SIRIUS XM RADIO INC.

(Exact name of company as specified in its charter)

ANNUAL REPORT

For the Fiscal Year Ended December 31, 2017

Explanatory Note

Sirius XM Radio Inc. ("Sirius XM") is furnishing this Annual Report for the fiscal year ended December 31, 2017 (the "Annual Report") in order to comply with the reporting obligations in the indentures governing its 3.875% Senior Notes due 2022, 4.625% Senior Notes due 2023, 6.00% Senior Notes due 2024, 5.375% Senior Notes due 2025, 5.375% Senior Notes due 2026 and 5.00% Senior Notes due 2027 (collectively, the "Notes").

Before making any investment decisions in Sirius XM or Sirius XM Holdings Inc. ("Holdings"), investors should read the following consolidated financial statements and Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") of Sirius XM in conjunction with Holdings' Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and Holdings' other reports available through the Securities and Exchange Commission website at www.sec.gov and our website at www.siriusxm.com, and with Sirius XM's other reports available through our website. Holdings' Annual Report on Form 10-K for the fiscal year ended December 31, 2017 is hereby incorporated by reference except for Section 9A and Exhibits 31.1, 31.2, 32.1 and 32.2 contained therein. Sirius XM is a wholly-owned subsidiary of Holdings and Holdings has no operations independent of Sirius XM. Refer to Note 1 to the consolidated financial statements included within this Annual Report for an explanation of differences between Sirius XM and Holdings' consolidated financial statements.

The terms "Sirius XM," "we," "us," "our," and the "Company," as used herein and unless otherwise stated or indicated by context, refer to Sirius XM Radio Inc. and its subsidiaries.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
ANNUAL REPORT
TABLE OF CONTENTS

SELECTED FINANCIAL DATA

The operating and balance sheet data included in the following selected financial data has been derived from our audited consolidated financial statements. This selected financial data should be read in conjunction with the audited Consolidated Financial Statements and related notes thereto, and “Management's Discussion and Analysis of Financial Condition and Results of Operations” included in this Annual Report.

	As of and for the Years Ended December 31,				
(in thousands, except per share data)	**2017**	**2016 (1)**	**2015**	**2014**	**2013 (2)**
Statements of Comprehensive Income Data (3):					
Total revenue	$ 5,425,129	$ 5,017,220	$ 4,570,058	$ 4,181,095	$ 3,799,095
Net income (loss) attributable to Sirius XM Radio Inc.'s sole stockholder	$ 647,908	$ 745,933	$ 509,724	$ 544,795	$ (66,494)
Balance Sheet Data:					
Cash and cash equivalents	$ 69,022	$ 213,939	$ 111,838	$ 147,724	$ 134,805
Restricted investments	$ 10,352	$ 9,888	$ 9,888	$ 5,922	$ 5,718
Total assets (4)	$14,889,301	$13,180,407	$11,568,824	$ 9,905,275	$ 8,833,675
Long-term debt, net of current portion (4)	$ 6,741,243	$ 5,842,764	$ 5,443,614	$ 4,487,419	$ 3,088,701
Stockholder equity	$ 5,062,317	$ 4,395,863	$ 3,355,671	$ 2,846,047	$ 2,301,346

(1) For the year ended December 31, 2016, we recorded $293,896 as an increase to our Deferred tax assets and decrease to our Accumulated deficit as a result of the adoption of Accounting Standards Update 2016-09, *Compensation-Stock Compensation (Topic 718)*.

(2) The selected financial data for 2013 includes the balances and approximately two months of activity related to the acquisition of the connected vehicle business of Agero, Inc. in November 2013. For the year ended December 31, 2013, we had a $464,102 loss on change in fair value of debt and equity instruments, primarily related to our then outstanding 7% Exchangeable Senior Subordinated Notes due December 2014.

(3) Net income (loss) per share for Sirius XM is not presented since Sirius XM is a wholly-owned subsidiary of Holdings.

(4) The 2013 - 2015 balances reflect the adoption of Accounting Standards Update 2015-03, *Interest- Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs,* and Accounting Standards Update 2015-15, *Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Agreements*. As a result of our adoption of these ASUs, Total Assets was reduced by $7,155, $6,444 and $17,821 for the years ended December 31, 2015, 2014 and 2013, respectively, and Long-term debt, net of current portion, was reduced by $7,155, $6,444 and $5,120 for the years ended December 31, 2015, 2014 and 2013, respectively.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

All amounts referenced in this discussion and analysis are in thousands, except per subscriber and per installation amounts, unless otherwise stated.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our audited consolidated financial statements and related notes included elsewhere in this Annual Report and with Holdings' Annual Report on Form 10-K for the year ended December 31, 2017.

Special Note Regarding Forward-Looking Statements

We have made various statements in this Annual Report that may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may also be made in our other reports furnished to holders of the Notes, in our press releases and in other documents. In addition, from time to time, we, through our management, may make oral forward-looking statements. Forward-looking statements are subject to risks and uncertainties, including those identified above, which could cause actual results to differ materially from such statements. The words "will likely result," "are expected to," "will continue," "is anticipated," "estimated," "believe," "intend," "plan," "may," "should," "could," "would," "likely," "projection," "outlook" and similar expressions are intended to identify forward-looking statements. We caution you that the risk factors described above are not exclusive. There may also be other risks that we are unable to predict at this time that may cause actual results to differ materially from those in forward-looking statements. New factors emerge from time to time, and it is not possible for us to predict which will arise or to assess with any precision the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We believe these factors include but are not limited to those described under "Part I - Item 1A. Risk Factors" in Holdings' Annual Report on Form 10-K for the fiscal year ended December 31, 2017. These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included Holdings' Annual Report on Form 10-K and in this Annual Report. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. We undertake no obligation to update publicly or revise any forward-looking statements, except as required by law.

Executive Summary

We transmit music, sports, entertainment, comedy, talk, news, traffic and weather channels, as well as infotainment services, in the United States on a subscription fee basis through our two proprietary satellite radio systems. Subscribers can also receive music and other channels, plus features such as SiriusXM On Demand, over our Internet radio service, including through applications for mobile devices, home devices and other consumer electronic equipment. We also provide connected vehicle services. Our connected vehicle services are designed to enhance the safety, security and driving experience for vehicle operators while providing marketing and operational benefits to automakers and their dealers.

We have agreements with every major automaker ("OEMs") to offer satellite radio in their vehicles, through which we acquire the majority of our subscribers. We also acquire subscribers through marketing to owners and lessees of previously owned vehicles that include factory-installed satellite radios that are not currently subscribing to our services. Our satellite radios are primarily distributed through automakers; retailers; and our website. Satellite radio services are also offered to customers of certain rental car companies.

As of December 31, 2017, we had approximately 32.7 million subscribers of which approximately 27.5 million were self-pay subscribers and approximately 5.2 million were paid promotional subscribers. Our subscriber totals include subscribers under our regular pricing plans; discounted pricing plans; subscribers that have prepaid, including payments either made or due from automakers for subscriptions included in the sale or lease price of a vehicle; subscribers to our Internet services who do not also have satellite radio subscriptions; and certain subscribers to our weather, traffic, and data services who do not also have satellite radio subscriptions. Subscribers and subscription related revenues and expenses associated with the Sirius XM Canada service, which had approximately 2.8 million subscribers as of December 31, 2017, and connected vehicle services are not included in our subscriber count or subscriber-based operating metrics.

Our primary source of revenue is subscription fees, with most of our customers subscribing to annual, semi-annual, quarterly or monthly plans. We offer discounts for prepaid, longer term subscription plans, as well as a multiple subscription discount. We also derive revenue from activation and other fees, the sale of advertising on select non-music channels, the direct sale of satellite radios and accessories, and other ancillary services, such as our weather, traffic and data services. We provide traffic services to approximately 7.5 million vehicles.

In certain cases, a subscription to our radio services is included in the sale or lease price of new vehicles or previously owned vehicles. The length of these subscriptions varies but is typically three to twelve months. We receive payments for these subscriptions from certain automakers. We also reimburse various automakers for certain costs associated with satellite radios installed in new vehicles and pay revenue share to various automakers.

As of December 31, 2017, Liberty Media beneficially owned, directly and indirectly, approximately 70% of the outstanding shares of Holdings' common stock. As a result, Holdings is a “controlled company” for the purposes of the NASDAQ corporate governance requirements.

Recent Transactions

During the year ended December 31, 2017, we entered into several strategic transactions.

Acquisition of Automatic Labs. On April 18, 2017, we acquired Automatic Labs Inc. (“Automatic”), a connected vehicle device and mobile application company, for an aggregate purchase price of $107,736, net of cash and restricted cash acquired.

Recapitalization of Sirius XM Canada. On May 25, 2017, we completed a recapitalization (the “Transaction”) of Sirius XM Canada Holdings Inc. (“Sirius XM Canada”), which is now a privately held corporation.

Following the Transaction, we hold a 70% equity interest and 33% voting interest in Sirius XM Canada, with the remainder of the voting power and equity interests held by two of Sirius XM Canada’s previous shareholders. The total consideration from us to Sirius XM Canada, excluding transaction costs, during the year ended December 31, 2017 was $308,526, which included $129,676 in cash and Holdings issued 35,000 shares of its common stock with an aggregate value of $178,850 to the holders of the shares of Sirius XM Canada acquired in the Transaction. We received common stock, non-voting common stock and preferred stock of Sirius XM Canada. Sirius XM and Holdings own, in the aggregate, 590,950 shares of preferred stock of Sirius XM Canada, which has a liquidation preference of one Canadian dollar per share. Future dividends on the common stock of Sirius XM Canada are expected to be declared on a 6.0% annual basis.

In connection with the Transaction, we also made a contribution in the form of a loan to Sirius XM Canada in the aggregate amount of $130,794. The loan is denominated in Canadian dollars and is considered a long-term investment with any unrealized gains or losses reported within Accumulated other comprehensive (loss) income. The loan has a term of fifteen years, bears interest at a rate of 7.62% per annum and includes customary covenants and events of default, including an event of default relating to Sirius XM Canada’s failure to maintain specified leverage ratios. The terms of the loan require Sirius XM Canada to prepay a portion of the outstanding principal amount of the loan within sixty days of the end of each fiscal year in an amount equal to any cash on hand in excess of C$10,000 at the last day of the financial year if all target dividends have been paid in full.

In connection with the Transaction, we also entered into a Services Agreement and an Advisory Services Agreement with Sirius XM Canada. Each agreement has a thirty year term. Pursuant to the Services Agreement, Sirius XM Canada will pay us 25% of its gross revenues on a monthly basis through December 31, 2021 and 30% of its gross revenues on a monthly basis thereafter. Pursuant to the Advisory Services Agreement, Sirius XM Canada will pay us 5% of its gross revenues on a monthly basis. These agreements superseded and replaced the former agreements between Sirius XM Canada and its predecessors and us.

Sirius XM Canada is accounted for as an equity method investment, and its results are not consolidated in our consolidated financial statements. Sirius XM Canada does not meet the requirements for consolidation as we do not have the ability to direct the most significant activities that impact Sirius XM Canada's economic performance.

Investment in Pandora Media, Inc. On September 22, 2017, we completed a $480,000 investment in Pandora Media, Inc. (“Pandora”). Pursuant to an Investment Agreement with Pandora, we purchased 480 shares of Pandora’s Series A Convertible Preferred Stock, par value $0.0001 per share (the “Series A Preferred Stock”), for an aggregate purchase price of $480,000. The Series A Preferred Stock, including accrued but unpaid dividends, represents a stake of approximately 19% of Pandora's currently outstanding common stock, and approximately a 16% interest on an as-converted basis. Pandora operates an internet-based music discovery platform, offering a personalized experience for listeners.

The Series A Preferred Stock is convertible at the option of the holders at any time into shares of common stock of Pandora (“Pandora Common Stock”) at an initial conversion price of $10.50 per share of Pandora Common Stock and an initial conversion rate of 95.2381 shares of Pandora Common Stock per share of Series A Preferred Stock, subject to certain customary anti-dilution adjustments. Holders of the Series A Preferred Stock are entitled to a cumulative dividend at the rate of

6.0% per annum, payable quarterly in arrears, if and when declared. Pandora has the option to pay dividends in cash when authorized by their Board and declared by Pandora or accumulate dividends in lieu of paying cash. Any conversion of Series A Preferred Stock may be settled by Pandora, at its option, in shares of Pandora Common Stock, cash or any combination thereof. However, unless and until Pandora's stockholders have approved the issuance of greater than 19.99% of the outstanding Pandora Common Stock, the Series A Preferred Stock may not be converted into more than 19.99% of Pandora's outstanding Pandora Common Stock as of June 9, 2017. The liquidation preference of the Series A Preferred Stock, including accrued dividends of $10,849, was $490,849 as of December 31, 2017.

The investment includes a mandatory redemption feature on any date from and after September 22, 2022 whereby we, at our option, may require Pandora to purchase the Series A Preferred Stock at a price equal to 100% of the liquidation preference plus accrued but unpaid dividends for, at the election of Pandora, cash, shares of Pandora Common Stock or a combination thereof, and as such the investment qualifies as a debt security under Accounting Standards Codification ("ASC") 320, *Investments-Debt and Equity Securities*. As the investment includes a conversion option, we have elected to account for this investment under the fair value option to reduce the accounting asymmetry that would otherwise arise when recognizing the changes in the fair value of available-for-sale investments. Under the fair value option, any gains (losses) associated with the change in fair value will be recognized in Other income within our consolidated statements of comprehensive income. A $472 unrealized gain was recognized during the year ended December 31, 2017 as Other income in our consolidated statements of comprehensive income associated with this investment. The fair value of our investment including accrued dividends as of December 31, 2017 was $480,472 and is recorded as a related party long-term asset within our consolidated balance sheets. This investment does not meet the requirements for the equity method of accounting as it does not qualify as in-substance common stock.

We have appointed James E. Meyer, our Chief Executive Officer, David J. Frear, our Senior Executive Vice President and Chief Financial Officer, and Gregory B. Maffei, the Chairman of our Board of Directors, to Pandora's Board of Directors pursuant to our designation rights under the Investment Agreement. Mr. Maffei also serves as the Chairman of Pandora's Board of Directors.

Our right to designate directors will fall away once we and our affiliates fail to beneficially own shares of Series A Preferred Stock and/or Pandora Common Stock issued upon conversion thereof equal to (on an as-converted basis) at least 50% of the number of shares of Pandora Common Stock issuable upon conversion of the Series A Preferred Stock purchased under the Investment Agreement. Following the earlier to occur of (i) September 22, 2019 and (ii) the date on which we and our affiliates fail to beneficially own shares of Series A Preferred Stock and/or Pandora Common Stock that were issued upon conversion thereof equal to (on an as-converted basis) at least 75% of the number of shares of Pandora Common Stock issuable upon conversion of the Series A Preferred Stock purchased under the Investment Agreement, we have the right to designate only two directors.

We are subject to certain standstill restrictions, including, among other things, that we are restricted from acquiring additional securities of Pandora until December 9, 2018.

Except as to matters that may be voted upon separately by holders of the Series A Preferred Stock, we are entitled to vote as a single class with the holders of Pandora Common Stock on an as-converted basis (up to a maximum of 19.99% of the Pandora Common Stock outstanding on June 9, 2017, unless stockholder approval has been received). We are also entitled to a separate class vote with respect to certain amendments to Pandora's organizational documents, issuances by Pandora of securities that are senior to, or equal in priority with, the Series A Preferred Stock and the incurrence of certain indebtedness by Pandora.

Upon certain change of control events involving Pandora, Pandora is required to repurchase all of the Series A Preferred Stock at a price equal to the greater of (1) an amount in cash equal to 100% of the liquidation preference thereof plus all accrued but unpaid dividends through June 9, 2022 (assuming such shares of Series A Preferred Stock remain outstanding through such date) and (2) the consideration the holders would have received if they had converted their shares of Series A Preferred Stock into Pandora Common Stock immediately prior to the change of control event (disregarding the 19.99% cap).

Beginning on September 22, 2020, if the volume weighted average price per share of Pandora Common Stock exceeds $18.375, as may be adjusted, for at least 20 trading days in any period of 30 consecutive trading days, Pandora may redeem all of the outstanding Series A Preferred Stock at a price equal to 100% of the liquidation preference thereof plus all accrued but unpaid dividends for, at the election of Pandora, cash, shares of Pandora Common Stock or a combination thereof, provided that, unless stockholder approval has been received, Pandora may not settle the redemption for shares of Pandora Common Stock to the extent the 19.99% cap would be exceeded.

Pursuant to a registration rights agreement entered into with Pandora, we have certain customary registration rights with respect to the Series A Preferred Stock and Pandora Common Stock issued upon conversion thereof.

Results of Operations

Set forth below are our results of operations for the year ended December 31, 2017 compared with the year ended December 31, 2016 and the year ended December 31, 2016 compared with the year ended December 31, 2015.

	For the Years Ended December 31,			2017 vs 2016 Change		2016 vs 2015 Change	
	2017	2016	2015	Amount	%	Amount	%
Revenue:							
Subscriber revenue	$4,472,522	$4,196,852	$3,824,793	$ 275,670	7 %	$ 372,059	10 %
Advertising revenue	160,347	138,231	122,292	22,116	16 %	15,939	13 %
Equipment revenue	131,586	118,947	110,923	12,639	11 %	8,024	7 %
Other revenue	660,674	563,190	512,050	97,484	17 %	51,140	10 %
Total revenue	5,425,129	5,017,220	4,570,058	407,909	8 %	447,162	10 %
Operating expenses:							
Cost of services:							
Revenue share and royalties	1,210,323	1,108,515	1,034,832	101,808	9 %	73,683	7 %
Programming and content	388,033	353,779	293,091	34,254	10 %	60,688	21 %
Customer service and billing	385,431	387,131	377,908	(1,700)	— %	9,223	2 %
Satellite and transmission	82,747	103,020	94,609	(20,273)	(20)%	8,411	9 %
Cost of equipment	35,448	40,882	42,724	(5,434)	(13)%	(1,842)	(4)%
Subscriber acquisition costs	499,492	512,809	532,599	(13,317)	(3)%	(19,790)	(4)%
Sales and marketing	437,739	386,724	354,189	51,015	13 %	32,535	9 %
Engineering, design and development	112,427	82,146	64,403	30,281	37 %	17,743	28 %
General and administrative	334,023	341,106	324,801	(7,083)	(2)%	16,305	5 %
Depreciation and amortization	298,602	268,979	272,214	29,623	11 %	(3,235)	(1)%
Total operating expenses	3,784,265	3,585,091	3,391,370	199,174	6 %	193,721	6 %
Income from operations	1,640,864	1,432,129	1,178,688	208,735	15 %	253,441	22 %
Other income (expense):							
Interest expense	(345,820)	(331,225)	(299,103)	(14,595)	(4)%	(32,122)	(11)%
Loss on extinguishment of debt	(43,679)	(24,229)	—	(19,450)	(80)%	(24,229)	— %
Other income	12,844	14,985	12,379	(2,141)	(14)%	2,606	21 %
Total other expense	(376,655)	(340,469)	(286,724)	(36,186)	(11)%	(53,745)	(19)%
Income before income taxes	1,264,209	1,091,660	891,964	172,549	16 %	199,696	22 %
Income tax expense	(616,301)	(345,727)	(382,240)	(270,574)	(78)%	36,513	10 %
Net income attributable to Sirius XM Radio Inc.'s sole stockholder	$ 647,908	$ 745,933	$ 509,724	$ (98,025)	(13)%	$ 236,209	46 %

Total Revenue

Subscriber Revenue includes subscription, activation and other fees.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, subscriber revenue was $4,472,522 and $4,196,852, respectively, an increase of 7%, or $275,670. The increase was primarily attributable to a 4% increase in the daily weighted average number of subscribers as well as a 3% increase in average monthly revenue per subscriber resulting from certain rate increases.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, subscriber revenue was $4,196,852 and $3,824,793, respectively, an increase of 10%, or $372,059. The increase was primarily attributable to an

8% increase in the daily weighted average number of subscribers as well as a 3% increase in average monthly revenue per subscriber resulting from certain rate increases.

We expect subscriber revenues to increase based on the growth of our subscriber base, increases in certain of our subscription rates and the sale of additional services to subscribers.

Advertising Revenue includes the sale of advertising on certain non-music channels.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, advertising revenue was $160,347 and $138,231, respectively, an increase of 16%, or $22,116. The increase was primarily due to a greater number of advertising spots sold and transmitted as well as increases in rates charged per spot.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, advertising revenue was $138,231 and $122,292, respectively, an increase of 13%, or $15,939. The increase was primarily due to a greater number of advertising spots sold and transmitted as well as increases in rates charged per spot.

We expect our advertising revenue to continue to grow as more advertisers are attracted to our national platform and growing subscriber base and as we launch additional non-music channels.

Equipment Revenue includes revenue and royalties from the sale of satellite radios, components and accessories.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, equipment revenue was $131,586 and $118,947, respectively, an increase of 11%, or $12,639. The increase was driven by royalty revenue on certain satellite radio components starting in the second quarter of 2016 due to our transition to a new generation of chipsets and revenue from the sales of connected vehicle devices since the acquisition of Automatic, partially offset by lower revenue generated through satellite radio sales to distributors and consumers and lower OEM production.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, equipment revenue was $118,947 and $110,923, respectively, an increase of 7%, or $8,024. The increase was driven by an increase in OEM production and an increase in royalty revenue on certain satellite radio components starting in the second quarter of 2016 due to our transition to a new generation of chipsets, partially offset by lower revenue generated through satellite radio sales to distributors and consumers.

We expect equipment revenue to increase due to the increase in royalty revenues associated with our transition to a new generation of chipsets.

Other Revenue includes amounts earned from subscribers for the U.S. Music Royalty Fee, revenue from our connected vehicle business, our Canadian affiliate and ancillary revenues.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, other revenue was $660,674 and $563,190, respectively, an increase of 17%, or $97,484. The increase was primarily driven by higher revenue from Sirius XM Canada due to the new Services Agreement and Advisory Services Agreement entered into in the second quarter of 2017, additional revenues from the U.S. Music Royalty Fee due to an increase in the number of subscribers and subscribers paying at a higher rate and higher revenue generated from our connected vehicle services.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, other revenue was $563,190 and $512,050, respectively, an increase of 10%, or $51,140. The increase was primarily driven by additional revenues from the U.S. Music Royalty Fee due to an increase in the number of subscribers and subscribers paying at a higher rate. These increases were offset by lower non-recurring engineering fees associated with our connected vehicle services, lower activation revenues from Sirius XM Canada and a change in accounting for a programming contract in the third quarter of 2015.

Other revenue is expected to grow due to increases in U.S. Music Royalty fees as a result of rate and subscriber growth, and additional revenues from Sirius XM Canada due to the new Services Agreement and Advisory Services Agreement.

Operating Expenses

Revenue Share and Royalties include distribution and content provider revenue share, royalties for transmitting content and web streaming, and advertising revenue share.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, revenue share and royalties were $1,210,323 and $1,108,515, respectively, an increase of 9%, or $101,808, and increased as a percentage of total revenue. The increase was due to overall greater revenues subject to music royalties and revenue share to automakers and a 5% increase in the statutory royalty rate applicable to our use of post-1972 recordings, which increased from 10.5% in 2016 to 11% in 2017. We recorded $45,100 and $45,900 of expense related to music royalty legal settlements and related reserves, in 2017 and 2016, respectively.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, revenue share and royalties were $1,108,515 and $1,034,832, respectively, an increase of 7%, or $73,683, but decreased as a percentage of total revenue. The increase was due to overall greater revenues subject to music royalties and revenue share to automakers, a 5% increase in the statutory royalty rate applicable to our use of post-1972 recordings, and $45,900 related to music royalty legal settlements and related reserves recorded in the fourth quarter of 2016. The increase was mitigated by $128,256 in expense recorded during the twelve months ended December 31, 2015 for a portion of the settlement of the Capitol Records LLC et al. v. Sirius XM Radio Inc. lawsuit related to our use of pre-1972 sound recordings. We recorded $39,808 in expense related to this settlement through the twelve months ended December 31, 2016.

We expect our revenue share and royalty costs to increase as our revenues grow and as a result of the increase in the royalty rate payable for sound recordings contained in the recent decision of the Copyright Royalty Board (the “CRB”). On December 14, 2017, the CRB issued its determination regarding the post-1972 royalty rate payable by us under the statutory license covering the performance of sound recordings over our satellite radio service, and the making of ephemeral (server) copies in support of such performances, for the five-year period starting January 1, 2018 and ending on December 31, 2022. Under the terms of the CRB’s decision, we are required to pay a royalty of 15.5% of gross revenues, subject to exclusions and adjustments, for the five year period. The rate for 2017 was 11.0%.

Programming and Content includes costs to acquire, create, promote and produce content. We have entered into various agreements with third parties for music and non-music programming that require us to pay license fees and other amounts.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, programming and content expenses were $388,033 and $353,779, respectively, an increase of 10%, or $34,254, and increased as a percentage of total revenue. The increase was primarily due to the addition of video content rights, payment for which started during the third quarter of 2016, as well as talent and personnel-related costs.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, programming and content expenses were $353,779 and $293,091, respectively, an increase of 21%, or $60,688, and increased as a percentage of total revenue. The increase was primarily due to renewed programming licenses as well as talent and personnel-related costs.

We expect our programming and content expenses to increase as we expand our programming, through renewal or replacement of expiring agreements.

Customer Service and Billing includes costs associated with the operation and management of internal and third party customer service centers, and our subscriber management systems as well as billing and collection costs, transaction fees and bad debt expense.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, customer service and billing expenses were $385,431 and $387,131, respectively, a decrease of less than 1%, or $1,700, and decreased as a percentage of total revenue. The decrease was primarily due to a decline in call center agent rates and contact rates, partially offset by increased transaction fees based on a higher subscriber base.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, customer service and billing expenses were $387,131 and $377,908, respectively, an increase of 2%, or $9,223, but decreased as a percentage of total revenue. The increase was primarily due to costs associated with a higher subscriber base driving increased bad debt expenses, transaction fees, and call center costs, partially offset by lower personnel-related costs and the classification of wireless transmission costs related to our connected vehicle services to Satellite and transmission expense in 2016.

We expect our customer service and billing expenses to increase as our subscriber base grows.

Satellite and Transmission consists of costs associated with the operation and maintenance of our terrestrial repeater networks; satellites; satellite telemetry, tracking and control systems; satellite uplink facilities; studios; and delivery of our Internet streaming service.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, satellite and transmission expenses were $82,747 and $103,020, respectively, a decrease of 20%, or $20,273, and decreased as a percentage of total revenue. The decrease was driven by lower wireless costs associated with our connected vehicle services, and a reduction in terrestrial repeater costs as a result of the elimination of duplicative repeater sites; partially offset by increased Internet streaming costs. Satellite and transmission costs in 2016 included a loss on disposal of certain obsolete satellite parts of $12,912 in the second quarter of 2016.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, satellite and transmission expenses were $103,020 and $94,609, respectively, an increase of 9%, or $8,411, but decreased as a percentage of total revenue. We recorded a loss on disposal of certain obsolete satellite parts of $12,912 in the second quarter of 2016 and a loss on disposal of certain obsolete terrestrial repeaters and related parts of $7,384 in the fourth quarter of 2015. Excluding the losses on disposal of these assets, the increase was driven by the inclusion of wireless transmission costs related to our connected vehicle services that were previously recorded to Customer service and billing expense in 2015, partially offset by lower web streaming costs from in-sourcing certain activities.

We expect satellite and transmission expenses to grow as costs associated with our investment in Internet streaming services increase.

Cost of Equipment includes costs from the sale of satellite radios, components and accessories and provisions for inventory allowance attributable to products purchased for resale in our direct to consumer distribution channels.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, cost of equipment was $35,448 and $40,882, respectively, a decrease of 13%, or $5,434, and decreased as a percentage of equipment revenue. The decrease was primarily due to lower sales to distributors and consumers, partially offset by the incremental costs associated with the sale of connected vehicle devices since the acquisition of Automatic.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, cost of equipment was $40,882 and $42,724, respectively, a decrease of 4%, or $1,842, and decreased as a percentage of equipment revenue. The decrease was primarily due to lower aftermarket and direct to consumer sales, partially offset by higher inventory reserves.

We expect cost of equipment to fluctuate with changes in sales and inventory valuations.

Subscriber Acquisition Costs include hardware subsidies paid to radio manufacturers, distributors and automakers; subsidies paid for chipsets and certain other components used in manufacturing radios; device royalties for certain radios and chipsets; product warranty obligations; and freight. The majority of subscriber acquisition costs are incurred and expensed in advance of, or concurrent with, acquiring a subscriber. Subscriber acquisition costs do not include advertising costs, marketing, loyalty payments to distributors and dealers of satellite radios or revenue share payments to automakers and retailers of satellite radios.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, subscriber acquisition costs were $499,492 and $512,809, respectively, a decrease of 3%, or $13,317, and decreased as a percentage of total revenue. The decrease was driven by reductions to OEM hardware subsidy rates, lower subsidized costs related to the transition of chipsets, and a decrease in installations.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, subscriber acquisition costs were $512,809 and $532,599, respectively, a decrease of 4%, or $19,790, and decreased as a percentage of total revenue. The decrease was driven by lower subsidized costs related to the transition of chipsets and reductions to OEM hardware subsidy rates, partially offset by higher radio installations.

We expect subscriber acquisition costs to fluctuate with OEM installations and aftermarket volume; however, the subsidized chipsets cost is expected to decline as we transition to a new generation of chipsets. We intend to continue to offer subsidies and other incentives to acquire subscribers.

Sales and Marketing includes costs for marketing, advertising, media and production, including promotional events and sponsorships; cooperative marketing; and personnel. Marketing costs include expenses related to direct mail, outbound telemarketing and email communications.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, sales and marketing expenses were $437,739 and $386,724, respectively, an increase of 13%, or $51,015, and increased as a percentage of total revenue. The increase was primarily due to additional subscriber communications, retention programs and acquisition campaigns as well as higher personnel-related costs; partially offset by the timing of certain OEM marketing campaigns.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, sales and marketing expenses were $386,724 and $354,189, respectively, an increase of 9%, or $32,535, but decreased as a percentage of total revenue. The increase was primarily due to additional subscriber communications, retention programs and acquisition campaigns as well as higher personnel-related costs.

We anticipate that sales and marketing expenses will increase as we expand programs to retain our existing subscribers, win back former subscribers, and attract new subscribers.

Engineering, Design and Development consists primarily of compensation and related costs to develop chipsets and new products and services, including streaming and connected vehicle services, research and development for broadcast information systems and costs associated with the incorporation of our radios into new vehicles manufactured by automakers.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, engineering, design and development expenses were $112,427 and $82,146, respectively, an increase of 37%, or $30,281, and increased as a percentage of total revenue. The increase was driven by development of our connected vehicle services and additional costs associated with the development of our audio and video streaming products.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, engineering, design and development expenses were $82,146 and $64,403, respectively, an increase of 28%, or $17,743, and increased as a percentage of total revenue. The increase was primarily driven by the inclusion of personnel-related costs from our connected vehicle services that were previously recorded in Sales and marketing and General and administrative expense in 2015, partially offset by lower research and development costs.

We expect engineering, design and development expenses to increase in future periods as we continue to develop our infrastructure, products and services.

General and Administrative primarily consists of compensation and related costs for personnel and facilities, and include costs related to our finance, legal, human resources and information technologies departments.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, general and administrative expenses were $334,023 and $341,106, respectively, a decrease of 2%, or $7,083, and decreased as a percentage of total revenue. The decrease was primarily driven by lower legal costs, litigation reserves and consulting costs. The decrease was partially offset by higher personnel-related costs.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, general and administrative expenses were $341,106 and $324,801, respectively, an increase of 5%, or $16,305, but decreased as a percentage of total revenue. The increase was primarily driven by consulting and legal costs

We expect our general and administrative expenses to increase to support the growth of our business.

Depreciation and Amortization represents the recognition in earnings of the acquisition cost of assets used in operations, including our satellite constellations, property, equipment and intangible assets, over their estimated service lives.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, depreciation and amortization expense was $298,602 and $268,979, respectively, an increase of 11%, or $29,623, and increased as a percentage of total revenue. Depreciation increased as a result of the acceleration of amortization related to a shorter useful life of certain software as well as additional assets placed in-service.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, depreciation and amortization expense was $268,979 and $272,214, respectively, a decrease of 1%, or $3,235, and decreased as a percentage of total revenue. Depreciation decreased as certain satellites reached the end of their estimated service lives offset by additional assets placed in-service.

Other Income (Expense)

Interest Expense, Net of Amounts Capitalized, includes interest on outstanding debt.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, interest expense was $345,820 and $331,225, respectively, an increase of 4%, or $14,595. The increase was primarily due to higher average debt during the year ended December 31, 2017 compared to the year ended December 31, 2016.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, interest expense was $331,225 and $299,103, respectively, an increase of 11%, or $32,122. The increase was primarily due to higher average debt during the year ended December 31, 2016 compared to the year ended December 31, 2015.

Loss on Extinguishment of Debt includes losses incurred as a result of the retirement of certain debt.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, loss on extinguishment of debt, net, was $43,679 and $24,229, respectively. During the year ended December 31, 2017, we recorded losses on extinguishment of debt due to the redemption of our 4.25% Senior Notes due 2020, 5.75% Senior Notes due 2021, and 5.25% Senior Secured Notes due 2022. During the year ended December 31, 2016, a loss was recorded on the redemption of our then outstanding 5.875% Senior Notes due 2020.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, loss on extinguishment of debt, net, was $24,229 and $0, respectively. During the year ended December 31, 2016, a loss was recorded on the redemption of our then outstanding 5.875% Senior Notes due 2020. There was no loss on extinguishment of debt during the year ended December 31, 2015.

Other Income primarily includes realized and unrealized gains and losses, interest income, and our share of the income or loss of Sirius XM Canada.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, other income was $12,844 and $14,985, respectively. Other income for the year ended December 31, 2017, included interest earned on our loan to Sirius XM Canada, and our share of Sirius XM Canada's net income, partially offset by transaction costs associated with our investment in Pandora. Other income for the year ended December 31, 2016 was primarily driven by our share of Sirius XM Canada’s net income and dividends received from Sirius XM Canada in excess of our investment.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, other income was $14,985 and $12,379, respectively. Other income for the year ended December 31, 2016 was primarily driven by our share of Sirius XM Canada’s net income and dividends received from Sirius XM Canada in excess of our investment. Other income for the year ended December 31, 2015 was driven by dividends received from Sirius XM Canada in excess of our investment.

Income Taxes

Income Tax Expense includes the change in our deferred tax assets, foreign withholding taxes and current federal and state tax expenses.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, income tax expense was $616,301 and $345,727, respectively, and our effective tax rate was 48.7% and 31.7%, respectively. On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cut and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code that affects 2017, including, but not limited to, accelerated depreciation that will allow for full expensing of qualified property. The Tax Act also establishes new tax laws that will affect 2018 and after, including a reduction in the U.S. federal corporate income tax rate from 35% to 21%. As a result of the reduction of the federal corporate income tax rate, we have revalued our net deferred tax asset, excluding after tax credits, as of December 31, 2017. Based on this revaluation, we have recorded a net tax expense of $184,599 to reduce our net deferred tax asset balance, which was recorded as additional income tax expense for the year ended December 31, 2017. Our effective tax rate increased by 14.6% to 48.7% primarily as a result of the revaluation of our net deferred tax asset. We have recorded provisional adjustments but we have not completed our accounting for income tax effects for certain elements of the Tax Act, principally due to the accelerated depreciation that will allow for full expensing of qualified property. For the years ended December 31, 2017 and 2016, we recorded a $21,700 and a $66,326 tax credit, respectively, under the Protecting Americans from Tax Hikes Act of 2015 related to research and development activities, which reduced our effective tax rate by 1.7% and 6.1%, respectively.

- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, income tax expense was $345,727 and $382,240, respectively. Our annual effective tax rate for the year ended December 31, 2016 was 31.7%. In the fourth quarter of 2016, we recognized a $66,326 tax credit under the Protecting Americans from Tax Hikes Act of 2015 related to research and development activities, which reduced our effective tax rate by 6.1%. Our annual effective tax rate for the year ended December 31, 2015 was 42.9%, which was impacted by tax law changes in the District of Columbia and New York City. The tax law change in the District of Columbia will reduce our future taxes and use less of certain net operating losses in the future. The District of Columbia tax law change resulted in a $44,392 increase in our valuation allowance during the year ended December 31, 2015. The tax law change in New York City will increase certain net operating losses to be utilized in the future. The New York City tax law change resulted in a $14,831 increase in our deferred tax asset during the year ended December 31, 2015.

As a result of the Tax Act and our tax planning strategies, we estimate our effective tax rate beginning in taxable year 2018 will be approximately 24.5%.

Recent Accounting Pronouncements

- In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09, *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*.

- In January 2017, the FASB issued ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350)*.

- In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The implementation will not have a significant impact to our Net income, or our key financial performance metrics, adjusted EBITDA and free cash flow. We expect the implementation will impact certain of our operating performance metrics, specifically a reduction in ARPU by approximately 23 cents and SAC, per installation by approximately 31 cents.

- In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*.

For additional information regarding "Recent Accounting Pronouncements," refer to Note 3 to our consolidated financial statements of this Annual Report.

Key Financial and Operating Performance Metrics

In this section, we present certain financial performance measures some of which are not calculated and presented in accordance with generally accepted accounting principles in the United States ("Non-GAAP"), which include free cash flow and adjusted EBITDA. We also present certain operating performance measures, which include average monthly revenue per subscriber, or ARPU; customer service and billing expenses, per average subscriber; and subscriber acquisition cost, or SAC, per installation. Our adjusted EBITDA excludes the impact of share-based payment expense and certain purchase price accounting adjustments related to the merger of Sirius and XM (the "Merger"). Additionally, when applicable, our adjusted EBITDA metric excludes the effect of significant items that do not relate to the on-going performance of our business. We use these Non-GAAP financial and operating performance measures to manage our business, to set operational goals and as a basis for determining performance-based compensation for our employees. See accompanying glossary on pages 18 through 21 for more details and for the reconciliation to the most directly comparable GAAP measure (where applicable).

We believe these Non-GAAP financial and operating performance measures provide useful information to investors regarding our financial condition and results of operations. We believe investors find these Non-GAAP financial and operating performance measures useful in evaluating our core trends because they provide a direct view of our underlying contractual costs. We believe investors use our adjusted EBITDA to estimate our current enterprise value and to make investment decisions. We believe free cash flow provides useful supplemental information to investors regarding our cash available for future subscriber acquisition and capital expenditures, to repurchase or retire debt, to acquire other companies and to evaluate our ability to return capital to stockholders. By providing these Non-GAAP financial and operating performance measures, together with the reconciliations to the most directly comparable GAAP measure (where applicable), we believe we are enhancing investors' understanding of our business and our results of operations.

Our Non-GAAP financial measures should be viewed in addition to, and not as an alternative for or superior to, our reported results prepared in accordance with GAAP. In addition, our Non-GAAP financial measures may not be comparable to similarly-titled measures by other companies. Please refer to the glossary (pages 18 through 21) for a further discussion of such Non-GAAP financial and operating performance measures and reconciliations to the most directly comparable GAAP measure (where applicable). Subscribers and subscription related revenues and expenses associated with our connected vehicle services and Sirius XM Canada are not included in our subscriber count or subscriber-based operating metrics.

Set forth below are our subscriber balances as of December 31, 2017 compared to December 31, 2016 and as of December 31, 2016 compared to December 31, 2015:

	As of December 31,			2017 vs 2016 Change		2016 vs 2015 Change	
	2017	2016	2015	Amount	%	Amount	%
Self-pay subscribers	27,513	25,951	24,288	1,562	6 %	1,663	7%
Paid promotional subscribers	5,223	5,395	5,306	(172)	(3)%	89	2%
Ending subscribers	32,736	31,346	29,594	1,390	4 %	1,752	6%

The following table contains our Non-GAAP financial and operating performance measures which are based on our adjusted results of operations for the years ended December 31, 2017, 2016 and 2015:

	For the Years Ended December 31,			2017 vs 2016 Change		2016 vs 2015 Change	
	2017	2016	2015	Amount	%	Amount	%
Self-pay subscribers	1,562	1,663	1,765	(101)	(6)%	(102)	(6)%
Paid promotional subscribers	(172)	89	517	(261)	(293)%	(428)	(83)%
Net additions [(a)]	1,390	1,752	2,283	(362)	(21)%	(531)	(23)%
Daily weighted average number of subscribers	31,866	30,494	28,337	1,372	4 %	2,157	8 %
Average self-pay monthly churn	1.8%	1.9%	1.8%	(0.1)%	(5)%	0.1 %	6 %
New vehicle consumer conversion rate	40%	39%	40%	1 %	3 %	(1)%	(3)%
ARPU	$ 13.25	$ 12.91	$ 12.53	$ 0.34	3 %	$ 0.38	3 %
SAC, per installation	$ 29.53	$ 30.61	$ 33.07	$ (1.08)	(4)%	$ (2.46)	(7)%
Customer service and billing expenses, per average subscriber	$ 0.94	$ 1.00	$ 1.01	$ (0.06)	(6)%	$ (0.01)	(1)%
Adjusted EBITDA	$2,115,886	$1,875,775	$1,657,617	$ 240,111	13 %	$ 218,158	13 %
Free cash flow	$1,559,772	$1,509,113	$1,315,193	$ 50,659	3 %	$ 193,920	15 %

(a) Amounts may not sum as a result of rounding.

Subscribers. At December 31, 2017, we had approximately 32.7 million subscribers, an increase of approximately 1.4 million subscribers, or 4%, from the approximately 31.3 million subscribers as of December 31, 2016. The increase in total subscribers was primarily due to growth in our self-pay subscriber base, which increased by approximately 1.6 million. The increase in self-pay subscribers was primarily driven by original and subsequent owner trial conversions and subscriber win back programs, partially offset by deactivations.

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, net additions were 1.4 million and 1.8 million, respectively, a decrease of 21%, or 0.4 million. The decline in paid promotional net additions was due to paid promotional subscription ends outpacing paid promotional subscription starts as starts from automakers offering paid promotional subscriptions remained relatively flat. Self-pay net additions declined due to higher vehicle turnover of our subscriber base mitigated by growth in gross additions.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, net additions were 1.8 million and 2.3 million, respectively, a decrease of 23%, or 0.5 million. The decline in paid promotional net additions was due to paid promotional subscription ends out-pacing paid promotional subscription starts as a result of lower shipments from automakers offering paid promotional subscriptions. Self-pay net additions declined due to higher vehicle turnover of our subscriber base partially mitigated by growth in gross additions.

Average Self-pay Monthly Churn is derived by dividing the monthly average of self-pay deactivations for the period by the average number of self-pay subscribers for the period. (See accompanying glossary on pages 18 through 21 for more details.)

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, our average self-pay monthly churn rate was 1.8% and 1.9%, respectively. The decrease was due to improvements in non-pay and voluntary churn.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, our average self-pay monthly churn rate was 1.9% and 1.8%, respectively. The increase was due to an increase in vehicle-related, non-pay, and to a lesser extent voluntary churn.

New Vehicle Consumer Conversion Rate is the percentage of owners and lessees of new vehicles that receive our service and convert to become self-paying subscribers after an initial promotional period. The metric excludes rental and fleet vehicles. (See accompanying glossary on pages 18 through 21 for more details).

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, our new vehicle consumer conversion rate was 40% and 39%, respectively. The increase was driven by improvements in the conversion of paid promotional subscribers who were also existing self-pay subscribers.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, our new vehicle consumer conversion rate was 39% and 40%, respectively. The decrease in conversion was primarily due to certain manual dialing inefficiencies introduced by our call center vendors as a precautionary response to the Federal Communications Commission's July 2015 order relating to the Telephone Consumer Protection Act of 1991, increased vehicle penetration rate, and lower conversion of first-time buyers and lessees of satellite radio enabled cars.

ARPU is derived from total earned subscriber revenue (excluding revenue derived from our connected vehicle services), net advertising revenue and other subscription-related revenue, divided by the number of months in the period, divided by the daily weighted average number of subscribers for the period. (See the accompanying glossary on pages 18 through 21 for more details.)

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, ARPU was $13.25 and $12.91, respectively. The increase was driven primarily by increases in certain of our subscription rates in 2016, partially offset by growth in subscription discounts offered through customer acquisition and retention programs.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, ARPU was $12.91 and $12.53, respectively. The increase was driven primarily by increases in certain of our subscription rates, partially offset by growth in subscription discounts offered through customer acquisition and retention programs.

SAC, Per Installation, is derived from subscriber acquisition costs and margins from the sale of radios, components and accessories, divided by the number of satellite radio installations in new vehicles and shipments of aftermarket radios for the period. (See the accompanying glossary on pages 18 through 21 for more details.)

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, SAC, per installation, was $29.53 and $30.61, respectively. The decrease was driven by reductions to OEM hardware subsidy rates as well as lower subsidized costs related to the transition of chipsets.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, SAC, per installation, was $30.61 and $33.07, respectively. The decrease was driven by lower subsidized costs related to the transition of chipsets as well as lower OEM hardware subsidy rates.

Customer Service and Billing Expenses, Per Average Subscriber, is derived from total customer service and billing expenses, excluding connected vehicle customer service and billing expenses and share-based payment expense, divided by the number of months in the period, divided by the daily weighted average number of subscribers for the period. (See the accompanying glossary on pages 18 through 21 for more details.)

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, customer service and billing expenses, per average subscriber, were $0.94 and $1.00, respectively. The decrease was primarily related to lower call center costs due to lower contact rates and lower agent rates, partially offset by higher transaction fees.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, customer service and billing expenses, per average subscriber, were $1.00 and $1.01, respectively. The decrease was primarily related to efficiencies achieved from call center process enhancements, partially offset by increased bad debt expense.

Adjusted EBITDA. EBITDA is defined as net income before interest expense, income tax expense and depreciation and amortization. Adjusted EBITDA excludes the impact of other income, loss on extinguishment of debt, other non-cash charges, such as certain purchase price accounting adjustments, share-based payment expense, loss on disposal of assets, and legal settlements and reserves related to the historical use of sound recordings. (See the accompanying glossary on pages 18 through 21 for a reconciliation to GAAP and for more details.)

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, adjusted EBITDA was $2,115,886 and $1,875,775, respectively, an increase of 13%, or $240,111. The increase was due to: a growth in revenues resulting from an increase in our subscriber base; an increase in certain of our subscription prices; an increase in Other revenue from higher revenue from Sirius XM Canada under the new Services Agreement and Advisory Services Agreement; additional amounts produced by the U.S. Music Royalty Fee; and lower general and administrative costs and subscriber acquisition costs. These favorable variances were partially offset by higher revenue share and royalty costs due to growth in our revenues and royalty rates, programming and content, sales and marketing and engineering, design and development costs.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, adjusted EBITDA was $1,875,775 and $1,657,617, respectively, an increase of 13%, or $218,158. The increase was due to growth in revenues primarily as a result of the increase in our subscriber base and certain of our subscription rates and lower subscriber acquisition costs, partially offset by higher revenue share and royalties costs due to growth in our revenues and royalty rates, programming and content, sales and marketing, and general and administrative costs.

Free Cash Flow includes cash provided by operations, net of additions to property and equipment, restricted and other investment activity, the return of capital from an investment in an unconsolidated entity and excludes the $210,000 pre-1972 sound recordings legal settlement payment made in 2015. (See the accompanying glossary on pages 18 through 21 for a reconciliation to GAAP and for more details.)

- *2017 vs. 2016*: For the years ended December 31, 2017 and 2016, free cash flow was $1,559,772 and $1,509,113, respectively, an increase of $50,659, or 3%. The increase was driven by higher net cash provided by operating activities resulting from improved operating performance, partially offset by an increase in additions to property and equipment resulting from new satellite construction.
- *2016 vs. 2015*: For the years ended December 31, 2016 and 2015, free cash flow was $1,509,113 and $1,315,193, respectively, an increase of $193,920, or 15%. The increase was primarily driven by higher net cash provided by operating activities resulting from improved operating performance; partially offset by an increase in additions to property and equipment resulting primarily from new satellite construction. The $210,000 pre-1972 sound recordings legal settlement payment made in 2015 was excluded from free cash flow.

Liquidity and Capital Resources

Cash Flows for the year ended December 31, 2017 compared with the year ended December 31, 2016 and the year ended December 31, 2016 compared with the year ended December 31, 2015.

The following table presents a summary of our cash flow activity for the periods set forth below:

	For the Years Ended December 31,				
	2017	2016	2015	2017 vs 2016	2016 vs 2015
Net cash provided by operating activities	$ 1,763,744	$ 1,676,761	$ 1,189,772	$ 86,983	$ 486,989
Net cash used in investing activities	(1,146,812)	(210,124)	(138,858)	(936,688)	(71,266)
Net cash used in financing activities	(761,849)	(1,364,536)	(1,086,800)	602,687	(277,736)
Net (decrease) increase in cash and cash equivalents	(144,917)	102,101	(35,886)	(247,018)	137,987
Cash and cash equivalents at beginning of period	213,939	111,838	147,724	102,101	(35,886)
Cash and cash equivalents at end of period	$ 69,022	$ 213,939	$ 111,838	$ (144,917)	$ 102,101

Cash Flows Provided by Operating Activities

Cash flows provided by operating activities increased by $86,983 to $1,763,744 for the year ended December 31, 2017 from $1,676,761 for the year ended December 31, 2016. Cash flows provided by operating activities increased by $486,989 to $1,676,761 for the year ended December 31, 2016 from $1,189,772 for the year ended December 31, 2015.

Our largest source of cash provided by operating activities is generated by subscription and subscription-related revenues. We also generate cash from the sale of advertising on certain non-music channels and the sale of satellite radios, components and accessories. Our primary uses of cash from operating activities include revenue share and royalty payments to distributors, programming and content providers, and payments to radio manufacturers, distributors and automakers. In addition, uses of cash from operating activities include payments to vendors to service, maintain and acquire subscribers, general corporate expenditures, and compensation and related costs.

Cash Flows Used in Investing Activities

Cash flows used in investing activities in the year ended December 31, 2017 were primarily due to our investments in Pandora and Sirius XM Canada of $612,465, a loan to Sirius XM Canada of $130,794, the acquisition of Automatic for $107,736 (net of cash and restricted cash acquired), and additional spending of $99,980 to construct replacement satellites, improve our terrestrial repeater network, and for capitalized software. In 2016, our cash flows used in investing activities were primarily due to additional spending of $43,300 to construct replacement satellites, improve our terrestrial repeater network and for capitalized software. In 2015, our cash flows used in investing activities also included an increase to our letters of credit issued for the benefit of lessors of certain of our office space.

Cash Flows Used in Financing Activities

Cash flows used in financing activities consists of the issuance and repayment of long-term debt, the purchase of common stock under Holdings' share repurchase program and the payment of cash dividends. Proceeds from long-term debt have been used to fund our operations, construct and launch new satellites, invest in other infrastructure improvements and purchase shares of Holdings' common stock.

Cash flows used in financing activities in 2017 were primarily due to the redemption of $1,500,000 aggregate principal amount of then-outstanding notes, the purchase and retirement for $1,409,035 of shares of Holdings' common stock under Holdings' repurchase program, the payment of cash dividends on Holdings' common stock for $190,242 and net repayments of $90,000 under our Credit Facility, partially offset by the issuance of $1,000,000 aggregate principal amount of 3.875% Senior Notes due 2022 and $1,500,000 aggregate principal amount of 5.00% Senior Notes due 2027. Cash flows used in financing activities in the year ended 2016 were primarily due to the purchase and retirement of shares of Holdings' common stock under Holdings' repurchase program for $1,673,518, the redemption of $650,000 of our then-outstanding 5.875% Senior Notes due 2020 and the payment of a cash dividend of $48,079, partially offset by the issuance of $1,000,000 aggregate principal amount of 5.375% Senior Notes due 2026 and $50,000 in net borrowings under our Credit Facility. Cash flows used in financing activities in 2015 were primarily due to the purchase and retirement of shares of Holdings' common stock under Holdings' repurchase program for $2,018,254 and $40,000 in net repayments of borrowings under our Credit Facility, partially offset by the issuance of $1,000,000 aggregate principal amount of 5.375% Senior Notes due 2025.

Future Liquidity and Capital Resource Requirements

Based upon our current business plans, we expect to fund operating expenses, capital expenditures, including the construction of replacement satellites, working capital requirements, legal settlements, interest payments, taxes and scheduled maturities of our debt with existing cash, cash flow from operations and borrowings under our Credit Facility. As of December 31, 2017, $1,450,000 was available for future borrowing under our Credit Facility. We believe that we have sufficient cash and cash equivalents as well as debt capacity to cover our estimated short-term and long-term funding needs, as well as fund Holdings' stock repurchases, future dividend payments on Holdings' common stock and strategic opportunities.

Our ability to meet our debt and other obligations depends on our future operating performance and on economic, financial, competitive and other factors. We continually review our operations for opportunities to adjust the timing of expenditures to ensure that sufficient resources are maintained.

We regularly evaluate our business plans and strategy. These evaluations often result in changes to our business plans and strategy, some of which may be material and significantly change our cash requirements. These changes in our business plans or strategy may include: the acquisition of unique or compelling programming; the development and introduction of new features or services; significant new or enhanced distribution arrangements; investments in infrastructure, such as satellites, equipment or radio spectrum; and acquisitions and investments, including acquisitions and investments that are not directly related to our satellite radio business.

Holdings' Capital Return Program

As of December 31, 2017, Holdings' board of directors had authorized for repurchase an aggregate of $10,000,000 of Holdings common stock. As of December 31, 2017, Holdings' cumulative repurchases since December 2012 totaled 2,474,135 shares for $9,377,120, and $622,880 remained available under Holdings' stock repurchase program.

On January 23, 2018, Holdings' board of directors approved an additional $2,000,000 for repurchase of its common stock. The new approval increases the amount of common stock that we have been authorized to repurchase to an aggregate of $12,000,000. Shares of common stock may be purchased from time to time on the open market and in privately negotiated transactions, including in accelerated stock repurchase transactions and transactions with Liberty Media and its affiliates. We intend to fund the additional repurchases through a combination of cash on hand, cash generated by operations and future borrowings.

On January 23, 2018, Holdings' board of directors declared a quarterly dividend on Holdings' common stock in the amount of $0.011 per share of common stock payable on February 28, 2018 to Holdings' stockholders of record as of the close of business on February 7, 2018. Holdings' board of directors expects to declare regular quarterly dividends, in an aggregate annual amount of $0.044 per share of Holdings' common stock.

Debt Covenants

The indentures governing our senior notes and the agreement governing the Credit Facility include restrictive covenants. As of December 31, 2017, we were in compliance with such covenants. For a discussion of our "Debt Covenants," refer to Note 11 to our consolidated financial statements in this Annual Report.

Off-Balance Sheet Arrangements

We do not have any significant off-balance sheet arrangements other than those disclosed in Note 14 to our consolidated financial statements in this Annual Report that are reasonably likely to have a material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Contractual Cash Commitments

For a discussion of our "Contractual Cash Commitments," refer to Note 14 to our consolidated financial statements in this Annual Report.

Related Party Transactions

For a discussion of "Related Party Transactions," refer to Note 10 to our consolidated financial statements in this Annual Report.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with GAAP, which requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods. Accounting estimates require the use of significant management assumptions and judgments as to future events, and the effect of those events cannot be predicted with certainty. The accounting estimates will change as new events occur, more experience is acquired and more information is obtained. We evaluate and update our assumptions and estimates on an ongoing basis and use outside experts to assist in that evaluation when we deem necessary. We have identified all significant accounting policies in Note 3 to our consolidated financial statements of this Annual Report.

Intangible Assets: Our intangible assets include goodwill, other indefinite-lived assets (our FCC licenses and trademarks) and definite-lived assets. Our annual impairment assessment of our goodwill and our indefinite-lived assets is performed as of the fourth quarter of each year. We also review our intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset is not recoverable. If an impairment exists, the impairment is measured as the amount by which the carrying amount of an intangible asset exceeds its implied fair value.

- *Goodwill:* We adopted ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350),* during the fourth quarter of 2017. ASC 350 states that an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. Under the updated guidance, the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment is eliminated.

- *Indefinite-lived Assets:* ASC 350-30-35, *Intangibles - General Intangibles Other than Goodwill*, provides for an option to first perform a qualitative assessment to determine whether it is more likely than not that an asset is impaired. If the qualitative assessment supports that it is more likely than not that the fair value of the asset exceeds its carrying value, a company is not required to perform a quantitative impairment test. If the qualitative assessment does not support the fair value of the asset exceeds its carrying value, then a quantitative assessment is performed.
- *Definite-lived:* We carry our definite-lived assets at cost less accumulated amortization.

Useful Life of Broadcast/Transmission System. Our satellite system includes the costs of our satellite construction, launch vehicles, launch insurance, capitalized interest, spare satellites, terrestrial repeater network and satellite uplink facilities. We monitor our satellites for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset is not recoverable.

We operate two in-orbit Sirius satellites, FM-5 and FM-6, which launched in 2009 and 2013, respectively, and estimate they will operate effectively through the end of their depreciable lives in 2024 and 2028, respectively.

We operate three in-orbit XM satellites, XM-3, XM-4 and XM-5. We estimate that our XM-3 and XM-4 satellites launched in 2005 and 2006, respectively, will reach the end of their depreciable lives in 2020 and 2021, respectively. Our XM-5 satellite was launched in 2010, is used as an in-orbit spare for the Sirius and XM systems and is expected to reach the end of its depreciable life in 2025.

Our satellites have been designed to last fifteen-years. Our in-orbit satellites may experience component failures which could adversely affect their useful lives. We monitor the operating condition of our in-orbit satellites and if events or circumstances indicate that the depreciable lives of our in-orbit satellites have changed, we will modify the depreciable life accordingly. If we were to revise our estimates, our depreciation expense would change.

Income Taxes. Deferred income taxes are recognized for the tax consequences related to temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for tax purposes, based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income.

We assess the recoverability of deferred tax assets at each reporting date and, where applicable, a valuation allowance is recognized when, based on the weight of all available evidence, it is considered more likely than not that all, or some portion, of the deferred tax assets will not be realized. Our assessment includes an analysis of whether deferred tax assets will be realized in the ordinary course of operations based on the available positive and negative evidence, including the scheduling of deferred tax liabilities and forecasted income from operations. The underlying assumptions we use in forecasting future taxable income require significant judgment. In the event that actual income from operations differs from forecasted amounts, or if we change our estimates of forecasted income from operations, we could record additional charges or reduce allowances in order to adjust the carrying value of deferred tax assets to their realizable amount. Such adjustments could be material to our consolidated financial statements.

As of December 31, 2017, we had a valuation allowance of $52,883 relating to deferred tax assets that are not more likely than not to be realized due to certain state net operating loss limitations and acquired net operating losses that we were not likely to be utilized.

ASC 740, *Income Taxes*, requires a company to first determine whether it is more likely than not that a tax position will be sustained based on its technical merits as of the reporting date, assuming that taxing authorities will examine the position and have full knowledge of all relevant information. A tax position that meets this more likely than not threshold is then measured and recognized at the largest amount of benefit that is greater than fifty percent likely to be realized upon effective settlement with a taxing authority. If the tax position is not more likely than not to be sustained, the gross amount of the unrecognized tax position will not be recorded in the financial statements but will be shown in tabular format within the uncertain income tax positions. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs due to the following conditions: (1) the tax position is "more likely than not" to be sustained, (2) the tax position, amount, and/or timing is ultimately settled through negotiation or litigation, or (3) the statute of limitations for the tax position has expired. A number of years may elapse before an uncertain tax position is effectively settled or until there is a lapse in the applicable statute of limitations. We record interest and penalties related to uncertain tax positions in Income tax expense in our consolidated statements of comprehensive income. As of December 31, 2017, the gross liability for income taxes associated with uncertain tax positions was $334,254.

Glossary

Adjusted EBITDA - EBITDA is defined as net income before interest expense, income tax expense and depreciation and amortization. We adjust EBITDA to exclude the impact of other income as well as certain other charges discussed below. Adjusted EBITDA is a Non-GAAP financial measure that excludes (if applicable): (i) certain adjustments as a result of the purchase price accounting for the Merger, (ii) share-based payment expense and (iii) other significant operating expense (income) that do not relate to the on-going performance of our business. We believe adjusted EBITDA is a useful measure of the underlying trend of our operating performance, which provides useful information about our business apart from the costs associated with our capital structure and purchase price accounting. We believe investors find this Non-GAAP financial measure useful when analyzing our past operating performance with our current performance and comparing our operating performance to the performance of other communications, entertainment and media companies. We believe investors use adjusted EBITDA to estimate our current enterprise value and to make investment decisions. As a result of large capital investments in our satellite radio system our results of operations reflect significant charges for depreciation expense. We believe the exclusion of share-based payment expense is useful as it is not directly related to the operational conditions of our business. We also believe the exclusion of the legal settlements and reserves related to the historical use of sound recordings, loss on extinguishment of debt and loss on disposal of assets, to the extent they occur during the period, is useful as they are significant expenses not incurred as part of our normal operations for the period.

Adjusted EBITDA has certain limitations in that it does not take into account the impact to our statements of comprehensive income of certain expenses, including share-based payment expense and certain purchase price accounting for the Merger. We endeavor to compensate for the limitations of the Non-GAAP measure presented by also providing the comparable GAAP measure with equal or greater prominence and descriptions of the reconciling items, including quantifying such items, to derive the Non-GAAP measure. Investors that wish to compare and evaluate our operating results after giving effect for these costs, should refer to net income as disclosed in our consolidated statements of comprehensive income. Since adjusted EBITDA is a Non-GAAP financial performance measure, our calculation of adjusted EBITDA may be susceptible to varying calculations; may not be comparable to other similarly titled measures of other companies; and should not be considered in isolation, as a substitute for, or superior to measures of financial performance prepared in accordance with GAAP. The reconciliation of net income to the adjusted EBITDA is calculated as follows:

	For the Years Ended December 31,		
	2017	2016	2015
Net income:	$ 647,908	$ 745,933	$ 509,724
Add back items excluded from Adjusted EBITDA:			
Purchase price accounting adjustments:			
Revenues	7,251	7,251	7,251
Operating expenses	—	—	(1,394)
Sound recording legal settlements and reserves	45,100	45,900	109,164
Loss on disposal of assets	—	12,912	7,384
Share-based payment expense	124,069	108,604	84,310
Depreciation and amortization	298,602	268,979	272,214
Interest expense	345,820	331,225	299,103
Loss on extinguishment of debt	43,679	24,229	—
Other income	(12,844)	(14,985)	(12,379)
Income tax expense	616,301	345,727	382,240
Adjusted EBITDA	$ 2,115,886	$ 1,875,775	$ 1,657,617

ARPU - is derived from total earned subscriber revenue, advertising revenue and other subscription-related revenue, excluding revenue associated with our connected vehicle services, divided by the number of months in the period, divided by the daily weighted average number of subscribers for the period. Other subscription-related revenue includes the U.S. Music Royalty Fee. ARPU is calculated as follows:

	For the Years Ended December 31,		
	2017	2016	2015
Subscriber revenue, excluding connected vehicle services	$ 4,388,676	$ 4,108,547	$ 3,726,340
Add: advertising revenue	160,347	138,231	122,292
Add: other subscription-related revenue	518,457	478,063	410,644
	$ 5,067,480	$ 4,724,841	$ 4,259,276
Daily weighted average number of subscribers	31,866	30,494	28,337
ARPU	$ 13.25	$ 12.91	$ 12.53

Average self-pay monthly churn - is defined as the monthly average of self-pay deactivations for the period divided by the average number of self-pay subscribers for the period.

Customer service and billing expenses, per average subscriber - is derived from total customer service and billing expenses, excluding connected vehicle customer service and billing expenses and share-based payment expense, divided by the number of months in the period, divided by the daily weighted average number of subscribers for the period. We believe the exclusion of share-based payment expense in our calculation of customer service and billing expenses, per average subscriber, is useful as share-based payment expense is not directly related to the operational conditions that give rise to variations in the components of our customer service and billing expenses. Customer service and billing expenses, per average subscriber, is calculated as follows:

	For the Years Ended December 31,		
	2017	2016	2015
Customer service and billing expenses, excluding connected vehicle services	$ 365,005	$ 367,978	$ 346,789
Less: share-based payment expense	(4,229)	(3,735)	(2,982)
	$ 360,776	$ 364,243	$ 343,807
Daily weighted average number of subscribers	31,866	30,494	28,337
Customer service and billing expenses, per average subscriber	$ 0.94	$ 1.00	$ 1.01

Free cash flow - is derived from cash flow provided by operating activities, net of additions to property and equipment and restricted and other investment activity. Free cash flow is a metric that our management and board of directors use to evaluate the cash generated by our operations, net of capital expenditures and other investment activity. In a capital intensive business, with significant investments in satellites, we look at our operating cash flow, net of these investing cash outflows, to determine cash available for future subscriber acquisition and capital expenditures, to repurchase or retire debt, to acquire other companies and to evaluate our ability to return capital to stockholders. In 2015, we excluded from free cash flow certain items that do not relate to the on-going performance of our business such as cash outflows for acquisitions, strategic investments and loans to related parties. We believe free cash flow is an indicator of the long-term financial stability of our business. Free cash flow, which is reconciled to “Net cash provided by operating activities,” is a Non-GAAP financial measure. This measure can be calculated by deducting amounts under the captions “Additions to property and equipment” and deducting or adding Restricted and other investment activity from “Net cash provided by operating activities” from the consolidated statements of cash flows, which in 2015, were adjusted for significant legal settlements. Free cash flow should be used in conjunction with other GAAP financial performance measures and may not be comparable to free cash flow measures presented by other companies. Free cash flow should be viewed as a supplemental measure rather than an alternative measure of cash flows from operating activities, as determined in accordance with GAAP. Free cash flow is limited and does not represent remaining cash flows available for discretionary expenditures due to the fact that the measure does not deduct the payments required for debt maturities. We believe free cash flow provides useful supplemental information to investors regarding our current cash flow, along with other GAAP measures (such as cash flows from operating and investing activities), to determine our financial condition, and to compare our operating performance to other communications, entertainment and media companies. Free cash flow is calculated as follows:

	For the Years Ended December 31,		
	2017	2016	2015
Cash Flow information			
Net cash provided by operating activities	$ 1,763,744	$ 1,676,761	$ 1,189,772
Net cash used in investing activities	$ (1,146,812)	$ (210,124)	$ (138,858)
Net cash used in financing activities	$ (761,849)	$ (1,364,536)	$ (1,086,800)
Free Cash Flow			
Net cash provided by operating activities	$ 1,763,744	$ 1,676,761	$ 1,189,772
Equity-related transactions for Holdings [(a)]	91,845	42,476	54,279
Additions to property and equipment	(287,970)	(205,829)	(134,892)
Purchases of restricted and other investments	(7,847)	(4,295)	(3,966)
Pre-1972 sound recordings legal settlement	—	—	210,000
Free cash flow	$ 1,559,772	$ 1,509,113	$ 1,315,193

(a) Subsequent to our corporate reorganization in November 2013, certain equity-related transactions are reported as related party transactions within Sirius XM's consolidated statements of cash flows. For the years ended December 31, 2017, 2016 and 2015, this included payments of $92,619, $42,824 and $54,539, respectively, for taxes paid in lieu of shares issued for stock-based compensation and $774, $348 and $260, respectively, in proceeds from the exercise of stock options. These equity-related transactions are classified as Cash flows used in financing activities within Holdings' consolidated statements of cash flows, and therefore, are adjusted to reflect free cash flow at Sirius XM.

New vehicle consumer conversion rate - is defined as the percentage of owners and lessees of new vehicles that receive our satellite radio service and convert to become self-paying subscribers after the initial promotion period. At the time satellite radio enabled vehicles are sold or leased, the owners or lessees generally receive trial subscriptions ranging from three to twelve months. We measure conversion rate three months after the period in which the promotional period ends. The metric excludes rental and fleet vehicles.

Subscriber acquisition cost, per installation - or SAC, per installation, is derived from subscriber acquisition costs and margins from the sale of radios and accessories (excluding connected vehicle services), divided by the number of satellite radio installations in new vehicles and shipments of aftermarket radios for the period. SAC, per installation, is calculated as follows:

	For the Years Ended December 31,		
	2017	2016	2015
Subscriber acquisition costs, excluding connected vehicle services	$ 499,492	$ 512,809	$ 532,599
Less: margin from sales of radios and accessories, excluding connected vehicle services	(96,110)	(78,065)	(68,199)
	$ 403,382	$ 434,744	$ 464,400
Installations	13,662	14,203	14,041
SAC, per installation	$ 29.53	$ 30.61	$ 33.07

Report of Independent Registered Public Accounting Firm

To the Board of Directors
Sirius XM Radio Inc. and subsidiaries:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Sirius XM Radio Inc. and subsidiaries (the “Company”) as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, stockholder equity, and cash flows for each of the years in the three‑year period ended December 31, 2017, and the related notes (collectively, the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the three‑year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

Change in Accounting Principle

As discussed in Note 3 to the consolidated financial statements, the Company changed its method of accounting for share-based payments in 2016 due to the adoption of ASU 2016-09, *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company’s auditor since 2008.

New York, New York
January 31, 2018

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	For the Years Ended December 31,		
(in thousands)	2017	2016	2015
Revenue:			
Subscriber revenue	$ 4,472,522	$ 4,196,852	$ 3,824,793
Advertising revenue	160,347	138,231	122,292
Equipment revenue	131,586	118,947	110,923
Other revenue	660,674	563,190	512,050
Total revenue	5,425,129	5,017,220	4,570,058
Operating expenses:			
Cost of services:			
Revenue share and royalties	1,210,323	1,108,515	1,034,832
Programming and content	388,033	353,779	293,091
Customer service and billing	385,431	387,131	377,908
Satellite and transmission	82,747	103,020	94,609
Cost of equipment	35,448	40,882	42,724
Subscriber acquisition costs	499,492	512,809	532,599
Sales and marketing	437,739	386,724	354,189
Engineering, design and development	112,427	82,146	64,403
General and administrative	334,023	341,106	324,801
Depreciation and amortization	298,602	268,979	272,214
Total operating expenses	3,784,265	3,585,091	3,391,370
Income from operations	1,640,864	1,432,129	1,178,688
Other income (expense):			
Interest expense	(345,820)	(331,225)	(299,103)
Loss on extinguishment of debt	(43,679)	(24,229)	—
Other income	12,844	14,985	12,379
Total other expense	(376,655)	(340,469)	(286,724)
Income before income taxes	1,264,209	1,091,660	891,964
Income tax expense	(616,301)	(345,727)	(382,240)
Net income attributable to Sirius XM Radio Inc.'s sole stockholder	$ 647,908	$ 745,933	$ 509,724
Foreign currency translation adjustment, net of tax	18,546	363	(100)
Total comprehensive income attributable to Sirius XM Radio Inc.'s sole stockholder	$ 666,454	$ 746,296	$ 509,624

See accompanying notes to the consolidated financial statements.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
CONSOLIDATED BALANCE SHEETS

(in thousands, except per share data)	As of December 31, 2017	2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 69,022	$ 213,939
Receivables, net	241,727	223,029
Inventory, net	20,199	20,363
Related party current assets	10,284	6,170
Prepaid expenses and other current assets	129,669	179,148
Total current assets	470,901	642,649
Property and equipment, net	1,462,766	1,398,693
Intangible assets, net	2,522,846	2,544,801
Goodwill	2,286,582	2,205,107
Related party long-term assets	7,522,007	5,185,730
Deferred tax assets	505,528	1,084,330
Other long-term assets	118,671	119,097
Total assets	$ 14,889,301	$ 13,180,407
LIABILITIES AND STOCKHOLDER EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 768,077	$ 701,968
Accrued interest	137,428	114,633
Current portion of deferred revenue	1,881,825	1,832,609
Current maturities of long-term debt	5,105	5,485
Related party current liabilities	2,839	2,840
Total current liabilities	2,795,274	2,657,535
Deferred revenue	174,579	176,319
Long-term debt	6,741,243	5,842,764
Related party long-term liabilities	7,364	7,955
Deferred tax liabilities	8,169	6,418
Other long-term liabilities	100,355	93,553
Total liabilities	9,826,984	8,784,544
Commitments and contingencies (Note 14)		
Stockholder equity:		
Common stock, par value $0.001; 9,000,000 shares authorized; 1 share issued and outstanding at December 31, 2017 and December 31, 2016, respectively	—	—
Accumulated other comprehensive income (loss), net of tax	18,407	(139)
Additional paid-in capital	8,679,538	8,679,538
Accumulated deficit	(3,635,628)	(4,283,536)
Total stockholder equity	5,062,317	4,395,863
Total liabilities and stockholder equity	$ 14,889,301	$ 13,180,407

See accompanying notes to the consolidated financial statements.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
CONSOLIDATED STATEMENT OF STOCKHOLDER EQUITY

	Common Stock					
(in thousands)	Shares	Amount	Accumulated Other Comprehensive (Loss) Income	Additional Paid-in Capital	Accumulated Deficit	Total Stockholder Equity
Balance at January 1, 2015	1	$ —	$ (402)	$ 8,679,538	$ (5,833,089)	$ 2,846,047
Comprehensive income (loss), net of tax	—	—	(100)	—	509,724	509,624
Balance at December 31, 2015	1	$ —	$ (502)	$ 8,679,538	$ (5,323,365)	$ 3,355,671
Cumulative effect of change in accounting principle	—	—	—	—	293,896	293,896
Comprehensive income, net of tax	—	—	363	—	745,933	746,296
Balance at December 31, 2016	1	$ —	$ (139)	$ 8,679,538	$ (4,283,536)	$ 4,395,863
Comprehensive income, net of tax	—	—	18,546	—	647,908	666,454
Balance at December 31, 2017	1	$ —	$ 18,407	$ 8,679,538	$ (3,635,628)	$ 5,062,317

See accompanying notes to the consolidated financial statements.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
(in thousands)	**2017**	**2016**	**2015**
Cash flows from operating activities:			
Net income	$ 647,908	$ 745,933	$ 509,724
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	298,602	268,979	272,214
Non-cash interest expense, net of amortization of premium	9,050	8,608	7,872
Provision for doubtful accounts	55,715	55,941	47,237
Amortization of deferred income related to equity method investment	(2,776)	(2,772)	(2,776)
Loss on extinguishment of debt	43,679	24,229	—
Gain on unconsolidated entity investments, net	(4,561)	(12,529)	—
Dividend received from unconsolidated entity investment	3,606	7,160	14,788
Loss on disposal of assets	—	12,912	7,384
Share-based payment expense	124,069	108,604	84,310
Deferred income taxes	583,520	323,562	365,499
Other non-cash purchase price adjustments	—	—	(1,394)
Changes in operating assets and liabilities:			
Receivables	(73,777)	(44,188)	(61,440)
Inventory	1,874	1,932	(2,898)
Related party, net	(73,769)	(45,140)	(66,963)
Prepaid expenses and other current assets	50,194	7,156	(67,204)
Other long-term assets	7,333	38,835	(130,741)
Accounts payable and accrued expenses	21,081	78,099	50,427
Accrued interest	22,795	22,978	11,215
Deferred revenue	41,894	79,404	145,242
Other long-term liabilities	7,307	(2,942)	7,276
Net cash provided by operating activities	1,763,744	1,676,761	1,189,772
Cash flows from investing activities:			
Additions to property and equipment	(287,970)	(205,829)	(134,892)
Purchases of restricted and other investments	(7,847)	(4,295)	(3,966)
Acquisition of business, net of cash acquired	(107,736)	—	—
Investments in related parties	(612,465)	—	—
Loan to related party	(130,794)	—	—
Net cash used in investing activities	(1,146,812)	(210,124)	(138,858)
Cash flows from financing activities:			
Intercompany financing activities	(1,599,277)	(1,721,597)	(2,018,254)
Net (repayments) borrowings related to revolving credit facility	(90,000)	50,000	(40,000)
Proceeds from long-term borrowings, net of costs	2,473,071	987,143	983,571
Principal payments of long-term borrowings	(1,512,578)	(660,985)	(12,117)
Payment of premiums on redemption of debt	(33,065)	(19,097)	—
Net cash used in financing activities	(761,849)	(1,364,536)	(1,086,800)
Net (decrease) increase in cash and cash equivalents	(144,917)	102,101	(35,886)
Cash and cash equivalents at beginning of period	213,939	111,838	147,724
Cash and cash equivalents at end of period	$ 69,022	$ 213,939	$ 111,838

See accompanying notes to the consolidated financial statements.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
CONSOLIDATED STATEMENTS OF CASH FLOWS - Continued

	For the Years Ended December 31,		
(in thousands)	**2017**	**2016**	**2015**
Supplemental Disclosure of Cash and Non-Cash Flow Information			
Cash paid during the period for:			
Interest, net of amounts capitalized	$ 310,492	$ 292,556	$ 269,925
Income taxes paid	$ 28,045	$ 20,639	$ 12,384
Non-cash investing and financing activities:			
Capital lease obligations incurred to acquire assets	$ 2,577	$ 6,647	$ 7,487
Other comprehensive income (loss), net of tax for related party	$ 18,546	$ 363	$ (100)

See accompanying notes to the consolidated financial statements.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars and shares in thousands, except per share amounts)

(1) Business & Basis of Presentation

Business

We transmit music, sports, entertainment, comedy, talk, news, traffic and weather channels, as well as infotainment services, in the United States on a subscription fee basis through our two proprietary satellite radio systems. Subscribers can also receive music and other channels, plus features such as SiriusXM On Demand, over our Internet radio service, including through applications for mobile devices, home devices and other consumer electronic equipment. We also provide connected vehicle services. Our connected vehicle services are designed to enhance the safety, security and driving experience for vehicle operators while providing marketing and operational benefits to automakers and their dealers.

We have agreements with every major automaker ("OEMs") to offer satellite radio in their vehicles, through which we acquire the majority of our subscribers. We also acquire subscribers through marketing to owners and lessees of previously owned vehicles that include factory-installed satellite radios that are not currently subscribing to our services. Our satellite radios are primarily distributed through automakers, retailers, and our website. Satellite radio services are also offered to customers of certain rental car companies.

Our primary source of revenue is subscription fees, with most of our customers subscribing to annual, semi-annual, quarterly or monthly plans. We offer discounts for prepaid, longer-term subscription plans, as well as a multiple subscription discount. We also derive revenue from activation and other fees, the sale of advertising on select non-music channels, the direct sale of satellite radios and accessories, and other ancillary services, such as our weather, traffic and data services.

In certain cases, a subscription to our radio services is included in the sale or lease price of new or previously owned vehicles. The length of these subscriptions varies but is typically three to twelve months. We receive payments for these subscriptions from certain automakers. We also reimburse various automakers for certain costs associated with satellite radios installed in new vehicles and pay revenue share to various automakers.

During the year ended December 31, 2017, we entered into several strategic transactions:

- On April 18, 2017, we acquired Automatic Labs Inc. ("Automatic"). Refer to Note 2 for information on this transaction.

- On May 25, 2017, we completed a recapitalization of Sirius XM Canada Holdings Inc. ("Sirius XM Canada"). Refer to Note 10 for information on this transaction.

- On September 22, 2017, we completed a $480,000 investment in Pandora Media, Inc. ("Pandora"). Refer to Note 10 for information on this transaction.

As of December 31, 2017, Liberty Media Corporation ("Liberty Media") beneficially owned, directly and indirectly, approximately 70% of the outstanding shares of Holdings' common stock. As a result, Holdings is a "controlled company" for the purposes of the NASDAQ corporate governance requirements.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). All significant intercompany transactions have been eliminated in consolidation. Certain numbers in our prior period consolidated financial statements and footnotes have been reclassified or consolidated to conform to our current period presentation.

The consolidated financial statements for Sirius XM for the annual period ended December 31, 2017 are essentially identical to the consolidated financial statements included in Holdings' Form 10-K for the annual period ended December 31, 2017, filed with the SEC on January 31, 2018, with the following exceptions:

- As a result of our corporate reorganization effective November 15, 2013, all of the outstanding shares of Sirius XM's common stock were converted, on a share for share basis, into identical shares of common stock of Holdings and all equity-related transactions, including repurchases of Holdings' common stock, dividend payments on shares of Holdings' common stock, the issuance of equity related to stock-based compensation to Sirius XM employees, Holdings' directors and third parties and the issuance of Holdings' common stock related to the recapitalization of Sirius XM Canada have been reported as related party transactions within Sirius XM's consolidated financial statements. Refer to Note 10 for additional information related to related party transactions.

This Annual Report should be read together with Holdings' Annual Report on Form 10-K for the year ended December 31, 2017, which was filed with the SEC on January 31, 2018.

Public companies, including our parent Holdings, are required to disclose certain information about their reportable operating segments. Operating segments are defined as significant components of an enterprise for which separate financial information is available and is evaluated on a regular basis by the chief operating decision makers in deciding how to allocate resources to an individual segment and in assessing performance of the segment. We have determined that we have one reportable segment as our chief operating decision maker, our Chief Executive Officer, assesses performance and allocates resources based on the consolidated results of operations of our business.

We have evaluated events subsequent to the balance sheet date and prior to the furnishing of this Annual Report for the year ended December 31, 2017 and have determined that no events have occurred that would require adjustment to our consolidated financial statements. For a discussion of subsequent events that do not require adjustment to our consolidated financial statements refer to Note 16.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and footnotes. Estimates, by their nature, are based on judgment and available information. Actual results could differ materially from those estimates. Significant estimates inherent in the preparation of the accompanying consolidated financial statements include asset impairment, depreciable lives of our satellites, share-based payment expense, and income taxes.

(2) Acquisition

On April 18, 2017, we acquired Automatic, a connected vehicle device and mobile application company, for an aggregate purchase price of $107,736, net of cash and restricted cash acquired of $819. Automatic has created and operates a data-driven platform that enables vehicle owners to be safer and drive smarter. The company's proprietary Automatic Pro and Automatic Lite connected car adapters provide, among other things, vehicle diagnostic alerts, emergency crash assistance, fuel monitoring, access to parking information and live vehicle location tracking.

(Dollars and shares in thousands, except per share amounts)

The condensed table below summarizes the fair value of the assets acquired and liabilities assumed:

Acquired Assets:		
Intangible assets subject to amortization	$	14,700
Goodwill		81,475
Deferred income tax asset, net		14,760
Other assets		4,019
Trademark		800
Total Assets	$	115,754
Assumed Liabilities:		
Deferred revenue		(5,582)
Other liabilities		(1,617)
Total Liabilities	$	(7,199)
Total Consideration	$	108,555

The transaction was accounted for using the acquisition method of accounting. The fair value assessed for the majority of the assets acquired and liabilities assumed equaled their carrying value. The excess purchase price over identifiable net assets of $81,475 has been recorded to Goodwill in our consolidated balance sheets as of December 31, 2017. A total of $14,700 has been allocated to identifiable intangible assets subject to amortization and relates to the assessed fair value of software and technology and a total of $800 has been allocated to the Automatic trademark.

We recognized acquisition related costs of $922 that were expensed in General and administrative expenses in our consolidated statements of comprehensive income during the year ended December 31, 2017. Pro forma financial information related to this acquisition has not been provided as it is not material to our consolidated results of operations.

(3) Summary of Significant Accounting Policies

In addition to the significant accounting policies discussed in this Note 3, the following table includes our significant accounting policies that are described in other notes to our consolidated financial statements, including the number and page of the note:

Significant Accounting Policy	Note #	Page #
Fair Value Measurements	4	F-13
Goodwill	7	F-14
Intangible Assets	8	F-15
Property and Equipment	9	F-16
Equity Method Investments	10	F-18
Share-Based Compensation	13	F-23
Legal Reserves	14	F-27
Income Taxes	15	F-30

Cash and Cash Equivalents

Our cash and cash equivalents consist of cash on hand, money market funds, certificates of deposit, in-transit credit card receipts and highly liquid investments purchased with an original maturity of three months or less.

Revenue Recognition

We derive revenue primarily from subscribers, advertising and sales of radios and accessories.

Revenue from subscribers consists primarily of subscription fees and other ancillary subscription based revenues. Revenue is recognized as it is realized or realizable and earned. We recognize subscription fees as our services are provided. Consumers purchasing or leasing a vehicle with a factory-installed satellite radio typically receive between a three and twelve month subscription to our service. In certain cases, the subscription fee for these consumers are prepaid by the applicable automaker. Prepaid subscription fees received from certain automakers are recorded as deferred revenue and amortized to revenue ratably over the service period which commences upon retail sale and activation. There is no revenue recognized for unpaid trial subscriptions.

We recognize revenue from the sale of advertising as the advertising is transmitted. Agency fees are calculated based on a stated percentage applied to gross billing revenue for our advertising inventory and are reported as a reduction of advertising revenue. We pay certain third parties a percentage of advertising revenue. Advertising revenue is recorded gross of such revenue share payments as we are the primary obligor in the transaction. Advertising revenue share payments are recorded to Revenue share and royalties during the period in which the advertising is transmitted.

Equipment revenue and royalties from the sale of satellite radios, components and accessories are recognized upon shipment, net of discounts and rebates. Shipping and handling costs billed to customers are recorded as revenue. Shipping and handling costs associated with shipping goods to customers are reported as a component of Cost of equipment.

Other revenue primarily includes U.S. Music Royalty Fees which are recorded as other revenue and the cost component as Revenue share and royalties expense. Fees received from subscribers for the U.S. Music Royalty Fee are recorded as deferred revenue and amortized to revenue ratably over the service period.

We report revenues net of any tax assessed by a governmental authority that is both imposed on, and concurrent with, a specific revenue-producing transaction between a seller and a customer in our consolidated statements of comprehensive income.

Accounting Standards Codification ("ASC") 605, *Revenue Recognition,* provides guidance on how and when to recognize revenues for arrangements that may involve the delivery or performance of multiple products, services and/or rights to use assets, such as in our bundled subscription plans. Revenue arrangements with multiple deliverables are required to be divided into separate units of accounting if the deliverables in the arrangement meet certain criteria. Consideration must be allocated at the inception of the arrangement to all deliverables based on their relative selling price, which has been determined using vendor specific objective evidence of the selling price to self-pay customers.

Revenue Share

We share a portion of our subscription revenues earned from self-pay subscribers and paid promotional subscribers with certain automakers. The terms of the revenue share agreements vary with each automaker, but are typically based upon the earned audio revenue as reported or gross billed audio revenue. Revenue share is recorded as an expense in our consolidated statements of comprehensive income and not as a reduction to revenue.

Programming Costs

Programming costs which are for a specified number of events are amortized on an event-by-event basis; programming costs which are for a specified season or include programming through a dedicated channel are amortized over the season or period on a straight-line basis. We allocate a portion of certain programming costs which are related to sponsorship and marketing activities to Sales and marketing expense on a straight-line basis over the term of the agreement.

Advertising Costs

Media is expensed when aired and advertising production costs are expensed as incurred. Advertising production costs include expenses related to marketing and retention activities, including expenses related to direct mail, outbound telemarketing and email communications. We also incur advertising production costs related to cooperative marketing and promotional events and sponsorships. During the years ended December 31, 2017, 2016 and 2015, we recorded advertising costs of $262,701, $226,969 and $206,351, respectively. These costs are reflected in Sales and marketing expense in our consolidated statements of comprehensive income.

Subscriber Acquisition Costs

Subscriber acquisition costs consist of costs incurred to acquire new subscribers which include hardware subsidies paid to radio manufacturers, distributors and automakers, including subsidies paid to automakers who include a satellite radio and a prepaid subscription to our service in the sale or lease price of a new vehicle; subsidies paid for chipsets and certain other components used in manufacturing radios; device royalties for certain radios and chipsets; commissions paid to retailers and automakers as incentives to purchase, install and activate radios; product warranty obligations; freight; and provisions for inventory allowance attributable to inventory consumed in our OEM and retail distribution channels. Subscriber acquisition costs do not include advertising costs, loyalty payments to distributors and dealers of radios and revenue share payments to automakers and retailers of radios.

Subsidies paid to radio manufacturers and automakers are expensed upon installation, shipment, receipt of product or activation and are included in Subscriber acquisition costs because we are responsible for providing the service to the customers. Commissions paid to retailers and automakers are expensed upon either the sale or activation of radios. Chipsets that are shipped to radio manufacturers and held on consignment are recorded as inventory and expensed as Subscriber acquisition costs when placed into production by radio manufacturers. Costs for chipsets not held on consignment are expensed as Subscriber acquisition costs when the automaker confirms receipt.

Research & Development Costs

Research and development costs are expensed as incurred and primarily include the cost of new product development, chipset design, software development and engineering. During the years ended December 31, 2017, 2016 and 2015, we recorded research and development costs of $96,917, $69,025 and $54,933, respectively. These costs are reported as a component of Engineering, design and development expense in our consolidated statements of comprehensive income.

Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income of $18,407 was primarily comprised of the cumulative foreign currency translation adjustments related to Sirius XM Canada (refer to Note 10 for additional information). During the year ended December 31, 2017, we recorded a foreign currency translation adjustment gain of $18,546, which is recorded net of tax of $11,286. During the years ended December 31, 2016 and 2015, we recorded a foreign currency translation adjustment gain of $363 and loss of $100, respectively, net of tax.

Recent Accounting Pronouncements

We elected to early adopt Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2016-09, *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, in the third quarter of 2016, which required that any adjustments be reflected as of January 1, 2016, the beginning of the annual period that includes the interim period of adoption. The areas for simplification in this ASU involve several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, forfeiture calculations, and classification on the statement of cash flows. The primary impact of adoption of ASU 2016-09 was the recognition of excess tax benefits in our provision for income taxes.

Additionally, we recognized net operating losses related to excess share-based compensation tax return deductions that were previously tracked off balance sheet but not recorded in our financial statements. As of January 1, 2016, $293,896, net of a $1,946 reserve for an uncertain tax position, was recorded as an increase to our Deferred tax assets and decrease to our Accumulated deficit in our consolidated balance sheets as a result of the cumulative effect of this change in accounting principle.

Additional amendments to this ASU related to income taxes and minimum statutory withholding tax requirements had no impact to Accumulated deficit, where the cumulative effect of these changes are required to be recorded. Further, there was no impact to our classification of awards as either equity or liabilities. We also elected to true-up forfeitures in the period of adoption and now recognize forfeitures as they occur. This ASU also required excess tax benefits to be separated from other income tax cash flows and classified as an operating activity, however, prior to adoption, there was no impact to the consolidated statement of cash flows as we have not had any excess tax benefits (windfalls) recorded for book purposes. The presentation requirements for cash flows related to employee taxes paid for withheld shares had no impact to any of the periods presented in our consolidated statement of cash flows as such cash flows have historically been presented as a financing activity.

In January 2017, the FASB issued ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350)*. This ASU eliminates Step 2 from the goodwill impairment test. Under the new guidance, entities should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. Additionally, this ASU eliminates the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. The amendments in this ASU are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and is applied on a prospective basis. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We elected to early adopt ASU 2017-04 in the fourth quarter of 2017, which did not have an impact on our consolidated financial statements. Refer to Note 7 for information on this adoption.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. This ASU is a comprehensive new revenue recognition model that requires a company to recognize revenue to depict the transfer of goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. This ASU also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. In August 2015, the FASB issued ASU 2015-14 which amended the effective date of this ASU to fiscal years beginning after December 15, 2017, and early adoption was permitted only for fiscal years beginning after December 15, 2016. In 2016, the FASB issued additional guidance which clarified principal versus agent considerations, identification of performance obligations and the implementation guidance for licensing. In addition, the FASB issued guidance regarding practical expedients related to disclosures of remaining performance obligations, as well as other amendments to the guidance on transition, collectibility, non-cash consideration and the presentation of sales and other similar taxes. The two permitted transition methods under the new standard are the full retrospective method, in which case the standard would be applied to each prior reporting period presented, or the modified retrospective method, in which case the cumulative effect of applying the standard would be recognized at the date of initial application. We will adopt this ASU under the modified retrospective method.

We have completed our evaluation of the impact this ASU will have on our revenue streams. Based on our assessment of the impact of adopting this ASU on January 1, 2018, the most significant impact of the ASU relates to the reclassification of approximately $90,000 of Subscriber revenue to offset Revenue share and royalties and certain subsidy payments made to automakers associated with a paid promotional subscription and the impact of the timing of recognition of activation revenues.

The adoption will not have a significant impact to our Net income. Within our consolidated balance sheets, upon adoption, the amount of revenue share associated with a paid promotional subscription to an automaker will be classified as a liability separate from deferred revenue. We expect the adjustment to our opening balance of Accumulated deficit to be approximately $19,000, net of tax, upon adoption.

We have implemented the necessary changes to our business processes, systems and controls to support recognition and disclosure of this ASU upon adoption on January 1, 2018.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. This ASU requires a company to recognize lease assets and liabilities arising from operating leases in the statement of financial position. This ASU does not significantly change the previous lease guidance for how a lessee should recognize the recognition, measurement, and presentation of expenses and cash flows arising from a lease. Additionally, the criteria for classifying a finance lease versus an operating lease are substantially the same as the previous guidance. The amendments in this ASU are effective for fiscal years beginning after

(Dollars and shares in thousands, except per share amounts)

December 15, 2018, including interim periods within those fiscal years, and early adoption is permitted. This ASU must be adopted using a modified retrospective approach. We plan to adopt this ASU on January 1, 2019. We are in the process of evaluating the impact of adoption of this ASU on our consolidated financial statements. We currently believe that the most significant changes will be related to the recognition of right-of-use assets and lease liability on our consolidated balance sheets for operating leases.

(4) Fair Value Measurements

The fair value of a financial instrument is the amount at which the instrument could be exchanged in an orderly transaction between market participants. As of December 31, 2017 and 2016, the carrying amounts of cash and cash equivalents, receivables, and accounts payable approximated fair value due to the short-term nature of these instruments. ASC 820, *Fair Value Measurements and Disclosures*, establishes a fair value hierarchy for input into valuation techniques as follows:

i. Level 1 input: unadjusted quoted prices in active markets for identical instrument;

ii. Level 2 input: observable market data for the same or similar instrument but not Level 1, including quoted prices for identical or similar assets or liabilities in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

iii. Level 3 input: unobservable inputs developed using management's assumptions about the inputs used for pricing the asset or liability.

Investments are periodically reviewed for impairment and an impairment is recorded whenever declines in fair value below carrying value are determined to be other than temporary. In making this determination, we consider, among other factors, the severity and duration of the decline as well as the likelihood of a recovery within a reasonable timeframe.

Our assets and liabilities measured at fair value were as follows:

	December 31, 2017				December 31, 2016			
	Level 1	Level 2	Level 3	Total Fair Value	Level 1	Level 2	Level 3	Total Fair Value
Assets:								
Pandora - investment [(a)]	$ —	480,472	—	$ 480,472	$ —	—	—	$ —
Sirius XM Canada - investment [(b)]	$ —	—	—	$ —	$178,696	—	—	$ 178,696
Liabilities:								
Debt [(c)]	—	$6,987,473	—	$6,987,473	—	$6,008,205	—	$6,008,205

(a) During the year ended December 31, 2017, we completed a $480,000 investment in Pandora. We have elected the fair value option to account for this investment. Refer to Note 10 for information on this transaction.

(b) During the year ended December 31, 2017, we completed a recapitalization of Sirius XM Canada. Following this recapitalization, Sirius XM Canada ceased to be a publicly traded company. Refer to Note 10 for information on this transaction. The amount as of December 31, 2016 approximated fair value. The carrying value of our investment in Sirius XM Canada was $341,214 and $8,615 as of December 31, 2017 and 2016, respectively. Additionally, as part of this transaction we loaned Sirius XM Canada $130,794. The carrying value of the loan as of December 31, 2017 was $140,073 and approximated its fair value.

(c) The fair value for non-publicly traded instruments is based upon estimates from a market maker and brokerage firm. Refer to Note 11 for information related to the carrying value of our debt as of December 31, 2017 and 2016.

(5) Receivables, net

Receivables, net, includes customer accounts receivable, receivables from distributors and other receivables.

Customer accounts receivable, net, includes receivables from our subscribers and other customers, including advertising, and is stated at amounts due, net of an allowance for doubtful accounts. Our allowance for doubtful accounts is based upon our assessment of various factors. We consider historical experience, the age of the receivable balances, current economic conditions and other factors that may affect the counterparty’s ability to pay. Bad debt expense is included in Customer service and billing expense in our consolidated statements of comprehensive income.

(Dollars and shares in thousands, except per share amounts)

Receivables from distributors primarily include billed and unbilled amounts due from OEMs for services included in the sale or lease price of vehicles, as well as billed amounts due from wholesale distributors of our satellite radios. Other receivables primarily include amounts due from manufacturers of our radios, modules and chipsets where we are entitled to subsidies and royalties based on the number of units produced. We have not established an allowance for doubtful accounts for our receivables from distributors or other receivables as we have historically not experienced any significant collection issues with OEMs or other third parties.

Receivables, net, consists of the following:

	December 31, 2017	December 31, 2016
Gross customer accounts receivable	$ 100,342	$ 105,737
Allowance for doubtful accounts	(9,500)	(8,658)
Customer accounts receivable, net	$ 90,842	$ 97,079
Receivables from distributors	121,410	98,498
Other receivables	29,475	27,452
Total receivables, net	$ 241,727	$ 223,029

(6) Inventory, net

Inventory consists of finished goods, refurbished goods, chipsets and other raw material components used in manufacturing radios and connected vehicle devices. Inventory is stated at the lower of cost or market. We record an estimated allowance for inventory that is considered slow moving or obsolete or whose carrying value is in excess of net realizable value. The provision related to products purchased for resale in our direct to consumer distribution channel and components held for resale by us is reported as a component of Cost of equipment in our consolidated statements of comprehensive income. The provision related to inventory consumed in our OEM channel is reported as a component of Subscriber acquisition costs in our consolidated statements of comprehensive income.

Inventory, net, consists of the following:

	December 31, 2017	December 31, 2016
Raw materials	$ 6,489	$ 10,219
Finished goods	21,225	19,581
Allowance for obsolescence	(7,515)	(9,437)
Total inventory, net	$ 20,199	$ 20,363

(7) Goodwill

Goodwill represents the excess of the purchase price over the estimated fair value of the net tangible and identifiable intangible assets acquired in business combinations. Our annual impairment assessment of our single reporting unit is performed as of the fourth quarter of each year, and an assessment is performed at other times if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. We adopted ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350)*, during the fourth quarter of 2017. ASC 350 states that an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. We performed a qualitative analysis to determine whether it was more likely than not that a goodwill impairment exists. We were not aware of any adverse qualitative factors that would indicate any impairment to our goodwill as of the date of our annual assessment for 2017 and as of December 31, 2017.

No impairment losses were recorded for goodwill during the years ended December 31, 2017, 2016 and 2015. As of December 31, 2017, the cumulative balance of goodwill impairments recorded since the July 2008 merger (the "Merger") between our wholly owned subsidiary, Vernon Merger Corporation, and XM Satellite Radio Holdings Inc. ("XM"), was $4,766,190, which was recognized during the year ended December 31, 2008.

(Dollars and shares in thousands, except per share amounts)

As a result of the acquisition of Automatic, we recorded additional goodwill of $81,475 during the year ended December 31, 2017.

(8) Intangible Assets

Our intangible assets include the following:

		December 31, 2017			December 31, 2016		
	Weighted Average Useful Lives	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Indefinite life intangible assets:							
FCC licenses	Indefinite	$ 2,083,654	$ —	$ 2,083,654	$ 2,083,654	$ —	$ 2,083,654
Trademarks	Indefinite	250,800	—	250,800	250,000	—	250,000
Definite life intangible assets:							
Subscriber relationships	9 years	380,000	(380,000)	—	380,000	(364,893)	15,107
OEM relationships	15 years	220,000	(61,111)	158,889	220,000	(46,444)	173,556
Licensing agreements	12 years	45,289	(34,350)	10,939	45,289	(30,664)	14,625
Software and technology	7 years	43,915	(25,351)	18,564	29,215	(21,356)	7,859
Total intangible assets		$ 3,023,658	$ (500,812)	$ 2,522,846	$ 3,008,158	$ (463,357)	$ 2,544,801

Indefinite Life Intangible Assets

We have identified our FCC licenses and the XM trademark as indefinite life intangible assets after considering the expected use of the assets, the regulatory and economic environment within which they are used and the effects of obsolescence on their use. As part of the Automatic acquisition in April 2017, we have also identified $800 related to its trademark.

We hold FCC licenses to operate our satellite digital audio radio service and provide ancillary services. The following table outlines the years in which each of our satellite licenses expires:

FCC satellite licenses	Expiration year
SIRIUS FM-5	2025
SIRIUS FM-6	2022
XM-3	2021
XM-4	2022
XM-5	2018

Prior to expiration, we are required to apply for a renewal of our FCC licenses. The renewal and extension of our licenses is reasonably certain at minimal cost, which is expensed as incurred. Each of the FCC licenses authorizes us to use the radio spectrum, which is a renewable, reusable resource that does not deplete or exhaust over time.

ASC 350-30-35, *Intangibles - Goodwill and Other*, provides for an option to first perform a qualitative assessment to determine whether it is more likely than not that an asset is impaired. If the qualitative assessment supports that it is more likely than not that the fair value of the asset exceeds its carrying value, a quantitative impairment test is not required. If the qualitative assessment does not support the fair value of the asset, then a quantitative assessment is performed. Our annual impairment assessment of our identifiable indefinite lived intangible assets is performed as of the fourth quarter of each year. An assessment is performed at other times if an event occurs or circumstances change that would more likely than not reduce the fair value of the asset below its carrying value. If the carrying value of the intangible assets exceeds its fair value, an impairment loss is recognized in an amount equal to that excess.

We completed qualitative assessments of our FCC licenses and XM trademark during the fourth quarter of 2017, 2016 and 2015. As of the date of our annual assessment for 2017, 2016 and 2015, our qualitative impairment assessment of the fair value of our indefinite intangible assets indicated that such assets substantially exceeded their carrying value and therefore was not at risk of impairment. No impairments were recorded for intangible assets with indefinite lives during the years ended December 31, 2017, 2016 and 2015.

(Dollars and shares in thousands, except per share amounts)

Definite Life Intangible Assets

Definite-lived intangible assets are amortized over their respective estimated useful lives to their estimated residual values, in a pattern that reflects when the economic benefits will be consumed, and are reviewed for impairment under the provisions of ASC 360-10-35, *Property, Plant and Equipment/Overall/Subsequent Measurement*. We review intangible assets subject to amortization for impairment whenever events or circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the expected cash flows, undiscounted and without interest, is less than the carrying amount of the asset, an impairment loss is recognized in an amount by which the carrying amount of the asset exceeds its fair value. No impairments were recorded for intangible assets with definite lives during the years ended December 31, 2017, 2016 and 2015.

As part of the Automatic acquisition in April 2017, $14,700 was allocated to identifiable intangible assets subject to amortization and relates to the assessed fair value of software and technology. Amortization expense for all definite life intangible assets was $37,455, $48,545 and $51,700 for the years ended December 31, 2017, 2016 and 2015, respectively. Expected amortization expense for the each of the fiscal years 2018 through 2022 and for periods thereafter is as follows:

Years ending December 31,	Amount
2018	$ 23,138
2019	22,701
2020	22,121
2021	16,678
2022	15,542
Thereafter	88,212
Total definite life intangible assets, net	$ 188,392

(9) Property and Equipment

Property and equipment, including satellites, are stated at cost, less accumulated depreciation. Equipment under capital leases is stated at the present value of minimum lease payments. Depreciation is calculated using the straight-line method over the following estimated useful life of the asset:

Satellite system	15 years
Terrestrial repeater network	5 - 15 years
Broadcast studio equipment	3 - 15 years
Capitalized software and hardware	2 - 7 years
Satellite telemetry, tracking and control facilities	3 - 15 years
Furniture, fixtures, equipment and other	2 - 7 years
Building	20 or 30 years
Leasehold improvements	Lesser of useful life or remaining lease term

We review long-lived assets, such as property and equipment, for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds the estimated future cash flows, an impairment charge is recognized in an amount by which the carrying amount exceeds the fair value of the asset. We did not record any impairments during the years ended December 31, 2017, 2016 and 2015.

(Dollars and shares in thousands, except per share amounts)

Property and equipment, net, consists of the following:

	December 31, 2017	December 31, 2016
Satellite system	$ 1,586,794	$ 1,586,794
Terrestrial repeater network	123,254	127,854
Leasehold improvements	57,635	53,898
Broadcast studio equipment	96,582	84,697
Capitalized software and hardware	639,516	558,101
Satellite telemetry, tracking and control facilities	69,147	77,290
Furniture, fixtures, equipment and other	96,965	90,214
Land	38,411	38,411
Building	61,824	61,597
Construction in progress	301,153	144,954
Total property and equipment	3,071,281	2,823,810
Accumulated depreciation and amortization	(1,608,515)	(1,425,117)
Property and equipment, net	$ 1,462,766	$ 1,398,693

Construction in progress consists of the following:

	December 31, 2017	December 31, 2016
Satellite system	$ 183,243	$ 43,977
Terrestrial repeater network	2,515	1,139
Capitalized software and hardware	94,456	82,204
Other	20,939	17,634
Construction in progress	$ 301,153	$ 144,954

Depreciation and amortization expense on property and equipment was $261,147, $220,434 and $220,514 for the years ended December 31, 2017, 2016 and 2015, respectively. We retired property and equipment of $78,559, $843,129 and $43,833 during the years ended December 31, 2017, 2016 and 2015, respectively, which included approximately $801,206 related to satellites during 2016. We recognized a loss on disposal of assets of $12,912 and $7,384, which was recorded in Satellite and transmission expense in our consolidated statements of comprehensive income, during the years ended December 31, 2016 and 2015, respectively, which related to the disposal of certain obsolete spare parts for a future satellite and obsolete terrestrial repeaters and related parts, respectively. We did not recognize any loss on disposal of assets during the year ended December 31, 2017.

We capitalize a portion of the interest on funds borrowed to finance the construction and launch of our satellites and launch vehicles. Capitalized interest is recorded as part of the asset's cost and depreciated over the satellite's useful life. Capitalized interest costs were $4,948 and $419 for the years ended December 31, 2017 and 2016, respectively, which related to the construction of our SXM-7 and SXM-8 satellites. We did not capitalize any interest costs for the year ended December 31, 2015.

(Dollars and shares in thousands, except per share amounts)

Satellites

As of December 31, 2017, we owned a fleet of five satellites. The chart below provides certain information on our satellites as of December 31, 2017:

Satellite Description	Year Delivered	Estimated End of Depreciable Life
SIRIUS FM-5	2009	2024
SIRIUS FM-6	2013	2028
XM-3	2005	2020
XM-4	2006	2021
XM-5	2010	2025

(10) Related Party Transactions

In the normal course of business, we enter into transactions with related parties.

Liberty Media

As of December 31, 2017, Liberty Media beneficially owned, directly and indirectly, approximately 70% of the outstanding shares of Holdings' common stock. Liberty Media has two executives and one of its directors on our board of directors. Gregory B. Maffei, the President and Chief Executive Officer of Liberty Media, is the Chairman of Holdings' board of directors.

Sirius XM Holdings

Sirius XM is a wholly-owned subsidiary of Holdings. Holdings has no operations independent of Sirius XM. All equity-related transactions, including repurchases of Holdings' common stock, dividend payments on shares of Holdings' common stock, the issuance of equity related to stock-based compensation for Sirius XM employees, Holdings' directors and third parties and the issuance of Holdings' common stock related to the recapitalization of Sirius XM Canada have been reported as related party transactions within our consolidated financial statements. The stock-based compensation for Sirius XM employees, Holdings' directors and third parties has been recorded in our consolidated financial statements. The Related party long-term assets balance as of December 31, 2017 and December 31, 2016 of Sirius XM includes $6,559,927 and $5,176,811, respectively, primarily for net amounts due from Holdings in connection with these equity-related transactions.

During the year ended December 31, 2017, we used $1,599,277 of our cash for the purchase and retirement of shares of Holdings' common stock under Holdings' repurchase program and payment of a cash dividend on Holdings' common stock. This amount is included in our Related party long-term asset balance as a receivable due from Holdings.

Sirius XM Canada

On May 25, 2017, we completed a recapitalization of Sirius XM Canada (the "Transaction"), which is now a privately held corporation.

Following the Transaction, we hold a 70% equity interest and 33% voting interest in Sirius XM Canada, with the remainder of the voting power and equity interests held by two of Sirius XM Canada's previous shareholders. The total consideration from us to Sirius XM Canada, excluding transaction costs, during the year ended December 31, 2017 was $308,526, which included $129,676 in cash and Holdings issued common stock with an aggregate value of $178,850 to the holders of the shares of Sirius XM Canada acquired in the Transaction. We received common stock, non-voting common stock and preferred stock of Sirius XM Canada. Sirius XM and Holdings own, in the aggregate, 590,950 shares of preferred stock of Sirius XM Canada, which has a liquidation preference of one Canadian dollar per share.

In connection with the Transaction, we also made a contribution in the form of a loan to Sirius XM Canada in the aggregate amount of $130,794. The loan is denominated in Canadian dollars and is considered a long-term investment with any unrealized gains or losses reported within Accumulated other comprehensive (loss) income. The loan has a term of fifteen years, bears interest at a rate of 7.62% per annum and includes customary covenants and events of default, including an event of default relating to Sirius XM Canada's failure to maintain specified leverage ratios. The terms of the loan require Sirius XM Canada to prepay a portion of the outstanding principal amount of the loan within sixty days of the end of each fiscal year in an amount equal to any cash on hand in excess of C$10,000 at the last day of the financial year if all target dividends have been paid in full.

(Dollars and shares in thousands, except per share amounts)

In connection with the Transaction, we also entered into a Services Agreement and an Advisory Services Agreement with Sirius XM Canada. Each agreement has a thirty year term. Pursuant to the Services Agreement, Sirius XM Canada will pay us 25% of its gross revenues on a monthly basis through December 31, 2021 and 30% of its gross revenues on a monthly basis thereafter. Pursuant to the Advisory Services Agreement, Sirius XM Canada will pay us 5% of its gross revenues on a monthly basis. These agreements superseded and replaced the former agreements between Sirius XM Canada and its predecessors and us.

Sirius XM Canada is accounted for as an equity method investment, and its results are not consolidated in our consolidated financial statements. Sirius XM Canada does not meet the requirements for consolidation as we do not have the ability to direct the most significant activities that impact Sirius XM Canada's economic performance.

The difference between our investment and our share of the fair value of the underlying net assets of Sirius XM Canada is first allocated to either finite-lived intangibles or indefinite-lived intangibles and the balance is attributed to goodwill. We follow ASC 350, *Intangibles - Goodwill and Other*, which requires that equity method finite-lived intangibles be amortized over their estimated useful life while indefinite-lived intangibles and goodwill are not amortized. The amortization of equity method finite-lived intangible assets is recorded in Other income in our consolidated statements of comprehensive income. We periodically evaluate our equity method investments to determine if there has been an other-than temporary decline in fair value below carrying value. Equity method finite-lived intangibles, indefinite-lived intangibles and goodwill are included in the carrying amount of the investment.

We had the following related party balances associated with Sirius XM Canada:

	December 31, 2017	December 31, 2016
Related party current assets	$ 10,284	$ 6,170
Related party long-term assets	$ 481,608	$ 8,918
Related party current liabilities	$ 2,839	$ 2,840
Related party long-term liabilities	$ 7,364	$ 7,955

Under the former agreement with Sirius XM Canada, as of December 31, 2016, our related party current assets balance primarily consisted of activation fees and streaming and chipset costs for which we were reimbursed. As of December 31, 2017, our related party current asset balance included amounts due under the Services Agreement and Advisory Services Agreement and certain amounts related to transactions outside the scope of the new services arrangements. Our related party long-term assets balance as of December 31, 2017 and December 31, 2016 included the carrying value of our investment balance in Sirius XM Canada of $341,214 and $8,615, respectively, and, as of December 31, 2017, also included $140,073 for the current value of the outstanding loan to Sirius XM Canada. Our related party liabilities as of each of December 31, 2017 and December 31, 2016 included $2,776 for the current portion of deferred revenue and $5,088 and $7,867, respectively, for the long-term portion of deferred revenue recorded as of the Merger date related to agreements with legacy XM Canada, now Sirius XM Canada. These costs are being amortized on a straight line basis through 2020.

(Dollars and shares in thousands, except per share amounts)

We recorded the following revenue and other income associated with Sirius XM Canada in our consolidated statements of comprehensive income:

	For the Years Ended December 31,		
	2017	2016	2015
Revenue [(a)(b)]	$ 87,111	$ 45,962	$ 56,397
Other income			
Share of net earnings [(b)]	$ 4,561	$ 12,529	$ —
Dividends [(c)]	$ —	$ 3,575	$ 12,645
Interest income [(d)]	$ 6,243	$ —	$ —

(a) Prior to the Transaction, under our former agreements with Sirius XM Canada, we received a percentage-based fee of 10% and 15% for certain types of subscription revenue earned by Sirius XM Canada for the use of the Sirius and XM platforms, respectively, and additional fees for premium services and fees for activation fees and reimbursements for other charges. We record revenue from Sirius XM Canada as Other revenue in our consolidated statements of comprehensive income.

(b) Prior to the Transaction, we recognized our proportionate share of revenue and earnings or losses attributable to Sirius XM Canada on a one month lag. As a result of the Transaction, there is no longer a one-month lag and Sirius XM Canada changed its fiscal year-end to December 31 to align with that of Sirius XM. For the year ended December 31, 2017 this amount included $1,501 of amortization related to equity method intangible assets.

(c) Sirius XM Canada paid gross dividends to us of $3,796, $7,548 and $15,645 during the years ended December 31, 2017, 2016 and 2015, respectively. These dividends were first recorded as a reduction to our investment balance in Sirius XM Canada to the extent a balance existed and then as Other income for the remaining portion.

(d) This interest income relates to the loan to Sirius XM Canada and is recorded as Other income in our consolidated statements of comprehensive income.

Pandora

On September 22, 2017, we completed a $480,000 investment in Pandora. Pursuant to an Investment Agreement with Pandora, we purchased 480 shares of Pandora's Series A Convertible Preferred Stock, par value $0.0001 per share (the "Series A Preferred Stock"), for an aggregate purchase price of $480,000. The Series A Preferred Stock, including accrued but unpaid dividends, represents a stake of approximately 19% of Pandora's currently outstanding common stock, and approximately a 16% interest on an as-converted basis. Pandora operates an internet-based music discovery platform, offering a personalized experience for listeners.

The Series A Preferred Stock is convertible at the option of the holders at any time into shares of common stock of Pandora ("Pandora Common Stock") at an initial conversion price of $10.50 per share of Pandora Common Stock and an initial conversion rate of 95.2381 shares of Pandora Common Stock per share of Series A Preferred Stock, subject to certain customary anti-dilution adjustments. Holders of the Series A Preferred Stock are entitled to a cumulative dividend at the rate of 6.0% per annum, payable quarterly in arrears, if and when declared. Pandora has the option to pay dividends in cash when authorized by their Board and declared by Pandora or accumulate dividends in lieu of paying cash. Any conversion of Series A Preferred Stock may be settled by Pandora, at its option, in shares of Pandora Common Stock, cash or any combination thereof. However, unless and until Pandora's stockholders have approved the issuance of greater than 19.99% of the outstanding Pandora Common Stock, the Series A Preferred Stock may not be converted into more than 19.99% of Pandora's outstanding Pandora Common Stock as of June 9, 2017. The liquidation preference of the Series A Preferred Stock, including accrued dividends of $10,849, was $490,849 as of December 31, 2017.

The investment includes a mandatory redemption feature on any date from and after September 22, 2022 whereby we, at our option, may require Pandora to purchase the Series A Preferred Stock at a price equal to 100% of the liquidation preference plus accrued but unpaid dividends for, at the election of Pandora, cash, shares of Pandora Common Stock or a combination thereof, and as such the investment qualifies as a debt security under ASC 320, *Investments-Debt and Equity Securities*. As the investment includes a conversion option, we have elected to account for this investment under the fair value option to reduce the accounting asymmetry that would otherwise arise when recognizing the changes in the fair value of available-for-sale investments. Under the fair value option, any gains (losses) associated with the change in fair value will be recognized in Other income within our consolidated statements of comprehensive income. A $472 unrealized gain was recognized during the year ended December 31, 2017 as Other income in our consolidated statements of comprehensive income associated with this investment. The fair value of our investment, including accrued dividends, as of December 31, 2017 was $480,472 and is recorded as a related party long-term asset within our consolidated balance sheets. This investment does not meet the requirements for the equity method of accounting as it does not qualify as in-substance common stock.

We have appointed James E. Meyer, our Chief Executive Officer, David J. Frear, our Senior Executive Vice President and Chief Financial Officer, and Gregory B. Maffei, the Chairman of our Board of Directors, to Pandora's Board of Directors pursuant to our designation rights under the Investment Agreement. Mr. Maffei also serves as the Chairman of Pandora's Board of Directors.

Upon certain change of control events involving Pandora, Pandora is required to repurchase all of the Series A Preferred Stock at a price equal to the greater of (1) an amount in cash equal to 100% of the liquidation preference thereof plus all accrued but unpaid dividends through June 9, 2022 (assuming such shares of Series A Preferred Stock remain outstanding through such date) and (2) the consideration the holders would have received if they had converted their shares of Series A Preferred Stock into Pandora Common Stock immediately prior to the change of control event (disregarding the 19.99% cap).

Beginning on September 22, 2020, if the volume weighted average price per share of Pandora Common Stock exceeds $18.375, as may be adjusted, for at least 20 trading days in any period of 30 consecutive trading days, Pandora may redeem all of the outstanding Series A Preferred Stock at a price equal to 100% of the liquidation preference thereof plus all accrued but unpaid dividends for, at the election of Pandora, cash, shares of Pandora Common Stock or a combination thereof, provided that, unless stockholder approval has been received, Pandora may not settle the redemption for shares of Pandora Common Stock to the extent the 19.99% cap would be exceeded.

(Dollars and shares in thousands, except per share amounts)

(11) Debt

Our debt as of December 31, 2017 and 2016 consisted of the following:

Issuer / Borrower	Issued	Debt	Maturity Date	Interest Payable	Principal Amount at December 31, 2017	Carrying value[a] at December 31, 2017	Carrying value[a] at December 31, 2016
Sirius XM (b)(e)	May 2013	4.25% Senior Notes (the "4.25% Notes")	May 15, 2020	semi-annually on May 15 and November 15	$ —	$ —	$ 497,069
Sirius XM (b)(f)	August 2013	5.75% Senior Notes (the "5.75% Notes")	August 1, 2021	semi-annually on February 1 and August 1	—	—	596,386
Sirius XM (b)(g)	July 2017	3.875% Senior Notes (the "3.875% Notes")	August 1, 2022	semi-annually on February 1 and August 1	1,000,000	992,011	—
Sirius XM (b)	May 2013	4.625% Senior Notes (the "4.625% Notes")	May 15, 2023	semi-annually on May 15 and November 15	500,000	496,646	496,111
Sirius XM (b)	May 2014	6.00% Senior Notes (the "6.00% Notes")	July 15, 2024	semi-annually on January 15 and July 15	1,500,000	1,488,002	1,486,556
Sirius XM (b)	March 2015	5.375% Senior Notes (the "5.375% Notes due 2025")	April 15, 2025	semi-annually on April 15 and October 15	1,000,000	991,285	990,340
Sirius XM (b)	May 2016	5.375% Senior Notes (the "5.375% Notes due 2026")	July 15, 2026	semi-annually on January 15 and July 15	1,000,000	990,138	989,259
Sirius XM (b)(g)	July 2017	5.00% Senior Notes (the "5.00% Notes")	August 1, 2027	semi-annually on February 1 and August 1	1,500,000	1,486,162	—
Sirius XM (b)(c)(h)	August 2012	5.25% Senior Secured Notes (the "5.25% Notes")	August 15, 2022	semi-annually on February 15 and August 15	—	—	396,232
Sirius XM (d)	December 2012	Senior Secured Revolving Credit Facility (the "Credit Facility")	June 16, 2020	variable fee paid quarterly	1,750,000	300,000	390,000
Sirius XM	Various	Capital leases	Various	n/a	n/a	10,597	13,559
Total Debt						6,754,841	5,855,512
Less: total current maturities						5,105	5,485
Less: total deferred financing costs for Notes						8,493	7,263
Total long-term debt						$ 6,741,243	$ 5,842,764

(a) The carrying value of the obligations is net of any remaining unamortized original issue discount.
(b) Substantially all of our domestic wholly-owned subsidiaries have guaranteed these notes.
(c) The liens that secured the 5.25% Notes were equal and ratable to the liens granted to secure the Credit Facility.
(d) Our obligations under the Credit Facility are guaranteed by certain of our material domestic subsidiaries and are secured by a lien on substantially all of our assets and the assets of our material domestic subsidiaries. Interest on borrowings is payable on a monthly basis and accrues at a rate based on LIBOR plus an applicable rate. We are also required to pay a variable fee on the average daily unused portion of the Credit Facility which is payable on a quarterly basis. The variable rate for the unused portion of the Credit Facility was 0.25% per annum as of December 31, 2017. Our outstanding borrowings under the Credit Facility are classified as Long-term debt within our consolidated balance sheets due to the long-term maturity of this debt.
(e) On July 27, 2017, we redeemed $500,000 in outstanding principal amount of the 4.25% Notes for an aggregate purchase price, including premium and interest, of $509,565. We recognized $8,393 to Loss on extinguishment of debt, consisting primarily of unamortized discount, deferred financing fees and repayment premium, as a result of this redemption.
(f) On August 4, 2017, we redeemed $600,000 in outstanding principal amount of the 5.75% Notes for an aggregate purchase price, including premium and interest, of $617,538. We recognized $20,964 to Loss on extinguishment of debt, consisting primarily of unamortized discount, deferred financing fees and repayment premium, as a result of this redemption.
(g) In July 2017, we issued $1,000,000 aggregate principal amount of the 3.875% Notes and $1,500,000 aggregate principal amount of the 5.00% Notes with a net original issuance discount and deferred financing costs in the aggregate of $10,291 and $16,638, respectively.

(h) On September 1, 2017, we redeemed $400,000 in outstanding principal amount of the 5.25% Notes for an aggregate purchase price, including premium and interest, of $411,433. We recognized $14,322 to Loss on extinguishment of debt, consisting primarily of unamortized discount, deferred financing fees and repayment premium, as a result of this redemption. All security interests and other liens securing the 5.25% Notes were released.

Covenants and Restrictions

Under the Credit Facility, we must comply with a debt maintenance covenant that it cannot exceed a total leverage ratio, calculated as consolidated total debt to consolidated operating cash flow, of 5.0 to 1.0. The Credit Facility generally requires compliance with certain covenants that restrict our ability to, among other things, (i) incur additional indebtedness, (ii) incur liens, (iii) pay dividends or make certain other restricted payments, investments or acquisitions, (iv) enter into certain transactions with affiliates, (v) merge or consolidate with another person, (vi) sell, assign, lease or otherwise dispose of all or substantially all of our assets, and (vii) make voluntary prepayments of certain debt, in each case subject to exceptions.

The indentures governing our notes restrict our non-guarantor subsidiaries' ability to create, assume, incur or guarantee additional indebtedness without such non-guarantor subsidiary guaranteeing each such series of notes on a pari passu basis. The indentures governing the notes also contain covenants that, among other things, limit our ability and the ability of our subsidiaries to create certain liens; enter into sale/leaseback transactions; and merge or consolidate.

Under our debt agreements, the following generally constitute an event of default: (i) a default in the payment of interest; (ii) a default in the payment of principal; (iii) failure to comply with covenants; (iv) failure to pay other indebtedness after final maturity or acceleration of other indebtedness exceeding a specified amount; (v) certain events of bankruptcy; (vi) a judgment for payment of money exceeding a specified aggregate amount; and (vii) voidance of subsidiary guarantees, subject to grace periods where applicable. If an event of default occurs and is continuing, our debt could become immediately due and payable.

At December 31, 2017 and 2016, we were in compliance with our debt covenants.

(12) Stockholder Equity

Common Stock, par value $0.001 per share

We are authorized to issue up to 9,000,000 shares of common stock. As of December 31, 2017 and 2016, there were one thousand shares of common stock of Sirius XM issued and outstanding, which was owned by Holdings.

Preferred Stock, par value $0.001 per share

We are authorized to issue up to 50,000 shares of undesignated preferred stock with a liquidation preference of $0.001 per share. There were no shares of preferred stock issued or outstanding as of December 31, 2017 and 2016.

(13) Benefit Plans

We recognized share-based payment expense of $124,069, $108,604 and $84,310 for the years ended December 31, 2017, 2016 and 2015, respectively.

We account for equity instruments granted to employees in accordance with ASC 718, *Compensation - Stock Compensation*. ASC 718 requires all share-based compensation payments to be recognized in the financial statements based on fair value. Upon adoption of ASU 2016-09 as of January 1, 2016 we recorded actual forfeitures and no longer estimate forfeitures. For the year ended December 31, 2015, we estimated forfeitures at the time of the grant. We use the Black-Scholes-Merton option-pricing model to value stock option awards and have elected to treat awards with graded vesting as a single award. Share-based compensation expense is recognized ratably over the requisite service period, which is generally the vesting period. We measure restricted stock awards and units using the fair market value of the restricted shares of common stock on the day the award is granted. Stock-based awards granted to employees, non-employees and members of Holdings' board of directors include stock options, stock awards and restricted stock units. We apply variable accounting to our non-employee stock-based awards, whereby we remeasure the value of such awards at each balance sheet date.

Fair value as determined using the Black-Scholes-Merton model varies based on assumptions used for the expected life, expected stock price volatility, expected dividend yield and risk-free interest rates. For the years ended December 31, 2017, 2016 and 2015, we estimated the fair value of awards granted using the hybrid approach for volatility, which weights observable historical volatility and implied volatility of qualifying actively traded options on Holdings' common stock. The expected life assumption represents the weighted-average period stock-based awards are expected to remain outstanding. These expected life assumptions are established through a review of historical exercise behavior of stock-based award grants with similar vesting periods. Where historical patterns do not exist, contractual terms are used. Dividend yield is based on the current expected annual dividend per share and Holdings' stock price. The risk-free interest rate represents the daily treasury yield curve rate at the grant date based on the closing market bid yields on actively traded U.S. treasury securities in the over-the-counter market for the expected term. Our assumptions may change in future periods.

(Dollars and shares in thousands, except per share amounts)

2015 Long-Term Stock Incentive Plan

In May 2015, Holdings' stockholders approved the Sirius XM Holdings Inc. 2015 Long-Term Stock Incentive Plan (the "2015 Plan"). Employees, consultants and members of Holdings' board of directors are eligible to receive awards under the 2015 Plan. The 2015 Plan provides for the grant of stock options, restricted stock awards, restricted stock units and other stock-based awards that the compensation committee of Holdings' board of directors deem appropriate. Stock-based awards granted under the 2015 Plan are generally subject to a graded vesting requirement, which is generally three to four years from the grant date. Stock options generally expire ten years from the date of grant. Restricted stock units include performance-based restricted stock units ("PRSUs"), the vesting of which are subject to the achievement of performance goals and the employee's continued employment and generally cliff vest on the three-year anniversary of the grant date. Each restricted stock unit entitles the holder to receive one share of common stock upon vesting. As of December 31, 2017, 171,388 shares of common stock were available for future grants under the 2015 Plan.

Other Plans

We maintain three other share-based benefit plans — the Sirius XM Radio Inc. 2009 Long-Term Stock Incentive Plan, the XM 2007 Stock Incentive Plan and the Amended and Restated Sirius Satellite Radio 2003 Long-Term Stock Incentive Plan. Excluding dividend equivalent units granted as a result of a declared dividend, no further awards may be made under these plans.

The following table summarizes the weighted-average assumptions used to compute the fair value of options granted to employees and members of Holdings' board of directors:

	For the Years Ended December 31,		
	2017	2016	2015
Risk-free interest rate	1.8%	1.1%	1.4%
Expected life of options — years	4.59	4.25	4.17
Expected stock price volatility	24%	22%	26%
Expected dividend yield	0.7%	0.0%	0.0%

The following table summarizes the weighted-average assumptions used to compute the fair value of options granted in 2015 to third parties, other than non-employee members of Holdings' board of directors:

	For the Year Ended December 31,
	2015
Risk-free interest rate	2.0%
Expected life of options — years	7.00
Expected stock price volatility	37%
Expected dividend yield	0.0%

There were no options granted to third parties during the years ended December 31, 2017 and 2016.

Since we did not historically pay dividends on Holdings' common stock prior to the fourth quarter of 2016, the expected dividend yield used in the Black-Scholes-Merton option-pricing model was less than one percent for the year ended December 31, 2016 and zero for the year ended December 31, 2015.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Dollars and shares in thousands, except per share amounts)

The following table summarizes stock option activity under Holdings' share-based plans for the years ended December 31, 2017, 2016 and 2015:

	Options	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at the beginning of January 1, 2015	267,854	$ 2.72		
Granted	145,366	$ 3.95		
Exercised	(57,667)	$ 1.88		
Forfeited, cancelled or expired	(17,072)	$ 4.60		
Outstanding as of December 31, 2015	338,481	$ 3.29		
Granted	55,222	$ 4.14		
Exercised	(50,728)	$ 2.66		
Forfeited, cancelled or expired	(10,327)	$ 4.30		
Outstanding as of December 31, 2016	332,648	$ 3.50		
Granted	27,339	$ 5.49		
Exercised	(73,296)	$ 3.21		
Forfeited, cancelled or expired	(6,234)	$ 4.07		
Outstanding as of December 31, 2017	280,457	$ 3.76	6.65	$ 453,955
Exercisable as of December 31, 2017	131,025	$ 3.23	5.47	$ 279,101

The weighted average grant date fair value per share of options granted during the years ended December 31, 2017, 2016 and 2015 was $1.17, $0.81 and $1.11, respectively. The total intrinsic value of stock options exercised during the years ended December 31, 2017, 2016 and 2015 was $166,517, $81,204, and $117,944, respectively.

We recognized share-based payment expense associated with stock options of $78,491, $80,266 and $70,084 for the years ended December 31, 2017, 2016 and 2015, respectively.

The following table summarizes the restricted stock unit, including PRSU, activity under our share-based plans for the years ended December 31, 2017, 2016 and 2015:

	Shares	Grant Date Fair Value Per Share
Nonvested at the beginning of January 1, 2015	11,575	$ 3.47
Granted	8,961	$ 3.92
Vested	(3,464)	$ 3.44
Forfeited	(984)	$ 3.52
Nonvested as of December 31, 2015	16,088	$ 3.73
Granted	18,523	$ 4.21
Vested	(4,212)	$ 3.68
Forfeited	(506)	$ 3.75
Nonvested as of December 31, 2016	29,893	$ 4.03
Granted	11,721	$ 5.35
Vested	(8,842)	$ 3.92
Forfeited	(1,449)	$ 4.42
Nonvested as of December 31, 2017	31,323	$ 4.54

The total intrinsic value of restricted stock units and stock awards vesting during the years ended December 31, 2017, 2016 and 2015, was $48,473, $17,807 and $13,720, respectively. During the years ended December 31, 2017 and 2016, we granted 938 and 3,036 PRSUs to certain employees, respectively. We believe it is probable that the performance target applicable to these PRSUs will be achieved.

In connection with the cash dividends paid during the years ended December 31, 2017 and 2016, we granted 247 and 70 restricted stock units, respectively, including PRSUs, in accordance with the terms of existing award agreements. These grants did not result in any additional incremental share-based payment expense being recognized during the years ended December 31, 2017 and 2016.

We recognized share-based payment expense associated with restricted stock units, including PRSUs, and stock awards of $45,578, $28,338 and $14,226 for the years ended December 31, 2017, 2016 and 2015, respectively.

Total unrecognized compensation costs related to unvested share-based payment awards for stock options and restricted stock units granted to employees, members of Holdings' board of directors and third parties at December 31, 2017 and 2016 were $241,521 and $266,045, respectively. The total unrecognized compensation costs at December 31, 2017 are expected to be recognized over a weighted-average period of 2.5 years.

401(k) Savings Plan

We sponsor the Sirius XM Radio Inc. 401(k) Savings Plan (the “Sirius XM Plan”) for eligible employees. The Sirius XM Plan allows eligible employees to voluntarily contribute from 1% to 50% of their pre-tax eligible earnings, subject to certain defined limits. We match 50% of an employee’s voluntary contributions per pay period on the first 6% of an employee’s pre-tax salary up to a maximum of 3% of eligible compensation. We may also make additional discretionary matching, true-up matching and non-elective contributions to the Sirius XM Plan. Employer matching contributions under the Sirius XM Plan vest at a rate of 33.33% for each year of employment and are fully vested after three years of employment for all current and future contributions. Our cash employer matching contributions are not used to purchase shares of Holdings' common stock on the open market, unless the employee elects Holdings' common stock as their investment option for this contribution. We recognized $7,582, $7,104 and $8,144 in expense during the years ended December 31, 2017, 2016 and 2015, respectively, in connection with the Sirius XM Plan.

Sirius XM Holdings Inc. Deferred Compensation Plan

In 2015, Holdings' adopted the Sirius XM Holdings Inc. Deferred Compensation Plan (the “DCP”). The DCP allows members of Holdings' board of directors and certain eligible employees to defer all or a portion of their base salary, cash incentive compensation and/or board of directors’ cash compensation, as applicable. Pursuant to the terms of the DCP, Holdings or any of its subsidiaries may elect to make additional contributions beyond amounts deferred by participants, but is under no obligation to do so. Holdings has established a grantor (or “rabbi”) trust to facilitate the payment of its obligations under the DCP.

Contributions to the DCP, net of withdrawals, for the years ended December 31, 2017 and 2016 were $7,628 and $4,295, respectively. There were no contributions to the DCP for the year ended December 31, 2015. As of December 31, 2017 and 2016, the fair value of the investments held in the trust were $14,641 and $4,854, respectively, which are included in Other long-term assets in our consolidated balance sheets and are classified as trading securities. Trading gains and losses associated with these investments are recorded in Other income within our consolidated statements of comprehensive income. The associated liability is recorded within Other long-term liabilities in our consolidated balance sheets, and any increase or decrease in the liability is recorded in General and administration expense within our consolidated statements of comprehensive income. For the years ended December 31, 2017 and 2016, we recorded an immaterial amount of unrealized gains on investments held in the trust.

(Dollars and shares in thousands, except per share amounts)

(14) Commitments and Contingencies

The following table summarizes our expected contractual cash commitments as of December 31, 2017:

	2018	2019	2020	2021	2022	Thereafter	Total
Debt obligations	$ 5,105	$ 3,808	$ 301,077	$ 607	$ 1,000,000	$ 5,500,000	$ 6,810,597
Cash interest payments	356,525	348,148	341,781	334,381	334,375	915,938	2,631,148
Satellite and transmission	134,736	87,751	43,881	4,296	2,387	4,280	277,331
Programming and content	331,353	305,956	258,873	175,421	51,600	162,438	1,285,641
Marketing and distribution	20,573	13,645	8,620	7,801	1,608	188	52,435
Satellite incentive payments	13,690	10,652	10,197	8,574	8,558	61,767	113,438
Operating lease obligations	39,983	40,161	37,902	32,068	27,504	126,638	304,256
Other	49,237	18,401	3,265	941	51	20	71,915
Total (1)	$ 951,202	$ 828,522	$ 1,005,596	$ 564,089	$ 1,426,083	$ 6,771,269	$11,546,761

(1) The table does not include our reserve for uncertain tax positions, which at December 31, 2017 totaled $12,190, as the specific timing of any cash payments cannot be projected with reasonable certainty.

Debt obligations. Debt obligations include principal payments on outstanding debt and capital lease obligations.

Cash interest payments. Cash interest payments include interest due on outstanding debt and capital lease payments through maturity.

Satellite and transmission. We have entered into agreements to design, build, launch and insure two satellites, SXM-7 and SXM-8, with several third parties. We also have entered into agreements with third parties to operate and maintain satellite telemetry, tracking and control facilities and certain components of our terrestrial repeater networks.

Programming and content. We have entered into various programming agreements. Under the terms of these agreements, our obligations include fixed payments, advertising commitments and revenue sharing arrangements. Our future revenue sharing costs are dependent upon many factors and are difficult to estimate; therefore, they are not included in our minimum contractual cash commitments.

Marketing and distribution. We have entered into various marketing, sponsorship and distribution agreements to promote our brand and are obligated to make payments to sponsors, retailers, automakers and radio manufacturers under these agreements. Certain programming and content agreements also require us to purchase advertising on properties owned or controlled by the licensors. We also reimburse automakers for certain costs associated with the incorporation of satellite radios into new vehicles they manufacture.

Satellite incentive payments. Boeing Satellite Systems International, Inc., the manufacturer of certain of our in-orbit satellites, may be entitled to future in-orbit performance payments with respect to XM-3 and XM-4 meeting their fifteen-year design life, which we expect to occur. Boeing may also be entitled to up to $10,000 of additional incentive payments if our XM-4 satellite continues to operate above baseline specifications during the five years beyond the satellite's fifteen-year design life.

Space Systems/Loral, the manufacturer of certain of our in-orbit satellites, may be entitled to future in-orbit performance payments with respect to XM-5, SIRIUS FM-5 and SIRIUS FM-6 meeting their fifteen-year design life, which we expect to occur.

Operating lease obligations. We have entered into both cancelable and non-cancelable operating leases for office space, equipment and terrestrial repeaters. These leases provide for minimum lease payments, additional operating expense charges, leasehold improvements and rent escalations that have initial terms ranging from one to fifteen years, and certain leases have options to renew. The effect of the rent holidays and rent concessions are recognized on a straight-line basis over the lease term, including reasonably assured renewal periods. Total rent recognized in connection with leases for the years ended December 31, 2017, 2016 and 2015 was $43,375, $46,968 and $47,679, respectively.

Other: We have entered into various agreements with third parties for general operating purposes. In addition to the minimum contractual cash commitments described above, we have entered into agreements with other variable cost arrangements. These future costs are dependent upon many factors and are difficult to anticipate; however, these costs may be substantial. We may enter into additional programming, distribution, marketing and other agreements that contain similar variable cost provisions. The cost of Holdings' stock acquired in Holdings' capital return program but not paid for as of December 31, 2017 was also included in this category.

In addition to the expected contractual cash commitments above, we also have a surety bond of approximately $45,000 primarily used as security against non-performance in the normal course of business. We do not have any other significant off-balance sheet financing arrangements that are reasonably likely to have a material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Legal Proceedings

In the ordinary course of business, we are a defendant or party to various claims and lawsuits, including the following discussed below.

We record a liability when we believe that it is both probable that a liability will be incurred, and the amount of loss can be reasonably estimated. We evaluate developments in legal matters that could affect the amount of liability that has been previously accrued and make adjustments as appropriate. Significant judgment is required to determine both probability and the estimated amount of a loss or potential loss. We may be unable to reasonably estimate the reasonably possible loss or range of loss for a particular legal contingency for various reasons, including, among others, because: (i) the damages sought are indeterminate; (ii) the proceedings are in the relative early stages; (iii) there is uncertainty as to the outcome of pending proceedings (including motions and appeals); (iv) there is uncertainty as to the likelihood of settlement and the outcome of any negotiations with respect thereto; (v) there remain significant factual issues to be determined or resolved; (vi) the relevant law is unsettled; or (vii) the proceedings involve novel or untested legal theories. In such instances, there may be considerable uncertainty regarding the ultimate resolution of such matters, including a possible eventual loss, if any.

SoundExchange Royalty Claims. In August 2013, SoundExchange, Inc. filed a complaint in the United States District Court for the District of Columbia (“SoundExchange I”) alleging that we underpaid royalties for statutory licenses in violation of the regulations established by the Copyright Royalty Board for the 2007-2012 period. SoundExchange principally alleges that we improperly reduced our gross revenues subject to royalties by deducting revenue attributable to pre-1972 recordings and Premier package revenue that was not “separately charged” as required by the regulations. We believe that we properly applied the gross revenue exclusions contained in the regulations established by the Copyright Royalty Board. SoundExchange is seeking compensatory damages of not less than $50,000 and up to $100,000 or more, payment of late fees and interest, and attorneys’ fees and costs.

In August 2014, the United States District Court for the District of Columbia, in response to our motion to dismiss the complaint, stayed the case on the grounds that it properly should be pursued in the first instance before the Copyright Royalty Board rather than the District Court. In its opinion, the District Court concluded that the gross revenue exclusions in the regulations established by the Copyright Royalty Board for the 2007-2012 period were ambiguous and did not, on their face, make clear whether our royalty calculation approaches were permissible under the regulations. In December 2014, SoundExchange filed a petition with the Copyright Royalty Board requesting an order interpreting the applicable regulations.

On September 11, 2017, the Copyright Royalty Board issued a ruling concluding that we correctly interpreted the revenue exclusions applicable to pre-1972 recordings. Given the limitations on its jurisdiction, the Copyright Royalty Board deferred to further proceedings in the District Court the question of whether we properly applied those pre-1972 revenue exclusions when calculating our royalty payments. The Judges also concluded that we improperly claimed a revenue exclusion based on our Premier package upcharge, because, in the Judges’ view, the portion of the package that contained programming that did not include sound recordings was not offered for a “separate charge.” We have filed a notice of appeal of this ruling to the United States Court of Appeals for the District of Columbia Circuit. We expect that the ruling by the Copyright Royalty Board in this matter will be transmitted back to the District Court for further proceedings, such as adjudication of claims relating to damages and defenses, although those proceedings may be delayed pending the appeal of the Judges’ interpretive decision. We believe we have substantial defenses to SoundExchange claims that can be asserted in the District Court, and will continue to defend this action vigorously.

This matter is captioned SoundExchange, Inc. v. Sirius XM Radio, Inc., No.13-cv-1290-RJL (D.D.C.); the Copyright Royalty Board referral was adjudicated under the caption *Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services,* United States Copyright Royalty Board, No. 2006-1 CRB DSTRA. Information concerning SoundExchange I is publicly available in filings under the docket numbers.

On December 12, 2017, SoundExchange filed second action against us under the Copyright Act in the United States District Court for the District of Columbia ("SoundExchange II"). This action includes claims that SoundExchange has also attempted to add to the SoundExchange I litigation through a proposed amended complaint. SoundExchange alleges that we have systematically underpaid it for our statutory license by impermissible understating our gross revenues, as defined in the applicable regulations and, in certain cases, understating the performances of recordings on our internet radio service. Specifically, the complaint in SoundExchange II alleges that: from at least 2013 through the present, we improperly excluded from gross revenues a portion of our revenues received from our Premier and All Access packages attributable to premium channels; at least between 2010 and 2012, we improperly excluded late fees received from subscribers from the calculation of gross revenues; at least between 2010 and 2012, we improperly excluded certain credits, adjustments and bad debt for which the underlying revenues had never been included in the first instance; at least between 2010 and 2012, we improperly deducted from gross revenues certain transaction fees and other expenses - for instance, credit card processing fees, collection fees and sales and use taxes - that are purportedly not permitted by the Copyright Royalty Board regulations; at least between 2010 and 2012, we improperly deducted amounts attributable to performances of recordings claimed to be directly licensed on both our satellite radio and internet radio services, even though they were not; at least between 2010 and 2012, we improperly excluded from royalty calculations performances of recordings less than thirty seconds long under the provisions of the Copyright Royalty Board regulations and the Webcaster Settlement Agreement; from 2010 through 2012, we excluded from royalty calculations performances of songs on our internet radio services that we claimed we were unable to identify; we owe associated late fees for the previously identified underpayments under the applicable Copyright Royalty Board regulations; and we have underpaid SoundExchange by an amount exceeding 10% of the royalty payment and we are therefore obligated to pay the reasonable costs of an audit. We believe that we properly applied in all material respects the regulations established by the Copyright Royalty Board. SoundExchange is seeking compensatory damages in an amount to be determined at trial from the alleged underpayments, unspecified late fees and penalties pursuant to the Copyright Royalty Board's regulations and the Webcaster Settlement Agreement and costs, including reasonable attorney fees and expenses.

This matter is titled SoundExchange, Inc. v. Sirius XM Radio, Inc., No.17-cv-02666-RJL (D.D.C.). Information concerning SoundExchange II is publicly available in filings under the docket number.

As of December 31, 2017, we concluded a loss, in excess of our recorded liabilities, was considered remote in connection with SoundExchange I or SoundExchange II. The assumptions underlying our conclusions may change from time to time and the actual loss may vary from the amounts recorded.

Telephone Consumer Protection Act Suits. On March 13, 2017, Thomas Buchanan, individually and on behalf of all others similarly situated, filed a class action complaint against us in the United States District Court for the Northern District of Texas, Dallas Division. The plaintiff in this action alleges that we violated the Telephone Consumer Protection Act of 1991 (the "TCPA") by, among other things, making telephone solicitations to persons on the National Do-Not-Call registry, a database established to allow consumers to exclude themselves from telemarketing calls unless they consent to receive the calls in a signed, written agreement, and making calls to consumers in violation of our internal Do-Not-Call registry. The plaintiff is seeking various forms of relief, including statutory damages of five hundred dollars for each violation of the TCPA or, in the alternative, treble damages of up to fifteen hundred dollars for each knowing and willful violation of the TCPA and a permanent injunction prohibiting us from making, or having made, any calls to land lines that are listed on the National Do-Not-Call registry or our internal Do-Not-Call registry. We believe we have substantial defenses to the claims asserted in this action, and we intend to defend this action vigorously.

Other Matters. In the ordinary course of business, we are a defendant in various other lawsuits and arbitration proceedings, including derivative actions; actions filed by subscribers, both on behalf of themselves and on a class action basis; former employees; parties to contracts or leases; and owners of patents, trademarks, copyrights or other intellectual property. None of these other matters, in our opinion, is likely to have a material adverse effect on our business, financial condition or results of operations.

(Dollars and shares in thousands, except per share amounts)

(15) Income Taxes

There is no current U.S. federal income tax provision, as all federal taxable income was offset by utilizing U.S. federal net operating loss carryforwards. The current state income tax provision is primarily related to taxable income in certain States that have suspended or limited the ability to use net operating loss carryforwards or where net operating losses have been fully utilized. The current foreign income tax provision is primarily related to foreign withholding taxes on dividends paid to us by Sirius XM Canada. Income tax expense is the sum of current income tax plus the change in deferred tax assets and liabilities.

Sirius XM and its wholly-owned subsidiaries are included in the consolidated federal income tax returns of Holdings. Holdings files a consolidated federal income tax return with its wholly-owned subsidiaries, including Sirius XM. Income tax expense consisted of the following:

	For the Years Ended December 31,		
	2017	2016	2015
Current taxes:			
Federal	$ —	$ —	$ —
State	(32,579)	(21,782)	(15,916)
Foreign	(202)	(383)	(825)
Total current taxes	(32,781)	(22,165)	(16,741)
Deferred taxes:			
Federal	(564,171)	(304,179)	(318,933)
State	(19,349)	(19,383)	(46,566)
Total deferred taxes	(583,520)	(323,562)	(365,499)
Total income tax expense	$ (616,301)	$ (345,727)	$ (382,240)

Income tax expense for Sirius XM and Holdings was the same for the years ended December 31, 2017, 2016 and 2015. The following table presents a reconciliation of the U.S. federal statutory tax rate and our effective tax rate:

	For the Years Ended December 31,		
	2017	2016	2015
Federal tax expense, at statutory rate	35.0 %	35.0 %	35.0%
State income tax expense, net of federal benefit	2.8 %	2.8 %	2.9%
Change in valuation allowance	(0.1)%	— %	4.9%
Tax credit	(1.7)%	(6.1)%	—%
Stock-based compensation	(2.9)%	(0.6)%	—%
Federal tax reform - deferred rate change	14.6 %	— %	—%
Other, net	1.0 %	0.6 %	0.1%
Effective tax rate	48.7 %	31.7 %	42.9%

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cut and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code that affects 2017, including, but not limited to, accelerated depreciation that will allow for full expensing of qualified property. The Tax Act also establishes new tax laws that will affect 2018 and after, including a reduction in the U.S. federal corporate income tax rate from 35% to 21%.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”), which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under ASC 740, *Income Taxes*. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under

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ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record and provisional estimate in the financial statements.

As a result of the reduction of the federal corporate income tax rate, we have revalued our net deferred tax asset, excluding after tax credits, as of December 31, 2017. Based on this revaluation, we have recorded a net tax expense of $184,599 to reduce our net deferred tax asset balance, which was recorded as additional income tax expense for the year ended December 31, 2017. Our effective tax rate increased by 14.6% to 48.7% primarily as a result of the revaluation of our net deferred tax asset. We have recorded provisional adjustments but we have not completed our accounting for income tax effects for certain elements of the Tax Act, principally due to the accelerated depreciation that will allow for full expensing of qualified property.

For the year ended December 31, 2017 and 2016, we recorded a tax credit under the Protecting Americans from Tax Hikes Act of 2015 related to research and development activities. For the year ended December 31, 2015, we recorded additional tax expense to increase our valuation allowance due to a tax law change in the District of Columbia which will reduce our future tax and will limit our ability to use certain net operating losses in the future.

Deferred income taxes are recognized for the tax consequences related to temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for tax purposes at each year-end, based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences can be carried forward under tax law. Our evaluation of the realizability of deferred tax assets considers both positive and negative evidence, including historical financial performance, scheduled reversal of deferred tax assets and liabilities, projected taxable income and tax planning strategies. The weight given to the potential effects of positive and negative evidence is based on the extent to which it can be objectively verified. A valuation allowance is recognized when, based on the weight of all available evidence, it is considered more likely than not that all, or some portion, of the deferred tax assets will not be realized.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities, shown before jurisdictional netting, are presented below:

	For the Years Ended December 31,	
	2017	**2016**
Deferred tax assets:		
Net operating loss carryforwards and tax credits	$ 686,277	$ 1,376,012
Deferred revenue	500,461	760,774
Accrued bonus	24,150	35,225
Expensed costs capitalized for tax	13,914	19,610
Investments	29,881	44,129
Stock based compensation	50,065	74,544
Other	20,819	31,133
Total deferred tax assets	1,325,567	2,341,427
Deferred tax liabilities:		
Depreciation of property and equipment	(156,003)	(259,491)
FCC license	(506,578)	(783,822)
Other intangible assets	(105,471)	(172,520)
Other	(7,273)	—
Total deferred tax liabilities	(775,325)	(1,215,833)
Net deferred tax assets before valuation allowance	550,242	1,125,594
Valuation allowance	(52,883)	(47,682)
Total net deferred tax asset	$ 497,359	$ 1,077,912

(Dollars and shares in thousands, except per share amounts)

Net operating loss carryforwards decreased as a result of the utilization of net operating losses related to current year taxable income and due to the Tax Act. For the years ended December 31, 2017 and 2016, we recorded a $21,700 and a $66,326 tax credit, respectively, under the Protecting Americans from Tax Hikes Act of 2015 related to research and development activities. For the year ended December 31, 2016, we recognized $293,896 of additional net operating losses related to excess share-based compensation deductions due to our adoption of ASU 2016-09, *Compensation-Stock Compensation (Topic 718)*. Our net deferred tax assets were primarily related to gross federal net operating loss carryforwards of approximately $1,977,407.

As of December 31, 2017 and 2016, we had a valuation allowance related to deferred tax assets of $52,883 and $47,682, respectively, which were not likely to be realized due to certain state net operating loss limitations. During the year ended December 31, 2017, our valuation allowance increased primarily due to the impact of the Tax Act as the federal rate decreases from 35% to 21% affected the value of the state valuation allowances. The net operating loss carryforwards upon which the valuation allowance is assessed are projected to expire on various dates through 2035.

ASC 740, *Income Taxes*, requires a company to first determine whether it is more likely than not that a tax position will be sustained based on its technical merits as of the reporting date, assuming that taxing authorities will examine the position and have full knowledge of all relevant information. A tax position that meets this more likely than not threshold is then measured and recognized at the largest amount of benefit that is greater than fifty percent likely to be realized upon effective settlement with a taxing authority. If the tax position is not more likely than not to be sustained, the gross amount of the unrecognized tax position will not be recorded in the financial statements but will be shown in tabular format within the uncertain income tax positions. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs due to the following conditions: (1) the tax position is “more likely than not” to be sustained, (2) the tax position, amount, and/or timing is ultimately settled through negotiation or litigation, or (3) the statute of limitations for the tax position has expired. A number of years may elapse before an uncertain tax position is effectively settled or until there is a lapse in the applicable statute of limitations. We record interest and penalties related to uncertain tax positions in Income tax expense in our consolidated statements of comprehensive income.

As of December 31, 2017 and 2016, the gross liability for income taxes associated with uncertain tax positions was $334,254 and $303,583, respectively. If recognized, $256,525 of unrecognized tax benefits would affect our effective tax rate. Uncertain tax positions are recognized in Other long-term liabilities which, as of December 31, 2017 and 2016, were $12,190 and $4,780, respectively. No penalties have been accrued.

We have state income tax audits pending. We do not expect the ultimate outcome of these audits to have a material adverse effect on our financial position or results of operations. We also do not currently anticipate that our existing reserves related to uncertain tax positions as of December 31, 2017 will significantly increase or decrease during the twelve month period ending December 31, 2018. Various events could cause our current expectations to change. Should our position with respect to the majority of these uncertain tax positions be upheld, the effect would be recorded in our consolidated statements of comprehensive income as part of the income tax provision. We recorded interest expense of $708 and $100 for the years ended December 31, 2017 and 2016, respectively, related to unrecognized tax benefits.

Changes in our uncertain income tax positions, from January 1 through December 31 are presented below:

	2017	2016
Balance, beginning of year	$ 303,583	$ 253,277
Increases in tax positions for prior years	14,530	—
Increases in tax positions for current years	16,141	51,738
Decreases in tax positions for prior years	—	(1,432)
Balance, end of year	$ 334,254	$ 303,583

(16) Subsequent Events

For the period from January 1, 2018 to January 29, 2018, we repurchased $202,006 of Holdings' common stock on the open market, including fees and commissions.

SIRIUS XM RADIO INC. AND SUBSIDIARIES
(a wholly-owned subsidiary of Sirius XM Holdings Inc.)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Dollars and shares in thousands, except per share amounts)

On January 23, 2018, Holdings' board of directors approved an additional $2,000,000 for repurchase of Holdings' common stock. The new approval increases the amount of common stock that we have been authorized to repurchase to an aggregate of $12,000,000. Shares of common stock may be purchased from time to time on the open market and in privately negotiated transactions, including in accelerated stock repurchase transactions and transactions with Liberty Media and its affiliates. We intend to fund the additional repurchases through a combination of cash on hand, cash generated by operations and future borrowings.

On January 23, 2018, Holdings' board of directors declared a quarterly dividend on Holdings' common stock in the amount of $0.011 per share of common stock payable on February 28, 2018 to Holdings' stockholders of record as of the close of business on February 7, 2018.

(17) Quarterly Financial Data--Unaudited

Our quarterly results of operations are summarized below:

	For the Three Months Ended			
	March 31	June 30	September 30	December 31
2017 (1)				
Total revenue	$ 1,294,066	$ 1,347,569	$ 1,379,596	$ 1,403,898
Cost of services	$ (497,107)	$ (513,446)	$ (519,024)	$ (572,405)
Income from operations	$ 393,840	$ 416,353	$ 433,965	$ 396,706
Net income (loss)	$ 207,073	$ 202,109	$ 275,722	$ (36,996)
2016 (1)				
Total revenue	$ 1,201,010	$ 1,235,566	$ 1,277,646	$ 1,302,998
Cost of services	$ (467,028)	$ (486,317)	$ (488,659)	$ (551,323)
Income from operations	$ 348,234	$ 362,156	$ 392,179	$ 329,560
Net income (2)	$ 172,440	$ 174,965	$ 193,901	$ 204,627

(1) Net income (loss) per share for Sirius XM is not presented since Sirius XM is a wholly-owned subsidiary of Holdings.

(2) These amounts reflect the adoption of ASU 2016-09, *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*.