate in two business segments: Hughes and ESS. These segments are consistent with the way we make decisions regarding the allocation of resources, as well as how operating results are reviewed by our chief operating decision maker, who is the Company's Chief Executive Officer.

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

All amounts presented in this Management's Discussion and Analysis reference results from continuing operations unless otherwise noted and are expressed in thousands of United States ("U.S.") dollars, except share and per share amounts and unless otherwise noted.

Highlights from our financial results are as follows:

Consolidated Results of Operations for the Three Months Ended March 31, 2020:

- Revenue of $467.5 million
- Operating income (loss) of $29.7 million
- Net income (loss) from continuing operations of $17.9 million
- Net income (loss) attributable to HSSC of $14.5 million
- Earnings before interest, taxes, depreciation and amortization, net income (loss) from discontinued operations and net income (loss) attributable to non-controlling interests ("EBITDA") of $150.0 million (refer to the reconciliation of this non-GAAP measure in Results of Operations)

Consolidated Financial Condition as of March 31, 2020:

- Total assets of $5.4 billion
- Total liabilities of $3.4 billion
- Total shareholder's equity of $2.0 billion
- Cash, cash equivalents and current marketable investment securities of $1.8 billion

Hughes Segment

Our Hughes segment is a global provider of broadband satellite technologies and broadband internet services to consumer customers and broadband network technologies, managed services, equipment, hardware, satellite services and communications solutions to consumer and enterprise customers. The Hughes segment also designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment designs, develops, constructs and provides telecommunication networks comprising satellite ground segment systems and terminals to mobile system operators and our enterprise customers.

We incorporate advances in technology to reduce costs and to increase the functionality and reliability of our products and services. Through advanced and proprietary methodologies, technologies, software and techniques, we continue to improve the efficiency of our networks. We invest in technologies to enhance our system and network management capabilities, specifically our managed services for enterprises. We also continue to invest in next generation technologies that can be applied to our future products and services.

We continue to focus our efforts on growing our consumer revenue by maximizing utilization of our existing satellites while planning for new satellites to be launched or acquired. Our consumer revenue growth depends on our success in adding new and retaining existing subscribers in our domestic and international markets across wholesale and retail channels. Service costs related to ongoing support for our direct and indirect customers and partners are typically impacted most significantly by our growth. The growth of our enterprise businesses relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies. As a result of the COVID-19 pandemic, in accordance with orders received from our enterprise customers, we have deferred or canceled the delivery of some products or services and we, thus, may not be able to recognize revenue for such products or services.

Our Hughes segment currently uses capacity from three of our satellites (the SPACEWAY 3 satellite, the EchoStar XVII satellite and the EchoStar XIX satellite), our Al Yah 3 Brazilian payload and additional satellite capacity acquired from third-party providers to provide services to our customers. Growth of our consumer subscriber base continues to be constrained in areas where we are nearing or have reached maximum capacity. While these constraints are expected to be resolved when we launch new satellites, we continue to focus on revenue growth in all areas and consumer subscriber growth in the areas where we have available capacity.

In May 2019, we entered into an agreement with Al Yah Satellite Communications Company PrJSC ("Yahsat") pursuant to which, in November 2019, Yahsat contributed its satellite communications services business in Brazil to us in exchange for a 20% ownership interest in our existing Brazilian subsidiary that conducts our satellite communications services business in Brazil (the "Yahsat Brazil JV Transaction"). The combined business provides broadband internet services and enterprise solutions in Brazil using the Telesat T19V satellite, the Eutelsat 65W satellite and Yahsat's Al Yah 3 satellite. Under the terms of the agreement, Yahsat may also acquire, for further cash investments, additional minority ownership interests in the business in the future provided certain conditions are met.

In May 2019, we also entered into an agreement with Bharti Airtel Limited ("BAL") and its subsidiary, Bharti Airtel Services Limited (together with BAL, "Bharti"), pursuant to which Bharti will contribute its very small aperture terminal ("VSAT") telecommunications services and hardware business in India to our two existing Indian subsidiaries that conduct our VSAT services and hardware business. The combined entities will provide broadband satellite and hybrid solutions for enterprise networks. Upon consummation of the transaction, Bharti will have a 33% ownership interest in the combined business. The completion of the transaction is subject to customary regulatory approvals and closing conditions. No assurance can be given that the transaction will be consummated on the terms agreed to or at all.

In August 2018, we entered into an agreement with Yahsat to establish a new entity, Broadband Connectivity Solutions (Restricted) Limited (together with its subsidiaries, "BCS"), to provide commercial Ka-band satellite broadband services across Africa, the Middle East and southwest Asia operating over Yahsat's Al Yah 2 and Al Yah 3 Ka-band satellites. The transaction was consummated in December 2018 when we invested $100.0 million in cash in exchange for a 20% interest in BCS. Under the terms of the agreement, we may also acquire, for further cash investments, additional ownership interests in BCS in the future provided certain conditions are met. We supply network operations and management services and equipment to BCS.

In August 2017, a subsidiary of EchoStar entered into a contract for the design and construction of the EchoStar XXIV satellite, a new, next-generation, high throughput geostationary satellite. The EchoStar XXIV satellite is primarily intended to provide additional capacity for our HughesNet satellite internet service ("HughesNet service") in North, Central and South America as well as enterprise broadband services. In the first quarter of 2020, Space Systems/Loral, LLC ("SS/L"), the manufacturer of our EchoStar XXIV satellite, invoked the "force majeure" clause of our contract and notified us of a possible delay in completion of the satellite due to "shelter-in-place" orders affecting personnel at SS/L and its subcontractors, and other potential impacts of the COVID-19 pandemic. We currently expect the EchoStar XXIV satellite to be launched no earlier than the second half of 2021. This or other delays or impediments to SS/L's meeting its obligations as a result of the COVID-19 pandemic and various economic and other consequences or otherwise could have a material adverse impact on our business operations, future revenues, financial position and prospects, the completion of manufacture of the EchoStar XXIV satellite and our planned expansion of satellite broadband services throughout North, South and Central America. Capital expenditures associated with the construction and launch of the EchoStar XXIV satellite are included in EchoStar's Corporate and Other in its segment reporting.

In March 2017, we and DISH Network entered into a master service agreement (the "Hughes Broadband MSA"). Pursuant to the Hughes Broadband MSA, DISH Network, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for our HughesNet service and related equipment and other telecommunication services; and (ii) installs HughesNet service equipment with respect to activations generated by DISH Network. As a result of the Hughes Broadband MSA, we have not earned, and do not expect to earn in the future, significant equipment revenue from our distribution agreement with DISH Network.

We continue our efforts to expand our consumer satellite services business outside of the U.S. We have been delivering high-speed consumer satellite broadband services in Brazil since July 2016 and are also providing satellite broadband internet service in several other Latin American countries. Additionally, in September 2015, we entered into 15-year agreements with affiliates of Telesat Canada for Ka-band capacity on the Telesat T19V satellite located at the 63 degree west longitude orbital location, which was launched in July 2018. Telesat T19V was placed in service during the fourth quarter of 2018 and augmented the capacity being provided by the EUTELSAT 65 West A satellite and the EchoStar XIX satellite in South America.

Our broadband subscribers include customers that subscribe to our HughesNet service in North and Latin America through retail, wholesale and small/medium enterprise service channels. In connection with the COVID-19 pandemic, in March 2020, we voluntarily signed on to the Federal Communications Commissions' ("FCC") Keep Americans Connected Pledge (the "Pledge"), promising not to terminate HughesNet service for certain consumer customers for 60 days even if they are unable to pay. We have removed from our subscriber numbers as of March 31, 2020 any subscribers whose HughesNet service would have ordinarily been terminated in the absence of the Pledge. In April 2020, we voluntarily agreed with the FCC's request to extend the Pledge through June 30, 2020. As a result, we may be required to provide HughesNet service to consumers who do not have the ability to pay for such services.

The following table presents our approximate subscriber numbers:

	As of	
	March 31, 2020	**December 31, 2019**
Broadband subscribers	1,516,000	1,477,000

As of March 31, 2020 and December 31, 2019, approximately 267,000 and 238,000 of our subscribers, respectively, were in Latin America.

The following table presents our approximate subscriber net additions:

	For the three months ended	
	March 31, 2020	**December 31, 2019**
Net additions	39,000	20,000

During the first quarter of 2020, our net subscriber additions increased by approximately 19,000 compared to the fourth quarter of 2019, reflecting increased gross subscriber additions compared to the fourth quarter of 2019.

As of March 31, 2020 and December 31, 2019, our Hughes segment had $1.2 billion and $1.4 billion of contracted revenue backlog, respectively. We define Hughes contracted revenue backlog as our expected future revenue under enterprise customer contracts that are non-cancelable, including lease revenue. Our contracted revenue backlog as of March 31, 2020 decreased primarily due to the bankruptcy of a certain customer and the effects of the COVID-19 pandemic, including lengthened or delayed sales cycles with some of our enterprise customers.

ESS Segment

Our ESS segment provides satellite services on a full-time and/or occasional-use basis to U.S. government service providers, internet service providers, broadcast news organizations, content providers and private enterprise customers. We operate our ESS business using primarily the EchoStar IX satellite and the EchoStar 105/SES-11 satellite and related infrastructure. Revenue in our ESS segment depends largely on our ability to continuously make use of our available satellite capacity with existing customers and our ability to enter into commercial relationships with new customers. Our ESS segment, like others in the fixed satellite services industry, has encountered, and may continue to encounter, negative pressure on transponder rates and demand.

As of March 31, 2020 and December 31, 2019, our ESS segment had contracted revenue backlog of $9.5 million and $11.4 million respectively. We define contracted revenue backlog for our ESS segment as contracted future satellite lease revenue.

Other Business Opportunities

Our industry continues to evolve with the increasing worldwide demand for broadband internet access for information, entertainment and commerce. The current COVID-19 pandemic has made even more evident the worldwide need and demand for connectivity and communications to facilitate an ever-increasing virtual global community and workplace. In addition to fiber and wireless systems, technologies such as geostationary high throughput satellites, low-earth orbit ("LEO") networks, medium-earth orbit ("MEO") systems, balloons and High Altitude Platform Systems are expected to continue to play significant roles in enabling global broadband access, networks and services. We intend to use our expertise, technologies, capital, investments, global presence, relationships and other capabilities to continue to provide broadband internet systems, equipment, networks and services for information, the internet-of-things, entertainment, education, remote-connectivity and commerce across many industries and communities in North America and internationally for consumer and enterprise customers. We are closely tracking the developments in next-generation satellite businesses, and we are seeking to utilize our services, technologies, licenses and expertise to find new commercial opportunities for our business.

We intend to continue to selectively explore opportunities to pursue investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, domestically and internationally, that we believe may allow us to increase our existing market share, increase our satellite capacity, expand into new satellite and other technologies, markets and customers, broaden our portfolio of services, products and intellectual property, make our business more valuable, align us for future growth and expansion, maximize the return on our investments and strengthen our business and relationships with our customers. We may allocate or dispose of significant resources for long-term value that may not have a short or medium-term or any positive impact on our revenue, results of operations, or cash flow.

Cybersecurity

As a global provider of satellite technologies and services, internet services and communications equipment and networks, we may be prone to more targeted and persistent levels of cyber-attacks than other businesses. These risks may be more prevalent as we continue to expand and grow our business into other areas of the world outside of North America, some of which are still developing their cybersecurity infrastructure maturity. Detecting, deterring, preventing and mitigating incidents caused by hackers and other parties may result in significant costs to us and may expose our customers to financial or other harm that have the potential to significantly increase our liability.

Due to the COVID-19 pandemic, a large portion of our workforce has been working remotely and is likely to continue to do so for some time. While we have cybersecurity risk management tools to help protect our technology, information and networks that our employees access remotely, we cannot guarantee the security of the network that they will be using, the security status of the other non-company managed devices that might be on the network to which they are connected or the devices or networks used by third parties with whom our employees conduct business, such as customers, suppliers, vendors and other persons. Additionally, there has been a major global increase in COVID-19 related cyber-fraud and phishing attacks that continue to target our employees, vendors, suppliers, customers and others. Accordingly, we have increased our efforts and resources relating to cybersecurity as a result of the COVID-19 pandemic

We treat cybersecurity risk seriously and are focused on maintaining the security of our and our partners' systems, networks, technologies and data. We regularly review and revise our relevant policies and procedures, invest in and maintain internal resources, personnel and systems and review, modify and supplement our defenses through the use of various services, programs and outside vendors. Additionally, we provide resources to assist employees in better securing their home networks and remote connections. EchoStar also maintains agreements with third party vendors and experts to assist in our remediation and mitigation efforts if we experience or identify a material incident or threat. In addition, senior management and the Audit Committee of EchoStar's Board of Directors are regularly briefed on cybersecurity matters.

We are not aware of any cyber-incidents with respect to our owned or leased satellites or other networks, equipment or systems that have had a material adverse effect on our business, costs, operations, prospects, results of operation or financial position during the three months ended March 31, 2020 and through May 6, 2020. There can be no assurance, however, that any such incident can be detected or thwarted or will not have such a material adverse effect in the future.

RESULTS OF OPERATIONS

Three Months Ended March 31, 2020 Compared to the Three Months Ended March 31, 2019

The following table presents our consolidated results of operations for the three months ended March 31, 2020 compared to the three months ended March 31, 2019:

	For the three months ended March 31,		Variance	
Statements of Operations Data	**2020**	**2019**	**Amounts**	**%**
Revenue:				
Services and other revenue	$ 410,238	$ 403,485	$ 6,753	1.7
Equipment revenue	57,309	51,714	5,595	10.8
Total revenue	467,547	455,199	12,348	2.7
Costs and expenses:				
Cost of sales - services and other	143,885	142,086	1,799	1.3
% of total services and other revenue	**35.1%**	**35.2%**		
Cost of sales - equipment	45,908	45,007	901	2.0
% of total equipment revenue	**80.1%**	**87.0%**		
Selling, general and administrative expenses	115,860	102,337	13,523	13.2
% of total revenue	**24.8%**	**22.5%**		
Research and development expenses	6,254	6,888	(634)	(9.2)
% of total revenue	**1.3%**	**1.5%**		
Depreciation and amortization	125,965	112,411	13,554	12.1
Total costs and expenses	437,872	408,729	29,143	7.1
Operating income (loss)	29,675	46,470	(16,795)	(36.1)
Other income (expense):				
Interest income, net	8,892	17,997	(9,105)	(50.6)
Interest expense, net of amounts capitalized	(42,192)	(57,915)	15,723	27.1
Gains (losses) on investments, net	(164)	(346)	182	(52.6)
Equity in earnings (losses) of unconsolidated affiliates, net	(1,087)	(1,072)	(15)	1.4
Foreign currency transaction gains (losses), net	(7,528)	211	(7,739)	*
Other, net	(278)	(165)	(113)	68.5
Total other income (expense), net	(42,357)	(41,290)	(1,067)	2.6
Income (loss) from continuing operations before income taxes	(12,682)	5,180	(17,862)	*
Income tax benefit (provision), net	(5,231)	(4,872)	(359)	7.4
Net income (loss) from continuing operations	(17,913)	308	(18,221)	*
Net income (loss) from discontinued operations	—	22,724	(22,724)	(100.0)
Net income (loss)	(17,913)	23,032	(40,945)	*
Less: Net loss (income) attributable to non-controlling interests	3,442	(806)	4,248	*
Net income (loss) attributable to Hughes Satellite Systems Corporation	$ (14,471)	$ 22,226	$ (36,697)	*
Other data:				
EBITDA (1)	$ 150,025	$ 156,703	$ (6,678)	(4.3)
Subscribers, end of period	1,516,000	1,332,000	184,000	13.8

* Percentage is not meaningful.

(1) A reconciliation of EBITDA to Net income (loss), the most directly comparable generally accepted accounting principles in the U.S. ("U.S. GAAP") measure in our Accompanying Condensed Consolidated Financial Statements, is included in Results of Operations. For further information on our use of EBITDA, refer to the Explanation of Key Metrics and Other Items.

The following discussion relates to our continuing operations for the three months ended March 31, 2020 and 2019 unless otherwise stated.

Services and other revenue. Services and other revenue totaled $410.2 million for the three months ended March 31, 2020, an increase of $6.8 million, or 1.7%, compared to 2019. The increase was from our Hughes segment and was primarily attributable to increases in sales of broadband services to our consumer customers of $19.5 million, partially offset by a decrease in sales of broadband services to our enterprise customers of $12.6 million. Both of these variances include the negative impact of exchange rate fluctuations.

Equipment revenue. Equipment revenue totaled $57.3 million for the three months ended March 31, 2020, an increase of $5.6 million, or 10.8%, compared to 2019. The increase was primarily attributable to our Hughes segment due to increases in hardware sales to our enterprise customers.

Cost of sales - services and other. Cost of sales - services and other totaled $143.9 million for the three months ended March 31, 2020, an increase of $1.8 million, or 1.3%, compared to 2019. The increase was primarily attributable to our Hughes segment due to an increase in the costs of broadband services provided to our consumer customers supporting the increase in number of subscribers and revenue in both the domestic and international markets, partially offset by a decrease in the costs of broadband services provided to our enterprise customers.

Cost of sales - equipment. Cost of sales - equipment totaled $45.9 million for the three months ended March 31, 2020, an increase of $0.9 million, or 2.0%, compared to 2019. The increase was primarily attributable to our Hughes segment due to an increase in hardware sales to our enterprise customers.

Selling, general and administrative expenses. Selling, general and administrative expenses totaled $115.9 million for the three months ended March 31, 2020, an increase of $13.5 million, or 13.2%, compared to 2019. The increase was primarily attributable to (i) increases in marketing and promotional expenses of $8.3 million from our Hughes segment mainly associated with our consumer business in Latin America, (ii) increases in bad debt expense of $1.9 million and (iii) increases in other general and administrative expenses of $3.0 million.

Depreciation and amortization. Depreciation and amortization expenses totaled $126.0 million for the three months ended March 31, 2020, an increase of $13.6 million, or 12.1%, compared to 2019. The increase was primarily from our Hughes segment and due to increases in depreciation expense of $6.4 million relating to our customer premises equipment and $6.1 million relating to the depreciation of assets acquired in the Yahsat Brazil JV Transaction.

Interest income, net. Interest income, net totaled $8.9 million for the three months ended March 31, 2020, a decrease of $9.1 million, or 50.6%, compared to 2019 primarily attributable to the decrease in our marketable investment securities.

Interest expense, net of amounts capitalized. Interest expense, net of amounts capitalized totaled $42.2 million for the three months ended March 31, 2020, a decrease of $15.7 million, or 27.1%, compared to 2019. The decrease was primarily due to a decrease of $16.0 million in interest expense and in amortization of deferred financing cost as a result of the repurchase and maturity of our 6 1/2% Senior Secured Notes due 2019.

Foreign currency transaction gains (losses), net. Foreign currency transaction gains (losses), net totaled $7.5 million in losses for the three months ended March 31, 2020 compared to $0.2 million in gains for the three months ended March 31, 2019. The change was due to the net strengthening of the U.S. dollar against certain foreign currencies in 2020 compared to 2019.

Net income (loss) attributable to Hughes Satellite Services Corporation. Net loss attributable to Hughes Satellite Services Corporation totaled $14.5 million for the three months ended March 31, 2020, compared to net income attributable to Hughes Satellite Services Corporation of $22.2 million for the three months ended March 31, 2019, a decrease of $36.7 million, as set forth in the following table:

	Amounts
Net income (loss) attributable to Hughes Satellite Services Corporation for the three months ended March 31, 2019	$ 22,226
Decrease (increase) in interest expense, net of amounts capitalized	15,723
Decrease (increase) in net income attributable to non-controlling interests	4,248
Increase (decrease) in gains on investments, net	182
Decrease (increase) in equity in losses of unconsolidated affiliates, net	(15)
Increase (decrease) in other, net	(113)
Decrease (increase) in income tax provision, net	(359)
Increase (decrease) in foreign currency transaction gains, net	(7,739)
Increase (decrease) in interest income, net	(9,105)
Increase (decrease) in operating income, including depreciation and amortization	(16,795)
Increase (decrease) in net income from discontinued operations	(22,724)
Net income (loss) attributable to Hughes Satellite Services Corporation for the three months ended March 31, 2020	$ (14,471)

EBITDA. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items below. The following table reconciles Net income (loss), the most directly comparable U.S. GAAP measure in our Accompanying Condensed Consolidated Financial Statements, to EBITDA:

	For the three months ended March 31,		Variance	
	2020	2019	Amounts	%
Net income (loss)	$ (17,913)	$ 23,032	$ (40,945)	*
Interest income, net	(8,892)	(17,997)	9,105	(50.6)
Interest expense, net of amounts capitalized	42,192	57,915	(15,723)	(27.1)
Income tax provision (benefit), net	5,231	4,872	359	7.4
Depreciation and amortization	125,965	112,411	13,554	12.1
Net loss (income) from discontinued operations	—	(22,724)	22,724	(100.0)
Net loss (income) attributable to non-controlling interests	3,442	(806)	4,248	*
EBITDA	$ 150,025	$ 156,703	$ (6,678)	(4.3)

* Percentage is not meaningful.

EBITDA was $150.0 million for the three months ended March 31, 2020, a decrease of $6.7 million, or 4.3%, compared to 2019 as set forth in the following table:

		Amounts
EBITDA for the three months ended March 31, 2019	$	156,703
Decrease (increase) in net income attributable to non-controlling interests		4,248
Increase (decrease) in gains on investments, net		182
Decrease (increase) in equity in losses of unconsolidated affiliates, net		(15)
Increase (decrease) in other, net		(113)
Increase (decrease) in operating income, excluding depreciation and amortization		(3,241)
Increase (decrease) in foreign currency transaction gains, net		(7,739)
EBITDA for the three months ended March 31, 2020	$	150,025

Segment Operating Results and Capital Expenditures

The following tables present our operating results, capital expenditures and EBITDA by segment for the three months ended March 31, 2020 compared to the three months ended March 31, 2019. Capital expenditures in the table below are net of refunds and other receipts related to our property and equipment.

		Hughes		ESS		Corporate and Other		Consolidated Total
For the three months ended March 31, 2020								
Total revenue	$	458,482	$	4,652	$	4,413	$	467,547
Capital expenditures		91,517		—		—		91,517
EBITDA		154,641		2,030		(6,646)		150,025
For the three months ended March 31, 2019								
Total revenue	$	445,337	$	4,033	$	5,829	$	455,199
Capital expenditures		73,821		—		—		73,821
EBITDA		161,132		1,729		(6,158)		156,703

Hughes Segment

	For the three months ended March 31,				Variance		
		2020		2019		Amounts	%
Total revenue	$	458,482	$	445,337	$	13,145	3.0
Capital expenditures		91,517		73,821		17,696	24.0
EBITDA		154,641		161,132		(6,491)	(4.0)

Total revenue was $458.5 million for the three months ended March 31, 2020, an increase of $13.1 million, or 3.0%, compared to 2019. The increase was primarily due to net increases of $19.5 million in sales of broadband services to our consumer customers and $5.6 million in hardware sales to our enterprise customers, partially offset by a decrease in sales of broadband services to our enterprise customers of $12.6 million. Both of these variances include the negative impact of exchange rate fluctuations.

Capital expenditures were $91.5 million for the three months ended March 31, 2020, an increase of $17.7 million, or 24.0%, compared to 2019, primarily due to net increases in expenditures associated with our consumer business.

EBITDA was $154.6 million for the three months ended March 31, 2020, a decrease of $6.5 million, or 4.0%, compared to 2019 as set forth in the following table:

		Amounts
EBITDA for the three months ended March 31, 2019	$	161,132
Decrease (increase) in net income attributable to non-controlling interests		4,248
Increase (decrease) in gains on investments, net		568
Increase (decrease) in other, net		(191)
Decrease (increase) in equity in losses of unconsolidated affiliates, net		(373)
Increase (decrease) in operating income, excluding depreciation and amortization		(2,997)
Increase (decrease) in foreign currency transaction gains, net		(7,746)
EBITDA for the three months ended March 31, 2020	$	154,641

ESS Segment

	For the three months ended March 31,				Variance		
	2020		2019		Amounts		%
Total revenue	$	4,652	$	4,033	$	619	15.3
EBITDA		2,030		1,729		301	17.4

Total revenue was $4.7 million for the three months ended March 31, 2020, an increase of $0.6 million or 15.3%, compared to 2019, due to a net increase in transponder services provided to third parties.

EBITDA was $2.0 million for the three months ended March 31, 2020, an increase of $0.3 million, or 17.4%, compared to 2019, primarily due to the increase in revenue.

Corporate and Other

	For the three months ended March 31,				Variance		
	2020		2019		Amounts		%
Total revenue	$	4,413	$	5,829	$	(1,416)	(24.3)
EBITDA		(6,646)		(6,158)		(488)	7.9

Total revenue was $4.4 million for the three months ended March 31, 2020, a decrease of $1.4 million, or 24.3%, compared to 2019 primarily attributable to a decrease in income from certain real estate previously leased to DISH Network and transferred as part of the BSS Transaction.

EBITDA for the three months ended March 31, 2020 was a loss of $6.6 million, an increase in loss of $0.5 million, or 7.9% compared to 2019 as set forth in the following table:

		Amounts
EBITDA for the three months ended March 31, 2019	$	(6,158)
Decrease (increase) in equity in losses of unconsolidated affiliates, net		357
Increase (decrease) in other, net		81
Increase (decrease) in foreign currency transaction gains, net		7
Increase (decrease) in gains on investments, net		(385)
Increase (decrease) in operating income, excluding depreciation and amortization		(548)
EBITDA for the three months ended March 31, 2020	$	(6,646)

EXPLANATION OF KEY METRICS AND OTHER ITEMS

Services and other revenue. Services and other revenue primarily includes the sales of consumer and enterprise broadband services, maintenance and other contracted services, revenue associated with satellite and transponder leases and services, satellite uplinking/downlinking, subscriber wholesale service fees for the HughesNet service professional services and facilities rental revenue.

Equipment revenue. Equipment revenue primarily includes broadband equipment and networks sold to customers in our consumer and enterprise markets.

Cost of sales - services and other. Cost of sales - services and other primarily includes the cost of broadband services provided to our consumer and enterprise customers, maintenance and other contracted services, costs associated with satellite and transponder leases and services, professional services and facilities rental.

Cost of sales - equipment. Cost of sales - equipment consists primarily of the cost of broadband equipment and networks sold to customers in our consumer and enterprise markets. It also includes certain other costs associated with the deployment of equipment to our customers.

Selling, general and administrative expenses. Selling, general and administrative expenses primarily includes selling and marketing costs and employee-related costs associated with administrative services (e.g., human resources and other services and stock-based compensation expense). It also includes professional fees (e.g. legal, information systems and accounting services), other expenses associated with facilities and administrative services and credit losses, which include customer related estimated credit losses and estimated credit losses on non-current receivables.

Research and development expenses. Research and development expenses primarily includes costs associated with the design and development of products to support future growth and provide new technology and innovation to our customers.

Interest income, net. Interest income, net primarily includes interest earned on our cash, cash equivalents and marketable investment securities, and other investments including premium amortization and discount accretion on debt securities, offset by estimated credit losses on our other debt investments.

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

Gains (losses) on investments, net. Gains (losses) on investments, net primarily includes changes in fair value of our marketable equity securities. It may also include realized gains and losses on the sale or exchange of our available-for-sale debt securities, other-than-temporary impairment losses on our available-for-sale debt securities, realized gains and losses on the sale or exchange of other equity investments and other debt investments without readily determinable fair value, adjustments to the carrying amount of investments in unconsolidated affiliates and marketable equity securities resulting from impairments and observable price changes and estimated credit losses.

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

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

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

Net income (loss) from discontinued operations. Net income (loss) from discontinued operations includes the financial results of the BSS Business transferred in the BSS Transaction, except for certain real estate that transferred in the transaction.

EBITDA. EBITDA is defined as Net income (loss) excluding Interest income, net, Interest expense, net of amounts capitalized, Income tax benefit (provision), net, Depreciation and amortization, Net income (loss) from discontinued operations and Net income (loss) attributable to non-controlling interests. EBITDA is not a measure determined in accordance with U.S. GAAP. This non-GAAP measure is reconciled to Net income (loss) in our discussion of Results of Operations above. EBITDA should not be considered in isolation or as a substitute for operating income, net income or any other measure determined in accordance with U.S. GAAP. EBITDA is used by our management as a measure of operating efficiency and overall financial performance for benchmarking against our peers and competitors. Management believes EBITDA provides meaningful supplemental information regarding the underlying operating performance of our business and is appropriate to enhance an overall understanding of our financial performance. Management also believes that EBITDA is useful to investors because it is frequently used by securities analysts, investors and other interested parties to evaluate the performance of companies in our industry.

Subscribers. Subscribers include customers that subscribe to our HughesNet service, through retail, wholesale and small/medium enterprise service channels.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this Form 10-Q. 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 Form 10-Q such that the information required to be disclosed in our Securities and Exchange Commission reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

In November 2019, we consummated the Yahsat Brazil JV Transaction. As a result, we are reviewing the internal controls of the business we acquired from Yahsat in the Yahsat Brazil JV Transaction and we may make appropriate changes as deemed necessary.

Changes in Internal Control Over Financial Reporting

Except as noted above, there has been no change in our internal control over financial reporting (as defined in Rule 15d-15(f) under the Exchange Act) that occurred during the three months ended March 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We continue to review our internal control over financial reporting and may from time to time make changes aimed at enhancing its effectiveness and to ensure that our systems evolve with our business.

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a discussion of legal proceedings, refer to Part I, Item 1. Financial Statements — *Note 12. Contingencies* — Litigation in this Form 10-Q.

ITEM 1A. RISK FACTORS

The following information updates, and should be read in conjunction with, the information in Part I, Item 1A, Risk Factors, of our Form 10-K.

RISKS RELATED TO THE COVID-19 PANDEMIC

The COVID-19 pandemic, its economic impacts and related government and private sector responsive actions could have a material adverse effect our business operations. As a result of the COVID-19 pandemic, many countries, including the U.S., and other governmental authorities have imposed restrictions on travel, as well as general movement and gathering restrictions, business closures and other measures imposed to slow the spread of COVID-19.

We have set forth below key risks from the COVID-19 pandemic that we have identified to date. The situation continues to develop, however, and it is impossible to predict the effect and ultimate impact of the COVID-19 pandemic on our business, financial condition or results of operations. We cannot estimate or determine the duration of the quarantine, social distancing and other regulatory measures instituted or recommended in response to the COVID-19 pandemic, whether they will recur or the duration or degree of the business disruptions, and related financial impact. The COVID-19 pandemic has evolved into a worldwide health crisis that has adversely affected economies and financial markets throughout the world, resulting in a significant economic downturn and changes in global economic policy that could have a material adverse effect on our business, financial condition or results of operations.

Our operations and those of our customers and other third parties with whom we conduct business are located in areas impacted by the COVID-19 pandemic, and those operations have been, and may continue to be, adversely affected by the COVID-19 pandemic.

We conduct our product development, manufacturing, installation and customer support and services in areas where, in order to attempt to mitigate the COVID-19 pandemic, (a) states of emergency related to the spread of COVID-19 have been declared and (b) various levels of “shelter-in-place” orders have been issued, which (i) direct individuals living in those locations to shelter at their places of residence (subject to limited exceptions), (ii) direct businesses and governmental agencies to cease non-essential operations at physical locations, (iii) prohibit non-essential gatherings of various number of individuals, and (iv) order cessation of non-essential travel. The effects of the COVID-19 pandemic and the actions from applicable governmental authorities has negatively impacted productivity, increased cybersecurity risks as a large portion of our workforce has been working remotely, disrupted our and our customers’, suppliers’, vendors’ and other business partners’ and investees’ businesses and finances, delayed regulatory and other timelines, and delayed the manufacture and deployment of our satellites. Additionally, some regulatory bodies have furloughed employees, reduced activities and temporarily closed their offices. Such measures may materially delay the review and/or approval of licenses or authorizations we need to operate our business. The magnitude of these impacts will depend, in part, on the length and severity of the pandemic, associated restrictions and resulting economic and financial consequences and other limitations and impediments on the conduct of business in the ordinary course.

Extended periods of interruption to our corporate, development or manufacturing facilities due to the COVID-19 pandemic could cause us to lose revenue, which would depress our financial performance and could be difficult to recapture. Our business may also be harmed if travel continues to be restricted or inadvisable or if members of management and other employees are unable to work because they contract COVID-19, they elect not to come to work due to the illness affecting others in our office or other facilities, or they are subject to quarantines or other governmentally imposed restrictions. Additionally, many of our subscribers are working remotely or engaging in distance learning. These activities have increased the usage on our HughesNet service so that there is little or no capacity remaining for subscriber growth in our most popular geographic areas. In addition, the limitation on capacity may result in our subscribers experiencing slower speeds. This, in turn, could result in higher churn and may negatively affect our financial results.

A portion of the expected sales of our products or services have been, and additional sales may be, delayed or canceled as a result of effects of the COVID-19 pandemic on the operations of our customers.

Our customers' business operations have been, and are continuing to be, subject to business interruptions arising from the COVID-19 pandemic. Due to the downturn in financial markets arising from the COVID-19 pandemic, a number of our current enterprise customers are facing uncertain futures. In the event any of these enterprise customers fail or seek reorganization under the bankruptcy laws, we may be obliged to pay for satellite capacity for which we are not being paid. Further, the COVID-19 pandemic has resulted in increased unemployment, which could result in reduced demand and increased inability to pay from our consumer customers. Any resulting financial impact cannot be reasonably estimated at this time but may materially affect our subscriber numbers, business, financial condition, results of operations, and cash flows. We are diligently working to ensure that we can operate with minimal disruption and address potential business interruptions on ourselves and our customers. However, the full extent to which the COVID-19 pandemic could affect the global economy and our business will depend on future developments and factors that cannot be predicted and there can be no assurance that the COVID-19 pandemic will not result in further delays, or possibly reductions, in our recognition of revenue.

Our supply chain may be materially adversely impacted due to the COVID-19 pandemic.

We rely upon the facilities of our domestic and foreign suppliers to support our business. The COVID-19 pandemic has resulted in significant governmental measures in many countries being implemented to control the spread of COVID-19, including restrictions on manufacturing and the movement of employees. As a result, our suppliers may not have the materials, capacity, or capability to supply our components according to our schedule and specifications. Further, there may be logistics issues, including our ability and our supply chain's ability to quickly ramp up production, and transportation demands that may cause further delays. If our suppliers' operations are curtailed, we may need to seek alternate sources of supply, which may be more expensive. Alternate sources may not be available or may result in delays in shipments to us from our supply chain and subsequently to our customers, each of which would affect our results of operations. The duration of the disruptions and restrictions on the ability to travel, quarantines and temporary closures of the facilities of our suppliers, as well as general limitations on movement in the region, are unknown and they may recur and the duration of the production and supply chain disruption, and related financial impact, cannot be estimated at this time. Should the production and distribution closures continue for an extended period of time or recur, the impact on our supply chain could have a material adverse effect on our results of operations and cash flows. Business disruptions could also negatively affect the sources and availability of components and materials that are essential to the operation of our business.

The COVID-19 pandemic could negatively impact our planned or potential strategic initiatives.

Our strategy includes a number of plans to support the growth of our core businesses, including continuing to selectively explore opportunities to pursue investments, commercial alliances, partnerships, joint ventures, acquisitions, dispositions and other strategic initiatives and transactions, domestically and internationally. The extent to which the COVID-19 pandemic impacts these potential strategic initiatives will depend on future developments that are highly uncertain. If the disruptions posed by the COVID-19 pandemic and related government measures, economic downturns or other matters of global concern continue for an extensive period of time or recur, our ability to pursue and consummate planned or potential strategic initiatives could be materially adversely affected.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable

ITEM 5. OTHER INFORMATION

Financial Results

On May 7, 2020, EchoStar issued a press release (the "Press Release") announcing its financial results for the quarter ended March 31, 2020. A copy of the Press Release is furnished herewith as Exhibit 99.1. The foregoing information, including the exhibits related thereto, are furnished in response to Item 2.02 of Form 8-K and shall not be deemed filed for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise, and shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended, or into any filing or other document pursuant to the Exchange Act, except as otherwise expressly stated in any such filing.

ITEM 6. EXHIBITS

Exhibit No.	Description
31.1(H)	Section 302 Certification of Chief Executive Officer.
31.2(H)	Section 302 Certification of Chief Financial Officer.
32.1(I)	Section 906 Certifications of Chief Executive Officer and Chief Financial Officer.
99.1(I)	Press release dated May 7, 2020 issued by EchoStar Corporation regarding financial results for the period ended March 31, 2020.
101.INS	XBRL Instance Document. The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	XBRL Taxonomy Extension Definition Linkbase.
101.LAB	XBRL Taxonomy Extension Label Linkbase.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase.

(H) Filed herewith.
(I) Furnished herewith.
* Incorporated by reference.
** Constitutes a management contract or compensatory plan or arrangement.
*** Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. We agree to furnish supplementally to the Securities and Exchange Commission a copy of any omitted schedule or exhibit upon request, subject to our right to request confidential treatment of any requested schedule or exhibit.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Form 10-Q to be signed on its behalf by the undersigned thereunto duly authorized.

HUGHES SATELLITE SYSTEMS CORPORATION

Date: May 7, 2020	By:	/s/ *Michael T. Dugan*
		Michael T. Dugan
		Chief Executive Officer, President and Director
		(Principal Executive Officer)
Date: May 7, 2020	By:	/s/ *David J. Rayner*
		David J. Rayner
		Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer
		(Principal Financial and Accounting Officer)

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Section 302 Certification

I, Michael T. Dugan, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Hughes Satellite Systems 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: May 7, 2020

By: *\/s/ Michael T. Dugan*
Name: Michael T. Dugan
Title: Chief Executive Officer, President and Director
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Section 302 Certification

I, David J. Rayner, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Hughes Satellite Systems 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: May 7, 2020

By:	*/s/ David J. Rayner*
Name:	David J. Rayner
Title:	Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer *(Principal Financial and Accounting Officer)*

EXHIBIT 32.1

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
Section 906 Certifications

In connection with the quarterly report for the quarter ended March 31, 2020 on Form 10-Q (the “Quarterly Report”) of Hughes Satellite Systems Corporation (the “Company”) as filed with the Securities and Exchange Commission on the date hereof, we, Michael T. Dugan and David J. Rayner, Chief Executive Officer and Chief Financial Officer, respectively, of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

(i) the Quarterly Report fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934; and

(ii) the information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2020

By: *[/s/ Michael T. Dugan]*
Name: Michael T. Dugan
Title: Chief Executive Officer, President and Director
(Principal Executive Officer)

By: */s/ David J. Rayner*
Name: David J. Rayner
Title: Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer
(Principal Financial and Accounting Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 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 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 99.1

EchoStar Announces Financial Results for Three Months Ended March 31, 2020

Englewood, CO, May 7, 2020—EchoStar Corporation (NASDAQ: SATS) today announced its financial results for the three months ended March 31, 2020.

Three Months Ended March 31, 2020 Financial Highlights:

- Consolidated revenues of $465.7 million.
- Net loss from continuing operations of $57.7 million, consolidated net loss attributable to EchoStar common stock of $54.3 million, and diluted loss per share of $0.56.
- Consolidated Adjusted EBITDA of $148.6 million (see discussion and the reconciliation of GAAP to this non-GAAP measure below).

"As businesses and families everywhere contend with the impact of COVID-19, EchoStar has focused on keeping our customers connected," commented Michael Dugan, CEO and President of EchoStar. "The pandemic has demonstrated that staying connected is a necessity, not a luxury, and our solid performance in the first quarter of 2020, despite the global crisis, reflects this reality. We grew our revenue and Adjusted EBITDA from the same period in 2019. Operationally, we increased our consumer subscriber base by approximately 39,000 in the first quarter, driven by both our domestic and international markets, bringing our broadband subscriber total to approximately 1.516 million. We continuously evaluate the changing economic conditions and associated effect on our customers and vendors and are managing the business appropriately. Although these are extremely challenging times, the pandemic has made even more evident the worldwide demand for connectivity."

Three Months Ended March 31, 2020 - Additional Information:

- Consolidated revenue increased 2% or $11.3 million year over year despite negative foreign exchange impact.
- Adjusted EBITDA increased 6% or $8.8 million year over year.
  - Hughes segment Adjusted EBITDA was up $0.6 million year over year. The margin driven by the higher revenue was offset by increased sales, marketing, and operating expense associated primarily with our growing Latin American consumer markets.
  - ESS segment Adjusted EBITDA was higher by $0.3 million year over year.
  - Corporate and Other segment Adjusted EBITDA increased by $7.9 million. The segment had equity earnings in unconsolidated affiliates during the quarter of $4.5 million compared to equity losses of $4.8 million in the same period a year ago. This increase was partially offset by the loss of the revenue and EBITDA associated with the transfer of certain real estate assets to DISH Network Corporation as part of the BSS transaction that were not treated as discontinued operations.
- Net loss from continuing operations was $57.7 million, an increase of loss by $53.5 million from last year. The increased loss was primarily due to higher unrealized and realized losses on investments of $53.6 million which included the write-off of a strategic investment, higher depreciation and amortization of $13.4 million, and higher unrealized losses on foreign currency of $9.7 million. This was partially offset by lower net income tax expense of $10.4 million, higher equity in earnings of $8.9 million, and lower net interest expense of $8.1 million.
- Hughes broadband subscribers are approximately 1,516,000 as of March 31, 2020 including approximately 267,000 subscribers in Latin America. To help support people working and studying from home, we signed the FCC's Keeping America Connected Pledge, and our subscriber numbers exclude those whose service would have ordinarily been terminated in the absence of the Pledge.

- For the three months ended March 31,2020, approximately 66% of Hughes segment revenue was attributable to our consumer customers with approximately 34% attributable to our enterprise customers.

- Cash, cash equivalents and current marketable investment securities were $2.4 billion as of March 31, 2020.

- We purchased 196,999 shares of our Class A common stock in the open market.

Set forth below is a table highlighting certain of EchoStar's segment results three months ended March 31, 2020 and 2019 (amounts in thousands) from continuing operations (all US GAAP amounts reference results from continuing operations):

	For the three months ended March 31,	
	2020	**2019**
Revenue		
Hughes	$ 458,482	$ 445,337
EchoStar Satellite Services	4,652	4,033
Corporate and Other	2,532	5,012
Total revenue	$ 465,666	$ 454,382
Adjusted EBITDA		
Hughes	$ 162,219	$ 161,642
EchoStar Satellite Services	2,030	1,729
Corporate & Other:		
Corporate overhead, operating and other	(20,124)	(18,719)
Equity in earnings (losses) of unconsolidated affiliates, net	4,512	(4,827)
Total Corporate & Other	(15,612)	(23,546)
Total Adjusted EBITDA	$ 148,637	$ 139,825
Net income (loss) from continuing operations	$ (57,737)	$ (4,239)
Expenditures for property and equipment	$ 104,604	$ 111,854

Reconciliation of GAAP to Non-GAAP Measurement (amounts in thousands):

	For the three months ended March 31, 2020	2019
Net income (loss)	$ (57,737)	$ 15,008
Interest income, net	(15,583)	(24,429)
Interest expense, net of amounts capitalized	36,233	53,199
Income tax provision (benefit), net	(7,492)	2,898
Depreciation and amortization	132,368	118,978
Net loss (income) from discontinued operations	—	(19,247)
Net loss (income) attributable to non-controlling interests	3,442	(806)
EBITDA	91,231	145,601
(Gains) losses on investments, net	46,672	(6,936)
License fee dispute - India, net of non-controlling interests	(110)	—
Foreign currency transaction (gains) losses, net	10,844	1,160
Adjusted EBITDA	$ 148,637	$ 139,825

Note on Use of Non-GAAP Financial Measures

EBITDA is defined as “Net income (loss)” excluding “Interest income, net,” Interest expense, net of amounts capitalized,” “Income tax benefit (provision), net,” “Depreciation and amortization,” “Net income (loss) from discontinued operations,” and “Net income (loss) attributable to noncontrolling interests.”

Adjusted EBITDA is defined as EBITDA excluding “Gains and losses on investments, net,” “Foreign currency transaction gains (losses), net,” and other non-recurring or non-operational items. EBITDA and Adjusted EBITDA are not measures determined in accordance with US GAAP. EBITDA and Adjusted EBITDA are reconciled to “Net income (loss)” in the table above and should not be considered in isolation or as a substitute for operating income, net income or any other measure determined in accordance with US GAAP. Our management uses EBITDA and Adjusted EBITDA as measures of our operating efficiency and overall financial performance for benchmarking against our peers and competitors. Management believes that these non-GAAP measures provide meaningful supplemental information regarding the underlying operating performance of our business and are appropriate to enhance an overall understanding of our financial performance. Management also believes that EBITDA and Adjusted EBITDA are useful to investors because they are frequently used by securities analysts, investors, and other interested parties to evaluate the performance of companies in our industry.

The consolidated financial statements of EchoStar for the periods ended March 31, 2020 and 2019 are attached to this press release. Detailed financial data and other information are available in EchoStar’s Quarterly Report on Form 10-Q for the period ended March 31, 2020 filed today with the Securities and Exchange Commission.

EchoStar will host its earnings conference call on Thursday, May 7, 2020 at 11:00 a.m. Eastern Time. The call-in numbers are (877) 815-1625 (toll-free) and (716) 247-5178 (international), Conference ID 9193376.

About EchoStar Corporation

EchoStar Corporation (NASDAQ: SATS) is a premier global provider of satellite communications solutions. Headquartered in Englewood, Colo., and conducting business around the globe, EchoStar is a pioneer in secure communications technologies through its Hughes Network Systems and EchoStar Satellite Services business segments.

Safe Harbor Statement under the US Private Securities Litigation Reform Act of 1995

This press release may contain statements that are forward looking, as that term is defined by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on management's beliefs, as well as assumptions made by, and information currently available to, management. When used in this release, the words "believe," "anticipate," "estimate," "expect," "intend," "project," "plans," and similar expressions and the use of future dates are intended to identify forward-looking statements. Although management believes that the expectations reflected in these forward-looking statements are reasonable, it can give no assurance that these expectations will prove to have been correct. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date made. We assume no responsibility for the accuracy of forward-looking statements or information or for updating forward-looking information or statements. These statements are subject to certain risks, uncertainties, and assumptions. See "Risk Factors" in EchoStar's Annual Report on Form 10-K for the period ended December 31, 2019 and Quarterly Report on Form 10-Q for the period ended March 31, 2020 as filed with the Securities and Exchange Commission and in the other documents EchoStar files with the Securities and Exchange Commission from time to time.

###

Contact Information

EchoStar Investor Relations

Terry Brown
Phone: +1 303-728-5179
Email: terry.brown@echostar.com

EchoStar Media Relations

Sharyn Nerenberg
Phone: +1 301-428-7124
Email: sharyn.nerenberg@echostar.com

ECHOSTAR CORPORATION
Condensed Consolidated Balance Sheets
(Amounts in thousands, except per share amounts)

	As of	
	March 31, 2020	**December 31, 2019**
Assets		
Current assets:		
Cash and cash equivalents	$ 1,599,025	$ 1,519,431
Marketable investment securities	790,361	940,623
Trade accounts receivable and contract assets, net	187,919	196,629
Other current assets, net	189,887	179,531
Total current assets	2,767,192	2,836,214
Non-current assets:		
Property and equipment, net	2,428,543	2,528,738
Operating lease right-of-use assets	119,794	114,042
Goodwill	509,315	506,953
Regulatory authorizations, net	471,164	478,598
Other intangible assets, net	25,826	29,507
Other investments, net	298,147	325,405
Other non-current assets, net	339,640	334,841
Total non-current assets	4,192,429	4,318,084
Total assets	$ 6,959,621	$ 7,154,298
Liabilities and Stockholders' Equity		
Current liabilities:		
Trade accounts payable	$ 107,245	$ 124,080
Contract liabilities	99,266	101,060
Accrued expenses and other current liabilities	239,706	270,879
Total current liabilities	446,217	496,019
Non-current liabilities:		
Long-term debt	2,390,218	2,389,168
Deferred tax liabilities, net	339,006	351,692
Operating lease liabilities	105,482	96,941
Other non-current liabilities	73,123	74,925
Total non-current liabilities	2,907,829	2,912,726
Total liabilities	3,354,046	3,408,745
Commitments and contingencies		

Stockholders' equity:		
Preferred stock, $0.001 par value, 20,000,000 shares authorized, none issued and outstanding at both March 31, 2020 and December 31, 2019	—	—
Common stock, $0.001 par value, 4,000,000,000 shares authorized:		
Class A common stock, $0.001 par value, 1,600,000,000 shares authorized, 56,760,433 shares issued and 50,078,513 shares outstanding at March 31, 2020 and 56,592,251 shares issued and 50,107,330 shares outstanding at December 31, 2019	57	57
Class B convertible common stock, $0.001 par value, 800,000,000 shares authorized, 47,687,039 shares issued and outstanding at both March 31, 2020 and December 31, 2019	48	48
Class C convertible common stock, $0.001 par value, 800,000,000 shares authorized, none issued and outstanding at both March 31, 2020 and December 31, 2019	—	—
Class D common stock, $0.001 par value, 800,000,000 shares authorized, none issued and outstanding at both March 31, 2020 and December 31, 2019	—	—
Additional paid-in capital	3,307,360	3,290,483
Accumulated other comprehensive income (loss)	(192,218)	(122,138)
Accumulated earnings (losses)	569,446	632,809
Treasury stock, at cost	(137,347)	(131,454)
Total EchoStar Corporation stockholders' equity	3,547,346	3,669,805
Non-controlling interests	58,229	75,748
Total stockholders' equity	3,605,575	3,745,553
Total liabilities and stockholders' equity	$ 6,959,621	$ 7,154,298

ECHOSTAR CORPORATION
Condensed Consolidated Statements of Operations
(Amounts in thousands, except per share amounts)

	For the three months ended March 31,	
	2020	**2019**
Revenue:		
Services and other revenue	$ 408,357	$ 402,668
Equipment revenue	57,309	51,714
Total revenue	465,666	454,382
Costs and expenses:		
Cost of sales - services and other (exclusive of depreciation and amortization)	145,252	143,347
Cost of sales - equipment (exclusive of depreciation and amortization)	45,908	45,007
Selling, general and administrative expenses	125,281	112,114
Research and development expenses	6,254	6,888
Depreciation and amortization	132,368	118,978
Total costs and expenses	455,063	426,334
Operating income (loss)	10,603	28,048
Other income (expense):		
Interest income, net	15,583	24,429
Interest expense, net of amounts capitalized	(36,233)	(53,199)
Gains (losses) on investments, net	(46,672)	6,936
Equity in earnings (losses) of unconsolidated affiliates, net	2,613	(6,353)
Foreign currency transaction gains (losses), net	(10,844)	(1,160)
Other, net	(279)	(42)
Total other income (expense), net	(75,832)	(29,389)
Income (loss) from continuing operations before income taxes	(65,229)	(1,341)
Income tax benefit (provision), net	7,492	(2,898)
Net income (loss) from continuing operations	(57,737)	(4,239)
Net income (loss) from discontinued operations	—	19,247
Net income (loss)	(57,737)	15,008
Less: Net loss (income) attributable to non-controlling interests	3,442	(806)
Net income (loss) attributable to EchoStar Corporation common stock	$ (54,295)	$ 14,202
Earnings (losses) per share - Class A and B common stock:		
Basic and diluted earnings (losses) from continuing operations per share	$ (0.56)	$ (0.05)
Total basic and diluted earnings (losses) per share	$ (0.56)	$ 0.15

ECHOSTAR CORPORATION
Condensed Consolidated Statements of Cash Flows
(Amounts in thousands, except per share amounts)

	For the three months ended March 31,	
	2020	**2019**
Cash flows from operating activities:		
Net income (loss)	$ (57,737)	$ 15,008
Adjustments to reconcile net income (loss) to net cash flows from operating activities:		
Depreciation and amortization	132,368	154,221
Losses (gains) on investments, net	46,672	(6,418)
Equity in losses (earnings) of unconsolidated affiliates, net	(2,613)	6,353
Foreign currency transaction losses (gains), net	10,844	1,160
Deferred tax provision (benefit), net	(10,064)	6,455
Stock-based compensation	2,384	2,628
Amortization of debt issuance costs	1,050	2,010
Other, net	(4,899)	1,754
Changes in assets and liabilities, net:		
Trade accounts receivable and contract assets, net	(7,664)	(19,231)
Other current assets, net	(16,127)	(10,370)
Trade accounts payable	(9,559)	8,831
Contract liabilities	(3,212)	17,896
Accrued expenses and other current liabilities	(4,922)	(9,914)
Non-current assets and non-current liabilities, net	(5,226)	5,563
Net cash flows from operating activities	71,295	175,946
Cash flows from investing activities:		
Purchases of marketable investment securities	(550,891)	(325,557)
Sales and maturities of marketable investment securities	687,579	712,666
Purchase of other investments	(5,500)	—
Expenditures for property and equipment	(104,604)	(111,962)
Expenditures for externally marketed software	(8,638)	(7,600)
Net cash flows from investing activities	17,946	267,547
Cash flows from financing activities:		
Repurchase of the 2019 Senior Secured Notes	—	(8,046)
Payment of finance lease obligations	(215)	(9,882)
Payment of in-orbit incentive obligations	(801)	(1,573)
Net proceeds from Class A common stock options exercised	150	2,047
Net proceeds from Class A common stock issued under the Employee Stock Purchase Plan	2,924	2,749
Treasury share purchase	(5,893)	—
Contribution by non-controlling interest holder	4,000	—
Purchase of non-controlling interest	—	(7,313)
Other, net	817	(131)
Net cash flows from financing activities	982	(22,149)
Effect of exchange rates on cash and cash equivalents	(4,809)	(133)
Net increase (decrease) in cash and cash equivalents	85,414	421,211
Cash and cash equivalents, including restricted amounts, beginning of period	1,521,889	929,495
Cash and cash equivalents, including restricted amounts, end of period	$ 1,607,303	$ 1,350,706