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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 SEPTEMBER 30, 2017.

OR

o **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
(Registrant's Telephone Number, Including Area Code)

Not Applicable
(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 o No ☒*

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 o		Accelerated filer o
Non-accelerated filer ☒	(Do not check is a smaller reporting company)	Smaller reporting company o
		Emerging growth company o

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. o

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

As of October 31, 2017, 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.

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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, and 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:

- our reliance on DISH Network Corporation and its subsidiaries (“DISH Network”) for a significant portion of our revenue;
- significant risks related to the construction, launch and operation of our satellites, such as the risk of material malfunction on one or more of our satellites, risks resulting from delays or failures of launches of our satellites and potentially missing our regulatory milestones, 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 to realize the anticipated benefits of our current satellites and any future satellite we may construct or acquire;
- our ability to implement our strategic initiatives;
- the failure of third-party providers of components, manufacturing, installation services and customer support services to appropriately deliver the contracted goods or services;
- our ability to bring advanced technologies to market to keep pace with our customers and competitors; and
- risk 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 dollar, economic instability and political disturbances.

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” herein and in 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
(In thousands, except share amounts)

	As of	
	September 30, 2017	December 31, 2016
Assets	(Unaudited)	(Audited)
Current Assets:		
Cash and cash equivalents	$ 2,075,908	$ 2,070,964
Marketable investment securities, at fair value	195,906	187,923
Trade accounts receivable, net of allowance for doubtful accounts of $13,211 and $12,752, respectively	192,387	182,512
Trade accounts receivable - DISH Network, net of allowance for doubtful accounts of zero	45,968	19,323
Inventory	91,232	62,638
Prepaids and deposits	36,156	34,505
Advances to affiliates, net	102,574	110,452
Other current assets	12,730	11,809
Total current assets	2,752,861	2,680,126
Noncurrent Assets:		
Restricted cash and cash equivalents	13,154	11,820
Property and equipment, net of accumulated depreciation of $2,433,297 and $2,503,187, respectively	2,853,791	2,294,726
Regulatory authorizations, net	471,658	471,658
Goodwill	504,173	504,173
Other intangible assets, net	62,240	80,734
Investments in unconsolidated entities	32,858	42,560
Other noncurrent assets, net	204,687	295,737
Total noncurrent assets	4,142,561	3,701,408
Total assets	$ 6,895,422	$ 6,381,534
Liabilities and Shareholders' Equity		
Current Liabilities:		
Trade accounts payable	$ 117,615	$ 106,410
Trade accounts payable - DISH Network	5,470	6
Current portion of long-term debt and capital lease obligations	38,407	32,984
Advances from affiliates, net	327	598
Deferred revenue and prepayments	56,285	59,989
Accrued interest	57,246	46,255
Accrued compensation	28,298	33,457
Accrued expenses and other	99,624	80,612
Total current liabilities	403,272	360,311
Noncurrent Liabilities:		
Long-term debt and capital lease obligations, net of unamortized debt issuance costs	3,605,715	3,622,463
Deferred tax liabilities, net	693,055	528,462
Advances from affiliates	33,475	31,968
Other noncurrent liabilities	110,873	83,307
Total noncurrent liabilities	4,443,118	4,266,200
Total liabilities	4,846,390	4,626,511
Commitments and Contingencies (Note 11)		
Shareholders' Equity:		
Preferred stock, $.001 par value, 1,000,000 shares authorized:		
Hughes Retail Preferred Tracking Stock, $.001 par value, zero authorized, issued and outstanding at September 30, 2017 and 300 shares authorized, 81.128 issued and outstanding at December 31, 2016	—	—
Common stock, $0.01 par value; 1,000,000 shares authorized, 1,078 shares issued and outstanding at September 30, 2017 and 1,000 shares issued and outstanding December 31, 2016	—	—
Additional paid-in capital	1,773,319	1,516,199
Accumulated other comprehensive loss	(45,042)	(60,719)
Accumulated earnings	306,919	286,713
Total HSS shareholders' equity	2,035,196	1,742,193
Noncontrolling interests	13,836	12,830
Total shareholders' equity	2,049,032	1,755,023

Total liabilities and shareholders’ equity	$ 6,895,422	$ 6,381,534

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

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
(In thousands)
(Unaudited)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenue:				
Services and other revenue - DISH Network	$ 108,264	$ 111,750	$ 330,675	$ 337,353
Services and other revenue - other	310,973	276,877	866,251	821,863
Equipment revenue - DISH Network	126	2,138	175	7,008
Equipment revenue - other	58,999	66,501	173,644	160,886
Total revenue	478,362	457,266	1,370,745	1,327,110
Costs and Expenses:				
Cost of sales - services and other (exclusive of depreciation and amortization)	137,663	130,587	401,633	381,964
Cost of sales - equipment (exclusive of depreciation and amortization)	52,051	53,601	154,142	144,029
Selling, general and administrative expenses	83,512	67,874	244,005	207,974
Research and development expenses	8,302	9,030	23,444	23,524
Depreciation and amortization	127,915	104,774	364,878	309,448
Total costs and expenses	409,443	365,866	1,188,102	1,066,939
Operating income	68,919	91,400	182,643	260,171
Other Income (Expense):				
Interest income	8,321	4,006	21,248	7,427
Interest expense, net of amounts capitalized	(60,783)	(53,536)	(181,996)	(127,626)
Gains on marketable investment securities, net	—	5	1,723	5,300
Other-than-temporary impairment loss on available-for-sale securities	—	—	(3,298)	—
Equity in earnings of unconsolidated affiliate	1,948	2,654	5,298	6,758
Other, net	1,804	(24)	229	5,365
Total other expense, net	(48,710)	(46,895)	(156,796)	(102,776)
Income before income taxes	20,209	44,505	25,847	157,395
Income tax provision	(8,726)	(16,416)	(4,635)	(57,277)
Net income	11,483	28,089	21,212	100,118
Less: Net income attributable to noncontrolling interests	532	524	1,006	946
Net income attributable to HSS	$ 10,951	$ 27,565	$ 20,206	$ 99,172
Comprehensive Income (Loss):				
Net income	$ 11,483	$ 28,089	$ 21,212	$ 100,118
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	8,571	1,255	13,956	10,607
Unrealized gains (losses) on available-for-sale securities and other	(66)	750	(1,577)	2,543
Recognition of other-than-temporary impairment loss on available-for-sale securities in net income	—	—	3,298	—
Recognition of realized gains on available-for-sale securities in net income	—	(4)	—	(2,989)
Total other comprehensive income (loss), net of tax	8,505	2,001	15,677	10,161
Comprehensive income (loss)	19,988	30,090	36,889	110,279
Less: Comprehensive income attributable to noncontrolling interests	532	524	1,006	760
Comprehensive income (loss) attributable to HSS	$ 19,456	$ 29,566	$ 35,883	$ 109,519

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

HUGHES SATELLITE SYSTEMS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(In thousands)
(Unaudited)

	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Earnings	Noncontrolling Interests	Total
Balance, January 1, 2016	$ 1,417,748	$ (54,116)	$ 166,698	$ 11,310	$ 1,541,640
Stock-based compensation	3,696	—	—	—	3,696
Transfer of EchoStar XXIII launch service contract from EchoStar	70,300	—	—	—	70,300
Contribution to fund launch service contract payment	11,875	—	—	—	11,875
Other	(396)	—	—	—	(396)
Comprehensive income (loss):					
Net income	—	—	99,172	946	100,118
Foreign currency translation adjustment	(1)	10,794	—	(186)	10,607
Unrealized losses on available-for-sale securities, net and other	—	(446)	—	—	(446)
Balance, September 30, 2016	$ 1,503,222	$ (43,768)	$ 265,870	$ 12,070	$ 1,737,394
Balance, January 1, 2017	$ 1,516,199	$ (60,719)	$ 286,713	$ 12,830	$ 1,755,023
Stock-based compensation	3,839	—	—	—	3,839
Transfer of launch service contracts to EchoStar	(145,114)	—	—	—	(145,114)
Contribution of EchoStar XIX satellite, net of deferred tax	369,263	—	—	—	369,263
Contribution of net assets pursuant to Share Exchange Agreement	219,662	—	—	—	219,662
Exchange of uplinking business net assets for HSS Tracking Stock	(190,221)	—	—	—	(190,221)
Other	(309)	—	—	—	(309)
Comprehensive income (loss):					
Net income	—	—	20,206	1,006	21,212
Foreign currency translation adjustment	—	13,956	—	—	13,956
Unrealized gains and other-than-temporary impairment loss on marketable investment securities, net and other	—	1,721	—	—	1,721
Balance, September 30, 2017	$ 1,773,319	$ (45,042)	$ 306,919	$ 13,836	$ 2,049,032

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

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

	For the Nine Months Ended September 30,	
	2017	2016
Cash Flows from Operating Activities:		
Net income	$ 21,212	$ 100,118
Adjustments to reconcile net income to net cash flows from operating activities:		
Depreciation and amortization	364,878	309,448
Equity in earnings of unconsolidated affiliate	(5,298)	(6,758)
Amortization of debt issuance costs	5,479	4,793
Losses (gains) and impairment on marketable investment securities, net	1,575	(5,300)
Stock-based compensation	3,839	3,696
Deferred tax provision	2,202	54,731
Dividends received from unconsolidated entity	15,000	10,000
Proceeds from sale of trading securities	8,922	7,140
Changes in current assets and current liabilities, net	(30,168)	(43,377)
Changes in noncurrent assets and noncurrent liabilities, net	(18,747)	7,600
Other, net	952	4,725
Net cash flows from operating activities	369,846	446,816
Cash Flows from Investing Activities:		
Purchases of marketable investment securities	(170,158)	(396,730)
Sales and maturities of marketable investment securities	152,423	265,680
Expenditures for property and equipment	(291,975)	(312,003)
Expenditures for externally marketed software	(25,447)	(17,991)
Changes in restricted cash and cash equivalents	(1,334)	7,614
Investment in unconsolidated entity	—	(1,636)
Payment for EchoStar XXI launch services	—	(11,875)
Net cash flows from investing activities	(336,491)	(466,941)
Cash Flows from Financing Activities:		
Proceeds from issuance of long-term debt	—	1,500,000
Payments of debt issuance costs	(414)	(6,275)
Repayment of debt and capital lease obligations	(25,787)	(24,052)
Advances from (to) affiliates, net	(36)	5,481
Capital contribution from EchoStar	—	11,875
Other, net	(3,097)	(2,967)
Net cash flows from financing activities	(29,334)	1,484,062
Effect of exchange rates on cash and cash equivalents	923	660
Net increase in cash and cash equivalents	4,944	1,464,597
Cash and cash equivalents, beginning of period	2,070,964	382,990
Cash and cash equivalents, end of period	$ 2,075,908	$ 1,847,587
Supplemental Disclosure of Cash Flow Information:		
Cash paid for interest (including capitalized interest)	$ 183,073	$ 96,418
Capitalized interest	$ 19,412	$ 22,811
Cash paid for income taxes	$ 2,814	$ 3,856
Property and equipment financed under capital lease obligations	$ 8,423	$ 650
Decrease in capital expenditures included in accounts payable, net	$ (2,257)	$ (8,587)
Transfer of launch service contracts from (to) EchoStar	$ (145,114)	$ 70,300
Contribution of net assets pursuant to Share Exchange Agreement	$ 219,662	$ —
Exchange of uplinking business net assets for HSS Tracking Stock	$ (190,221)	$ —
Capitalized in-orbit incentive obligations	$ 31,000	$ —
Contribution of EchoStar XIX satellite	$ 514,448	$ —

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 "HSS," the "Company," "we," "us" and/or "our") is a holding company and a subsidiary of EchoStar Corporation ("EchoStar"). We are a global provider of satellite service operations, video delivery solutions, broadband satellite technologies and broadband services for home and small office customers. We deliver innovative network technologies, managed services, and various communications solutions for enterprise and government customers.

In February 2014, HSS and EchoStar entered into agreements with certain subsidiaries of DISH Network Corporation ("DISH") pursuant to which, effective March 1, 2014, (i) EchoStar and HSS issued Tracking Stock (as defined below) to subsidiaries of DISH in exchange for five satellites (EchoStar I, EchoStar VII, EchoStar X, EchoStar XI, and EchoStar XIV), including the assumption of related in-orbit incentive obligations, and $11.4 million in cash and (ii) DISH and certain of its subsidiaries began receiving certain satellite services on these five satellites from us (the "Satellite and Tracking Stock Transaction"). The Tracking Stock tracked the economic performance of the residential retail satellite broadband business of our Hughes segment, including certain operations, assets and liabilities attributed to such business (collectively, the "Hughes Retail Group" or "HRG"), and represented an aggregate 80.0% economic interest in HRG (the Hughes Retail Tracking Stock issued by us (the "HSS Tracking Stock") represented a 28.11% economic interest in HRG and the Hughes Retail Tracking Stock issued by EchoStar (the "EchoStar Tracking Stock", together with the HSS Tracking Stock, the "Tracking Stock) represented a 51.89% economic interest in HRG). In addition to the remaining 20.0% economic interest in HRG, HSS retained all economic interest in the wholesale satellite broadband business and other businesses of HSS.

On January 31, 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. Pursuant to the Share Exchange Agreement, on February 28, 2017, among other things, 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 (collectively, the "Share Exchange"). Following consummation of the Share Exchange, EchoStar no longer operates the EchoStar Technologies business segment and the EchoStar Tracking Stock and HSS Tracking Stock were retired and are no longer outstanding and all agreements, arrangements and policy statements with respect to such tracking stock terminated and are of no further effect.

We currently operate in the following two business segments:

- ***Hughes*** — which provides broadband satellite technologies and broadband services to home and small office customers and network technologies, managed services, equipment, hardware, satellite services and communication solutions to domestic and international consumers and aeronautical, enterprise and government customers. The Hughes segment also designs, provides and installs gateway and terminal equipment to customers for other satellite systems. In addition, our Hughes segment provides satellite ground segment systems and terminals to mobile system operators.

- ***EchoStar Satellite Services ("ESS")*** — which uses certain of our owned and leased in-orbit satellites and related licenses to provide satellite service operations and video delivery solutions on a full-time and occasional-use basis primarily to DISH Network Corporation and its subsidiaries ("DISH Network"), Dish Mexico, S. de R.L. de C.V., a joint venture that EchoStar entered into in 2008 ("Dish Mexico"), United States ("U.S.") government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. We also manage satellite operations for certain satellites owned by DISH Network.

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

We were formed as a Colorado corporation in March 2011 to facilitate the acquisition by EchoStar (the "Hughes Acquisition") of Hughes Communications, Inc. and its subsidiaries ("Hughes Communications") and related financing transactions. In connection with our formation, EchoStar contributed the assets and liabilities of its satellite services business to us, including the principal operating subsidiary of its satellite services business, EchoStar Satellite Services L.L.C. 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 trusts established by Mr. Ergen for the benefit of his family.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the U.S. ("GAAP") and with the instructions to Form 10-Q and Article 10 of Regulation S-X for interim financial information. Accordingly, these financial statements do not include all of the information and notes required for complete financial statements prepared in conformity with GAAP. In our opinion, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Our results of operations for the interim periods presented are not necessarily indicative of the results that may be expected for the full year. For further information, refer to the consolidated financial statements and notes thereto included in our Form 10-K for the year ended December 31, 2016.

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 where we are the primary beneficiary. We are deemed to have a controlling financial interest in other entities when we own more than 50 percent 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 noncontrolling interest within shareholders' equity for the portion of the entity's equity attributed to the noncontrolling ownership interests. All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the balance sheets, the reported amounts of revenue and expense for each reporting period, and certain information disclosed in the notes to our condensed consolidated financial statements. Estimates are used in accounting for, among other things, amortization periods for deferred subscriber acquisition costs, revenue recognition using the percentage-of-completion method, allowances for doubtful accounts, allowances for sales returns and rebates, warranty obligations, self-insurance obligations, deferred taxes and related valuation allowances, uncertain tax positions, loss contingencies, fair value of financial instruments, fair value of EchoStar's stock-based compensation awards, fair value of assets and liabilities acquired in business combinations, lease classifications, asset impairment testing, useful lives and methods for depreciation and amortization of long-lived assets, and certain royalty obligations. 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 condensed consolidated financial statements. Changing economic 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 are reflected in the period they occur or prospectively if the revised estimate affects future periods.

Fair Value Measurements

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

- Level 1, defined as observable inputs being quoted prices in active markets for identical assets;

- Level 2, defined as observable inputs other than quoted prices included in Level 1, including quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which significant inputs and significant value drivers are observable in active markets; and
- Level 3, defined as unobservable inputs for which little or no market data exists, consistent with characteristics of the asset or liability that would be considered by market participants in a transaction to purchase or sell the asset or liability.

Transfers between levels in the fair value hierarchy are considered to occur at the beginning of the quarterly accounting period. There were no transfers between levels for each of the nine months ended September 30, 2017 or 2016.

As of September 30, 2017 and December 31, 2016, the carrying amounts of our cash and cash equivalents, trade accounts receivable, net of allowance for doubtful accounts, accounts payable and accrued liabilities were equal to or approximated fair value due to their short-term nature or proximity to current market rates.

Fair values of our marketable investment securities are based on a variety of observable market inputs. For our investments in publicly traded equity securities and U.S. government securities, fair value ordinarily is determined based on a Level 1 measurement that reflects quoted prices for identical securities in active markets. Fair values of our investments in other marketable debt securities generally are based on Level 2 measurements, as the markets for such debt securities are less active. Trades of identical debt securities on or near the measurement date are considered a strong indication of fair value. Matrix pricing techniques that consider par value, coupon rate, credit quality, maturity and other relevant features also may be used to determine fair value of our investments in marketable debt securities.

Fair values for our 6 1/2% Senior Secured Notes due 2019 (the “2019 Senior Secured Notes”), 7 5/8% Senior Unsecured Notes due 2021 (the “2021 Senior Unsecured Notes”), 5.250% Senior Secured Notes due 2026 (the “2026 Senior Secured Notes”) and 6.625% Senior Unsecured Notes due 2026 (the “2026 Senior Unsecured Notes” and together with the 2026 Senior Secured Notes, the “2026 Notes”) (see Note 9) are based on quoted market prices in less active markets and are categorized as Level 2 measurements. The fair values of our other debt are Level 2 measurements and are estimated to approximate their carrying amounts based on the proximity of their interest rates to current market rates. As of September 30, 2017 and December 31, 2016, the fair values of our in-orbit incentive obligations, based on measurements categorized within Level 2 of the fair value hierarchy, approximated their carrying amounts of $100.6 million and $74.1 million, respectively. We use fair value measurements from time to time in connection with asset impairment testing and the assignment of purchase consideration to assets and liabilities of acquired companies. Those fair value measurements typically include significant unobservable inputs and are categorized within Level 3 of the fair value hierarchy.

Research and Development

Costs incurred in research and development activities generally are expensed as incurred. A significant portion of our research and development costs are incurred in connection with the specific requirements of a customer’s order. In such instances, the amounts for these customer funded development efforts are included in cost of sales.

Cost of sales includes research and development costs incurred in connection with customers’ orders of approximately $7.0 million and $11.1 million for the three months ended September 30, 2017 and 2016, respectively, and $20.7 million and $17.2 million for the nine months ended September 30, 2017 and 2016, respectively. In addition, we incurred other research and development expenses of approximately $8.3 million and $9.0 million for the three months ended September 30, 2017 and 2016, respectively, and $23.4 million and $23.5 million for the nine months ended September 30, 2017 and 2016, respectively.

Capitalized Software Costs

Costs related to the procurement and development of software for internal-use and externally marketed software are capitalized and amortized using the straight-line method over the estimated useful life of the software, not in excess of five years. Capitalized costs of internal-use software are included in “Property and equipment, net” and capitalized costs of externally marketed software are included in “Other noncurrent assets, net” in our condensed consolidated balance sheets. Externally marketed software generally is installed in the equipment we sell to customers. We conduct software program reviews for externally marketed capitalized software costs at least annually, or as events and circumstances warrant such a review, to determine if capitalized software development costs are recoverable and to ensure that costs associated with programs that are

no longer generating revenue are expensed. As of September 30, 2017 and December 31, 2016, the net carrying amount of externally marketed software was $87.7 million and $76.3 million, respectively, of which $16.7 million and $50.1 million, respectively, was under development and not yet placed in service. We capitalized costs related to the development of externally marketed software of $8.3 million and $6.2 million for the three months ended September 30, 2017 and 2016, respectively, and $25.4 million and $18.5 million for the nine months ended September 30, 2017 and 2016, respectively. We recorded amortization expense relating to the development of externally marketed software of $5.5 million and $2.5 million for the three months ended September 30, 2017 and 2016, respectively, and $14.1 million and $7.2 million for the nine months ended September 30, 2017 and 2016, respectively. The weighted average useful life of our externally marketed software was approximately four years as of September 30, 2017.

New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers ("ASU 2014-09") and has modified the standard thereafter. It outlines a single comprehensive model, codified in Topic 606 of the FASB Accounting Standards Codification, for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the revenue model is that "an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." Public entities are required to adopt the new revenue standard in fiscal years beginning after December 15, 2017 and in interim periods within those fiscal years. The standard may be applied either retrospectively to prior periods or as a cumulative-effect adjustment as of the date of adoption. Early adoption is permitted, but not before fiscal years beginning after December 15, 2016. We plan to adopt the new revenue standard as of January 1, 2018 using the "modified retrospective method." Under this method, we will apply the rules only to contracts that are not substantially completed as of January 1, 2018, recognizing in retained earnings an adjustment for the cumulative effect of the change and providing additional disclosures comparing results to previous accounting standards.

Upon initial evaluation, we do not expect the adoption of ASU 2014-09 to have a material impact on the timing or amount of revenue recognition. However, we do believe the new standard will impact our financial statements as it relates to the deferral of sales commissions. We generally expense sales commissions as incurred under the current standard with the exception of the consumer business in our Hughes segment. The requirement to defer incremental contract acquisition costs and recognize them over the contract period or expected customer life will result in the recognition of a deferred charge on our consolidated balance sheets and corresponding impact to the consolidated statement of operations and comprehensive income (loss). In addition, we currently amortize our sales acquisition costs related to our consumer business in our Hughes segment over the contract term. We believe, under the new guidance, the amortization period for these contract acquisition costs will be over the estimated customer life which is a longer period of time.

We continue to evaluate the impact of the new standard on our consolidated financial statements and related disclosures. We are not able to reasonably estimate the impact of the new standard on our consolidated financial statements at this time.

In January 2016, the FASB issued Accounting Standards Update No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities ("ASU 2016-01"). This update substantially revises standards for the recognition, measurement and presentation of financial instruments, including requiring all equity investments, except for investments in consolidated subsidiaries and investments accounted for using the equity method, to be measured at fair value with changes in the fair value recognized through net income. The update permits an entity to elect to measure an equity security without a readily determinable fair value at its cost, adjusted for changes resulting from impairments and observable price changes in orderly transactions for identical or similar securities of the same issuer. It also amends certain disclosure requirements associated with equity investments and the fair value of financial instruments. ASU 2016-01 is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years, with early adoption permitted for certain requirements. We plan to adopt all applicable requirements of this update as of January 1, 2018. Upon adoption, we will adjust accumulated earnings to include unrealized gains or losses on any marketable equity securities then designated as available for sale, which historically have been recorded in accumulated other comprehensive loss except when an other-than-temporary impairment has occurred. Following adoption, all periodic changes in fair value of such securities will be recognized in net income or loss. As of September 30, 2017, we had recognized $0.1 million in net unrealized gains on such securities in accumulated other comprehensive loss. For our equity investments without a readily determinable fair value that we now account for using the cost method, we expect to elect to measure such securities at cost, adjusted for impairments and observable price changes. We expect our future net income or loss to be more volatile as a result of these changes in accounting for our investments in

available-for-sale and cost method equity securities. We continue to assess the impact on our consolidated financial statements of certain requirements of ASU 2016-01 related to measurement of fair value of financial instruments, deferred tax assets related to available-for-sale debt securities, and financial statement presentation and disclosure.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, Leases (“ASU 2016-02”). This standard requires lessees to recognize assets and liabilities for all leases with lease terms more than 12 months, including leases classified as operating leases. The standard also modifies the definition of a lease and the criteria for classifying leases as operating leases or financing leases. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In June 2016, the FASB issued Accounting Standards Update No. 2016-13, Measurement of Credit Losses on Financial Instruments (“ASU 2016-13”), which introduces an approach based on expected losses to estimate credit losses on certain types of financial instruments rather than incurred losses. It also modifies the impairment model for available-for-sale debt securities and provides for a simplified accounting model for purchased financial assets with credit deterioration since their origination. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. Early adoption is permitted. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

In October 2016, the FASB issued Accounting Standards Update No. 2016-16, Intra-Entity Transfers of Assets Other Than Inventory (“ASU 2016-16”), which improves the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. ASU 2016-16 is effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. We early adopted ASU 2016-16 as of January 1, 2017. Our adoption of this update did not have a material impact on our condensed consolidated financial statements and related disclosures.

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (“ASU 2016-18”). This standard requires restricted cash and restricted cash equivalents to be included with cash and cash equivalents in the statement of cash flows. ASU 2016-18 is effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. Early adoption is permitted and the standard must be applied retrospectively to all periods presented. We expect to adopt ASU 2016-18 as of January 1, 2018. Following our adoption of this standard, the beginning and ending balances of cash and cash equivalents presented in our consolidated statements of cash flows will include amounts for restricted cash and cash equivalents, which currently are not included in such balances. Changes in restricted cash and cash equivalents, which we have historically reported in cash flows from investing activities, will not be reported in our consolidated statements of cash flows.

In January 2017, the FASB issued Accounting Standards Update No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment (“ASU 2017-04”). This standard simplifies the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit’s carrying amount, including goodwill, exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019 and is to be applied on a prospective basis. We early adopted ASU 2017-04 as of January 1, 2017. Our adoption of this update did not have a material impact on our condensed consolidated financial statements and related disclosures, but it may impact the recognition and measurement of a goodwill impairment loss in future periods if we determine that the carrying amount of any reporting units including goodwill exceeds fair value of the reporting unit.

In March 2017, the FASB issued Accounting Standards Update No. 2017-08, Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities (“ASU 2017-08”). This update shortens the amortization period of premiums on certain purchased callable debt securities to the earliest call date, effectively reducing interest income on such securities prior to the earliest call date. ASU 2017-08 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. We are assessing the impact of adopting this new accounting standard on our consolidated financial statements and related disclosures.

Note 3. Other Comprehensive Income (Loss) and Related Tax Effects

Except in unusual circumstances, we do not recognize tax effects on foreign currency translation adjustments because they are not expected to result in future taxable income or deductions. We have not recognized any tax effects on unrealized gains or losses on available-for-sale securities because such gains or losses would affect the amount of unrealized capital losses for which the related deferred tax asset has been fully offset by a valuation allowance.

Accumulated other comprehensive loss includes net cumulative foreign currency translation losses of $45.1 million and $59.0 million as of September 30, 2017 and December 31, 2016, respectively.

Reclassifications out of accumulated other comprehensive loss for the three and nine months ended September 30, 2017 and 2016 were as follows:

Accumulated Other Comprehensive Loss Components	Affected Line Item in our Condensed Consolidated Statements of Operations	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
		2017	2016	2017	2016
		(In thousands)			
Recognition of realized gains on available-for-sale securities in net income (1)	Gains on marketable investment securities	$ —	$ (4)	$ —	$ (2,989)
Recognition of other-than-temporary impairment loss on available-for-sale securities in net income (2)	Other-than-temporary impairment loss on available-for-sale securities	—	—	3,298	—
Total reclassifications, net of tax and noncontrolling interests		$ —	$ (4)	$ 3,298	$ (2,989)

(1) When available-for-sale securities are sold, the related unrealized gains and losses that were previously recognized in other comprehensive income (loss) are reclassified and recognized as "Gains on marketable investment securities, net" in our condensed consolidated statements of operations and comprehensive income (loss).
(2) We recorded an other-than-temporary impairment loss on shares of certain common stock included in our strategic equity securities.

Note 4. Investment Securities

Marketable Investment Securities

Our marketable investment securities consisted of the following:

	As of	
	September 30, 2017	December 31, 2016
	(In thousands)	
Marketable investment securities—current, at fair value:		
Corporate bonds	$ 132,986	$ 164,619
Strategic equity securities	1,646	10,309
Other	61,274	12,995
Total marketable investment securities—current	$ 195,906	$ 187,923

Our marketable investment securities portfolio consists of various debt and equity instruments, which generally are classified as available-for-sale or trading securities depending on our investment strategy for those securities. The value of our investment portfolio depends on the value of such securities and other instruments comprising the portfolio.

Corporate Bonds

Our corporate bond portfolio includes debt instruments issued by individual corporations, primarily in the industrial and financial services industries.

Strategic Equity Securities

Our strategic investment portfolio consists of investments in shares of common stock of public companies, which are highly speculative and have experienced and continue to experience volatility. We did not receive any dividend income for the three and nine months ended September 30, 2017 or 2016. We recognized a $3.3 million other-than-temporary impairment for the nine months ended September 30, 2017 on one of our investments. This investment had been in a continuous loss position for more than 12 months and experienced a decline in market value as a result of adverse developments during the three months ended March 31, 2017.

For each of the three months ended September 30, 2017 and 2016, we did not recognize any gain and loss related to trading securities that we held as of September 30, 2017 and 2016. For the nine months ended September 30, 2017 and 2016, “Gains on marketable investment securities, net” included gains of zero and losses of $1.0 million, respectively, related to trading securities that we held as of September 30, 2017 and 2016, respectively. The fair values of our trading securities were zero and $7.2 million as of September 30, 2017 and December 31, 2016, respectively.

Other

Our other current marketable investment securities portfolio includes investments in various debt instruments, including U.S. government bonds and commercial paper.

Unrealized Gains (Losses) on Available-for-Sale Securities

The components of our available-for-sale securities are summarized in the table below.

	Amortized	Unrealized		Estimated
	Cost	Gains	Losses	Fair Value
	(In thousands)			
As of September 30, 2017				
Debt securities:				
Corporate bonds	$ 132,994	$ 19	$ (27)	$ 132,986
Other	61,276	—	(2)	61,274
Equity securities - strategic	1,536	110	—	1,646
Total available-for-sale securities	$ 195,806	$ 129	$ (29)	$ 195,906
As of December 31, 2016				
Debt securities:				
Corporate bonds	$ 164,563	$ 94	$ (38)	$ 164,619
Other	12,994	1	—	12,995
Equity securities - strategic	4,834	—	(1,724)	3,110
Total available-for-sale securities	$ 182,391	$ 95	$ (1,762)	$ 180,724

As of September 30, 2017, restricted and non-restricted available-for-sale securities included debt securities of $194.3 million with contractual maturities of one year or less and zero with contractual maturities greater than one year. We may realize proceeds from certain investments prior to their contractual maturity as a result of our ability to sell these securities prior to their contractual maturity.

Available-for-Sale Securities in a Loss Position

The following table reflects the length of time that our available-for-sale securities have been in an unrealized loss position. We do not intend to sell these securities before they recover or mature, and it is more likely than not that we will hold these securities until they recover or mature. We believe that changes in the estimated fair values of these securities are primarily related to temporary market conditions

	As of			
	September 30, 2017		December 31, 2016	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
	(In thousands)			
Less than 12 months	$ 112,110	$ (27)	$ 62,473	$ (1,760)
12 months or more	9,399	(2)	1,571	(2)
Total	$ 121,509	$ (29)	$ 64,044	$ (1,762)

Sales of Available-for-Sale Securities

We recognized zero gains and losses from the sales of our available-for-sale securities for each of the three and nine months ended September 30, 2017. We recognized gains from the sales of our available-for-sale securities of de minimis and $3.0 million for the three and nine months ended September 30, 2016, respectively. We recognized de minimis losses from the sales of our available-for-sale securities for each of the three and nine months ended September 30, 2016.

Proceeds from sales of our available-for-sale securities totaled zero for each of the three months ended September 30, 2017 and 2016, respectively, and $8.9 million and $17.6 million for the nine months ended September 30, 2017 and 2016, respectively.

Fair Value Measurements

Our current marketable investment securities are measured at fair value on a recurring basis as summarized in the table below. As of September 30, 2017 and December 31, 2016, we did not have investments that were categorized within Level 3 of the fair value hierarchy.

	As of					
	September 30, 2017			December 31, 2016		
	Total	Level 1	Level 2	Total	Level 1	Level 2
	(In thousands)					
Cash equivalents	$ 2,016,027	$ 12,821	$ 2,003,206	$ 1,991,949	$ 14,011	$ 1,977,938
Debt securities:						
Corporate bonds	$ 132,986	$ —	$ 132,986	$ 164,619	$ —	$ 164,619
Other	61,274	—	61,274	12,995	—	12,995
Equity securities - strategic	1,646	1,646	—	10,309	10,309	—
Total marketable investment securities	$ 195,906	$ 1,646	$ 194,260	$ 187,923	$ 10,309	$ 177,614

Investments in Unconsolidated Entities — Noncurrent

We have strategic investments in certain non-publicly traded equity securities that are accounted for using either the equity or the cost method of accounting. Our ability to realize value from our strategic investments in companies that are not publicly traded depends on the success of those companies' businesses and their ability to obtain sufficient capital to execute their business plans. Because private markets are not as liquid as public markets, there is also increased risk that we will not be able to sell these investments, or that when we desire to sell them we will not be able to obtain fair value for them.

Our investments in unconsolidated entities consisted of the following:

	As of	
	September 30, 2017	December 31, 2016
	(In thousands)	
Investments in unconsolidated entities—noncurrent:		
Cost method	$ 15,438	$ 15,438
Equity method	17,420	27,122
Total investments in unconsolidated entities—noncurrent	$ 32,858	$ 42,560

We recorded cash distributions from our investments accounted for using the equity method of $7.5 million and zero for the three months ended September 30, 2017 and 2016, respectively. For the nine months ended September 30, 2017 and 2016, we recorded cash distributions from one of these investments accounted for using the equity method of $15.0 million and $10.0 million, respectively. These cash distributions were determined to be a return on investment and reported in cash flows from operating activities in our condensed consolidated statements of cash flows.

Note 5. Trade Accounts Receivable

Our trade accounts receivable consisted of the following:

	As of	
	September 30, 2017	December 31, 2016
	(In thousands)	
Trade accounts receivable	$ 181,555	$ 159,094
Contracts in process, net	24,043	36,170
Total trade accounts receivable	205,598	195,264
Allowance for doubtful accounts	(13,211)	(12,752)
Trade accounts receivable - DISH Network	45,968	19,323
Total trade accounts receivable, net	$ 238,355	$ 201,835

As of September 30, 2017 and December 31, 2016, progress billings offset against contracts in process amounted to $17.4 million and $14.6 million, respectively.

Note 6. Inventory

Our inventory consisted of the following:

	As of	
	September 30, 2017	December 31, 2016
	(In thousands)	
Finished goods	$ 74,693	$ 49,773
Raw materials	6,901	6,678
Work-in-process	9,638	6,187
Total inventory	$ 91,232	$ 62,638

Note 7. Property and Equipment

Property and equipment consisted of the following:

	Depreciable Life (In Years)	As of	
		September 30, 2017	December 31, 2016
		(In thousands)	
Land	—	$ 13,443	$ 13,273
Buildings and improvements	1 - 30	127,652	79,765
Furniture, fixtures, equipment and other	1 - 12	576,423	430,078
Customer rental equipment	2 - 4	859,596	689,579
Satellites - owned	2 - 15	2,516,684	2,381,120
Satellites acquired under capital leases	10 - 15	794,705	781,761
Construction in progress	—	398,585	422,337
Total property and equipment		5,287,088	4,797,913
Accumulated depreciation		(2,433,297)	(2,503,187)
Property and equipment, net		$ 2,853,791	$ 2,294,726

Construction in progress consisted of the following:

	As of	
	September 30, 2017	December 31, 2016
	(In thousands)	
Progress amounts for satellite construction, including prepayments under capital leases and launch services costs	$ 296,358	$ 244,234
Satellite related equipment	83,907	152,683
Other	18,320	25,420
Construction in progress	$ 398,585	$ 422,337

Construction in progress included the following owned and leased satellites under construction or undergoing in-orbit testing as of September 30, 2017.

Satellites	Segment	Expected Launch Date
EchoStar 105/SES-11	ESS	October 2017 (1)
Telesat T19V (“63 West”) (2)	Hughes	Second quarter of 2018

(1) This satellite was launched in October 2017 and is expected to be placed in service during the fourth quarter of 2017.
(2) We entered into a satellite services agreement for certain capacity on this satellite once launched, but are not party to the construction contract.

Depreciation expense associated with our property and equipment consisted of the following:

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
	(In thousands)			
Satellites	$ 56,953	$ 46,965	$ 166,419	$ 140,895
Furniture, fixtures, equipment and other	21,428	16,739	58,078	44,883
Customer rental equipment	39,104	28,652	103,781	86,789
Buildings and improvements	1,306	1,042	3,972	3,151
Total depreciation expense	$ 118,791	$ 93,398	$ 332,250	$ 275,718

Satellites

As of September 30, 2017, our satellite fleet consisted of 16 of our owned and leased satellites in geosynchronous orbit, approximately 22,300 miles above the equator. We have not included the EchoStar 105/SES-11 satellite in our satellite fleet as of September 30, 2017 since it had not been placed into service as of this date. We depreciate our owned satellites on a straight-line basis over the estimated useful life of each satellite. As of September 30, 2017, three of our satellites are accounted for as capital leases and are depreciated on a straight-line basis over their respective lease terms. We accounted for one satellite as an operating lease that is not included in property and equipment as of September 30, 2017.

Recent Developments

EchoStar III. In July 2017, the EchoStar III satellite experienced an anomaly that caused communications with the satellite to be interrupted resulting in a loss of control. We regained communications with and control of the EchoStar III satellite and retired it in August 2017. The EchoStar III satellite was a fully depreciated, non-revenue generating asset.

EchoStar VIII. During the second quarter of 2017, the EchoStar VIII satellite was removed from its orbital location and retired from commercial service. This retirement has not had, and is not expected to have, a material impact on our results of operations or financial position.

EchoStar XIX. The EchoStar XIX satellite was launched in December 2016 and was placed into service in March 2017 at the 97.1 degree west longitude orbital location. The EchoStar XIX satellite provides additional capacity for the Hughes broadband services to our customers in North America and added capacity in certain Central and South American countries and has added capability for aeronautical, enterprise and international broadband services. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

EchoStar 105/SES-11. The EchoStar 105/SES-11 satellite was launched in October 2017 and is anticipated to be placed into service in the fourth quarter of 2017 at the 105 degree west longitude orbital location. Our Ku-band payload on the EchoStar 105/SES-11 satellite will replace our current capacity on the AMC-15 satellite.

Satellite Anomalies

Our satellites may experience anomalies from time to time, some of which may have a significant adverse impact on their remaining useful lives, the commercial operation of the satellites or our operating results or financial position. We are not aware of any anomalies with respect to our owned or leased satellites that have had any such material adverse effect during the nine months ended September 30, 2017. There can be no assurance, however, that anomalies will not have any such adverse impacts in the future. In addition, there can be no assurance that we can recover critical transmission capacity in the event one or more of our in-orbit satellites were to fail.

We historically have not carried in-orbit insurance on our satellites because we assessed that the cost of insurance was uneconomical 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 indebtedness, we are required, subject to certain limitations on coverage, to maintain in-orbit insurance for our SPACEWAY 3, EchoStar XVI, and EchoStar XVII satellites. Based on economic analysis of the current insurance market we obtained launch plus one year in-orbit insurance, subject to certain limitations, for the EchoStar XIX satellite. Additionally, we obtained certain launch and in-orbit insurance for our interest in the EchoStar 105/SES-11 satellite. All other satellites, either in orbit or under construction, are not covered by launch or in-orbit insurance. We will continue to assess circumstances going forward and make insurance decisions on a case by case basis.

Note 8. Goodwill and Other Intangible Assets

Goodwill

The excess of the cost of an acquired business over the fair values of net tangible and identifiable intangible assets at the time of the acquisition is recorded as goodwill. Goodwill is assigned to the reporting units within our operating segments and is subject to impairment testing annually, or more frequently when events or changes in circumstances indicate the fair value of a reporting unit is more likely than not less than its carrying amount.

As of September 30, 2017 and December 31, 2016, all of our goodwill was assigned to reporting units of our Hughes segment. We test this goodwill for impairment annually in the second quarter. Based on our qualitative assessment of impairment in the second quarter of 2017, we determined that it was not more likely than not that the fair values of the Hughes segment reporting units were less than the corresponding carrying amounts.

Other Intangible Assets

Our other intangible assets, which are subject to amortization, consisted of the following:

	Weighted Average Useful Life (in Years)	As of					
		September 30, 2017			December 31, 2016		
		Cost	Accumulated Amortization	Carrying Amount	Cost	Accumulated Amortization	Carrying Amount
		(In thousands)					
Customer relationships	8	$ 270,300	$ (228,355)	$ 41,945	$ 270,300	$ (214,544)	$ 55,756
Technology-based	6	51,417	(51,417)	—	51,417	(47,848)	3,569
Trademark portfolio	20	29,700	(9,405)	20,295	29,700	(8,291)	21,409
Total other intangible assets		$ 351,417	$ (289,177)	$ 62,240	$ 351,417	$ (270,683)	$ 80,734

Customer relationships are amortized predominantly in relation to the expected contribution of cash flow to the business over the life of the intangible asset. Other intangible assets are amortized on a straight-line basis over the periods the assets are expected to contribute to our cash flows. Intangible asset amortization expense, including amortization of externally marketed capitalized software, was $9.1 million and $11.4 million for the three months ended September 30, 2017 and 2016, respectively, and $32.6 million and $33.7 million for the nine months ended September 30, 2017 and 2016, respectively.

Note 9. Debt and Capital Lease Obligations

The following table summarizes the carrying amounts and fair values of our debt:

		As of			
		September 30, 2017		December 31, 2016	
	Effective Interest Rate	Carrying Amount	Fair Value	Carrying Amount	Fair Value
		(In thousands)			
Senior Secured Notes:					
6 1/2% Senior Secured Notes due 2019	6.959%	$ 990,000	$ 1,056,825	$ 990,000	$ 1,084,050
5 1/4% Senior Secured Notes due 2026	5.320%	750,000	783,038	750,000	739,688
Senior Unsecured Notes:					
7 5/8% Senior Unsecured Notes due 2021	8.062%	900,000	1,023,408	900,000	990,189
6 5/8% Senior Unsecured Notes due 2026	6.688%	750,000	806,910	750,000	760,245
Less: Unamortized debt issuance costs		(26,756)	—	(31,821)	—
Subtotal		3,363,244	$ 3,670,181	3,358,179	$ 3,574,172
Capital lease obligations		280,878		297,268	
Total debt and capital lease obligations		3,644,122		3,655,447	
Less: Current portion		(38,407)		(32,984)	
Long-term debt and capital lease obligations, net of unamortized debt issuance costs		$ 3,605,715		$ 3,622,463	

The fair values of our debt are estimates categorized within Level 2 of the fair value hierarchy.

Pursuant to the terms of a registration rights agreement, we registered notes having substantially identical terms as the 2026 Notes with the SEC as part of an offer to exchange registered notes for the 2026 Notes. This exchange offer expired May 11, 2017 with 99.98% of the 2026 Notes being tendered for exchange.

Note 10. Income Taxes

Our 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 quarterly tax provision, and our quarterly estimate of our annual effective tax rate, is subject to significant volatility due to several factors, including income and losses from investments for which we have a full valuation allowance, changes in tax laws and relative changes in unrecognized tax benefits. Additionally, our effective tax rate can be more or less volatile based on the amount of pre-tax income. For example, the impact of discrete items and non-deductible expenses on our effective tax rate is greater when our pre-tax income is lower.

Income tax expense was $8.7 million for the three months ended September 30, 2017 compared to an income tax expense of approximately $16.4 million for the three months ended September 30, 2016. Our estimated effective income tax rate was 43.2% and 36.9% for the three months ended September 30, 2017 and 2016, respectively. The variations in our current year effective tax rate from the U.S. federal statutory rate for the three months ended September 30, 2017 was primarily due to various permanent tax differences. The variations in our effective tax rate from the U.S. federal statutory rate for the three months ended September 30, 2016 was primarily due to research and experimentation credits, partially offset by state and local taxes.

Income tax expense was approximately $4.6 million for the nine months ended September 30, 2017 compared to an income tax expense of approximately $57.3 million for the nine months ended September 30, 2016. Our estimated effective income tax rate was 17.9% and 36.4% for the nine months ended September 30, 2017 and 2016, respectively. The variations in our effective tax rate from the U.S. federal statutory rate for the nine months ended September 30, 2017 was primarily due to the

recognition of a one-time tax benefit for the revaluation of our deferred tax assets and liabilities due to a change in our state effective tax rate as a result of the Share Exchange. For the nine months ended September 30, 2016, the variation in our effective tax rate from the U.S. federal statutory rate was primarily due to the impact of state and local taxes.

Note 11. Commitments and Contingencies

Commitments

As of September 30, 2017, our satellite-related obligations were approximately $581.3 million. Our satellite-related obligations primarily include payments pursuant to launch services contracts and regulatory authorizations; executory costs for our capital lease satellites; costs under satellite service agreements; and in-orbit incentives relating to certain satellites; as well as commitments for long-term satellite operating leases and satellite service arrangements.

Contingencies

Patents and Intellectual Property

Many entities, including some of our competitors, have or may in the future obtain patents and other intellectual property rights that cover or affect products or services 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 trebled. 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 persons 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 persons 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.

Separation Agreement; Share Exchange

In 2008, DISH Network contributed its digital set-top box business and certain infrastructure and other assets, including certain of its satellites, uplink and satellite transmission assets, real estate, and other assets and related liabilities to EchoStar (the “Spin-off”). In connection with 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, generally, EchoStar will only be liable for its acts or omissions following the Spin-off and DISH Network will indemnify EchoStar for any liabilities or damages resulting from intellectual property claims relating to the period prior to the Spin-off, as well as DISH Network’s acts or omissions following the Spin-off. Additionally, in connection with the Share Exchange, EchoStar entered into the Share Exchange Agreement 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 certain pre-existing liabilities and legal proceedings.

Litigation

We are involved in a number of legal proceedings (including those described below) concerning matters arising in connection with the conduct of our business activities. Many of these proceedings are at preliminary stages and/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 or there is a reasonable possibility that a loss or an additional loss may have been incurred 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 litigation are charged to expense as incurred.

For certain cases described below, 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 or motions; (v) there are significant factual issues to be resolved; and/or (vi) there are novel legal issues or unsettled legal theories to be presented or a large number of parties are involved (as with many patent-related cases). Except as described below, for these cases, 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 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 United States District Court for the Eastern District of Texas, alleging infringement of United States Patent Nos. 6,240,073 (the "073 patent") and 7,245,874 ("874 patent"). The 073 patent is entitled "Reverse Link for a Satellite Communication Network" and the 874 patent is entitled "Infrastructure for Telephony Network." Elbit alleges that the 073 patent is infringed by broadband satellite systems that practice the Internet Protocol Over Satellite standard. Elbit alleges that the 874 patent is infringed by the manufacture and sale of broadband satellite systems that provide cellular backhaul service via connections to E1 or T1 interfaces at cellular backhaul base stations. On April 2, 2015, Elbit filed an amended complaint removing Helm Hotels Group as a defendant, but making similar allegations against a new defendant, Country Home Investments, Inc. On November 3 and 4, 2015, and January 22, 2016, the defendants filed petitions before the United States Patent and Trademark Office challenging the validity of the patents in suit, which the Patent and Trademark Office subsequently declined to institute. On April 13, 2016, the defendants answered Elbit's complaint. At Elbit's request, on June 26, 2017, the court dismissed Elbit's claims of infringement against all parties other than HNS. Trial commenced on July 31, 2017. On August 7, 2017, the jury returned a verdict that the 073 patent was valid and infringed, and awarded Elbit approximately $21.1 million. As a result of interest, costs and unit sales through the 073 patent's expiration in November 2017, we estimate the jury verdict could result in a judgment of approximately $27 million if not overturned or modified by post-trial motions or appeals. The jury also found that such infringement of the 073 patent was not willful and that the 874 patent was not infringed. HNS intends to vigorously pursue its post-trial rights, including appeals. We cannot predict with certainty the outcome of any post-trial motions or appeals. For the nine months ended September 30, 2017, we have recorded a charge of $2.5 million with respect to this matter. Any eventual payments made with respect to the ultimate outcome of this matter may be different from our accruals and such differences could be significant.

Realtime Data LLC

On May 8, 2015, Realtime Data LLC ("Realtime") filed suit against EchoStar Corporation and our subsidiary HNS in the United States District Court for the Eastern District of Texas alleging infringement of United States Patent Nos. 7,378,992 (the "992 patent"), entitled "Content Independent Data Compression Method and System"; 7,415,530 (the "530 patent"), entitled "System and Methods for Accelerated Data Storage and Retrieval"; and 8,643,513 (the "513 patent"), entitled "Data Compression System and Methods." On September 14, 2015, Realtime amended its complaint, additionally alleging infringement of United States Patent No. 9,116,908 (the "908 patent"), entitled "System and Methods for Accelerated Data Storage and Retrieval." Realtime generally alleges that the asserted patents are infringed by certain HNS data compression products and services. Over April 29, 2016 and May 5, 2016, the defendants filed petitions before the United States Patent and Trademark Office ("USPTO") challenging the validity of the asserted patents. The USPTO instituted proceedings on each of those petitions. The USPTO invalidated the asserted claims of the 513 patent, but Realtime is still asserting this patent against us and may appeal this ruling. Realtime is no longer asserting the 992 patent against us and additionally the USPTO invalidated the claims of the 992 patent that had been asserted against us. The USPTO is still reviewing the 530 patent; however, two of the four claims asserted against us were invalidated in a separate litigation between Realtime and a third party,

which Realtime may appeal. The USPTO did not invalidate the asserted claims of the 908 patent, but a third party has challenged these claims in a separate proceeding before the USPTO. On February 14, 2017, Realtime filed a second suit against EchoStar Corporation and our subsidiary HNS in the same District Court, alleging infringement of four additional United States Patents, Nos. 7,358,867, entitled "Content Independent Data Compression Method and System;" 8,502,707, entitled "Data Compression Systems and Methods;" 8,717,204, entitled "Methods for Encoding and Decoding Data;" and 9,054,728, entitled "Data Compression System and Methods." On June 6, 2017, Realtime filed an amended complaint, adding claims of infringement against EchoStar Technologies, L.L.C., a wholly-owned subsidiary of DISH, DISH, DISH Network L.L.C., Sling TV L.L.C., Sling Media L.L.C., and Arris Group, Inc., as well as additionally alleging infringement of United States Patent No. 8,553,759 (the "759 patent"), entitled "Bandwidth Sensitive Data Compression and Decompression." The cases were consolidated and no trial date has been set. On July 20, 2017, the claims against the newly added parties, with the exception of EchoStar Technologies, L.L.C., were severed into a separate case. On September 1, 2017, EchoStar Technologies, L.L.C. was dismissed from the case. On October 10, 2017, Realtime informed us that it is not pursuing the 759 patent against us. Trial is scheduled for January 21, 2019. Realtime is an entity that seeks to license an acquired patent portfolio without itself practicing any of the claims recited therein.

Other

In addition to the above actions, we are subject to various other legal proceedings and claims, which arise in the ordinary course of our business. As part of our ongoing operations, the Company is 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 the Company 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, the Company from time to time receives 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.

The Company indemnifies its directors, officers and employees for certain liabilities that might arise from the performance of their responsibilities for the Company. Additionally, in the normal course of its business, the Company enters into contracts pursuant to which the Company may make a variety of representations and warranties and indemnify the counterparty for certain losses. The Company's 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 the Company or its officers, directors or employees, the outcomes of which are unknown and not currently predictable or estimable.

Note 12. Segment Reporting

Operating segments are business components of an enterprise for which separate financial information is available and regularly evaluated by the chief operating decision maker ("CODM"), who for HSS, is the Company's Chief Executive Officer. We operate in two primary business segments, Hughes and ESS as described in Note 1 of these condensed consolidated financial statements.

The primary measure of segment profitability that is reported regularly to our CODM is earnings before interest, taxes, depreciation and amortization, or EBITDA. Effective in March 2017, we also changed our overhead allocation methodology to reflect how the CODM evaluates our segments. Historically, the costs of all corporate functions were included on an allocated basis in each of the business segments' EBITDA. Under the revised allocation methodology, these costs are now reported and analyzed as part of "Corporate and Other" (previously "All Other and Eliminations"). Our prior period segment EBITDA disclosures have been restated to reflect this change.

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

Our operations also include various corporate departments (primarily Executive, Strategic Development, Human Resources, IT, Finance, Real Estate and Legal) as well as other activities that have not been assigned to our operating segments, including costs incurred in certain satellite development programs and other business development activities, our centralized treasury operations, and gains (losses) from certain of our investments. Costs and income associated with these departments and activities are accounted for in the “Corporate and Other” column in the table below or in the reconciliation of EBITDA below.

Transactions between segments were not significant for the three and nine months ended September 30, 2017 or 2016, respectively. 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 operating segments:

	Hughes	EchoStar Satellite Services	Corporate and Other	Consolidated Total
	(In thousands)			
For the Three Months Ended September 30, 2017				
External revenue	$ 379,702	$ 96,743	$ 1,917	$ 478,362
Intersegment revenue	$ 359	$ 350	$ (709)	$ —
Total revenue	$ 380,061	$ 97,093	$ 1,208	$ 478,362
EBITDA	$ 131,817	$ 78,345	$ (10,108)	$ 200,054
Capital expenditures	$ 108,428	$ 8,203	$ —	$ 116,631
For the Three Months Ended September 30, 2016				
External revenue	$ 355,090	$ 101,308	$ 868	$ 457,266
Intersegment revenue	$ 786	$ 172	$ (958)	$ —
Total revenue	$ 355,876	$ 101,480	$ (90)	$ 457,266
EBITDA	$ 125,522	$ 84,257	$ (11,494)	$ 198,285
Capital expenditures	$ 75,682	$ 15,730	$ —	$ 91,412
For the Nine Months Ended September 30, 2017				
External revenue	$ 1,070,715	$ 294,839	$ 5,191	$ 1,370,745
Intersegment revenue	$ 1,428	$ 946	$ (2,374)	$ —
Total revenue	$ 1,072,143	$ 295,785	$ 2,817	$ 1,370,745
EBITDA	$ 342,693	$ 241,873	$ (34,099)	$ 550,467
Capital expenditures	$ 270,624	$ 21,351	$ —	$ 291,975
For the Nine Months Ended September 30, 2016				
External revenue	$ 1,019,203	$ 305,401	$ 2,506	$ 1,327,110
Intersegment revenue	$ 2,248	$ 518	$ (2,766)	$ —
Total revenue	$ 1,021,451	$ 305,919	$ (260)	$ 1,327,110
EBITDA	$ 353,505	$ 257,181	$ (24,590)	$ 586,096
Capital expenditures	$ 261,241	$ 50,762	$ —	$ 312,003

The following table reconciles total consolidated EBITDA to reported "Income before income taxes" in our condensed consolidated statements of operations and comprehensive income (loss):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
	(In thousands)			
EBITDA	$ 200,054	$ 198,285	$ 550,467	$ 586,096
Interest income and expense, net	(52,462)	(49,530)	(160,748)	(120,199)
Depreciation and amortization	(127,915)	(104,774)	(364,878)	(309,448)
Net income attributable to noncontrolling interests	532	524	1,006	946
Income before income taxes	$ 20,209	$ 44,505	$ 25,847	$ 157,395

Note 13. Related Party Transactions

EchoStar

We and EchoStar have agreed that we shall have the right, but not the obligation, to receive from EchoStar certain corporate services, including among other things: treasury, tax, accounting and reporting, risk management, legal, internal audit, human resources, and information technology. These services are intended to be provided at cost. Effective March 2017, and as a result of the Share Exchange Agreement, we implemented a new methodology for determining the cost of these services. We may terminate a particular service we receive from EchoStar for any reason upon at least 30 days' notice. We recorded expenses for services received from EchoStar of $5.7 million and $5.2 million for the three months ended September 30, 2017 and 2016, respectively, and $17.2 million and $10.8 million for the nine months ended September 30, 2017 and 2016, respectively. In addition, we occupy certain office space in buildings owned or leased by EchoStar and pay a portion of the taxes, insurance, utilities and maintenance of the premises in accordance with the percentage of the space we occupy.

We participate in certain of EchoStar's shared services arrangements for its subsidiaries in the ordinary course of business, including arrangements for payroll, accounts payable and cash management. From time to time in connection with the processing of transactions under these arrangements, we may pay or receive amounts attributable to other domestic subsidiaries of EchoStar. We report net payments on behalf of other subsidiaries in "Advances to affiliates, net" within current assets and we report net receipts on behalf of other subsidiaries in "Advances from affiliates, net" within current liabilities in our condensed consolidated balance sheets. No repayment schedule for these net advances has been determined.

EchoStar and certain of its subsidiaries have 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 in "Advances from affiliates" within noncurrent liabilities in our condensed consolidated balance sheets.

Contribution of EchoStar XIX Satellite. On February 1, 2017, EchoStar contributed the EchoStar XIX satellite and assigned the related construction contract with the satellite manufacturer to us. We recorded a $369.3 million increase in "Additional paid-in capital," reflecting EchoStar's $514.4 million carrying amount of the satellite, including capitalized interest that was previously charged to expense in our consolidated financial statements, less related deferred taxes of $145.1 million. See Note 7 for additional information about the EchoStar XIX satellite.

EchoStar XXI and EchoStar XXIII Launch Facilitation and Operational Control Agreements. As part of applying for launch licenses for the EchoStar XXI and XXIII satellites through the UK Space Agency, our subsidiary, Hughes Network Systems, Ltd. ("HNS Ltd.") and a subsidiary of EchoStar, EchoStar Operating L.L.C. ("EOC"), entered into agreements in June 2015 and March 2016 to transfer to HNS Ltd. EOC's launch service contracts for the EchoStar XXI and EchoStar XXIII satellites, respectively, and to grant HNS Ltd. certain rights to control the in-orbit operations of these satellites. EOC retained ownership of the satellites and agreed to make additional payments to HNS Ltd. for amounts that HNS Ltd. is required to pay under both launch service contracts. In 2015 and 2016, we recorded additions to "Other noncurrent assets, net" and corresponding increases in "Additional paid-in capital" in our condensed consolidated balance sheet to reflect EOC's

cumulative payments under the launch service contracts prior to the transfer dates and to reflect EOC's funding of additional cash payments to the launch service provider. The EchoStar XXIII and the EchoStar XXI satellites were successfully launched in March 2017 and June 2017, respectively. We recorded decreases in "Other noncurrent assets, net" and "Additional paid-in capital" of $61.8 million and $83.3 million, respectively, representing the carrying amounts of the launch service contracts at the time of launch to reflect the consumption of the contracts' economic benefits by EOC, the owner of the satellites. HNS Ltd.'s future payment obligations under the launch service contracts are included in our disclosure of satellite-related obligations in Note 11.

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 HSS' common stock that were then issued to a subsidiary of EchoStar. Certain data center assets that were included in the contribution of certain assets and liabilities to one of our subsidiaries were not included in the Share Exchange and continue to be owned by one of our subsidiaries and have been pledged as collateral to support our obligations under the indentures relating to the 2019 Senior Secured Notes and the 2026 Senior Secured Notes.

DISH Network

Following the Spin-off, EchoStar and DISH have operated as separate publicly-traded companies. However, prior to the consummation of the Share Exchange on February 28, 2017, DISH Network owned the Tracking Stock representing an aggregate 80.0% economic interest in the residential retail satellite broadband business of our Hughes segment. Following the consummation of the Share Exchange, the Tracking Stock was retired. In addition, 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 trusts established by Mr. Ergen for the benefit of his family.

In connection with and following both the Spin-off and the Share Exchange, EchoStar and certain of its subsidiaries and DISH and certain of its subsidiaries have entered into certain agreements pursuant to which we and EchoStar obtain certain products, services and rights from DISH Network; DISH Network obtains certain products, services and rights from us and EchoStar; and we and DISH Network indemnify each other against certain liabilities arising from our respective businesses. We and/or EchoStar also may enter into additional agreements with DISH Network in the future. Generally, the amounts we or DISH Network pay for products and services provided under the agreements are based on cost plus a fixed margin (unless noted differently below or in our most recent Annual Report on Form 10-K), which varies depending on the nature of the products and services provided.

The following is a summary of the terms of our principal agreements with DISH Network that may have an impact on our financial condition and results of operations.

"Services and other revenue — DISH Network"

Satellite Services Provided to DISH Network. Since the Spin-off, we have entered into certain satellite service agreements pursuant to which DISH Network receives satellite services on certain satellites owned or leased by us. The fees for the services provided under these satellite service agreements depend, among other things, upon 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 each service arrangement is set forth below:

> *EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV.* As part of the Satellite and Tracking Stock Transaction, described below, in March 2014, we began providing certain satellite services to DISH Network on the EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. The term of each satellite services agreement generally terminates upon the earlier of: (i) the end of life of the satellite; (ii) the date the satellite fails; or (iii) a certain date, which depends upon, among other things, the estimated useful life of the satellite. DISH Network generally has the option to renew each satellite service agreement on a year-to-year basis through the end of the respective satellite's life. There can be no assurance that any options to renew such agreements will be exercised. In December 2016, DISH Network renewed the satellite services agreement relative to the EchoStar VII satellite for one year to June 2018.

EchoStar IX. Effective January 2008, DISH Network began receiving satellite services from us on the EchoStar IX satellite. Subject to availability, DISH Network generally has the right to continue to receive satellite services from us on the EchoStar IX satellite on a month-to-month basis.

EchoStar XII. DISH Network received satellite services from us on the EchoStar XII satellite. The term of the satellite services agreement terminated at the end of September 2017.

EchoStar XVI. In December 2009, we entered into an initial ten-year transponder service agreement with DISH Network, pursuant to which DISH Network has received satellite services from us on the EchoStar XVI satellite since January 2013. Effective December 2012, we and DISH Network amended the transponder service agreement to, among other things, change the initial term to generally expire upon the earlier of: (i) the end-of-life or replacement of the satellite; (ii) the date the satellite fails; (iii) the date the transponder(s) on which service is being provided under the agreement fails; or (iv) four years following the actual service commencement date. In July 2016, we and DISH Network further amended the transponder service agreement to, among other things, extend the initial term by one additional year through January 2018 and to reduce the term of the first renewal option by one year. In May 2017, DISH Network renewed the satellite services agreement relative to the EchoStar XVI satellite for five-years to January 2023. DISH Network has the option to renew for an additional five-year period prior to expiration of the term. There can be no assurance that such option to renew this agreement will be exercised. In the event that DISH Network does not exercise its five-year renewal option, DISH Network has the option to purchase the EchoStar XVI satellite for a certain price. If DISH Network does not elect to purchase the EchoStar XVI satellite at that time, we may sell the EchoStar XVI satellite to a third party and DISH Network is required to pay us a certain amount in the event we are not able to sell the EchoStar XVI satellite for more than a certain amount.

Nimiq 5 Agreement. In September 2009, we entered into a fifteen-year satellite service agreement with Telesat Canada (“Telesat”) to receive service on all 32 DBS transponders on the Nimiq 5 satellite at the 72.7 degree west longitude orbital location (the “Telesat Transponder Agreement”). In September 2009, we also entered into a satellite service agreement (the “DISH Nimiq 5 Agreement”) with DISH Network, pursuant to which DISH Network receives satellite services from us on all 32 of the DBS transponders covered by the Telesat Transponder Agreement.

Under the terms of the DISH Nimiq 5 Agreement, DISH Network makes certain monthly payments to us that commenced in September 2009, when the Nimiq 5 satellite was placed into service, and continue through the service term. Unless earlier terminated under the terms and conditions of the DISH Nimiq 5 Agreement, the service term will expire in October 2019. Upon expiration of the initial term, DISH Network has the option to renew the DISH Nimiq 5 Agreement on a year-to-year basis through the end of life of the Nimiq 5 satellite. Upon in-orbit failure or end of life of the Nimiq 5 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no assurance that any options to renew the DISH Nimiq 5 Agreement will be exercised or that DISH Network will exercise its option to receive service on a replacement satellite.

QuetzSat-1 Agreement. In November 2008, we entered into a ten-year satellite service agreement with SES Latin America, which provides, among other things, for the provision by SES Latin America to us of service on 32 DBS transponders on the QuetzSat-1 satellite. Concurrently, in 2008, we entered into a transponder service agreement with DISH Network, pursuant to which DISH Network receives satellite services 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 February 2013, we and DISH Network entered into an agreement pursuant to which we receive certain satellite services from DISH Network on five DBS transponders on the QuetzSat-1 satellite. In January 2013, the QuetzSat-1 satellite was moved to the 77 degree west longitude orbital location and DISH Network commenced commercial operations at such location in February 2013.

Under the terms of our contractual arrangements with DISH Network, we began to provide service to DISH Network on the QuetzSat-1 satellite in February 2013 and will continue to provide service through the remainder of the service term. Unless extended or earlier terminated under the terms and conditions of our agreement with DISH Network for the QuetzSat-1 satellite, the initial service term will expire in November 2021. Upon expiration of the initial service term, DISH Network has the option to renew the agreement for the QuetzSat-1 satellite on a year-to-year basis through the end of life of the QuetzSat-1 satellite. Upon an in-orbit failure or end of life of the QuetzSat-1 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no

assurance that any options to renew this agreement will be exercised or that DISH Network will exercise its option to receive service on a replacement satellite.

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. Unless earlier terminated under the terms and conditions of the DISH 103 Spectrum Development Agreement, the term generally will continue for the duration of the 103 Spectrum Rights.

In connection with the 103 Spectrum Development Agreement, in May 2012, we also entered into a ten-year service agreement with Ciel pursuant to which we receive certain satellite services from Ciel on the SES-3 satellite at the 103 degree orbital location. In June 2013, we and DISH Network entered into an agreement pursuant to which DISH Network receives certain satellite services from us on the SES-3 satellite (the “DISH 103 Service Agreement”). Under the terms of the DISH 103 Service Agreement, DISH Network makes certain monthly payments to us through the service term. Unless earlier terminated under the terms and conditions of the DISH 103 Service Agreement, the initial service term will expire on the earlier of: (i) the date the SES-3 satellite fails; (ii) the date the transponder(s) on which service was being provided under the agreement fails; or (iii) June 2023. Upon in-orbit failure or end of life of the SES-3 satellite, and in certain other circumstances, DISH Network has certain rights to receive service from us on a replacement satellite. There can be no assurance that DISH Network will exercise its option to receive service on a replacement satellite.

TT&C Agreement. Effective January 2012, we entered into a telemetry, tracking and control (“TT&C”) agreement pursuant to which we provide TT&C services to DISH Network for a period ending in December 2016 (the “2012 TT&C Agreement”). In November 2016, we and DISH Network amended the 2012 TT&C Agreement to extend the term for one year through December 2017. The 2012 TT&C Agreement replaced the TT&C agreement we entered into with DISH Network in connection with the Spin-off. The fees for services provided under the 2012 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. DISH Network is able to terminate the 2012 TT&C Agreement for any reason upon 60 days’ notice.

In connection with the Satellite and Tracking Stock Transaction, in February 2014, we amended the TT&C Agreement to cease the provision of TT&C services to DISH Network for the EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV satellites. Effective March 2014, we provide TT&C services for the D-1 and EchoStar XV satellites; however, for the period that we received satellite services on the EchoStar XV satellite from DISH Network, we waived the fees for the TT&C services on the EchoStar XV satellite. Effective August 2016, we provide TT&C services to DISH Network for the EchoStar XVIII satellite.

Real Estate Lease. Prior to the Share Exchange, 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 amended the agreement to (i) terminate the lease for the transferred space and (ii) provide for a continued lease to DISH Network of the portion of the property contributed to us for a period ending in December 2031. The rent on a per square foot basis for the lease is comparable to per square foot rental rates of similar commercial property in the same geographic area at the time of the lease, and DISH Network is responsible for its portion of the taxes, insurance, utilities and maintenance of the premises. This agreement may be extended by mutual consent, in which case this agreement will be converted to a month-to-month lease agreement. Upon extension, either party has the right to terminate this agreement upon 30 days’ notice.

TerreStar Agreement one-year period, unless terminated by TerreStar upon at least 60 days’ written notice to us prior to the end of the term. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by TerreStar or us upon at least 90 days’ written notice prior to the end of the term. The provision of hosting services will continue until May 2022 and will not renew beyond May 2022 unless the parties enter into a new agreement or amend the existing agreement. In addition, TerreStar generally may terminate such services for convenience subject to providing us with prior notice and/or payment of termination charges. . 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 our completion of the Hughes Acquisition, TerreStar and HNS entered into various agreements pursuant to which our Hughes segment provides, among other things, warranty, operations and maintenance and hosting services for TerreStar’s ground-based communications equipment. TerreStar generally has the right to continue to receive warranty services from us for one of our products on a month-to-month basis. The provision of warranty services for our other product will continue until March 2018 and will automatically renew in March 2018 for an additional one-year period, unless terminated by TerreStar upon at least 60 days’ written notice to us prior to the end of the term. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by TerreStar or us upon at least 90 da

ys' written notice prior to the end of the term. The provision of hosting services will continue until May 2022 and will not renew beyond May 2022 unless the parties enter into a new agreement or amend the existing agreement. In addition, TerreStar generally may terminate such services for convenience subject to providing us with prior notice and/or payment of termination charges.

Hughes Broadband Distribution Agreement. Effective October 2012, HNS and dishNET Satellite Broadband L.L.C. ("dishNET"), a wholly-owned subsidiary of DISH, entered into a distribution agreement (the "Distribution Agreement") pursuant to which dishNET has the right, but not the obligation, to market, sell and distribute the Hughes satellite internet service (the "Hughes service"). dishNET pays HNS a monthly per subscriber wholesale service fee for the Hughes service based upon a subscriber's service level, and based upon certain volume subscription thresholds. The Distribution Agreement also provides that dishNET has the right, but not the obligation, to purchase certain broadband equipment from us to support the sale of the Hughes 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, HNS and dishNET 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, the parties will continue to provide the Hughes service to the then-current dishNET subscribers pursuant to the terms and conditions of the Distribution Agreement.

DBSD North America Agreement. In March 2012, DISH Network completed its acquisition of 100% of the equity of reorganized DBSD North America, Inc. ("DBSD North America"). Prior to DISH Network's acquisition of DBSD North America and completion of the Hughes Acquisition, DBSD North America and HNS entered into various agreements pursuant to which our Hughes segment provides, among other things, warranty, operations and maintenance and hosting services of DBSD North America's gateway and ground-based communications equipment. DBSD North America generally has the right to continue to receive warranty services from us on a month-to-month basis until February 2019. The provision of operations and maintenance services will continue until April 2018 and will automatically renew in April 2018 for an additional one-year period, unless terminated by DBSD North America upon at least 120 days' written notice to us prior to the end of the term. 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 prior to the end of the term. In addition, DBSD North America generally may terminate such services for convenience, subject to providing us with prior notice and/or payment of termination charges.

RUS Implementation Agreement. In September 2010, DISH Broadband L.L.C. ("DISH Broadband"), DISH's indirect, wholly-owned subsidiary, was selected by the Rural Utilities Service ("RUS") of the United States Department of Agriculture to receive up to approximately $14.1 million in broadband stimulus grant funds (the "Grant Funds"). Effective November 2011, HNS and DISH Broadband entered into a RUS Implementation Agreement (the "RUS Agreement") pursuant to which HNS provided certain portions of the equipment and broadband service used to implement DISH Broadband's RUS program. While the RUS Agreement expired in June 2013 when the Grant Funds were exhausted, HNS is required to continue providing services to DISH Broadband's customers activated prior to the expiration of the RUS Agreement in accordance with the terms and conditions of the RUS Agreement.

General and administrative expenses — DISH Network

Amended and Restated Professional Services Agreement. In connection with the Spin-off, EchoStar entered into various agreements with DISH including the Transition Services Agreement, Satellite Procurement Agreement and Services Agreement, which all expired in January 2010 and were replaced by a Professional Services Agreement. In January 2010, EchoStar and DISH 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 the Transition Services Agreement: information technology, travel and event coordination, internal audit, legal, accounting and tax, benefits administration, program acquisition services and other support services. Additionally, EchoStar and DISH agreed that DISH Network would continue to have the right, but not the obligation, to engage us to manage the process of procuring new satellite capacity for DISH Network (previously provided under the Satellite Procurement Agreement), receive logistics, procurement and quality assurance services from EchoStar and its subsidiaries (previously provided under the Services Agreement) and other support services. In connection with the consummation of the Share Exchange, EchoStar and DISH amended and restated the 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. A portion of these costs and expenses have been allocated to us in the manner described above under the caption "EchoStar." The

term of the Amended and Restated Professional Services Agreement is through January 2019 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.

Real Estate Lease from DISH Network. In connection with the Share Exchange, effective March 2017, we sublease from DISH Network certain space at 796 East Utah Valley Drive in American Fork, Utah for a period ending in August 2017. We have exercised our option to renew this sublease for a five-year period ending in August 2022. The rent on a per square foot basis for the lease is comparable to per square foot rental rates of similar commercial property in the same geographic area at the time of the lease, and we are responsible for our portion of the taxes, insurance, utilities and maintenance of the premises.

Collocation and Antenna Space Agreements. In connection with the Share Exchange, effective March 2017, we entered into certain agreements pursuant to which DISH Network will provide collocation and antenna space to EchoStar through March 2022 at the following locations: Cheyenne, Wyoming; Gilbert, Arizona; New Braunfels, Texas; Monee, Illinois; Spokane, Washington; and Englewood, Colorado. In August 2017, we and DISH Network entered into certain other agreements pursuant to which DISH Network will provide additional collocation and antenna space to EchoStar in Monee, Illinois and Spokane, Washington through August 2022. EchoStar may renew each of these agreements for four 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 leased at the location.

Other agreements — DISH Network

Satellite and Tracking Stock Transaction. In February 2014, we and EchoStar entered into agreements with DISH Network to implement a transaction pursuant to which, among other things: (i) in March 2014, EchoStar and HSS issued shares of the Tracking Stock to DISH Network in exchange for five satellites owned by DISH Network (EchoStar I, EchoStar VII, EchoStar X, EchoStar XI and EchoStar XIV) (including assumption of related in-orbit incentive obligations) and approximately $11.4 million in cash; and (ii) in March 2014, DISH Network began receiving certain satellite services as discussed above on these five satellites from us (collectively, the "Satellite and Tracking Stock Transaction.") The Tracking Stock was retired in March 2017 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. See Note 3 for further information.

Share Exchange Agreement. On January 31, 2017, EchoStar and certain of its subsidiaries entered into the Share Exchange Agreement with DISH and certain of its subsidiaries, pursuant to which on February 28, 2017, EchoStar and its 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 on February 28, 2017, 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 contains 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 have 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 it causes the transaction to be taxable to the other party after closing.

Hughes Broadband Master Services Agreement five years until March 2022 with automatic renewal for successive one-year terms. After the first anniversary, either party has the ability to terminate the MSA, in whole or in part, for any reason upon at least 90 days' notice to the other party. Upon expiration or termination of the MSA, HNS will continue to provide the Hughes service to subscribers and make certain payments to DNLLC pursuant to the terms and conditions of the MSA. . In March 2017, HNS and DISH Network L.L.C. ("DNLLC"), a wholly-owned subsidiary of DISH, entered into a master service agreement (the "MSA") pursuant to which DNLLC, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for the Hughes service and related equipment and other telecommunication services and (ii) installs Hughes service equipment with respect to activations generated by DNLLC. Under the MSA, HNS and DNLLC will make certain payments to each other relating to sales, upgrades, purchases and installation services. The MSA has an initial term of five years until March 2022 with automatic renewal for successive one-year terms. After the first anniversary, either party has the ability to terminate the MSA, in whole or in part, for any reason upon at least 90 days' notice to the other party. Upon expiration or termination of the MSA, HNS will continue to provide the Hughes service to subscribers

and make certain payments to DNLLC pursuant to the terms and conditions of the MSA.

Intellectual Property and Technology License Agreement. Effective March 2017 in connection with the Share Exchange, EchoStar and DISH Network entered into an Intellectual Property and Technology License Agreement ("IPTLA") pursuant to which EchoStar and DISH and their respective subsidiaries license to each other certain intellectual property and technology. The IPTLA will continue in perpetuity, unless mutually terminated by the parties. Pursuant to the IPTLA, EchoStar granted to DISH Network a license to EchoStar and its subsidiaries' 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 EchoStar and its subsidiaries, among other things, for the continued use of all intellectual property and technology that is used in EchoStar and its subsidiaries' retained businesses but the ownership of which was transferred to DISH Network pursuant to the 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 DISH and their respective 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 have 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 below, which continues in full force and effect.

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 for such taxes. However, DISH Network is not liable for and will 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 Internal Revenue Code of 1986, as amended, because of: (i) a direct or indirect acquisition of any of EchoStar's stock, stock options or assets; (ii) any action that EchoStar takes or fails to take; or (iii) any action that EchoStar takes that is inconsistent with the information and representations furnished to the 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 only terminate after the later of the full period of all applicable statutes of limitations, including extensions, or once all rights and obligations are fully effectuated or performed.

In light of the Tax Sharing Agreement, among other things, and in connection with 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 aggregate amount of $93.1 million that includes the federal tax benefit they received as a result of our operations.

Caltech. On October 1, 2013, Caltech Institute of Technology ("Caltech") filed complaints against two of our subsidiaries, Hughes Communications, Inc. and HNS, as well as against DISH and certain of its subsidiaries, in the United States District Court for the Central District of California alleging infringement of United States Patent Nos. 7,116,710; 7,421,032; 7,916,781; and 8,284,833, each of which is entitled "Serial Concatenation of Interleaved Convolutional Codes forming Turbo-Like Codes." Caltech asserted that encoding data as specified by the DVB-S2 standard infringed each of the asserted patents. Caltech claimed that certain of our Hughes segment's satellite broadband products and services, infringed the asserted patents by implementing the DVB-S2 standard. Pursuant to a settlement agreement among us, DISH and Caltech, in May 2016, Caltech dismissed with prejudice all of its claims in these actions.

Other Agreements

Hughes Systique Corporation ("Hughes Systique")

We contract with Hughes Systique for software development services. In 2008, Hughes Communications loaned $1.5 million to Hughes Systique pursuant to a term loan facility. The initial interest rate on the outstanding loans was 6%, payable annually, and the accrued and unpaid interest was added to the principal amount outstanding under the loan facility in certain circumstances. The loans were convertible into shares of Hughes Systique upon non-payment or an event of default. In May 2014, we amended the term loan facility to increase the interest rate from 6% to 8%, payable annually, to reflect then-current market conditions and extend the maturity date of the loans to May 1, 2015, and in April 2015, we extended the maturity date of the loans to May 1, 2016 on the same terms. In 2015, Hughes Systique repaid $1.5 million of the outstanding principal of the loan facility. In 2016, Hughes Systique repaid $0.6 million of the outstanding principal of the loan facility. As of September 30, 2017, the principal amount outstanding of the loan facility was zero. In addition to our 43.7% ownership in Hughes Systique, Mr. Pradman Kaul, the President of Hughes Communications and a member of EchoStar's board of directors, and his brother, who is the CEO and President of Hughes Systique, in the aggregate, own approximately 25.7%, on an undiluted basis, of Hughes Systique's outstanding shares as of September 30, 2017. 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 our condensed consolidated financial statements.

Dish Mexico

EchoStar owns 49.0% of an entity that provides direct-to-home satellite services in Mexico known as Dish Mexico, and we provide certain satellite services to Dish Mexico. We recognized revenue from sales of services we provided to Dish Mexico of approximately $5.8 million for each of the three months ended September 30, 2017 and 2016 and $17.5 million for each of the nine months ended September 30, 2017 and 2016. As of September 30, 2017 and December 31, 2016, we had trade accounts receivable from Dish Mexico of approximately $7.6 million and $10.7 million, respectively.

Deluxe/EchoStar LLC

We own 50.0% 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 account for our investment in Deluxe using the equity method. Summarized income statement information for Deluxe for the nine months ended September 30, 2017 and 2016 are as follows:

	For the Nine Months Ended September 30,	
	2017	2016
	(In thousands)	
Revenue	$ 28,752	$ 32,018
Gross profit	$ 12,920	$ 15,872
Income before income taxes	$ 10,596	$ 13,516
Net income attributable to EchoStar	$ 5,298	$ 6,758

We recognized revenue from Deluxe for transponder services and the sale of broadband equipment of approximately $1.3 million and $0.7 million for the three months ended September 30, 2017 and 2016, respectively, and $3.6 million and $2.1 million for the nine months ended September 30, 2017 and 2016, respectively. As of September 30, 2017 and December 31, 2016, we had trade accounts receivable from Deluxe of approximately $1.3 million and $0.7 million, respectively.

AsiaSat

We contract with AsiaSat Telecommunications Inc. (“AsiaSat”) for the use of transponder capacity on one of AsiaSat's satellites. Mr. William David Wade, a member of EchoStar’s board of directors, served as the Chief Executive Officer of AsiaSat in 2016 and as a senior advisor to the CEO of AsiaSat through March 2017. We incurred expenses payable to AsiaSat under this agreement of approximately zero and $0.4 million for the three months ended September 30, 2017 and 2016, respectively, and $0.1 million and $1.1 million for the nine months ended September 30, 2017 and 2016, respectively.

Note 14. 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 2019 Senior Secured Notes and 2021 Senior Unsecured Notes, which were issued on June 1, 2011, and our 2026 Notes, which were issued on July 27, 2016. See Note 9 for further information on the 2019 Senior Secured Notes, the 2021 Senior Unsecured Notes and the 2026 Notes.

In lieu of separate financial statements of the Guarantor Subsidiaries, condensed consolidating financial information prepared in accordance with Rule 3-10(f) of Regulation S-X is presented below, including the condensed balance sheet information, the condensed statement of operations and comprehensive income (loss) information and the condensed statement of cash flows information of HSS, the Guarantor Subsidiaries on a combined basis and the non-guarantor subsidiaries of HSS on a combined basis and the eliminations necessary to arrive at the corresponding information of HSS on a consolidated basis.

The indentures governing the 2019 Senior Secured Notes, the 2021 Senior Unsecured Notes and the 2026 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.

The condensed consolidating financial information presented below should be read in conjunction with our condensed consolidated financial statements and notes thereto included herein.

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

Condensed Consolidating Balance Sheet as of September 30, 2017
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Assets					
Cash and cash equivalents	$ 2,016,026	$ 32,178	$ 27,704	$ —	$ 2,075,908
Marketable investment securities, at fair value	194,260	1,646	—	—	195,906
Trade accounts receivable, net	—	138,268	54,119	—	192,387
Trade accounts receivable - DISH Network, net	—	45,626	342	—	45,968
Inventory	—	66,569	24,663	—	91,232
Advances to affiliates, net	102,149	45,927	4,907	(50,409)	102,574
Other current assets	103	17,652	31,177	(46)	48,886
Total current assets	2,312,538	347,866	142,912	(50,455)	2,752,861
Restricted cash and cash equivalents	12,379	—	775	—	13,154
Property and equipment, net	—	2,559,974	293,817	—	2,853,791
Regulatory authorizations, net	—	471,658	—	—	471,658
Goodwill	—	504,173	—	—	504,173
Other intangible assets, net	—	62,240	—	—	62,240
Investments in unconsolidated entities	—	32,858	—	—	32,858
Investment in subsidiaries	2,980,162	217,543	—	(3,197,705)	—
Advances to affiliates	700	74,701	—	(75,401)	—
Deferred tax asset	147,283	—	18,716	(147,283)	18,716
Other noncurrent assets, net	—	173,262	12,709	—	185,971
Total assets	$ 5,453,062	$ 4,444,275	$ 468,929	$ (3,470,844)	$ 6,895,422
Liabilities and Shareholders' Equity (Deficit)					
Trade accounts payable	$ —	$ 95,446	$ 22,169	$ —	$ 117,615
Trade accounts payable - DISH Network	—	5,470	—	—	5,470
Current portion of long-term debt and capital lease obligations	—	34,923	3,484	—	38,407
Advances from affiliates, net	—	4,532	46,204	(50,409)	327
Accrued expenses and other	54,622	140,345	46,532	(46)	241,453
Total current liabilities	54,622	280,716	118,389	(50,455)	403,272
Long-term debt and capital lease obligations, net of unamortized debt issuance costs	3,363,244	236,337	6,134	—	3,605,715
Deferred tax liabilities, net	—	840,194	144	(147,283)	693,055
Advances from affiliates	—	—	108,876	(75,401)	33,475
Other non-current liabilities	—	107,608	3,265	—	110,873
Total HSS shareholders' equity (deficit)	2,035,196	2,979,420	218,285	(3,197,705)	2,035,196
Noncontrolling interests	—	—	13,836	—	13,836
Total liabilities and shareholders' equity (deficit)	$ 5,453,062	$ 4,444,275	$ 468,929	$ (3,470,844)	$ 6,895,422

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

Condensed Consolidating Balance Sheet as of December 31, 2016
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Assets					
Cash and cash equivalents	$ 1,991,949	$ 53,905	$ 25,110	$ —	$ 2,070,964
Marketable investment securities, at fair value	177,614	10,309	—	—	187,923
Trade accounts receivable, net	—	138,861	43,651	—	182,512
Trade accounts receivable - DISH Network, net	—	19,323	—	—	19,323
Inventory	—	45,623	17,015	—	62,638
Advances to affiliates, net	10	999,340	4,968	(893,866)	110,452
Other current assets	48	19,183	27,083	—	46,314
Total current assets	2,169,621	1,286,544	117,827	(893,866)	2,680,126
Restricted cash and cash equivalents	11,097	—	723	—	11,820
Property and equipment, net	—	2,061,831	232,895	—	2,294,726
Regulatory authorizations, net	—	471,658	—	—	471,658
Goodwill	—	504,173	—	—	504,173
Other intangible assets, net	—	80,734	—	—	80,734
Investments in unconsolidated entities	—	42,560	—	—	42,560
Investment in subsidiaries	3,721,688	314,643	—	(4,036,331)	—
Advances to affiliates	700	60,761	—	(61,461)	—
Deferred tax asset	92,727	—	9,150	(92,727)	9,150
Other noncurrent assets, net	—	142,091	144,496	—	286,587
Total assets	$ 5,995,833	$ 4,964,995	$ 505,091	$ (5,084,385)	$ 6,381,534
Liabilities and Shareholders' Equity (Deficit)					
Trade accounts payable	$ —	$ 94,089	$ 12,321	$ —	$ 106,410
Trade accounts payable - DISH Network	—	6	—	—	6
Current portion of long-term debt and capital lease obligations	—	32,177	807	—	32,984
Advances from affiliates, net	850,807	12,228	31,429	(893,866)	598
Accrued expenses and other	44,654	136,921	38,738	—	220,313
Total current liabilities	895,461	275,421	83,295	(893,866)	360,311
Long-term debt and capital lease obligations, net of unamortized debt issuance costs	3,358,179	262,883	1,401	—	3,622,463
Deferred tax liabilities, net	—	621,061	128	(92,727)	528,462
Advances from affiliates	—	—	93,429	(61,461)	31,968
Other non-current liabilities	—	80,532	2,775	—	83,307
Total HSS shareholders' equity (deficit)	1,742,193	3,725,098	311,233	(4,036,331)	1,742,193
Noncontrolling interests	—	—	12,830	—	12,830
Total liabilities and shareholders' equity (deficit)	$ 5,995,833	$ 4,964,995	$ 505,091	$ (5,084,385)	$ 6,381,534

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 September 30, 2017
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue - DISH Network	$ —	$ 107,765	$ 499	$ —	$ 108,264
Services and other revenue - other	—	273,821	47,333	(10,181)	310,973
Equipment revenue - DISH Network	—	126	—	—	126
Equipment revenue - other	—	59,519	6,242	(6,762)	58,999
Total revenue	—	441,231	54,074	(16,943)	478,362
Costs and Expenses:					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	111,662	35,625	(9,624)	137,663
Cost of sales - equipment (exclusive of depreciation and amortization)	—	54,137	4,623	(6,709)	52,051
Selling, general and administrative expenses	—	72,492	11,630	(610)	83,512
Research and development expenses	—	8,302	—	—	8,302
Depreciation and amortization	—	117,702	10,213	—	127,915
Total costs and expenses	—	364,295	62,091	(16,943)	409,443
Operating income	—	76,936	(8,017)	—	68,919
Other Income (Expense):					
Interest income	7,667	200	653	(199)	8,321
Interest expense, net of amounts capitalized	(57,372)	(4,282)	672	199	(60,783)
Equity in earnings of unconsolidated affiliate	—	1,948	—	—	1,948
Equity in earnings (losses) of subsidiaries, net	42,830	(2,705)	—	(40,125)	—
Other, net	—	(85)	1,889	—	1,804
Total other income (expense), net	(6,875)	(4,924)	3,214	(40,125)	(48,710)
Income (loss) before income taxes	(6,875)	72,012	(4,803)	(40,125)	20,209
Income tax benefit (provision)	17,826	(29,092)	2,540	—	(8,726)
Net income (loss)	10,951	42,920	(2,263)	(40,125)	11,483
Less: Net income attributable to noncontrolling interests	—	—	532	—	532
Net income (loss) attributable to HSS	$ 10,951	$ 42,920	$ (2,795)	$ (40,125)	$ 10,951
Comprehensive Income (Loss):					
Net income (loss)	$ 10,951	$ 42,920	$ (2,263)	$ (40,125)	$ 11,483
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	8,571	—	8,571
Unrealized gains (losses) on available-for-sale securities and other	(20)	24	(70)	—	(66)
Equity in other comprehensive income (loss) of subsidiaries, net	8,525	8,501	—	(17,026)	—
Total other comprehensive income (loss), net of tax	8,505	8,525	8,501	(17,026)	8,505
Comprehensive income (loss)	19,456	51,445	6,238	(57,151)	19,988
Less: Comprehensive income attributable to noncontrolling interests	—	—	532	—	532
Comprehensive income (loss) attributable to HSS	$ 19,456	$ 51,445	$ 5,706	$ (57,151)	$ 19,456

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 September 30, 2016
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue - DISH Network	$ —	$ 111,750	$ —	$ —	$ 111,750
Services and other revenue - other	—	249,571	32,945	(5,639)	276,877
Equipment revenue - DISH Network	—	2,138	—	—	2,138
Equipment revenue - other	—	83,843	5,471	(22,813)	66,501
Total revenue	—	447,302	38,416	(28,452)	457,266
Costs and Expenses:					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	111,241	24,832	(5,486)	130,587
Cost of sales - equipment (exclusive of depreciation and amortization)	—	71,728	4,039	(22,166)	53,601
Selling, general and administrative expenses	—	59,574	9,100	(800)	67,874
Research and development expenses	—	9,030	—	—	9,030
Depreciation and amortization	—	100,375	4,399	—	104,774
Total costs and expenses	—	351,948	42,370	(28,452)	365,866
Operating income	—	95,354	(3,954)	—	91,400
Other Income (Expense):					
Interest income	3,502	9	495	—	4,006
Interest expense, net of amounts capitalized	(50,766)	(3,491)	721	—	(53,536)
Gains on marketable investment securities, net	5	—	—	—	5
Equity in earnings of unconsolidated affiliate	—	2,654	—	—	2,654
Equity in earnings (losses) of subsidiaries, net	57,324	(1,801)	—	(55,523)	—
Other, net	(1)	(40)	17	—	(24)
Total other income (expense), net	10,064	(2,669)	1,233	(55,523)	(46,895)
Income (loss) before income taxes	10,064	92,685	(2,721)	(55,523)	44,505
Income tax benefit (provision)	17,501	(35,257)	1,340	—	(16,416)
Net income (loss)	27,565	57,428	(1,381)	(55,523)	28,089
Less: Net income attributable to noncontrolling interests	—	—	524	—	524
Net income (loss) attributable to HSS	$ 27,565	$ 57,428	$ (1,905)	$ (55,523)	$ 27,565
Comprehensive Income (Loss):					
Net income (loss)	$ 27,565	$ 57,428	$ (1,381)	$ (55,523)	$ 28,089
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	1,255	—	1,255
Unrealized gains (losses) on available-for-sale securities and other	(38)	804	(16)	—	750
Recognition of realized gains on available-for-sale securities in net income (loss)	(4)	—	—	—	(4)
Equity in other comprehensive income (loss) of subsidiaries, net	2,043	1,239	—	(3,282)	—
Total other comprehensive income (loss), net of tax	2,001	2,043	1,239	(3,282)	2,001
Comprehensive income (loss)	29,566	59,471	(142)	(58,805)	30,090
Less: Comprehensive income attributable to noncontrolling interests	—	—	524	—	524
Comprehensive income (loss) attributable to HSS	$ 29,566	$ 59,471	$ (666)	$ (58,805)	$ 29,566

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

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
For the Nine Months Ended September 30, 2017
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue - DISH Network	$ —	$ 329,457	$ 1,218	$ —	$ 330,675
Services and other revenue - other	—	763,554	125,307	(22,610)	866,251
Equipment revenue - DISH Network	—	175	—	—	175
Equipment revenue - other	—	192,536	15,952	(34,844)	173,644
Total revenue	—	1,285,722	142,477	(57,454)	1,370,745
Costs and Expenses:					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	326,992	95,276	(20,635)	401,633
Cost of sales - equipment (exclusive of depreciation and amortization)	—	176,449	12,429	(34,736)	154,142
Selling, general and administrative expenses	—	213,212	32,876	(2,083)	244,005
Research and development expenses	—	23,444	—	—	23,444
Depreciation and amortization	—	339,342	25,536	—	364,878
Total costs and expenses	—	1,079,439	166,117	(57,454)	1,188,102
Operating income	—	206,283	(23,640)	—	182,643
Other Income (Expense):					
Interest income	19,890	633	1,322	(597)	21,248
Interest expense, net of amounts capitalized	(172,007)	(12,301)	1,715	597	(181,996)
Gains (losses) on marketable investment securities, net	—	1,723	—	—	1,723
Other-than-temporary impairment loss on available-for-sale securities	—	(3,298)	—	—	(3,298)
Equity in earnings of unconsolidated affiliate	—	5,298	—	—	5,298
Equity in earnings (losses) of subsidiaries, net	117,767	(13,344)	—	(104,423)	—
Other, net	—	(925)	1,154	—	229
Total other income (expense), net	(34,350)	(22,214)	4,191	(104,423)	(156,796)
Income (loss) before income taxes	(34,350)	184,069	(19,449)	(104,423)	25,847
Income tax benefit (provision)	54,556	(65,974)	6,783	—	(4,635)
Net income (loss)	20,206	118,095	(12,666)	(104,423)	21,212
Less: Net income attributable to noncontrolling interests	—	—	1,006	—	1,006
Net income (loss) attributable to HSS	$ 20,206	$ 118,095	$ (13,672)	$ (104,423)	$ 20,206
Comprehensive Income (Loss):					
Net income (loss)	$ 20,206	$ 118,095	$ (12,666)	$ (104,423)	$ 21,212
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	13,956	—	13,956
Unrealized gains (losses) on available-for-sale securities and other	(68)	(1,464)	(45)	—	(1,577)
Recognition of other-than-temporary loss on available-for-sale securities in net income (loss)	—	3,298	—	—	3,298
Equity in other comprehensive income (loss) of subsidiaries, net	15,745	13,911	—	(29,656)	—
Total other comprehensive income (loss), net of tax	15,677	15,745	13,911	(29,656)	15,677
Comprehensive income (loss)	35,883	133,840	1,245	(134,079)	36,889
Less: Comprehensive income attributable to noncontrolling interests	—	—	1,006	—	1,006
Comprehensive income (loss) attributable to HSS	$ 35,883	$ 133,840	$ 239	$ (134,079)	$ 35,883

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Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
For the Nine Months Ended September 30, 2016
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Revenue:					
Services and other revenue - DISH Network	$ —	$ 337,353	$ —	$ —	$ 337,353
Services and other revenue - other	—	743,654	94,962	(16,753)	821,863
Equipment revenue - DISH Network	—	7,008	—	—	7,008
Equipment revenue - other	—	178,376	12,296	(29,786)	160,886
Total revenue	—	1,266,391	107,258	(46,539)	1,327,110
Costs and Expenses:					
Costs of sales - services and other (exclusive of depreciation and amortization)	—	328,113	70,064	(16,213)	381,964
Cost of sales - equipment (exclusive of depreciation and amortization)	—	162,644	9,649	(28,264)	144,029
Selling, general and administrative expenses	—	182,110	27,926	(2,062)	207,974
Research and development expenses	—	23,524	—	—	23,524
Depreciation and amortization	—	301,896	7,552	—	309,448
Total costs and expenses	—	998,287	115,191	(46,539)	1,066,939
Operating income	—	268,104	(7,933)	—	260,171
Other Income (Expense):					
Interest income	6,135	88	1,214	(10)	7,427
Interest expense, net of amounts capitalized	(120,357)	(11,589)	4,310	10	(127,626)
Gains on marketable investment securities, net	2,989	2,311	—	—	5,300
Equity in earnings of unconsolidated affiliate	—	6,758	—	—	6,758
Equity in earnings (losses) of subsidiaries, net	164,592	(1,627)	—	(162,965)	—
Other, net	6,750	(2,317)	932	—	5,365
Total other income (expense), net	60,109	(6,376)	6,456	(162,965)	(102,776)
Income (loss) before income taxes	60,109	261,728	(1,477)	(162,965)	157,395
Income tax benefit (provision)	39,063	(96,854)	514	—	(57,277)
Net income (loss)	99,172	164,874	(963)	(162,965)	100,118
Less: Net income attributable to noncontrolling interests	—	—	946	—	946
Net income (loss) attributable to HSS	$ 99,172	$ 164,874	$ (1,909)	$ (162,965)	$ 99,172
Comprehensive Income (Loss):					
Net income (loss)	$ 99,172	$ 164,874	$ (963)	$ (162,965)	$ 100,118
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	—	—	10,607	—	10,607
Unrealized gains (losses) on available-for-sale securities and other	3,322	(751)	(28)	—	2,543
Recognition of realized gains on available-for-sale securities in net income (loss)	(2,989)	—	—	—	(2,989)
Equity in other comprehensive income (loss) of subsidiaries, net	10,014	10,765	—	(20,779)	—
Total other comprehensive income (loss), net of tax	10,347	10,014	10,579	(20,779)	10,161
Comprehensive income (loss)	109,519	174,888	9,616	(183,744)	110,279
Less: Comprehensive income attributable to noncontrolling interests	—	—	760	—	760
Comprehensive income (loss) attributable to HSS	$ 109,519	$ 174,888	$ 8,856	$ (183,744)	$ 109,519

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

Condensed Consolidating Statement of Cash Flows
For the Nine Months Ended September 30, 2017
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash Flows from Operating Activities:					
Net income (loss)	$ 20,206	$ 118,095	$ (12,666)	$ (104,423)	$ 21,212
Adjustments to reconcile net income (loss) to net cash flows from operating activities	66,702	160,917	16,592	104,423	348,634
Net cash flows from operating activities	86,908	279,012	3,926	—	369,846
Cash Flows from Investing Activities:					
Purchases of marketable investment securities	(170,158)	—	—	—	(170,158)
Sales and maturities of marketable investment securities	152,423	—	—	—	152,423
Expenditures for property and equipment	—	(243,409)	(48,566)	—	(291,975)
Changes in restricted cash and cash equivalents	(1,282)	—	(52)	—	(1,334)
Investment in subsidiary	(44,000)	(47,500)	—	91,500	—
Expenditures for externally marketed software	—	(25,447)	—	—	(25,447)
Net cash flows from investing activities	(63,017)	(316,356)	(48,618)	91,500	(336,491)
Cash Flows from Financing Activities:					
Payments of debt issuance costs	(414)	—	—	—	(414)
Proceeds from capital contribution from parent	—	44,000	47,500	(91,500)	—
Repayment of debt and capital lease obligations	—	(23,800)	(1,987)	—	(25,787)
Advances from affiliates	—	—	(36)	—	(36)
Other, net	600	(4,583)	886	—	(3,097)
Net cash flows from financing activities	186	15,617	46,363	(91,500)	(29,334)
Effect of exchange rates on cash and cash equivalents	—	—	923	—	923
Net increase (decrease) in cash and cash equivalents	24,077	(21,727)	2,594	—	4,944
Cash and cash equivalents, at beginning of period	1,991,949	53,905	25,110	—	2,070,964
Cash and cash equivalents, at end of period	$ 2,016,026	$ 32,178	$ 27,704	$ —	$ 2,075,908

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

Condensed Consolidating Statement of Cash Flows
For the Nine Months Ended September 30, 2016
(In thousands)

	HSS	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash Flows from Operating Activities:					
Net income (loss)	$ 99,172	$ 164,874	$ (963)	$ (162,965)	$ 100,118
Adjustments to reconcile net income (loss) to net cash flows from operating activities	63,754	96,870	23,109	162,965	346,698
Net cash flows from operating activities	162,926	261,744	22,146	—	446,816
Cash Flows from Investing Activities:					
Purchases of marketable investment securities	(396,730)	—	—	—	(396,730)
Sales and maturities of marketable investment securities	265,680	—	—	—	265,680
Expenditures for property and equipment	—	(235,462)	(76,541)	—	(312,003)
Expenditures for externally marketed software	—	(17,991)	—	—	(17,991)
Changes in restricted cash and cash equivalents	203	7,500	(89)	—	7,614
Investment in unconsolidated entity	—	(1,636)	—	—	(1,636)
Investment in subsidiary	(58,647)	(58,672)	—	117,319	—
Payment for EchoStar XXI launch services	—	—	(11,875)	—	(11,875)
Other, net	—	340	—	(340)	—
Net cash flows from investing activities	(189,494)	(305,921)	(88,505)	116,979	(466,941)
Cash Flows from Financing Activities:					
Proceeds from issuance of long-term debt	1,500,000	—	—	—	1,500,000
Payments of debt issuance costs	(6,275)	—	—	—	(6,275)
Proceeds from capital contributions from parent	—	58,647	58,672	(117,319)	—
Capital contribution from EchoStar	11,875	—	—	—	11,875
Repayment of debt and capital lease obligations	—	(21,321)	(2,731)	—	(24,052)
Advances from affiliates	—	—	5,481	—	5,481
Other, net	9	(4,304)	988	340	(2,967)
Net cash flows from financing activities	1,505,609	33,022	62,410	(116,979)	1,484,062
Effect of exchange rates on cash and cash equivalents	—	—	660	—	660
Net increase (decrease) in cash and cash equivalents	1,479,041	(11,155)	(3,289)	—	1,464,597
Cash and cash equivalents, at beginning of period	300,634	55,767	26,589	—	382,990
Cash and cash equivalents, at end of period	$ 1,779,675	$ 44,612	$ 23,300	$ —	$ 1,847,587

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

Unless the context indicates otherwise, as used herein, the terms "we," "us," "HSS," the "Company" and "our" refer to Hughes Satellite Systems Corporation and its subsidiaries. References to "$" are to United States dollars. The following management's narrative analysis of results of operations should be read in conjunction with the condensed consolidated financial statements and notes to our financial statements included elsewhere in this Quarterly Report on Form 10-Q. This management's 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. See "Disclosure Regarding Forward-Looking Statements" in this Quarterly Report on 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, see the caption "Risk Factors" in Part II, Item 1A of this Quarterly Report on Form 10-Q and in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016. Further, such forward-looking statements speak only as of the date of this Quarterly Report on 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 satellite service operations, video delivery solutions, broadband satellite technologies and broadband services for home and small office customers. We deliver innovative network technologies, managed services, and various communications solutions for enterprise and government customers. We currently operate in two business segments, which are differentiated primarily by their operational focus: Hughes and EchoStar Satellite Services ("ESS"). These segments are consistent with the way decisions regarding the allocation of resources are made, as well as how operating results are reviewed by our chief operating decision maker ("CODM"), who for HSS, is the Company's Chief Executive Officer.

On January 31, 2017, EchoStar and certain of its and our subsidiaries, entered into a Share Exchange Agreement (the "Share Exchange Agreement") with DISH Network Corporation ("DISH") and certain of its subsidiaries. Pursuant to the Share Exchange Agreement, on February 28, 2017, among other things, EchoStar and certain of its and our subsidiaries received all of the shares of the Hughes Retail Preferred Tracking Stock issued by EchoStar Corporation (the "EchoStar Tracking Stock") and the Hughes Retail Preferred Tracking Stock issued by us (the "HSS Tracking Stock", together with the EchoStar Tracking Stock, 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 (collectively, the "Share Exchange"). Following consummation of the Share Exchange, EchoStar no longer operates the EchoStar Technologies business segment and the Tracking Stock was retired and is no longer outstanding and all agreements, arrangements and policy statements with respect to the Tracking Stock terminated and are of no further effect.

Effective in March of 2017, we changed our overhead allocation methodology used in our segment disclosures to reflect how the CODM evaluates our segments. Historically, the costs of all corporate functions were included on an allocated basis in each of the business segments' EBITDA. Under the revised allocation methodology, these costs are now reported and analyzed as part of "Corporate and Other" (previously "All Other and Eliminations"). Our prior period segment EBITDA disclosures have been restated to reflect this change.

Our operations also include various corporate departments (primarily Executive, Strategic Development, Human Resources, IT, Finance, Real Estate and Legal) as well as other activities that have not been assigned to our operating segments, including costs incurred in certain satellite development programs and other business development activities, our centralized treasury operations, and gains (losses) from certain of our investments. These activities are accounted for in "Corporate and Other."

Highlights from our financial results are as follows:

Consolidated Results of Operations for the Nine Months Ended September 30, 2017

- Revenue of $1.37 billion
- Operating income of $182.6 million
- Net income of $21.2 million
- Net income attributable to HSS of $20.2 million

- EBITDA of $550.5 million (see reconciliation of this non-GAAP measure on pages 46)

Consolidated Financial Condition as of September 30, 2017

- Total assets of $6.90 billion
- Total liabilities of $4.85 billion
- Total shareholders' equity of $2.05 billion
- Cash, cash equivalents and current marketable investment securities of $2.27 billion

Hughes Segment

Our Hughes segment is a global provider of broadband satellite technologies and broadband services for home and small office customers. We deliver network technologies, managed services, equipment, hardware, satellite services and communications solutions to domestic and international consumers and aeronautical, enterprise and government customers. In addition, our Hughes segment designs, provides and installs gateway and terminal equipment to customers for other satellite systems and provides satellite ground segment systems and terminals for other satellite systems, including mobile system operators.

We continue to focus our efforts on growing our Hughes segment consumer revenue by maximizing utilization of our existing satellites while planning for new satellites to be launched. Our consumer revenue growth depends on our success in adding new subscribers and driving higher average revenue per subscriber across our wholesale and retail channels.

Our Hughes segment currently uses three satellites, the SPACEWAY 3 satellite, the EchoStar XVII satellite, and the EchoStar XIX satellite, and additional satellite capacity acquired from multiple third-party providers, to provide satellite broadband internet access and communications services to our customers. In December 2016, EchoStar launched the EchoStar XIX satellite, a next-generation, high throughput geostationary satellite, which provides significant capacity for continued subscriber growth. The EchoStar XIX satellite employs a multi-spot beam, bent pipe Ka-band architecture and provides additional capacity for the Hughes broadband services to our customers in North America and added capacity in certain Central and South American countries and has added capability for aeronautical, enterprise and international broadband services. EchoStar contributed the EchoStar XIX satellite to us in February 2017.

In August 2017, a subsidiary of EchoStar entered into a contract for the design and construction of a new, next-generation, high throughput geostationary satellite, with a planned 2021 launch, that is primarily intended to provide additional capacity for our HughesNet service in North, Central and South America as well as aeronautical and enterprise services. Capital expenditures associated with the construction and launch of this satellite will be included in "Corporate and Other" in EchoStar's segment reporting.

Our wholly-owned subsidiary, Hughes Network Systems, L.L.C. and DISH Network L.L.C. ("DNLLC"), a wholly-owned subsidiary of DISH, have entered into a master service agreement (the "MSA") pursuant to which DNLLC, among other things: (i) has the right, but not the obligation, to market, promote and solicit orders and upgrades for the Hughes satellite internet service and related equipment and other telecommunication services and (ii) will install Hughes service equipment with respect to activations generated by DNLLC. As a result of the MSA we do not expect to earn significant equipment revenue from our Distribution Agreement with dishNET Satellite Broadband L.L.C. ("dishNET") in the future and we expect our subscriber acquisition costs to increase in future periods.

In addition to our broadband consumer service offerings, our Hughes segment also provides network technologies, managed services, hardware, equipment and satellite services to large enterprise and government customers globally. Examples of such customers include lottery agencies, gas station operators and companies with multi-branch networks that rely on satellite or terrestrial networks for critical communication across wide geographies. Most of our enterprise customers have contracts with us for the services they purchase.

Developments toward the launch of next-generation satellite systems including low-earth orbit ("LEO") and geostationary systems could provide additional opportunities to drive the demand for our network equipment and services. The growth of our enterprise and equipment businesses relies heavily on global economic conditions and the competitive landscape for pricing relative to competitors and alternative technologies.

We continue to expand our efforts to grow our consumer satellite services business outside of the U.S. In April 2014, we entered into a satellite services agreement pursuant to which Eutelsat do Brasil provides us Ka-band capacity into Brazil on the EUTELSAT 65 West A satellite for a 15-year term. That satellite was launched in March 2016 and we began delivering high-speed consumer satellite broadband services in Brazil in July 2016. In September 2015, we entered into satellite services agreements pursuant to which affiliates of Telesat Canada ("Telesat") will provide to us the Ka-band capacity on a satellite to be located at the 63 degree west longitude orbital location ("63 West") for a 15-year term. We expect the satellite to be launched in the second quarter of 2018 and to augment the capacity being provided by the EUTELSAT 65 West A and EchoStar XIX satellites. We launched our consumer satellite broadband service in Colombia in the third quarter of 2017 and we expect to launch similar services in various other Central and South American countries in 2018.

We are tracking closely the developments in next-generation satellite businesses, and we are seeking to utilize our services, technologies and expertise to find new commercial opportunities for our business. In June 2015, EchoStar made an equity investment in WorldVu Satellites Limited ("OneWeb"), a global LEO satellite service company. We have an agreement with OneWeb to provide certain equipment and services in connection with the ground network system for OneWeb's LEO satellites. In November 2017, we began the production of OneWeb's ground network system equipment and expect to begin delivering this equipment in mid-2018.

As of September 30, 2017 and December 31, 2016, our Hughes segment had approximately 1,140,000 and 1,036,000 broadband subscribers, respectively. These broadband subscribers include customers that subscribe to our HughesNet broadband services through retail, wholesale and small/medium enterprise service channels. Gross subscriber additions increased by approximately 9,000 in the third quarter of 2017 compared to the second quarter of 2017 primarily due to an increase in new additions in our domestic retail channel as a result of the launch of the EchoStar XIX satellite, which was placed into service in March 2017. The increase was partially offset by a decrease in new subscribers additions in our international retail channel. Our average monthly subscriber churn percentage for the third quarter of 2017 decreased compared to the second quarter of 2017. As a result of higher gross subscriber additions and lower churn, total net subscriber additions were approximately 53,000 for the quarter ended September 30, 2017 compared to approximately 41,000 for the second quarter of 2017. Subscriber additions and churn include only subscribers through our retail and wholesale channels.

As of September 30, 2017 and December 31, 2016, our Hughes segment had approximately $1.74 billion and $1.52 billion, respectively, of contracted revenue backlog. We define Hughes contracted revenue backlog as our expected future revenue under customer contracts that are non-cancelable, excluding agreements with customers in our consumer market.

EchoStar Satellite Services Segment

Our ESS segment is a global provider of satellite service operations and video delivery solutions. We operate our business using our owned and leased in-orbit satellites and related licenses. Revenue growth in our ESS segment depends largely on our ability to continuously make satellite capacity available for sale. We provide satellite services on a full-time and occasional-use basis primarily to DISH Network Corporation and its subsidiaries ("DISH Network"), Dish Mexico, S. de R.L. de C.V., a joint venture that EchoStar entered into in 2008 ("Dish Mexico"), United States ("U.S.") government service providers, internet service providers, broadcast news organizations, programmers, and private enterprise customers. We also manage satellite operations for certain satellites owned by DISH Network.

We depend on DISH Network for a significant portion of the revenue for our ESS segment, and we expect that DISH Network will continue to be the primary source of revenue for our ESS segment. Therefore, the results of operations of our ESS segment are linked to changes in DISH Network's satellite capacity requirements. DISH Network's capacity requirements have been driven by the addition of new channels and migration of programming to high-definition TV and video on demand services. The services that we provide to DISH Network are critical to its nationwide delivery of content to its customers across the U.S. While we expect to continue to provide satellite services to DISH Network, its satellite capacity requirements may change for a variety of reasons, including its ability to construct and launch its own satellites. Any termination or reduction in the services we provide to DISH Network may cause us to have unused capacity on our satellites and require that we aggressively pursue alternative sources of revenue for this business.

We entered into: (i) a construction contract with Airbus Defence and Space SAS for the construction of the EchoStar 105/SES-11 satellite with C-band, Ku-band and Ka-band payloads; (ii) an agreement with SES Satellite Leasing Limited for the procurement of the related launch services; and (iii) an agreement with SES Americom Inc. ("SES") pursuant to which we will transfer the title to the Ku-band payload to an affiliate of SES following in-orbit testing of the satellite and the title to the C-band and Ka-band payloads to an affiliate of SES and SES, respectively, by early 2018. SES will provide to us satellite service

on the entire Ku-band payload on the EchoStar 105/SES-11 satellite for an initial ten-year term, with an option for us to renew the agreement on a year-to-year basis. The EchoStar 105/SES-11 satellite was launched in October 2017 and is expected to be placed into service in the fourth quarter of 2017. Our Ku-band payload on the EchoStar 105/SES-11 satellite will replace and augment our current capacity on the AMC-15 satellite, resulting in additional sales capacity. We expect to transfer activities from the AMC-15 satellite to the EchoStar 105/SES-11 satellite in the fourth quarter of 2017, which we expect will result in reduced operating costs associated with the lease of the AMC-15 satellite.

We continue to pursue expanding our business offerings by providing value added services such as telemetry, tracking, and control services to third parties, which leverages the ground monitoring networks and personnel currently within our ESS segment.

As of September 30, 2017 and December 31, 2016, our ESS segment had contracted revenue backlog attributable to satellites currently in orbit of approximately $1.26 billion and $1.16 billion, respectively.

New Business Opportunities

Our industry is evolving with the increase in worldwide demand for broadband internet access for information, entertainment and commerce. In addition to fiber and wireless systems, other technologies such as geostationary high throughput satellites, LEO networks, balloons, and High Altitude Platform Systems have begun 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, entertainment and commerce in North America and internationally for consumers, enterprises and governments.

We continue to selectively explore opportunities to pursue partnerships, joint ventures and strategic acquisitions, domestically and internationally, that we believe may allow us to increase our existing market share, expand into new markets and new customers, broaden our portfolio of services, products and intellectual property, and strengthen our relationships with our customers. We may allocate significant resources for long-term initiatives that may not have a short or medium-term or any positive impact on our revenue, results of operations, or cash flow.

Item 2. MANAGEMENT'S NARRATIVE ANALYSIS OF RESULTS OF OPERATIONS - Continued

RESULTS OF OPERATIONS

Nine Months Ended September 30, 2017 Compared to the Nine Months Ended September 30, 2016

Statements of Operations Data (1)	For the Nine Months Ended September 30, 2017	For the Nine Months Ended September 30, 2016	Variance Amount	Variance %
	(Dollars in thousands)			
Revenue:				
Services and other revenue - DISH Network	$ 330,675	$ 337,353	$ (6,678)	(2.0)
Services and other revenue - other	866,251	821,863	44,388	5.4
Equipment revenue - DISH Network	175	7,008	(6,833)	(97.5)
Equipment revenue - other	173,644	160,886	12,758	7.9
Total revenue	1,370,745	1,327,110	43,635	3.3
Costs and Expenses:				
Cost of sales - services and other	401,633	381,964	19,669	5.1
% of Total services and other revenue	**33.6%**	**33.0%**		
Cost of sales - equipment	154,142	144,029	10,113	7.0
% of Total equipment revenue	**88.7%**	**85.8%**		
Selling, general and administrative expenses	244,005	207,974	36,031	17.3
% of Total revenue	**17.8%**	**15.7%**		
Research and development expenses	23,444	23,524	(80)	(0.3)
% of Total revenue	**1.7%**	**1.8%**		
Depreciation and amortization	364,878	309,448	55,430	17.9
Total costs and expenses	1,188,102	1,066,939	121,163	11.4
Operating income	182,643	260,171	(77,528)	(29.8)
Other Income (Expense):				
Interest income	21,248	7,427	13,821	*
Interest expense, net of amounts capitalized	(181,996)	(127,626)	(54,370)	42.6
Gains (losses) and impairment on marketable investment securities, net	(1,575)	5,300	(6,875)	*
Other, net	5,527	12,123	(6,596)	(54.4)
Total other expense, net	(156,796)	(102,776)	(54,020)	52.6
Income before income taxes	25,847	157,395	(131,548)	(83.6)
Income tax provision	(4,635)	(57,277)	52,642	(91.9)
Net income	21,212	100,118	(78,906)	(78.8)
Less: Net income attributable to noncontrolling interests	1,006	946	60	6.3
Net income attributable to HSS	$ 20,206	$ 99,172	$ (78,966)	(79.6)
Other Data:				
EBITDA (2)	$ 550,467	$ 586,096	$ (35,629)	(6.1)
Subscribers, end of period	1,140,000	1,018,000	122,000	12.0

* Percentage is not meaningful.
(1) An explanation of our key metrics is included on pages 48 and 49 under the heading "Explanation of Key Metrics and Other Items."
(2) A reconciliation of EBITDA to "Net income," the most directly comparable GAAP measure in the accompanying financial statements, is included on page 46. For further information on our use of EBITDA see "Explanation of Key Metrics and Other Items" on page 49.

Services and other revenue — DISH Network. "Services and other revenue — DISH Network" totaled $330.7 million for the nine months ended September 30, 2017, a decrease of $6.7 million or 2.0%, compared to the same period in 2016.

Services and other revenue - DISH Network from our Hughes segment for the nine months ended September 30, 2017 decreased by $9.2 million, or 12.4%, to $65.4 million compared to the same period in 2016. The decrease was primarily attributable to a decrease in wholesale subscribers.

Services and other revenue - DISH Network from Corporate and Other for the nine months ended September 30, 2017 increased by $3.6 million to $4.7 million compared to the same period in 2016. The increase was primarily attributable to an increase in rental income relating to certain lease agreements pursuant to which DISH Network leases certain real estate from us.

Services and other revenue — other. "Services and other revenue — other" totaled $866.3 million for the nine months ended September 30, 2017, an increase of $44.4 million, or 5.4%, compared to the same period in 2016.

Services and other revenue - other from our Hughes segment for the nine months ended September 30, 2017 increased by $53.9 million, or 6.9%, to $833.1 million compared to the same period in 2016. The increase was primarily attributable to increases in sales of broadband services of $51.5 million to our domestic and international consumers, $8.2 million to our domestic enterprise customers and $3.8 million to our telecom systems customers, partially offset by a decrease of $9.8 million to our international enterprise customers.

Services and other revenue - other from our ESS segment for the nine months ended September 30, 2017 decreased by $9.1 million, or 20.6%, to $35.2 million compared to the same period in 2016. The decrease was primarily attributable to decreases in sales of transponder services due to expired service contracts.

Equipment revenue - ***DISH Network.*** "Equipment revenue — DISH Network" totaled $0.2 million for the nine months ended September 30, 2017, a decrease of $6.8 million or 97.5%, compared to the same period in 2016 primarily from our Hughes segment. The decrease in revenue was primarily due to the decrease in unit sales of broadband equipment to dishNET as a result of the MSA. See Note 13 in the notes to condensed consolidated financial statements in Item 1 of this report for additional information about the MSA.

Equipment revenue — other. "Equipment revenue — other" totaled $173.6 million for the nine months ended September 30, 2017, an increase of $12.8 million or 7.9%, compared to the same period in 2016 primarily from our Hughes segment. The increase was mainly due to an increase of $23.7 million in sales of broadband equipment to our domestic enterprise customers and an increase of $6.1 million to our domestic and international consumers. The increase was partially offset by a decrease in sales of broadband equipment to our telecom systems customers of $11.3 million, our international enterprise customers of $2.9 million, and our government customers of $2.8 million.

Cost of sales — services and other. "Cost of sales — services and other" totaled $401.6 million for the nine months ended September 30, 2017, an increase of $19.7 million or 5.1%, compared to the same period in 2016.

Cost of sales - services and other from our Hughes segment for the nine months ended September 30, 2017 increased by $18.5 million, or 5.5%, to $352.9 million compared to the same period in 2016. The increase was primarily attributable to an increase in the costs of broadband services provided to our domestic and international consumers, domestic enterprise customers, and telecom systems customers primarily due to the increase in sales of broadband services.

Cost of sales - services and other from our ESS segment for the nine months ended September 30, 2017 increased by $0.8 million, or 1.7%, to $48.9 million compared to the same period in 2016. The increase was primarily due to rental expenses for the lease of certain real estate and collocation and antenna space from DISH Network in 2017.

Cost of sales — equipment. "Cost of sales — equipment" totaled $154.1 million for the nine months ended September 30, 2017, an increase of $10.1 million or 7.0%, compared to the same period in 2016 primarily from our Hughes segment. The increase was primarily attributable to an increase of $20.8 million in equipment costs related to the increase in sales to our domestic and international consumers and enterprise customers, partially offset by a decrease of $10.7 million in equipment costs related to the decrease in sales to dishNET and our telecom systems customers.

Selling, general and administrative expenses. "Selling, general and administrative expenses" totaled $244.0 million for the nine months ended September 30, 2017, an increase of $36.0 million or 17.3%, compared to the same period in 2016. The increase was primarily related to an increase of $28.9 million in marketing and promotional costs primarily attributable to our domestic and international consumer broadband sales in our Hughes segment, an increase of $8.5 million as a result of our revised corporate structure, and an increase of $2.5 million in litigation expense in 2017, partially offset by a decrease of $3.9 million in general and administrative expenses.

Research and development expenses. "Research and development expenses" totaled $23.4 million for the nine months ended September 30, 2017, a decrease of $0.1 million or 0.3%, compared to the same period in 2016. Our research and development activities vary based on the activity level and scope of other engineering and customer related development contracts.

Depreciation and amortization. "Depreciation and amortization" expenses totaled $364.9 million for the nine months ended September 30, 2017, an increase of $55.4 million or 17.9%, compared to the same period in 2016. The increase was primarily related to an increase of $27.5 million in depreciation expense of the EUTELSAT 65 West A satellite that was placed into service in the third quarter of 2016 and the contribution of the EchoStar XIX satellite from EchoStar to us in February 2017, an increase of $17.0 million in depreciation expense relating to domestic and international customer rental equipment, an increase of $13.2 million in depreciation expense relating to machinery and equipment and an increase of $6.9 million in amortization expense relating to the development of externally marketed software, partially offset by a decrease of $7.5 million in amortization expense from certain fully amortized other intangible assets in our Hughes segment.

Interest income. "Interest income" totaled $21.2 million for the nine months ended September 30, 2017, an increase of $13.8 million compared to the same period in 2016. The increase was primarily attributable to the increase in our marketable investments and an increase in yield percentage in 2017 when compared to 2016.

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" totaled $182.0 million for the nine months ended September 30, 2017, an increase of $54.4 million or 42.6%, compared to the same period in 2016. The increase was primarily due to an increase in interest expense of $51.0 million relating to the issuance of 5.250% Senior Secured Notes due 2026 (the "2026 Senior Secured Notes") and 6.625% Senior Unsecured Notes due 2026 (the "2026 Senior Unsecured Notes" and together with 2026 Senior Secured Notes, the "2026 Notes") in the third quarter of 2016 and a decrease of $3.4 million in capitalized interest relating to the EchoStar XIX satellite that was placed into service in the first quarter of 2017.

Gains (losses) and impairment on marketable investment securities, net. "Gains (losses) and impairment on marketable investment securities, net" totaled $1.6 million in losses for the nine months ended September 30, 2017 compared to $5.3 million in gains for the same period in 2016. The change of $6.9 million was primarily due to an other than temporary impairment loss of $3.3 million on certain strategic equity securities in our marketable investment securities in 2017 and $3.0 million in realized gains on our securities classified as available-for-sale in 2016 .

Other, net. "Other, net" totaled $5.5 million in income for the nine months ended September 30, 2017, a decrease of $6.6 million or 54.4%, compared to the same period in 2016. The decrease was primarily related to $6.8 million for a provision recorded in the first half of 2015 in connection with Federal Communications Commission ("FCC") regulatory fees, which was reversed in the first quarter of 2016 and $1.5 million decrease in equity in earnings of our unconsolidated affiliates, partially offset by $1.5 million in a protective put associated with our trading securities in 2016.

Income tax benefit (provision). Income tax expense was $4.6 million for the nine months ended September 30, 2017 compared to an income tax expense of $57.3 million for the nine months ended September 30, 2016. Our effective income tax rate was 17.9% and 36.4% for the nine months ended September 30, 2017 and 2016, respectively. The variations in our current year effective tax rate from the U.S. federal statutory rate for the nine months ended September 30, 2017 were primarily due to the recognition of a one-time tax benefit for the revaluation of our deferred tax assets and liabilities due to a change in our state effective tax rate as a result of the Share Exchange. For the nine months ended September 30, 2016, the variation in our effective tax rate from the U.S. federal statutory rate was primarily due to the impact of state and local taxes.

Net income attributable to HSS. "Net income attributable to HSS" was $20.2 million for the nine months ended September 30, 2017, a decrease of $79.0 million or 79.6%, compared to the same period in 2016. The decrease was primarily due to (i) a decrease in operating income, including depreciation and amortization, of $77.5 million, (ii) an increase of $54.4 million in interest expense, net of amounts capitalized, (iii) a decrease in gains on investments of $6.9 million and (iv) a decrease in other income of $6.6 million. These decreases were partially offset by a decrease of $52.6 million in income tax expense and an increase of 13.8 million in interest income.

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA was $550.5 million for the nine months ended September 30, 2017, a decrease of $35.6 million or 6.1%, compared to the same period in 2016. The decrease was primarily due to (i) a decrease in operating income, excluding depreciation and amortization, of $22.1 million, (ii) a decrease in gains on investments of $6.9 million and (iii) a decrease in other income of $6.6 million. EBITDA is a non-GAAP financial measure and is described under Explanation of Key Metrics and Other Items below.

The following table reconciles EBITDA to Net income, the most directly comparable GAAP measure in the accompanying financial statements.

	For the Nine Months Ended September 30,		Variance	
	2017	2016	Amount	%
	(Dollars in thousands)			
Net income	$ 21,212	$ 100,118	$ (78,906)	(78.8)
Interest income and expense, net	160,748	120,199	40,549	33.7
Income tax provision	4,635	57,277	(52,642)	(91.9)
Depreciation and amortization	364,878	309,448	55,430	17.9
Net income attributable to noncontrolling interests	(1,006)	(946)	(60)	6.3
EBITDA	$ 550,467	$ 586,096	$ (35,629)	(6.1)

Segment Operating Results and Capital Expenditures

Nine Months Ended September 30, 2017 Compared to the Nine Months Ended September 30, 2016

	Hughes	EchoStar Satellite Services	Corporate and Other	Consolidated Total
	(In thousands)			
For the Nine Months Ended September 30, 2017				
Total revenue	$ 1,072,143	$ 295,785	$ 2,817	$ 1,370,745
Capital expenditures	$ 270,624	$ 21,351	$ —	$ 291,975
EBITDA	$ 342,693	$ 241,873	$ (34,099)	$ 550,467
For the Nine Months Ended September 30, 2016				
Total revenue	$ 1,021,451	$ 305,919	$ (260)	$ 1,327,110
Capital expenditures	$ 261,241	$ 50,762	$ —	$ 312,003
EBITDA	$ 353,505	$ 257,181	$ (24,590)	$ 586,096

Hughes Segment

	For the Nine Months Ended September 30,		Variance	
	2017	2016	Amount	%
	(Dollars in thousands)			
Total revenue	$ 1,072,143	$ 1,021,451	$ 50,692	5.0
Capital expenditures	$ 270,624	$ 261,241	$ 9,383	3.6
EBITDA	$ 342,693	$ 353,505	$ (10,812)	(3.1)

Revenue

Hughes segment total revenue for the nine months ended September 30, 2017 increased by $50.7 million, or 5.0%, compared to the same period in 2016. The increase was primarily due to an increase of $57.6 million in sales of broadband equipment and services to our domestic and international consumers, an increase of $31.9 million in sales of broadband equipment and services to our domestic enterprise customers, and an increase of $3.8 million in sales of services to our telecom systems customers. The increase was partially offset by a decrease of $16.1 million in sales of broadband equipment and services to DISH Network, a decrease of $14.1 million in sales of broadband equipment to our telecom systems customers and government customers, and a decrease of $12.7 million in sales of broadband equipment and services to our international enterprise customers.

Capital Expenditures

Hughes segment capital expenditures for the nine months ended September 30, 2017 increased by $9.4 million, or 3.6%, compared to the same period in 2016, primarily as a result of an increase of $95.4 million in expenditures in our domestic and international businesses. The increase was mainly associated with customer rental equipment for consumer services provided on the EUTELSAT 65 West A and EchoStar XIX satellites that were placed into service in the third quarter of 2016 and the first quarter of 2017, respectively. The increase was partially offset by a decrease of $84.6 million in expenditures on other satellites and related ground infrastructure, primarily resulted from the launch of service on EUTELSAT 65 West A and EchoStar XIX satellites.

EBITDA

Hughes segment EBITDA for the nine months ended September 30, 2017 was $342.7 million, a decrease of $10.8 million, or 3.1%, compared to the same period in 2016. The decrease was primarily due to an increase of $28.9 million in marketing and promotional costs mainly attributable our domestic and international consumer broadband sales and an other than temporary impairment loss of $3.3 million on certain strategic equity securities in our marketable investment securities in 2017. The decrease was partially offset by an increase of $22.1 million in gross margin which we define as revenue less cost of sales.

EchoStar Satellite Services Segment

	For the Nine Months Ended September 30,		Variance	
	2017	**2016**	**Amount**	**%**
	(Dollars in thousands)			
Total revenue	$ 295,785	$ 305,919	$ (10,134)	(3.3)
Capital expenditures	$ 21,351	$ 50,762	$ (29,411)	(57.9)
EBITDA	$ 241,873	$ 257,181	$ (15,308)	(6.0)

Revenue

ESS segment total revenue for the nine months ended September 30, 2017 decreased by $10.1 million, or 3.3%, compared to the same period in 2016, primarily attributable to decreases in sales of transponder services due to expired service contracts.

Capital Expenditures

ESS segment capital expenditures for the nine months ended September 30, 2017 decreased by $29.4 million, or 57.9%, compared to the same period in 2016, primarily related to a decrease in expenditures on the EchoStar 105/SES-11 satellite.

EBITDA

ESS segment EBITDA for the nine months ended September 30, 2017 was $241.9 million, a decrease of $15.3 million, or 6.0%, compared to the same period in 2016. The decrease in EBITDA for our ESS segment was primarily due to a decrease of $10.9 million in gross margin and a decrease of $3.8 million due to a provision recorded in the first half of 2015 in connection with FCC regulatory fees, which was reversed in the first quarter of 2016.

Corporate and Other

Corporate and Other is comprised of various corporate departments (primarily Executive, Strategic Development, Human Resources, IT, Finance, Real Estate, and Legal) as well as other activities that have not been assigned to our operating segments, including costs incurred in certain satellite development programs and other business development activities, our centralized treasury activities and gains (losses) from certain of our investments.

	For the Nine Months Ended September 30,		Variance	
	2017	2016	Amount	%
	(Dollars in thousands)			
Total revenue	$ 2,817	$ (260)	$ 3,077	*
Capital expenditures	$ —	$ —	$ —	*
EBITDA	$ (34,099)	$ (24,590)	$ (9,509)	38.7

* Percentage is not meaningful.

EBITDA

For the nine months ended September 30, 2017, Corporate and Other EBITDA was a loss of $34.1 million, an increase in losses of $9.5 million, or 38.7%, compared to the same period in 2016. The change in EBITDA was primarily related to an increase of $4.8 million in general and administrative expense, $3.0 million attributable to a provision recorded in the first half of 2015 in connection with FCC regulatory fees, which was reversed in the first quarter of 2016, $3.0 million in realized gains on our securities classified as available-for-sale in 2016 and a decrease of $1.5 million in equity in earnings of unconsolidated affiliate. The decrease was partially offset by an increase of $2.7 million in gross margin.

EXPLANATION OF KEY METRICS AND OTHER ITEMS

Services and other revenue — DISH Network. "Services and other revenue — DISH Network" primarily includes revenue associated with satellite and transponder services, telemetry, tracking and control, professional services, facilities rental revenue and other services provided to DISH Network. "Services and other revenue — DISH Network" also includes subscriber wholesale service fees for the Hughes service sold to dishNET.

Services and other revenue — other. "Services and other revenue— other" primarily includes the sales of enterprise and consumer broadband services, as well as maintenance and other contracted services. "Services and other revenue — other" also includes revenue associated with satellite and transponder services, satellite uplinking/downlinking and other services provided to customers other than DISH Network.

Equipment revenue — DISH Network. "Equipment revenue — DISH Network" primarily includes sales of satellite broadband equipment and related equipment, related to the Hughes service, to DISH Network.

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

Cost of sales — services and other. "Cost of sales — services and other" primarily includes the cost of broadband services provided to our enterprise and consumer customers, and to DISH Network, as well as the cost of providing maintenance and other contracted services. "Cost of sales — services and other" also includes the costs associated with satellite and transponder services, telemetry, tracking and control, professional services, facilities rental costs, and other services provided to our customers, including DISH Network.

Cost of sales — equipment. "Cost of sales — equipment" consists primarily of the cost of broadband equipment and networks sold to customers in our enterprise and consumer markets, and to DISH Network.

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., information systems, human resources and other services), including stock-based compensation expense. It also includes professional fees (e.g. legal, information

systems and accounting services) and other items associated with facilities and administrative services provided by EchoStar, DISH Network and other third parties.

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

Interest expense, net of amounts capitalized. "Interest expense, net of amounts capitalized" primarily includes interest expense associated with our debt and capital lease obligations (net of capitalized interest), and amortization of debt issuance costs.

Gains (losses) and impairment on marketable investment securities, net. "Gains (losses) and impairment on marketable investment securities, net" primarily includes gains, net of any losses, on the sale or exchange of investments, other-than-temporary impairment on certain of our marketable investment securities and unrealized gains on our trading securities.

Other, net. "Other, net" primarily includes foreign exchange gains and losses, dividends received from our marketable investment securities, equity in earnings of unconsolidated affiliate, and other non-operating income or expense items that are not appropriately classified elsewhere in our condensed consolidated statements of operations and comprehensive income (loss).

Earnings before interest, taxes, depreciation and amortization ("EBITDA"). EBITDA is defined as "Net income" excluding "Interest expense, net of amounts capitalized," "Interest income," "Income tax provision," and "Depreciation and amortization." EBITDA is not a measure determined in accordance with GAAP. This non-GAAP measure is reconciled to "Net income" 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 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. 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 Hughes segment's HughesNet broadband services, 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) as of the end of the period covered by this report. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report such that the information required to be disclosed in our SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rule 15d-15(f) under the Securities Exchange Act of 1934, as amended) that occurred during the third quarter of 2017 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, see Part I, Item 1. Financial Statements — Note 11 “Commitments and Contingencies — Litigation” in this Form 10-Q.

Item 1A. RISK FACTORS

Item 1A, “Risk Factors,” of our Form 10-K for the year ended December 31, 2016 includes a detailed discussion of our risk factors. Except as provided below, for the nine months ended September 30, 2017, there were no material changes in our risk factors as previously disclosed.

The failure to adequately anticipate the need for satellite capacity or the inability to obtain satellite capacity for our Hughes segment could harm our results of operations.

Our Hughes segment has made substantial contractual commitments for satellite capacity based on our existing customer contracts and backlog. If our existing customer contracts were to be terminated prior to their respective expiration dates, we may be committed to maintaining excess satellite capacity for which we will have insufficient revenue to cover our costs, which would have a negative impact on our margins and results of operations. Alternatively, we may not have sufficient satellite capacity to meet demand. We generally only purchase satellite capacity based on existing contracts and bookings. Therefore, capacity for certain types of coverage in the future may not be readily available to us, and we may not be able to satisfy certain needs of our customers, which could result in a loss of possible new business and could negatively impact the margins for those services. Our ability to provide capacity for subscriber growth in our North American consumer market could also be adversely affected by regulations and/or legislation in the U.S. that enable or propose to enable the use of a portion of the frequency bands we currently use or in the future intend to use for satellite services, 5G mobile terrestrial services or other uses. These bands include the Ka-band, where we operate our broadband gateway earth stations, and other bands in which we may operate in the future. Such regulation or legislation could limit our ability to use the Ka-band and/or other bands, limit our flexibility to change the way in which we use the Ka-band and/or adversely impact our ability to use additional bands in the future. Other countries in which we currently, or may in the future, operate are also considering regulations that could similarly limit access to the Ka-band or other frequency bands. In addition, the fixed satellite services (“FSS”) industry has seen consolidation in the past decade, and today, the main FSS providers in North America and a number of smaller regional providers own and operate the current satellites that are available for our capacity needs. The failure of any of these FSS providers to replace existing satellite assets at the end of their useful lives or a downturn in their industry as a whole could reduce or interrupt the satellite capacity available to us. Our business and results of operations could be adversely affected if we are not able to renew our capacity leases at economically viable rates, if capacity is not available due to problems experienced by these FSS providers or if frequencies are not available to us.

Our business is subject to risks of adverse government regulation.

Our business is subject to varying degrees of regulation in the U.S. by the FCC, and other federal, state and local entities, and in foreign countries by similar entities, and internationally by the ITU. These regulations are subject to the administrative and political process and do change, for political and other reasons, from time to time. For example, the FCC recently adopted an order in its “Spectrum Frontiers” proceeding under which a portion of the Ka-band, in which we operate our broadband gateway earth stations, has been enabled for 5G mobile terrestrial services, which could limit our flexibility to change the way in which we use Ka-band in the future and/or limit our access to and ability to use the Ka-band and/or other bands in the future. Other countries in which we currently, or may in the future, operate are also considering regulations that could limit access to the Ka-band or other frequency bands. The FCC has also opened a proceeding on non-geostationary satellites, which may adversely impact our ability to use certain spectrum for user terminals. Moreover, a substantial number of foreign countries in which we have, or may in the future make, an investment, regulate, in varying degrees, the ownership of satellites and other telecommunication facilities/networks and foreign investment in telecommunications companies. Violations of laws or regulations may result in various sanctions including fines, loss of authorizations and the denial of applications for new authorizations or for the renewal of existing authorizations. Further material changes in law and regulatory requirements may also occur, and there can be no assurance that our business and the business of our subsidiaries and affiliates will not be adversely affected by future legislation, new regulation or deregulation. The failure to obtain or comply with the authorizations and regulations governing our operations could have a material adverse effect on our ability to generate revenue and our overall competitive position and could result in our suffering serious harm to our reputation.

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Our business depends on regulatory authorizations issued by the FCC and state and foreign regulators that can expire, be revoked or modified, and applications for licenses and other authorizations that may not be granted.

Generally all satellite, earth stations and other licenses granted by the FCC and most other countries are subject to expiration unless renewed by the regulatory agency. Our satellite licenses are currently set to expire at various times. In addition, we occasionally receive special temporary authorizations that are granted for limited periods of time (e.g., 180 days or less) and subject to possible renewal. Generally, our licenses and special temporary authorizations have been renewed on a routine basis, but there can be no assurance that this will continue. In addition, we must obtain new licenses from the FCC and other countries' regulators for the operation of new satellites that we may build and/or acquire. There can be no assurance that the FCC or other regulators will continue granting applications for new licenses or for the renewal of existing ones. If the FCC or other regulators were to cancel, revoke, suspend, or fail to renew any of our licenses or authorizations, or fail to grant our applications for FCC or other licenses, it could have a material adverse effect on our business, financial condition and results of operations. Specifically, loss of a frequency authorization or limitations on our ability to use the frequencies we currently use and/or intend to use in the future would reduce the amount of spectrum available to us, potentially reducing the amount of services we provide to our customers. The significance of such a loss of authorizations would vary based upon, among other things, the orbital location, the frequency band and the availability of replacement spectrum. In addition, the legislative and executive branches of the U.S. government and foreign governments often consider legislation and regulatory requirements that could affect us, as could the actions that the FCC and foreign regulatory bodies take. We cannot predict the outcomes of these legislative or regulatory proceedings or their effect on our business.

In addition, third parties have or may oppose some of our license applications and pending and future requests for extensions, modifications, waivers and approvals of our licenses. Even if we have fully complied with all of the required reporting, filing and other requirements in connection with our authorizations, it is possible a regulator could decline to grant certain of our applications or requests for authority, or could revoke, terminate, condition or decline to modify, extend or renew certain of our authorizations or licenses.

Item 4. MINE SAFETY DISCLOSURES

Not applicable

Item 5. OTHER INFORMATION

None

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.
101.INS	XBRL Instance 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.

SIGNATURES

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

HUGHES SATELLITE SYSTEMS CORPORATION

Date: November 8, 2017	By:	/s/ *Michael T. Dugan*
		Michael T. Dugan
		Chief Executive Officer, President and Director
		(Principal Executive Officer)
Date: November 8, 2017	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: November 8, 2017

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: November 8, 2017

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 September 30, 2017 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: November 8, 2017

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.