

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission File Number: 1-33409



T-MOBILE US, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation or organization)

12920 SE 38th Street, Bellevue, Washington

(Address of principal executive offices)

20-0836269

(I.R.S. Employer Identification No.)

98006-1350

(Zip Code)

(425) 378-4000

(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, \$0.00001 par value per share	The NASDAQ Stock Market LLC

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Rule 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer

Non-accelerated filer Smaller reporting company

Emerging growth company

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of June 30, 2018, the aggregate market value of the voting and non-voting common equity held by non-affiliates was \$18.3 billion based on the closing sale price as reported on the NASDAQ Global Select Market. As of February 4, 2019, there were 850,221,464 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K will be incorporated by reference from certain portions of the definitive Proxy Statement for the Registrant's Annual Meeting of Stockholders, which definitive Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A or will be included in an amendment to this Report.

T-Mobile US, Inc.
Form 10-K
For the Year Ended December 31, 2018

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Cautionary Statement Regarding Forward-Looking Statements

This Annual Report on Form 10-K (“ Form 10-K ”) includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, including information concerning our future results of operations, are forward-looking statements. These forward-looking statements are generally identified by the words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “could” or similar expressions. Forward-looking statements are based on current expectations and assumptions, which are subject to risks and uncertainties and may cause actual results to differ materially from the forward-looking statements. The following important factors, along with the Risk Factors included in Part I, Item 1A of this Form 10-K, could affect future results and cause those results to differ materially from those expressed in the forward-looking statements:

- the failure to obtain, or delays in obtaining, required regulatory approvals for the merger (the “Merger”) with Sprint Corporation (“Sprint”), pursuant to the Business Combination Agreement with Sprint and other parties therein (the “Business Combination Agreement”) and the other transactions contemplated by the Business Combination Agreement (collectively, the “Transactions”), and the risk that such approvals may result in the imposition of conditions that could adversely affect the combined company or the expected benefits of the Transactions, or the failure to satisfy any of the other conditions to the Transactions on a timely basis or at all;
- the occurrence of events that may give rise to a right of one or both of the parties to terminate the Business Combination Agreement;
- adverse effects on the market price of our common stock or on our operating results because of a failure to complete the Merger in the anticipated timeframe or at all;
- inability to obtain the financing contemplated to be obtained in connection with the Transactions on the expected terms or timing or at all;
- the ability of us, Sprint and the combined company to make payments on debt or to repay existing or future indebtedness when due or to comply with the covenants contained therein;
- adverse changes in the ratings of our or Sprint’s debt securities or adverse conditions in the credit markets;
- negative effects of the announcement, pendency or consummation of the Transactions on the market price of our common stock and on our or Sprint’s operating results, including as a result of changes in key customer, supplier, employee or other business relationships;
- significant costs related to the Transactions, including financing costs and unknown liabilities of Sprint or that may arise;
- failure to realize the expected benefits and synergies of the Transactions in the expected timeframes or at all;
- costs or difficulties related to the integration of Sprint’s network and operations into our network and operations;
- the risk of litigation or regulatory actions related to the Transactions;
- the inability of us, Sprint or the combined company to retain and hire key personnel;
- the risk that certain contractual restrictions contained in the Business Combination Agreement during the pendency of the Transactions could adversely affect our or Sprint’s ability to pursue business opportunities or strategic transactions;
- adverse economic or political conditions in the U.S. and international markets;
- competition, industry consolidation, and changes in the market for wireless services, which could negatively affect our ability to attract and retain customers;
- the effects of any future merger, investment, or acquisition involving us, as well as the effects of mergers, investments, or acquisitions in the technology, media and telecommunications industry;
- challenges in implementing our business strategies or funding our operations, including payment for additional spectrum or network upgrades;
- the possibility that we may be unable to renew our spectrum licenses on attractive terms or acquire new spectrum licenses at reasonable costs and terms;
- difficulties in managing growth in wireless data services, including network quality;
- material changes in available technology and the effects of such changes, including product substitutions and deployment costs and performance;
- the timing, scope and financial impact of our deployment of advanced network and business technologies;
- the impact on our networks and business from major technology equipment failures;
- breaches of our and/or our third-party vendors’ networks, information technology (“IT”) and data security, resulting in unauthorized access to customer confidential information;

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- natural disasters, terrorist attacks or similar incidents;
- unfavorable outcomes of existing or future litigation;
- any changes in the regulatory environments in which we operate, including any increase in restrictions on the ability to operate our networks and changes in data privacy laws;
- any disruption or failure of our third parties' or key suppliers' provisioning of products or services;
- material adverse changes in labor matters, including labor campaigns, negotiations or additional organizing activity, and any resulting financial, operational and/or reputational impact;
- changes in accounting assumptions that regulatory agencies, including the Securities and Exchange Commission ("SEC"), may require, which could result in an impact on earnings;
- changes in tax laws, regulations and existing standards and the resolution of disputes with any taxing jurisdictions;
- the possibility that the reset process under our trademark license results in changes to the royalty rates for our trademarks;
- the possibility that we may be unable to adequately protect our intellectual property rights or be accused of infringing the intellectual property rights of others;
- our business, investor confidence in our financial results and stock price may be adversely affected if our internal controls are not effective; and
- interests of a majority stockholder may differ from the interests of other stockholders.

Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. In this Form 10-K, unless the context indicates otherwise, references to "T-Mobile," "T-Mobile US," "our Company," "the Company," "we," "our," and "us" refer to T-Mobile US, Inc., a Delaware corporation, and its wholly-owned subsidiaries.

Investors and others should note that we announce material financial and operational information to our investors using our investor relations website, press releases, SEC filings and public conference calls and webcasts. We intend to also use the @TMobileIR Twitter account (<https://twitter.com/TMobileIR>) and the @JohnLegere Twitter (<https://twitter.com/JohnLegere>), Facebook and Periscope accounts, which Mr. Legere also uses as means for personal communications and observations, as means of disclosing information about us and our services and for complying with our disclosure obligations under Regulation FD. The information we post through these social media channels may be deemed material. Accordingly, investors should monitor these social media channels in addition to following our press releases, SEC filings and public conference calls and webcasts. The social media channels that we intend to use as a means of disclosing the information described above may be updated from time to time as listed on our investor relations website.

PART I.

Item 1. Business

Business Overview and Strategy

Un-carrier Strategy

We are the Un-carrier. Through our Un-carrier strategy, we've disrupted the wireless communication services industry by listening to our customers and providing them with added value and an exceptional experience, including implementing signature initiatives that changed the wireless industry forever. We ended annual service contracts, overages, unpredictable international roaming fees, data buckets and more. Customer response to our Un-carrier strategy has allowed us to grow into the third largest wireless provider in the United States. We will continue our relentless focus on customers and are determined to bring the Un-carrier to every potential customer in the United States.

Our relentless focus on customer experience through increased investment in network expansion, customer care, distribution expansion, and digital initiatives has strengthened our customer growth and increased customer retention and satisfaction, including the growing success of new customer segments and rate plans such as T-Mobile ONE 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials as well as continued growth in existing and Greenfield markets. We continue to invest and innovate in these areas to deliver our customers the best value in the industry. Everything we do is powered by our nationwide 4G Long-Term Evolution ("LTE") network, and we are rapidly preparing for the next generation of 5G services. Going forward, it is this network that will allow us to deliver innovative new products and services with the same customer focused and industry disrupting mentality that has redefined wireless service in the United States.

History

T-Mobile USA, Inc. (“T-Mobile USA”), a Delaware corporation, was formed in 1994 as VoiceStream Wireless PCS (“VoiceStream”), a subsidiary of Western Wireless Corporation (“Western Wireless”). VoiceStream was spun off from Western Wireless in 1999, acquired by Deutsche Telekom AG (“DT”) in 2001 and renamed T-Mobile USA, Inc. in 2002.

In 2013, T-Mobile US, Inc., a Delaware corporation, was formed through the business combination of T-Mobile USA and MetroPCS Communications, Inc. (“MetroPCS”). The business combination was accounted for as a reverse acquisition with T-Mobile USA as the accounting acquirer. Accordingly, T-Mobile USA’s historical financial statements became the historical financial statements of the combined company.

In September 2018, we announced the rebranding of our prepaid brand, MetroPCS, as Metro™ by T-Mobile.

Business

We provide wireless services to 79.7 million postpaid, prepaid and wholesale customers and generate revenue by providing affordable wireless communication services to these customers, as well as a wide selection of wireless devices and accessories. Our most significant expenses relate to acquiring and retaining high-quality customers, providing a full range of devices, compensating employees, and operating and expanding our network. We provide service, devices and accessories across our flagship brands, T-Mobile and Metro by T-Mobile, through our owned and operated retail stores, as well as through our websites (www.T-Mobile.com and www.MetroPCS.com) and customer care channels. In addition, we sell devices to dealers and other third-party distributors for resale through independent third-party retail outlets and a variety of third-party websites. The information on our websites is not part of this Form 10-K. See [Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations](#) for additional information.

In 2018, we completed the acquisition of television innovator Layer3 TV, Inc. (“Layer3 TV”). This transaction represented an opportunity to acquire a complementary service to our existing wireless service to advance our video strategy. For more information, see [Note 2 – Business Combinations](#) of the Notes to the Consolidated Financial Statements .

On April 29, 2018, we entered into the Business Combination Agreement with Sprint to merge in an all-stock transaction. The combined company will be named “T-Mobile,” and as a result of the Merger, is expected to be able to rapidly launch a nationwide 5G network, accelerate innovation and increase competition in the U.S. wireless, video and broadband industries. The Merger is subject to regulatory approvals and certain other customary closing conditions. We expect to receive regulatory approval in the first half of 2019. For more information regarding our Business Combination Agreement, see [Note 2 – Business Combinations](#) of the Notes to the Consolidated Financial Statements .

Customers

We provide wireless communication services to three primary categories of customers:

- Branded postpaid customers generally include customers who are qualified to pay after receiving wireless communication services utilizing phones, DIGITS or connected devices which includes tablets, wearables and SyncUp DRIVE™;
- Branded prepaid customers generally include customers who pay for wireless communication services in advance. Our branded prepaid customers include customers of T-Mobile and Metro by T-Mobile; and
- Wholesale customers include Machine-to-Machine (“M2M”) and Mobile Virtual Network Operator (“MVNO”) customers that operate on our network but are managed by wholesale partners.

We generate the majority of our service revenues by providing wireless communication services to branded postpaid and branded prepaid customers. Our ability to acquire and retain branded postpaid and prepaid customers is important to our business in the generation of service revenues, equipment revenues and other revenues. In 2018 , our service revenues generated by providing wireless communication services by customer category were:

- 65% Branded postpaid customers;
- 30% Branded prepaid customers; and
- 5% Wholesale customers and Roaming and other services.

All of our revenues for the years ended December 31, 2018 , 2017 , and 2016 were earned in the United States, including Puerto Rico and the U.S. Virgin Islands.

Services and Products

We provide wireless communication services through a variety of service plan options. We also offer a wide selection of wireless devices, including smartphones, tablets and other mobile communication devices, which are manufactured by various suppliers.

Our primary service plan offering, which allows customers to subscribe for wireless communication services separately from the purchase of a device is our T-Mobile ONE plan (“T-Mobile ONE”), which includes:

- Unlimited talk, unlimited text and unlimited high-speed 4G LTE data on their device, where monthly wireless service fees and sales taxes are included in the advertised monthly recurring charge;
- Video that typically streams at DVD (480p) quality and tethering is at maximum 3G speeds;
- The ability for customers to keep their price for service until they decide to change it;
- The ability for qualifying T-Mobile ONE customers on family plans to opt in for a standard monthly Netflix service plan at no additional cost; and
- The ability for customers to choose to add on additional features for an additional cost on T-Mobile ONE Plus, where customers also receive:
 - Unlimited high definition video streaming;
 - 20 GB of high-speed 4G LTE tethering;
 - Voicemail to Text, NameID and unlimited Gogo in-flight internet passes on capable domestic flights; and
 - Up to two times faster speeds when traveling abroad in 210+ countries and destinations.

Depending on their credit profile, customers are qualified either for postpaid or prepaid service.

Our device options for customers on T-Mobile ONE, and previously on Simple Choice plans, include:

- for qualifying customers, depending on their credit profile, the option of financing all or a portion of the device purchase price at the time of sale over an installment period of up to 36 months using an EIP.
- for qualifying customers who finance their initial device with an EIP, an option to enroll in our Just Upgrade My Phone (“JUMP! ®”) program to later upgrade their device. Upon a qualifying JUMP! upgrade, the customer’s remaining EIP balance is settled provided they trade-in their used device at the time of upgrade in good working condition and purchase a new device from us on a new EIP.
- JUMP! On Demand™ includes a low monthly payment that covers the cost of leasing a new device and gives qualified customers the freedom to exchange it for a new device up to one time per month for no extra fee. Upon device upgrade or at lease end, customers must return their device in good working condition or purchase their device. Customers that choose to purchase their device have the option to finance their device over a nine-month EIP.

Network

We continue to expand the footprint and increase the capacity of our network to better serve our customers. Our advancements in network technology and our spectrum resources ensure we can continue to increase the capabilities of our 4G LTE network as we prepare for our nationwide deployment of 5G.

Spectrum Growth

We provide wireless communication services utilizing mid-band spectrum licenses, such as Advanced Wireless Services (“AWS”) and Personal Communications Service (“PCS”), and low-band spectrum licenses utilizing our 600 MHz and 700 MHz spectrum.

- We owned an average of 110 MHz of spectrum nationwide as of December 31, 2018 , comprised of an average of 31 MHz in the 600 MHz band, 10 MHz in the 700 MHz band, 29 MHz in the 1900 MHz PCS band and 40 MHz in the AWS band. We also own millimeter wave spectrum that comprises an average of 264 MHz covering over 110 million points of presence (“POPs”) in the 28 GHz band and 105 MHz covering nearly 45 million POPs in the 39 GHz band.

We will evaluate future spectrum purchases in current and upcoming auctions and in the secondary market to augment our current spectrum position.

- As of December 31, 2018, we owned a nationwide average of 31 MHz of 600 MHz low-band spectrum. We now own approximately 41 MHz of low-band spectrum (600 MHz and 700 MHz), covering 100% of the U.S.
 - We are building out 5G across the US, including deployment in six of the top 10 markets, including New York and Los Angeles, in 2018. This network will be ready for the introduction of the first standards-based 5G smartphones in 2019. We plan on the delivery of a nationwide standards-based network next year.
 - In 2018, we entered into two multi-year contracts that will support the deployment of a nationwide 5G network. In July 2018, we and Nokia entered into a multi-year \$3.5 billion contract for Nokia to provide us with complete end-to-end 5G technology, software and services. In September 2018, we and Ericsson announced a multi-year \$3.5 billion contract in which Ericsson will provide us with the latest 5G New Radio hardware and software compliant with 3rd Generation Partnership Project (“3GPP”) standards.
 - We have started deployment of 600 MHz spectrum on an aggressive schedule. As of December 31, 2018, we were live in more than 2,700 cities and towns in 43 states and Puerto Rico covering hundreds of thousands of square miles. Combining 600 and 700 MHz spectrum, we have deployed low band spectrum to 301 million POPs.
 - We have actively engaged with broadcasters to accelerate the Federal Communications Commission (“FCC”) spectrum clearance timelines, entering into 95 agreements with several parties. These agreements are expected to, in aggregate, accelerate clearing, bringing the total clearing target to approximately 272 million POPs by year-end 2019. As of December 31, 2018, we had cleared approximately 135 million POPs. We remain committed to assisting broadcasters occupying 600 MHz spectrum to move to new frequencies.
 - We currently have 29 devices compatible with 600 MHz including the latest iPhone generation.
 - We expect our 600 MHz spectrum holdings will be used to deploy America’s first nationwide standards-based 5G network next year. 600 MHz 4G LTE radios are software upgradeable to support 5G as it becomes available later this year.
- Over the last year, we have entered into and closed on various agreements for the acquisition and exchange of 700 MHz A-Block, AWS and PCS spectrum licenses. See [Note 6 – Goodwill, Spectrum License Transactions and Other Intangible Assets](#) of the Notes to the Consolidated Financial Statements for further information.
- We intend to opportunistically acquire spectrum licenses in private party transactions and future FCC spectrum license auctions.

Network Coverage Growth

- We continue to expand our coverage breadth and, as of December 31, 2018, covered more than 325 million people with 4G LTE.
- As of December 31, 2018, we had equipment deployed on approximately 64,000 macro towers and 21,000 distributed antenna system (“DAS”) and small cell sites. We remain on plan to roll out approximately 20,000 small cells through 2019.

Network Speed Leadership

We offer the fastest nationwide 4G LTE upload and download speeds in the United States. The fourth quarter of 2018 is the 20th consecutive quarter we have led the industry in both categories based on the results of millions of user-generated speed tests.

Network Capacity Growth

We continue to expand our capacity through the re-farming of existing spectrum and implementation of new technologies including Voice over LTE (“VoLTE”), Carrier Aggregation, 4x4 multiple-input and multiple-output (“MIMO”), 256 Quadrature Amplitude Modulation (“QAM”) and Licensed Assisted Access (“LAA”).

- VoLTE comprised 87% of total voice calls as of December 31, 2018, compared to 80% as of December 31, 2017. Moving voice traffic to VoLTE frees up spectrum and allows for the transition of spectrum currently used for 2G and 3G to 4G LTE. We are leading the U.S. wireless industry in the rate of VoLTE adoption.
- Carrier aggregation is live for our customers in 923 markets. This advanced technology delivers superior speed and

performance by bonding multiple discrete spectrum channels together.

- 4x4 MIMO is currently available in 564 markets. This technology effectively delivers twice the speed and incremental network capacity to customers by doubling the number of data paths between the cell site and a customer's device. We started deploying massive MIMO (FD-capable and 5G with future software upgrades) in selected locations in late 2018.
- We have rolled out 256 QAM in 988 markets. 256 QAM increases the number of bits delivered per transmission to enable faster speeds. We are the first carrier globally to have rolled out the combination of carrier aggregation, 4x4 MIMO and 256 QAM. This trifecta of standards has been rolled out to more than 500 markets.
- We have also started rolling out LAA, a technology which utilizes unlicensed 5 GHz spectrum to augment available bandwidth. The first LAA small cell went live in New York City in the fourth quarter of 2017 and the technology has since been rolled out to nearly 1,700 cell sites, the vast majority being small cells. Deployments of LAA have also commenced in 28 cities including Los Angeles, Philadelphia, Washington DC, Atlanta, Houston, Las Vegas, San Diego and New Orleans. In areas where LAA has been deployed, customers with capable handsets have observed real-life speeds in excess of 500 Mbps.
- In July 2018, we launched our Narrowband Internet of Things (“NB-IoT”) service nationwide, making us the first to launch NB-IoT in the U.S. and the first in the world to launch NB-IoT in the guard bands for improved efficiency. Built on the 3GPP standard, NB-IoT is a low power, wide area network LTE-advanced technology that provides a pathway to 5G Internet of Things and enables many comparable benefits like low power usage, long battery life and low device cost.

Competition

The wireless telecommunications industry is highly competitive. We are the third largest provider of postpaid service plans and the largest provider of prepaid service plans in the U.S. as measured by customers. Our competitors include other national carriers, such as AT&T Inc. (“AT&T”), Verizon Communications, Inc. (“Verizon”) and Sprint. AT&T and Verizon are significantly larger than us and enjoy greater resources and scale advantages as compared to us. In addition, our competitors include numerous smaller regional carriers, existing mobile virtual network operators (“MVNOs”), including TracFone Wireless, Inc., Comcast Corporation (“Comcast”) and Charter Communications, Inc., and future MVNOs, such as Altice USA, Inc., many of which offer or plan to offer no-contract, postpaid and prepaid service plans. Competitors also include providers who offer similar communication services, such as voice, messaging and data services, using alternative technologies or services. Competitive factors within the wireless telecommunications industry include pricing, market saturation, service and product offerings, customer experience, network investment and quality, development and deployment of technologies, availability of additional spectrum licenses and regulatory changes. Some competitors have shown a willingness to use aggressive pricing as a source of differentiation. Other competitors have sought to add ancillary services, like mobile video, to enhance their offerings. Taken together, the competitive factors we face continue to put pressure on growth and margins as companies compete to retain the current customer base and continue to add new customers.

Employees

As of December 31, 2018, we employed approximately 52,000 full-time and part-time employees, including network, retail, administrative and customer support functions.

Regulation

The FCC regulates many key aspects of our business, including licensing, construction, the operation and use of our network, modifications of our network, control and ownership of our licenses and authorizations, the sale, transfer and acquisition of certain licenses, domestic roaming arrangements and interconnection agreements, pursuant to its authority under the Communications Act of 1934, as amended (“Communications Act”). The FCC has a number of complex requirements and proceedings that affect our operations and that could increase our costs or diminish our revenues. For example, the FCC has rules regarding provision of 911 and E-911 services, porting telephone numbers, interconnection, roaming, internet openness or net neutrality, disabilities access, privacy and cybersecurity, consumer protection, and the universal service and Lifeline programs. Many of these and other issues are being considered in ongoing proceedings, and we cannot predict whether or how such actions will affect our business, financial condition or results of operations. Our ability to provide services and generate revenues could be harmed by adverse regulatory action or changes to existing laws and regulations. In addition, regulation of companies that offer competing services can impact our business indirectly.

Wireless communications providers must be licensed by the FCC to provide communications services at specified spectrum frequencies within specified geographic areas and must comply with the rules and policies governing the use of the spectrum as

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adopted by the FCC. The FCC issues each license for a fixed period of time, typically 10-15 years depending on the particular licenses. While the FCC has generally renewed licenses given to operating companies like us, the FCC has authority to both revoke a license for cause and to deny a license renewal if a renewal is not in the public interest. Furthermore, we could be subject to fines, forfeitures and other penalties for failure to comply with FCC regulations, even if any such non-compliance was unintentional. In extreme cases, penalties can include revocation of our licenses. The loss of any licenses, or any related fines or forfeitures, could adversely affect our business, results of operations and financial condition.

Additionally, Congress' and the FCC's allocation of additional spectrum for broadband commercial mobile radio service ("CMRS"), which includes cellular, PCS, miscellaneous wireless services and specialized mobile radio, could significantly increase competition. We cannot assess the impact that any developments that may occur in the U.S. economy or any future spectrum allocations by the FCC may have on license values. FCC spectrum auctions and other market developments may adversely affect the market value of our licenses in the future. A significant decline in the value of our licenses could adversely affect our financial condition and results of operations. In addition, the FCC periodically reviews its policies on how to evaluate carriers' spectrum holdings. A change in these policies could affect spectrum resources and competition among us and other carriers.

Congress and the FCC have imposed limitations on foreign ownership of CMRS licensees that exceed 20% direct ownership or 25% indirect ownership. The FCC has ruled that higher levels of indirect foreign ownership, even up to 100%, are presumptively consistent with the public interest albeit subject to review. Consistent with that established policy, the FCC has issued a declaratory ruling authorizing up to 100% ownership of our Company by DT. This declaratory ruling, and our licenses, are conditioned on DT's and the Company's compliance with a network security agreement with the Department of Justice, the Federal Bureau of Investigation and the Department of Homeland Security. Failure to comply with the terms of this agreement could result in fines, injunctions and other penalties, including potential revocation of our spectrum licenses.

While the Communications Act generally preempts state and local governments from regulating the entry of, or the rates charged by, wireless communication providers, certain state and local governments regulate other terms and conditions of wireless service, including billing, termination of service arrangements and the imposition of early termination fees, advertising, network outages, the use of devices while driving, zoning and land use. Additionally, after the FCC's adoption of the 2017 "Restoring Internet Freedom" Order, a number of states have sought to impose state-specific net neutrality and privacy requirements on providers' broadband services. The FCC ruling broadly preempts such state efforts, which are inconsistent with the FCC's federal deregulatory approach, and there are pending court challenges that will determine if such state enactments are lawful. While most states are largely seeking to codify the repealed federal rules, there are differences in some states, notably California, which has passed separate privacy and net neutrality legislation. There are efforts on the Hill to push for federal legislation to codify uniform federal privacy and net neutrality requirements, while also ensuring the preemption of separate state requirements, including the California laws. If not rescinded, separate state requirements will impose significant business costs and could also result in increased litigation costs and enforcement risks. State authority over wireless broadband services will remain unsettled until final action by the courts or Congress.

In addition, the Federal Trade Commission ("FTC") and other federal agencies have jurisdiction over some consumer protection and elimination and prevention of anticompetitive business practices with respect to the provision of non-common carrier services. Further, the FCC and the Federal Aviation Administration regulate the siting, lighting and construction of transmitter towers and antennae. Tower siting and construction are also subject to state and local zoning, as well as federal statutes regarding environmental and historic preservation. The future costs to comply with all relevant regulations are to some extent unknown and changes to regulations, or the applicability of regulations, could result in higher operating and capital expenses, or reduced revenues in the future.

Available Information

The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically at www.sec.gov. Our Form 10-K and all other reports and amendments filed with or furnished to the SEC are also publicly available free of charge on the investor relations section of our website at investor.t-mobile.com as soon as reasonably practicable after these materials are filed with or furnished to the SEC. Our corporate governance guidelines, code of ethics for senior financial officers, code of business conduct, and charters for the audit, compensation, nominating and corporate governance and executive committees of our Board of Directors are also posted on the investor relations section of our website at investor.t-mobile.com. The information on our websites is not part of this or any other report we file with, or furnish to, the SEC.

Item 1A. Risk Factors

In addition to the other information contained in this Form 10-K, the following risk factors should be considered carefully in evaluating our Company. Our business, financial condition, liquidity, or operating results, as well as the price of our common stock and other securities, could be materially adversely affected by any of these risks.

Risks Related to Our Business and the Wireless Industry

Competition, industry consolidation, and changes in the market for wireless services could negatively affect our ability to attract and retain customers and adversely affect our business, financial condition, and operating results.

We have multiple wireless competitors, some of which have greater resources than us and compete for customers based principally on service/device offerings; price; network coverage, speed and quality and customer service. We expect market saturation to continue to cause the wireless industry's customer growth rate to be moderate in comparison with historical growth rates, or possibly negative, leading to ongoing competition for customers. We also expect that our customers' appetite for data services will place increasing demands on our network capacity. This competition and our capacity will continue to put pressure on pricing and margins as companies compete for potential customers. Our ability to compete will depend on, among other things, continued absolute and relative improvement in network quality and customer service, effective marketing and selling of products and services, innovation, attractive pricing, and cost management, all of which will involve significant expenses.

Joint ventures, mergers, acquisitions and strategic alliances in the wireless sector have resulted in and are expected to result in larger competitors competing for a limited number of customers. The two largest national wireless communication providers currently serve a significant percentage of all wireless customers and hold significant spectrum and other resources. Our largest competitors may be able to enter into exclusive handset, device, or content arrangements, execute pervasive advertising and marketing campaigns, or otherwise improve their cost position relative to ours. In addition, refusal of our large competitors to provide critical access to resources and inputs, such as roaming services on reasonable terms could improve their position within the wireless broadband mobile services industry.

We face intense and increasing competition from other service providers as industry sectors converge, such as cable, telecom services and content, satellite, and other service providers. Companies like Comcast and AT&T (with acquisitions of DirecTV and Time Warner, Inc.) will have the scale and assets to aggressively compete in a converging industry. Verizon, through its acquisitions of AOL, Inc. and Yahoo! Inc. is also a significant competitor focusing on premium content offerings to diversify outside of core wireless. Further, some of our competitors now provide content services in addition to voice and broadband services, and consumers are increasingly accessing video content from Internet-based providers and applications, all of which create increased competition in this area. These factors, together with the effects of the increasing aggregate penetration of wireless services in all metropolitan areas and the ability of our larger competitors to use resources to build out their networks and to quickly deploy advanced technologies, such as 5G, could make it more difficult for us to continue to attract and retain customers, and may adversely affect our competitive position and ability to grow, which would have a material adverse effect on our business, financial condition and operating results.

The scarcity and cost of additional wireless spectrum, and regulations relating to spectrum use, may adversely affect our business, financial condition and operating results.

We will need to acquire additional spectrum in order to continue our customer growth, expand and deepen our coverage, maintain our quality of service, meet increasing customer demands and deploy new technologies. We will be at a competitive disadvantage and possibly experience erosion in the quality of service in certain markets if we fail to gain access to necessary spectrum before reaching network capacity. As a result, we are actively seeking to make additional investment in spectrum, which could be significant.

The continued interest in, and acquisition of, spectrum by existing carriers and others may reduce our ability to acquire and/or increase the cost of acquiring spectrum in the secondary market or negatively impact our ability to gain access to spectrum through other means, including government auctions. We may need to enter into spectrum sharing or leasing arrangements, which are subject to certain risks and uncertainties and may involve significant expenditures. Gaining access to the spectrum we won in the FCC 600 MHz auction in 2017 may take up to three years or more. Any material delay could adversely impact our ability to implement our plans and efforts to improve our network. In addition, our return on investment in spectrum depends on our ability to attract additional customers and to provide additional services and usage to existing customers. As a result, the return on any investment in spectrum that we make may not be as much as we anticipate or take longer than

expected. Additionally, we may be unable to secure the spectrum we need in any auction we may elect to participate in or in the secondary market, on favorable terms or at all.

The FCC may impose conditions on the use of new wireless broadband mobile spectrum that may negatively impact our ability to obtain spectrum economically or in appropriate configurations or coverage areas. Additional conditions that may be imposed by the FCC include heightened build-out requirements, limited license terms or renewal rights, and clearing obligations that may make it less attractive or less economical to acquire spectrum. In addition, rules may be established for future government spectrum auctions that may negatively impact our ability to obtain spectrum economically or in appropriate configurations or coverage areas.

If we cannot acquire needed spectrum from the government or otherwise, if competitors acquire spectrum that will allow them to provide services competitive with our services, or if we cannot deploy services over acquired spectrum on a timely basis without burdensome conditions, at reasonable cost, and while maintaining network quality levels, then our ability to attract and retain customers and our business, financial condition and operating results could be materially adversely affected.

If we are unable to take advantage of technological developments on a timely basis, we may experience a decline in demand for our services or face challenges in implementing or evolving our business strategy.

Significant technological changes continue to impact the communications industry. In general, these technological changes enhance communications and enable a broader array of companies to offer services competitive with ours. In order to grow and remain competitive with new and evolving technologies in our industry, we will need to adapt to future changes in technology, continually invest in our network, increase network capacity, enhance our existing offerings, and introduce new offerings to address our current and potential customers' changing demands. Enhancing our network, such as deploying 5G, is subject to risk from equipment changes and migration of customers from existing spectrum bands and the potential inability to secure spectrum necessary to deploy advanced technologies. Adopting new and sophisticated technologies may result in implementation issues such as scheduling and supplier delays, unexpected or increased costs, technological constraints, regulatory permitting issues, customer dissatisfaction, and other issues that could cause delays in launching new technological capabilities, which in turn could result in significant costs or reduce the anticipated benefits of the upgrades. In general, the development of new services in the wireless telecommunications industry will require us to anticipate and respond to the continuously changing demands of our customers, which we may not be able to do accurately or timely. If our new services fail to retain or gain acceptance in the marketplace or if costs associated with these services are higher than anticipated, this could have a material adverse effect on our business, financial condition and operating results.

We could be harmed by data loss or other security breaches, whether directly or indirectly.

Our business, like that of most retailers and wireless companies, involves the receipt, storage, and transmission of our customers' confidential information, including sensitive personal information and payment card information, confidential information about our employees and suppliers, and other sensitive information about our Company, such as our business plans, transactions and intellectual property ("Confidential Information"). Unauthorized access to Confidential Information may be difficult to anticipate, detect, or prevent, particularly given that the methods of unauthorized access constantly change and evolve. We are subject to the threat of unauthorized access or disclosure of Confidential Information by state-sponsored parties, malicious actors, third parties or employees, errors or breaches by third-party suppliers, or other security incidents that could compromise the confidentiality and integrity of Confidential Information. In August 2018, we notified affected customers of an incident involving unauthorized access to certain customer contact information (not involving credit card information, financial data, social security numbers or passwords). While we do not believe the August 2018 security incident was material, we expect to continue to be the target of cyber-attacks, data breaches, or security incidents, which may in the future have a material adverse effect on our business, reputation, financial condition, and operating results.

Cyber-attacks, such as denial of service and other malicious attacks, could disrupt our internal systems and applications, impair our ability to provide services to our customers, and have other adverse effects on our business and that of others who depend on our services. As a telecommunications carrier, we are considered a critical infrastructure provider and therefore may be more likely to be the target of such attacks. Such attacks against companies may be perpetrated by a variety of groups or persons, including those in jurisdictions where law enforcement measures to address such attacks are ineffective or unavailable, and such attacks may even be perpetrated by or at the behest of foreign governments.

In addition, we provide confidential, proprietary and personal information to third-party service providers as part of our business operations. These third-party service providers have experienced data breaches and other attacks that included unauthorized access to Confidential Information in the past, and face security challenges common to all parties that collect and process information. Past data breaches include a breach of the networks of one of our credit decisioning providers in

September 2015, during which a subset of records containing current and potential customer information was acquired by an external party.

Our procedures and safeguards to prevent unauthorized access to sensitive data and to defend against attacks seeking to disrupt our services must be continually evaluated and revised to address the ever-evolving threat landscape. We cannot make assurances that all preventive actions taken will adequately repel a significant attack or prevent information security breaches or the misuses of data, unauthorized access by third parties or employees, or exploits against third-party supplier environments. If we or our third-party suppliers are subject to such attacks or security breaches, we may incur significant costs or other material financial impact, which may not be covered by, or may exceed the coverage limits of, our cyber insurance, be subject to regulatory investigations, sanctions and private litigation, experience disruptions to our operations or suffer damage to our reputation. Any future cyber-attacks, data breaches, or security incidents may have a material adverse effect on our business, financial condition, and operating results.

System failures and business disruptions may allow unauthorized use of or interference with our network and other systems which could materially adversely affect our reputation and financial condition.

To be successful, we must provide our customers with reliable, trustworthy service and protect the communications, location, and personal information shared or generated by our customers. We rely upon both our systems and networks and the systems and networks of other providers and suppliers to provide and support our services and, in some cases, protect our customers' information and our information. Failure of our or others' systems, networks, or infrastructure may prevent us from providing reliable service or may allow for the unauthorized use of or interference with our networks and other systems or for the compromise of customer information. Examples of these risks include:

- human error such as responding to deceptive communications or unintentionally executing malicious code;
- physical damage, power surges or outages, or equipment failure, including those as a result of severe weather, natural disasters, terrorist attacks, political instability and volatility, and acts of war;
- theft of customer and/or proprietary information offered for sale for competitive advantage or corporate extortion;
- unauthorized access to our IT and business systems or to our network and critical infrastructure and those of our suppliers and other providers;
- supplier failures or delays; and
- system failures or outages of our business systems or communications network.

Such events could cause us to lose customers, lose revenue, incur expenses, suffer reputational damage, and subject us to litigation or governmental investigation. Remediation costs could include liability for information loss, repairing infrastructure and systems, and/or costs of incentives offered to customers. Our insurance may not cover, or be adequate to fully reimburse us for, costs and losses associated with such events.

We are in the process of implementing a new billing system, which will support a portion of our subscribers, while maintaining our legacy billing system. Any unanticipated difficulties, disruption, or significant delays could have adverse operational, financial, and reputational effects on our business.

We are currently implementing a new customer billing system, which involves a new third-party supported platform and utilization of a phased deployment approach. Post implementation, we plan to operate both the existing and new billing systems in parallel to aid in the transition to the new system until all phases of the conversion are complete.

The implementation may cause major system or business disruptions, or we may fail to implement the new billing system in a timely or effective manner. In addition, the third-party billing services supporting vendor may experience errors, cyber-attacks, or other operational disruptions that could negatively impact us and over which we may have limited control. Interruptions and/or failure of this billing services system could disrupt our operations and impact our ability to provide or bill for our services, retain customers, attract new customers, or negatively impact overall customer experience. Any occurrence of the foregoing could cause material adverse effects on our operations and financial condition, material weaknesses in our internal control over financial reporting, and reputational damage.

We rely on third parties to provide products and services for the operation of our business, and the failure or inability of such parties to provide these products or services could adversely affect our business, financial condition, and operating results.

We depend heavily on suppliers, their subcontractors, and other third parties for us to efficiently operate our business. Due to the complexity of our business, it is not unusual to engage a diverse set of suppliers to help us develop, maintain, and

troubleshoot products and services such as network components, software development services, and billing and customer service support. Some of our suppliers may provide services from outside of the United States, which carries additional regulatory and legal obligations. We commonly rely on suppliers to provide us with contractual assurances and to disclose accurate information regarding risks associated with their provision of products or services in accordance with our policies and standards, including our Supplier Code of Conduct and our third party-risk management practices. The failure of our suppliers to comply with our expectations and standards could have a material adverse effect on our business, financial condition, and operating results.

Many of the products and services we use are available through multiple sources and suppliers. However, there are a limited number of suppliers who can support or provide billing services, voice and data communications transport services, network infrastructure, equipment, handsets, other devices, and payment processing services, among other products and services. Disruptions or failure of such suppliers to adequately perform could have a material adverse effect on our business, financial condition, and operating results.

In the past, our suppliers, contractors, service providers and third-party retailers may not have always performed at the levels we expected or at the levels required by their contracts. Our business could be severely disrupted if critical suppliers, contractors, service providers, or third-party retailers fail to comply with their contracts or become unable to continue providing goods or services. Our business could also be disrupted if we experience delays or service degradation during any transition to a new outsourcing provider or other supplier or if we are required to replace the supplied products or services with those from another source, especially if the replacement becomes necessary on short notice. Any such disruptions could have a material adverse effect on our business, financial condition, and operating results.

Economic, political, and market conditions may adversely affect our business, financial condition, and operating results, as well as our access to financing on favorable terms or at all.

Our business, financial condition, and operating results are sensitive to changes in general economic conditions, including interest rates, consumer credit conditions, consumer debt levels, consumer confidence, rates of inflation (or concerns about deflation), unemployment rates, economic growth, energy costs, and other macro-economic factors. Difficult, or worsening, general economic conditions could have a material adverse effect on our business, financial condition, and operating results.

Market volatility, political and economic uncertainty, and weak economic conditions, such as a recession or economic slowdown, may materially adversely affect our business, financial condition, and operating results in a number of ways. Our services and device financing plans are available to a broad customer base, a significant segment of which may be more vulnerable to weak economic conditions, particularly our subprime customers. We may have greater difficulty in gaining new customers within this segment, and existing customers may be more likely to terminate service and default on device financing plans due to an inability to pay.

Weak economic conditions and credit conditions may also adversely impact our suppliers and dealers, some of which have filed for or may be considering bankruptcy, or may experience cash flow or liquidity problems, or are unable to obtain or refinance credit such that they may no longer be able to operate. Any of these could adversely impact our ability to distribute, market, or sell our products and services.

In addition, instability in the global financial markets could lead to periodic volatility in the credit, equity, and fixed income markets. This volatility could limit our access to the credit markets, leading to higher borrowing costs or, in some cases, the inability to obtain financing on terms that are acceptable to us or at all.

The agreements governing our indebtedness and other financing arrangements include restrictive covenants that limit our operating flexibility.

The agreements governing our indebtedness and other financing arrangements impose significant operating and financial restrictions on us. These restrictions, subject in certain cases to customary baskets, exceptions, and incurrence-based ratio tests, may limit our or our subsidiaries' ability to pursue strategic business opportunities and engage in certain transactions, including the following:

- incurring additional indebtedness and issuing preferred stock;
- paying dividends, redeeming capital stock, or making other restricted payments or investments;
- selling or buying assets, properties, or licenses;
- developing assets, properties, or licenses that we have or in the future may procure;
- creating liens on assets securing indebtedness or other obligations;

- participating in future FCC auctions of spectrum or private sales of spectrum;
- engaging in mergers, acquisitions, business combinations, or other transactions;
- entering into transactions with affiliates; and
- placing restrictions on the ability of subsidiaries to pay dividends or make other payments.

These restrictions could limit our ability to obtain debt financing, engage in share repurchases, refinance or pay principal on our outstanding indebtedness, complete acquisitions for cash or indebtedness or react to business, economic, market and industry conditions and other changes in our operating environment or the economy. Any future indebtedness that we incur may contain similar or more restrictive covenants. Any failure to comply with the restrictions of our debt agreements and other financing arrangements may result in an event of default under these agreements, which in turn may result in defaults or acceleration of obligations under these and other agreements, giving our lenders the right to terminate any commitments they had made to provide us with further funds and to require us to repay all amounts then outstanding. Any of these events could have a material adverse effect on our business, financial condition, and operating results.

Our significant indebtedness could adversely affect our business, financial condition and operating results.

Our ability to make payments on our debt, to repay our existing indebtedness when due, to fund our capital-intensive business and operations, and to make significant planned capital expenditures will depend on our ability to generate cash in the future, which is in turn subject to the operational risks described elsewhere in this report. Our debt service obligations could have material adverse effects on our business, financial condition, and operating results, including by:

- limiting our flexibility in planning for, or reacting to, changes in our business or the communications industry or pursuing growth opportunities;
- reducing the amount of cash available for other operational or strategic needs; and
- placing us at a competitive disadvantage to competitors who are less leveraged than we are.

Some of our debt has a variable rate of interest linked to various indices and only some of our exposure is hedged. If the changes in indices result in interest rate increases, our debt service requirements will increase, which could adversely affect our cash flow and operating results. In particular, some or all of our variable-rate indebtedness may use the London Inter-Bank Offered Rate (“LIBOR”) or similar rates as a benchmark for establishing the rate. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms and other pressures may cause LIBOR to disappear entirely or to perform differently than in the past. The consequence of these developments cannot be entirely predicted but could include an increase in the cost of our variable rate indebtedness. In addition, any hedging agreements we have and may continue to enter into to limit our exposure to interest rate increases or foreign currency fluctuations may not offer complete protection from these risks or may be unsuccessful, and consequently may effectively increase the interest rate we pay on our debt or the exchange rate with respect to such debt, and any portion not subject to such hedging agreements would have full exposure to interest rate increases or foreign currency fluctuations, as applicable. If any financial institutions that are parties to our hedging agreements were to default on their payment obligations to us, declare bankruptcy or become insolvent, we would be unhedged against the underlying exposures. Any of these risks could have a material adverse effect on our business, financial condition and operating results.

Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could result in a loss of investor confidence regarding our financial statements or may have a material adverse effect on our business.

Under Section 404 of the Sarbanes-Oxley Act of 2002, we along with our independently registered public accounting firm are required to report on the effectiveness of our internal control over financial reporting. We rely heavily on IT systems as an important part of our internal controls in order to operate, transact, and otherwise manage our business, as well as provide effective and timely reporting of our financial results. Failure to design and maintain effective internal controls, including those over our IT systems, could constitute a material weakness that could result in inaccurate financial statements, inaccurate disclosures, or failure to prevent fraud. If we or our independent registered public accounting firm were unable to conclude that we have effective internal control over financial reporting, investor confidence regarding our financial statements and our business could be materially adversely affected.

Our financial condition and operating results will be impaired if we experience high fraud rates related to device financing, credit cards, dealers, or subscriptions.

Our operating costs could increase substantially as a result of fraud, including device financing, customer credit card, subscription, or dealer fraud. If our fraud detection strategies and processes are not successful in detecting and controlling fraud, whether directly or by way of the systems, processes, and operations of third parties such as national retailers, dealers, and others, the resulting loss of revenue or increased expenses could have a material adverse effect on our financial condition and operating results.

We rely on highly-skilled personnel throughout all levels of our business. Our business could be harmed if we are unable to retain or motivate key personnel, hire qualified personnel or maintain our corporate culture.

The market for highly-skilled workers and leaders in our industry is extremely competitive. We believe that our future success depends in substantial part on our ability to recruit, hire, motivate, develop, and retain talented and highly-skilled personnel for all areas of our organization. Doing so may be difficult due to many factors, including fluctuations in economic and industry conditions, changes to U.S. immigration policy, competitors' hiring practices, employee tolerance for the significant amount of change within and demands on our Company and our industry, and the effectiveness of our compensation programs. Our continued ability to compete effectively depends on our ability to retain and motivate our existing employees and to attract new employees. If we do not succeed in retaining and motivating our existing key employees and attracting new key personnel, we may not be able to meet our business plan and, as a result, our revenue growth and profitability may be materially adversely affected.

Any acquisition, investment, or merger may subject us to significant risks, any of which may harm our business.

We may pursue acquisitions of, investments in or mergers with businesses, technologies, services and/or products that complement or expand our business. Some of these potential transactions could be significant relative to the size of our business and operations. Any such transaction would involve a number of risks and could present financial, managerial and operational challenges, including:

- diversion of management attention from running our existing business;
- increased costs to integrate the networks, spectrum, technology, personnel, customer base and business practices of the business involved in any such transaction with our business;
- difficulties in effectively integrating the financial and operational systems of the business involved in any such transaction into (or supplanting such systems with) our financial and operational reporting infrastructure and internal control framework in an effective and timely manner;
- potential exposure to material liabilities not discovered in the due diligence process or as a result of any litigation arising in connection with any such transaction;
- significant transaction expenses in connection with any such transaction, whether consummated or not;
- risks related to our ability to obtain any required regulatory approvals necessary to consummate any such transaction;
- acquisition financing may not be available on reasonable terms or at all and any such financing could significantly increase our outstanding indebtedness or otherwise affect our capital structure or credit ratings; and
- any business, technology, service, or product involved in any such transaction may significantly under-perform relative to our expectations, and we may not achieve the benefits we expect from the transaction, which could, among other things, also result in a write-down of goodwill and other intangible assets associated with such transaction.

For any or all of these reasons, our pursuit of an acquisition, investment, or merger may have a material adverse effect on our business, financial condition, and operating results.

Risks Related to Legal and Regulatory Matters

Changes in regulations or in the regulatory framework under which we operate could adversely affect our business, financial condition and operating results.

The FCC regulates the licensing, construction, modification, operation, ownership, sale, and interconnection of wireless communication systems, as do some state and local regulatory agencies. In particular, the FCC imposes significant regulation on licensees of wireless spectrum with respect to how radio spectrum is used by licensees, the nature of the services that licensees may offer and how the services may be offered, and the resolution of issues of interference between spectrum bands. Additionally, the FTC and other federal and state agencies have asserted that they have jurisdiction over some consumer protection, and elimination and prevention of anticompetitive business practices with respect to the provision of wireless

products and services. We are subject to regulatory oversight by various federal, state and local agencies, as well as judicial review and actions, on issues related to the wireless industry that include, but are not limited to: roaming, interconnection, spectrum allocation and licensing, facilities siting, pole attachments, intercarrier compensation, Universal Service Fund (“USF”), net neutrality, 911 services, consumer protection, consumer privacy, and cybersecurity. We are also subject to regulations in connection with other aspects of our business, including handset financing and insurance activities.

We cannot assure you that the FCC or any other federal, state or local agencies will not adopt regulations or take enforcement or other actions that would adversely affect our business, impose new costs, or require changes in current or planned operations. For example, under the Obama administration, the FCC established net neutrality and privacy regimes that applied to our operations. Both sets of rules potentially subjected some of our initiatives and practices to more burdensome requirements and heightened scrutiny by federal and state regulators, the public, edge providers, and private litigants regarding whether such initiatives or practices are compliant. While the FCC rules are now largely rolled back under the Trump administration, some state legislators and regulators are seeking to replace them with state laws, perpetuating uncertainty regarding the regulatory environment around these issues.

In addition, states are increasingly focused on the quality of service and support that wireless communication providers provide to their customers and several states have proposed or enacted new and potentially burdensome regulations in this area. We also face potential investigations by, and inquiries from or actions by state public utility commissions. We also cannot assure you that Congress will not amend the Communications Act, from which the FCC obtains its authority, and which serves to limit state authority, or enact other legislation in a manner that could be adverse to our business. Additionally, California passed the California Consumer Privacy Act (the “CCPA”) in June 2018, putting into place new data privacy rights for consumers, effective in January 2020. Legislators have stated that they intend to propose amendments to the CCPA before it goes into effect, and it remains unclear what, if any, modifications will be made to this legislation or how it will be interpreted. We will likely have to incur significant implementation costs to ensure compliance with the CCPA, and we could see increased litigation costs once the law goes into effect. If we are unable to put proper controls and procedures in place to ensure compliance, it could have an adverse effect on our business. Other states are considering similar legislation, which, if passed, could create more risks and potential costs for us.

Failure to comply with applicable regulations could have a material adverse effect on our business, financial condition and operating results. We could be subject to fines, forfeitures, and other penalties (including, in extreme cases, revocation of our spectrum licenses) for failure to comply with FCC or other governmental regulations, even if any such non-compliance was unintentional. The loss of any licenses, or any related fines or forfeitures, could adversely affect our business, financial condition, and operating results.

Unfavorable outcomes of legal proceedings may adversely affect our business, financial condition and operating results.

We are regularly involved in a number of legal proceedings before various state and federal courts, the FCC, the FTC, other federal agencies, and state and local regulatory agencies, including state attorneys general. Such legal proceedings can be complex, costly, and highly disruptive to our business operations by diverting the attention and energy of management and other key personnel. The assessment of the outcome of legal proceedings, including our potential liability, if any, is a highly subjective process that requires judgments about future events that are not within our control. The amounts ultimately received or paid upon settlement or pursuant to final judgment, order or decree may differ materially from amounts accrued in our financial statements. In addition, litigation or similar proceedings could impose restraints on our current or future manner of doing business. Such potential outcomes including judgments, awards, settlements or orders could have a material adverse effect on our business, financial condition and operating results.

We offer highly regulated financial services products. These products expose us to a wide variety of state and federal regulations.

The financing of devices, through our EIP and JUMP! On Demand programs, has expanded our regulatory compliance obligations. Failure to remain compliant with applicable regulations, may increase our risk exposure in the following areas:

- consumer complaints and potential examinations or enforcement actions by federal and state regulatory agencies, including but not limited to the Consumer Financial Protection Bureau, state attorneys general, the FCC and the FTC; and
- regulatory fines, penalties, enforcement actions, civil litigation, and/or class action lawsuits.

Failure to comply with applicable regulations and the realization of any of these risks could have a material adverse effect on our business, financial condition, and operating results.

We may not be able to adequately protect the intellectual property rights on which our business depends or may be accused of infringing intellectual property rights of third parties.

We rely on a combination of patent, service mark, trademark, and trade secret laws and contractual restrictions to establish and protect our proprietary rights, all of which offer only limited protection. The steps we have taken to protect our intellectual property may not prevent the misappropriation of our proprietary rights. We may not have the ability in certain jurisdictions to adequately protect intellectual property rights. Moreover, others may independently develop processes and technologies that are competitive to ours. Also, we may not be able to discover or determine the extent of any unauthorized use of our proprietary rights. Unauthorized use of our intellectual property rights may increase the cost of protecting these rights or reduce our revenues. We cannot be sure that any legal actions against such infringers will be successful, even when our rights have been infringed. We cannot assure you that our pending or future patent applications will be granted or enforceable, or that the rights granted under any patent that may be issued will provide us with any competitive advantages. In addition, we cannot assure you that any trademark or service mark registrations will be issued with respect to pending or future applications or will provide adequate protection of our brands. We do not have insurance coverage for intellectual property losses, and as such, a charge for an anticipated settlement or an adverse ruling awarding damages represents an unplanned loss event. Any of these factors could have a material adverse effect on our business, financial condition, and operating results.

Third parties may claim we infringe their intellectual property rights. We are a defendant in numerous intellectual property lawsuits, including patent infringement lawsuits, which exposes us to the risk of adverse financial impact either by way of significant settlement amounts or damage awards. As we adopt new technologies and new business systems and provide customers with new products and/or services, we may face additional infringement claims. These claims could require us to cease certain activities or to cease selling relevant products and services. These claims can be time-consuming and costly to defend, and divert management resources, and expose us to significant damages awards or settlements, any or all of which could have a material adverse effect on our operations and financial condition. In addition to litigation directly involving our Company, our vendors and suppliers can be threatened with patent litigation and/or subjected to the threat of disruption or blockage of sale, use, or importation of products, posing the risk of supply chain interruption to particular products and associated services which could have a material adverse effect on our business, financial condition and operating results.

Our business may be impacted by new or amended tax laws or regulations, judicial interpretations of same or administrative actions by federal, state, and/or local taxing authorities.

In connection with the products and services we sell, we calculate, collect, and remit various federal, state, and local taxes, fees and regulatory charges (“tax” or “taxes”) to numerous federal, state and local governmental authorities, including federal USF contributions and common carrier regulatory fees. In addition, we incur and pay state and local taxes and fees on purchases of goods and services used in our business.

Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. In many cases, the application of existing, newly enacted or amended tax laws (such as the U.S. Tax Cuts and Jobs Act of 2017) may be uncertain and subject to differing interpretations, especially when evaluated against new technologies and telecommunications services, such as broadband internet access and cloud related services. Changes in tax laws could also impact revenue reported on tax inclusive plans.

In the event that we have incorrectly described, disclosed, determined, calculated, assessed, or remitted amounts that were due to governmental authorities, we could be subject to additional taxes, fines, penalties, or other adverse actions, which could materially impact our business, financial condition and operating results. In the event that federal, state, and/or local municipalities were to significantly increase taxes on our network, operations, or services, or seek to impose new taxes, it could have a material adverse effect on our business, financial condition and operating results.

Our wireless licenses are subject to renewal and may be revoked in the event that we violate applicable laws.

Our existing wireless licenses are subject to renewal upon the expiration of the 10-year or 15-year period for which they are granted. Historically, the FCC has approved our license renewal applications. However, the Communications Act provides that licenses may be revoked for cause and license renewal applications denied if the FCC determines that a renewal would not serve the public interest. In addition, our licenses are subject to our compliance with the terms set forth in the agreement pertaining to national security among us, DT, the Federal Bureau of Investigation, the Department of Justice and the Department of Homeland Security. The failure of DT or the Company to comply with the terms of this agreement could result in fines, injunctions and other penalties, including potential revocation or non-renewal of our spectrum licenses. If we fail to timely file to renew any wireless license or fail to meet any regulatory requirements for renewal, including construction and

substantial service requirements, we could be denied a license renewal. Many of our wireless licenses are subject to interim or final construction requirements and there is no guarantee that the FCC will find our construction, or the construction of prior licensees, sufficient to meet the build-out or renewal requirements. Accordingly, we cannot assure you that the FCC will renew our wireless licenses upon their expiration. If any of our wireless licenses were to be revoked or not renewed upon expiration, we would not be permitted to provide services under that license, which could have a material adverse effect on our business, financial condition, and operating results.

Our business could be adversely affected by findings of product liability for health or safety risks from wireless devices and transmission equipment, as well as by changes to regulations or radio frequency emission standards.

We do not manufacture the devices or other equipment that we sell, and we depend on our suppliers to provide defect-free and safe equipment. Suppliers are required by applicable law to manufacture their devices to meet certain governmentally imposed safety criteria. However, even if the devices we sell meet the regulatory safety criteria, we could be held liable with the equipment manufacturers and suppliers for any harm caused by products we sell if such products are later found to have design or manufacturing defects. We generally seek to enter into indemnification agreements with the manufacturers who supply us with devices to protect us from losses associated with product liability, but we cannot guarantee that we will be fully protected against all losses associated with a product that is found to be defective.

Allegations have been made that the use of wireless handsets and wireless transmission equipment, such as cell towers, may be linked to various health concerns, including cancer and brain tumors. Lawsuits have been filed against manufacturers and carriers in the industry claiming damages for alleged health problems arising from the use of wireless handsets. In addition, the FCC has from time to time gathered data regarding wireless handset emissions and its assessment of this issue may evolve based on its findings. The media has also reported incidents of handset battery malfunction, including reports of batteries that have overheated. These allegations may lead to changes in regulatory standards. There have also been other allegations regarding wireless technology, including allegations that wireless handset emissions may interfere with various electronic medical devices (including hearing aids and pacemakers), airbags and anti-lock brakes. Defects in the products of our suppliers, such as the 2016 recall by a handset original equipment manufacturer on one of its smartphone devices, could have a material adverse effect on our business, financial condition and operating results.

Additionally, there are safety risks associated with the use of wireless devices while operating vehicles or equipment. Concerns over any of these risks and the effect of any legislation, rules or regulations that have been and may be adopted in response to these risks could limit our ability to sell our wireless services.

Risks Related to Ownership of our Common Stock

We are controlled by DT, whose interests may differ from the interests of our other stockholders.

DT beneficially owns and possesses majority voting power of the fully diluted shares of our common stock. Through its control of the voting power of our common stock and the rights granted to DT in our certificate of incorporation and the Stockholder's Agreement, DT controls the election of our directors and all other matters requiring the approval of our stockholders. By virtue of DT's voting control, we are a "controlled company," as defined in The NASDAQ Stock Market LLC ("NASDAQ") listing rules, and are not subject to NASDAQ requirements that would otherwise require us to have a majority of independent directors, a nominating committee composed solely of independent directors or a compensation committee composed solely of independent directors. Accordingly, our stockholders will not be afforded the same protections generally as stockholders of other NASDAQ-listed companies with respect to corporate governance for so long as we rely on these exemptions from the corporate governance requirements.

In addition, our certificate of incorporation and the Stockholder's Agreement restrict us from taking certain actions without DT's prior written consent as long as DT beneficially owns 30% or more of the outstanding shares of our common stock, including:

- the incurrence of debt (excluding certain permitted debt) if our consolidated ratio of debt to cash flow, as defined in the indenture dated April 28, 2013, for the most recently ended four full fiscal quarters for which financial statements are available would exceed 5.25 to 1.0 on a pro forma basis;
- the acquisition of any business, debt or equity interests, operations or assets of any person for consideration in excess of \$1.0 billion;
- the sale of any of our or our subsidiaries' divisions, businesses, operations or equity interests for consideration in excess of \$1.0 billion;
- the incurrence of secured debt (excluding certain permitted secured debt);

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- any change in the size of our Board of Directors;
- the issuances of equity securities in excess of 10% of our outstanding shares or to repurchase debt held by DT;
- the repurchase or redemption of equity securities or the declaration of extraordinary or in-kind dividends or distributions other than on a pro rata basis; and
- the termination or hiring of our chief executive officer.

These restrictions could prevent us from taking actions that our Board of Directors may otherwise determine are in the best interests of the Company and our stockholders or that may be in the best interests of our other stockholders.

DT effectively has control over all matters submitted to our stockholders for approval, including the election or removal of directors, changes to our certificate of incorporation, a sale or merger of our Company and other transactions requiring stockholder approval under Delaware law. DT's controlling interest may have the effect of making it more difficult for a third party to acquire, or discouraging a third party from seeking to acquire, the Company. DT may have strategic, financial, or other interests different from our other stockholders, including as the holder of a substantial amount of our indebtedness and as the counter-party in a number of commercial arrangements, and may make decisions adverse to the interests of our other stockholders.

In addition, we license certain trademarks from DT, including the right to use the trademark "T-Mobile" as a name for the Company and our flagship brand, under a trademark license agreement with DT. As described in more detail in our proxy statement under the heading "Transactions with Related Persons and Approval", we are obligated under the trademark license agreement to pay DT a royalty in an amount equal to 0.25%, which we refer to as the royalty rate, of the net revenue (as defined in the trademark license) generated by products and services we sell under the licensed trademarks. The trademark license agreement includes a royalty rate adjustment mechanism that would have occurred in early 2018 and potentially resulted in a new royalty rate effective in January 2019. The license agreement includes a royalty rate adjustment mechanism that has been postponed until the conclusion of the proposed Sprint Merger. The current royalty rate will remain effective until that time. The royalty rate under the license agreement will be adjusted retroactively if the Business Combination Agreement is terminated. We also have the right to terminate the trademark license upon one year's prior notice. An increase in the royalty rate or termination of the trademark license could have a material adverse effect on our business, financial condition and operating results.

Future sales or issuances of our common stock, including sales by DT, could have a negative impact on our stock price.

We cannot predict the effect, if any, that market sales of shares or the availability of shares of our common stock will have on the prevailing trading price of our common stock from time to time. Sales or issuances of a substantial number of shares of our common stock could cause our stock price to decline and could result in dilution of your shares.

We and DT are parties to the Stockholder's Agreement pursuant to which DT is free to transfer its shares in public sales without notice, as long as such transactions would not result in the transferee owning 30% or more of the outstanding shares of our common stock. If a transfer would exceed the 30% threshold, it is prohibited unless the transferee makes a binding offer to purchase all of the other outstanding shares on the same price and terms. The Stockholder's Agreement does not otherwise impose any other restrictions on the sales of common stock by DT. Moreover, we have filed a shelf registration statement with respect to the common stock and certain debt securities held by DT, which would facilitate the resale by DT of all or any portion of the shares of our common stock it holds. The sale of shares of our common stock by DT (other than in transactions involving the purchase of all of our outstanding shares) could significantly increase the number of shares available in the market, which could cause a decrease in our stock price. In addition, even if DT does not sell a large number of its shares into the market, its right to transfer a large number of shares into the market may depress our stock price.

Our stock price may be volatile and may fluctuate based upon factors that have little or nothing to do with our business, financial condition and operating results.

The trading prices of the securities of communications companies historically have been highly volatile, and the trading price of our common stock may be subject to wide fluctuations. Our stock price may fluctuate in reaction to a number of events and factors that may include, among other things:

- our or our competitors' actual or anticipated operating and financial results;
- introduction of new products and services by us or our competitors or changes in service plans or pricing by us or our competitors;
- analyst projections, predictions and forecasts, analyst target prices for our securities and changes in, or our failure to meet, securities analysts' expectations;

- transaction in our common stock by major investors;
- share repurchases by us or purchases by DT;
- DT's financial performance, results of operation, or actions implied or taken by DT;
- entry of new competitors into our markets or perceptions of increased price competition, including a price war;
- our performance, including subscriber growth, and our financial and operational metric performance;
- market perceptions relating to our services, network, handsets, and deployment of our LTE platform and our access to iconic handsets, services, applications, or content;
- market perceptions of the wireless communications industry and valuation models for us and the industry;
- conditions or trends in the Internet and the industry sectors in which we operate;
- changes in our credit rating or future prospects;
- changes in interest rates;
- changes in our capital structure, including issuance of additional debt or equity to the public;
- the availability or perceived availability of additional capital in general and our access to such capital;
- actual or anticipated consolidation, or other strategic mergers or acquisition activities involving us or our competitors, or other participants in related or adjacent industries, or market speculations regarding such activities, including the pending Merger and views of market participants regarding the likelihood the conditions to the Merger will be satisfied and the anticipated benefits of the Merger will be realized;
- disruptions of our operations or service providers or other vendors necessary to our network operations;
- the general state of the U.S. and world politics and economies; and
- availability of additional spectrum, whether by the announcement, commencement, bidding and closing of auctions for new spectrum or the acquisition of companies that own spectrum, and the extent to which we or our competitors succeed in acquiring additional spectrum.

In addition, the stock market has been volatile in the recent past and has experienced significant price and volume fluctuations, which may continue for the foreseeable future. This volatility has had a significant impact on the trading price of securities issued by many companies, including companies in the communications industry. These changes frequently occur irrespective of the operating performance of the affected companies. Hence, the trading price of our common stock could fluctuate based upon factors that have little or nothing to do with our business, financial condition and operating results.

We have never paid or declared any cash dividends on our common stock, and we do not intend to declare or pay any cash dividends on our common stock in the foreseeable future.

We have never paid or declared any cash dividends on our common stock, and we do not intend to declare or pay any cash dividends on our common stock in the foreseeable future. Our credit facilities and the indentures and supplemental indentures governing our long-term debt to affiliates and third parties contain covenants that, among other things, restrict our ability to declare or pay dividends on our common stock. We currently intend to use future earnings, if any, to invest in our business and to fund our previously authorized stock repurchase program if the Merger fails to close.

Our previously announced stock repurchase program, and any subsequent stock purchase program put in place from time to time, could affect the price of our common stock, increase the volatility of our common stock and could diminish our cash reserves. Such repurchase program may be suspended or terminated at any time, which may result in a decrease in the trading price of our common stock.

We may have in place from time to time, a stock repurchase program. Any such stock repurchase program adopted will not obligate the Company to repurchase any dollar amount or number of shares of common stock and may be suspended or discontinued at any time, which could cause the market price of our common stock to decline. The timing and actual number of shares repurchased under any such stock repurchase program depends on a variety of factors including the timing of open trading windows, the price of our common stock, corporate and regulatory requirements and other market conditions. We may effect repurchases under any stock repurchase program from time to time in the open market, in privately negotiated transactions or otherwise, including accelerated stock repurchase arrangements. Repurchases pursuant to any such stock repurchase program could affect our stock price and increase its volatility. The existence of a stock repurchase program could also cause our stock price to be higher than it would be in the absence of such a program and could potentially reduce the market liquidity for our stock. There can be no assurance that any stock repurchases will enhance stockholder value because the market price of our common stock may decline below the levels at which we repurchased shares of common stock. Although our stock repurchase program is intended to enhance stockholder value, short-term stock price fluctuations could reduce the program's effectiveness. Additionally, our share repurchase program could diminish our cash reserves, which may impact our ability to finance future growth and to pursue possible future strategic opportunities and acquisitions. See [Note 12 – Repurchases of Common Stock](#) of the Notes to the Consolidated Financial Statements included in Part II of this Form 10-K for further information.

Risks Related to the Proposed Transactions

The closing of the Transactions is subject to a number of conditions, including the receipt of approvals from various governmental entities, which may not approve the Transactions, may delay the approvals for, or may impose conditions or restrictions on, jeopardize or delay completion of, or reduce or delay the anticipated benefits of, the Transactions, and if these conditions are not satisfied or waived, the Transactions will not be completed.

The completion of the Transactions is subject to a number of conditions, including, among others, obtaining certain governmental authorizations, consents, orders or other approvals, including the expiration or termination of applicable waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, the receipt of required approvals from the FCC and any state and territorial public utility commissions or similar state and foreign regulatory bodies, and the absence of any injunction prohibiting the Transactions or any legal requirements enacted by a court or other governmental entity preventing the completion of the Transactions. There is no assurance that these required authorizations, consents, orders or other approvals will be obtained or that they will be obtained in a timely manner, or whether they will be subject to required actions, conditions, limitations or restrictions on the combined company's business, operations or assets. If any such required actions, conditions, limitations or restrictions are imposed, they may jeopardize or delay completion of the Transactions, reduce or delay the anticipated benefits of the Transactions or allow the parties to the Business Combination Agreement to terminate the Business Combination Agreement, which could result in a material adverse effect on our or the combined company's business, financial condition or operating results. In addition, the completion of the Transactions is also subject to T-Mobile USA having specified minimum credit ratings on the closing date of the Transactions (after giving effect to the Merger) from at least two of three specified credit rating agencies, subject to certain qualifications. In the event that we terminate the Business Combination Agreement in connection with a failure to satisfy the closing condition related to the specified minimum credit ratings, then in certain circumstances, we may be required to pay Sprint an amount equal to \$600 million. If the Transactions are not completed by April 29, 2019 (subject to extension to July 29, 2019, and further extension to October 29, 2019, if the only conditions not satisfied or waived (other than those conditions that by their terms are to be satisfied at the closing, which conditions are then capable of being satisfied) are conditions relating to the required regulatory and other governmental consents and the absence of restraints), either we or Sprint may terminate the Business Combination Agreement. The Business Combination Agreement may also be terminated if the other conditions to closing are not satisfied, and we and Sprint may also mutually decide to terminate the Business Combination Agreement.

Failure to complete the Merger could negatively impact us and our business, assets, liabilities, prospects, outlook, financial condition or results of operations.

If the Merger is not completed for any reason, we may be subject to a number of material risks. The price of our common stock may decline to the extent that its current market price reflects a market assumption that the Merger will be completed. In addition, some costs related to the Transactions must be paid by us whether or not the Transactions are completed. Furthermore, we may experience negative reactions from our stockholders, customers, employees, suppliers, distributors, retailers, dealers and others who deal with us, which could have an adverse effect on our business, financial condition and results of operations.

In addition, it is expected that if the Merger is not completed, we will continue to lack the network, scale and financial resources of the current market share leaders in, and other companies that have more recently begun providing, wireless services. Further, if the Merger is not completed, it is expected that we will not be able to deploy a nationwide 5G network on the same scale and on the same timeline as the combined company, and therefore will continue to be limited in their respective abilities to compete effectively in the 5G era.

We are subject to various uncertainties, including litigation and contractual restrictions and requirements while the Transactions are pending that could disrupt our or the combined company's business and adversely affect our or the combined company's business, assets, liabilities, prospects, outlook, financial condition and results of operations.

Uncertainty about the effect of the Transactions on employees, customers, suppliers, vendors, distributors, dealers and retailers may have an adverse effect on us or the combined company. These uncertainties may impair the ability to attract, retain and motivate key personnel during the pendency of the Transactions and, if the Transactions are completed, for a period of time thereafter, as existing and prospective employees may experience uncertainty about their future roles with the combined company. If key employees depart because of issues related to the uncertainty and difficulty of integration or a desire not to remain with the combined company, the combined company's business following the completion of the Transactions could be negatively impacted. We or the combined company may have to incur significant costs in identifying, hiring and retaining replacements for departing employees and may lose significant expertise and talent. Additionally, these uncertainties could cause customers, suppliers, distributors, dealers, retailers and others to seek to change or cancel existing business relationships

with us or the combined company or fail to renew existing relationships. Suppliers, distributors and content and application providers may also delay or cease developing for us or the combined company new products that are necessary for the operations of its business due to the uncertainty created by the Transactions. Competitors may also target our existing customers by highlighting potential uncertainties and integration difficulties that may result from the Transactions. The Business Combination Agreement also restricts us, without Sprint's consent, from taking certain actions outside of the ordinary course of business while the Transactions are pending, including, among other things, certain acquisitions or dispositions of businesses and assets, entering into or amending certain contracts, repurchasing or issuing securities, making capital expenditures and incurring indebtedness, in each case subject to certain exceptions. These restrictions may have a significant negative impact on our business, results of operations and financial condition.

Management and financial resources have been diverted and will continue to be diverted toward the completion of the Transactions. We have incurred, and expect to incur, significant costs, expenses and fees for professional services and other transaction costs in connection with the Transactions. These costs could adversely affect our or the combined company's financial condition and results of operations.

In addition, we and our affiliates are involved in various disputes, governmental and/or regulatory inspections, investigations and proceedings and litigation matters that arise from time to time, and it is possible that an unfavorable resolution of these matters could adversely affect us and our results of operations, financial condition and cash flows and the results of operations, financial condition and cash flows of the combined company.

The Business Combination Agreement contains provisions that restrict the ability of our Board to pursue alternatives to the Transactions.

The Business Combination Agreement contains non-solicitation provisions that restrict our ability to solicit, initiate, knowingly encourage or knowingly take any other action designed to facilitate, any inquiries regarding, or the making of, any proposal the completion of which would constitute an alternative transaction for purposes of the Business Combination Agreement. In addition, the Business Combination Agreement does not permit us to terminate the Business Combination Agreement in order to enter into an agreement providing for, or to complete, such an alternative transaction.

Our directors and officers may have interests in the Transactions different from the interests of our stockholders.

Certain of our directors and executive officers negotiated the terms of the Business Combination Agreement. Our directors and executive officers may have interests in the Transactions that are different from, or in addition to, those of our stockholders. These interests include, but are not limited to, the continued service of certain of our directors as directors of the combined company, the continued employment of certain of our executive officers by the combined company, severance agreements and amended employment terms and other rights held by our directors and executive officers, and provisions in the Business Combination Agreement regarding continued indemnification of and advancement of expenses to our directors and officers.

Risks Related to Integration and the Combined Company

Although we expect that the Transactions will result in synergies and other benefits, those synergies and benefits may not be realized or may not be realized within the expected time frame.

Our ability to realize the anticipated benefits of the Transactions will depend, to a large extent, on the combined company's ability to integrate our and Sprint's businesses in a manner that facilitates growth opportunities and achieves the projected standalone cost savings and revenue growth trends identified by each company without adversely affecting current revenues and investments in future growth. In addition, some of the anticipated synergies are not expected to occur for a significant time period following the completion of the Transactions and will require substantial capital expenditures in the near term to be fully realized. Even if the combined company is able to integrate the two companies successfully, the anticipated benefits of the Transactions, including the expected synergies and network benefits, may not be realized fully or at all or may take longer to realize than expected.

Our business and Sprint's business may not be integrated successfully or such integration may be more difficult, time consuming or costly than expected. Operating costs, customer loss and business disruption, including difficulties in maintaining relationships with employees, customers, suppliers or vendors, may be greater than expected following the Transactions. Revenues following the Transactions may be lower than expected.

The combination of two independent businesses is complex, costly and time-consuming and may divert significant management attention and resources to combining our and Sprint's business practices and operations. This process may disrupt

our business. The failure to meet the challenges involved in combining the two businesses and to realize the anticipated benefits of the Transactions could cause an interruption of, or a loss of momentum in, the activities of the combined company and could adversely affect the results of operations of the combined company. The overall combination of our and Sprint's businesses may also result in material unanticipated problems, expenses, liabilities, competitive responses, and loss of customer and other business relationships. The difficulties of combining the operations of the companies include, among others:

- the diversion of management attention to integration matters;
- difficulties in integrating operations and systems, including intellectual property and communications systems, administrative and information technology infrastructure and financial reporting and internal control systems;
- challenges in conforming standards, controls, procedures and accounting and other policies, business cultures and compensation structures between the two companies;
- differences in control environments, cultures, and auditor expectations may result in future weaknesses and deficiencies while we work to integrate the companies and align guidelines and practices;
- alignment of key performance measurements may result in a greater need to communicate and manage clear expectations while we work to integrate the companies and align guidelines and practices;
- difficulties in integrating employees and attracting and retaining key personnel;
- challenges in retaining existing customers and obtaining new customers;
- difficulties in achieving anticipated cost savings, synergies, accretion targets, business opportunities, financing plans and growth prospects from the combination;
- difficulties in managing the expanded operations of a significantly larger and more complex company;
- the impact of the additional debt financing expected to be incurred in connection with the Transactions;
- the transition of management to the combined company management team, and the need to address possible differences in corporate cultures and management philosophies;
- contingent liabilities that are larger than expected; and
- potential unknown liabilities, adverse consequences and unforeseen increased expenses associated with the Transactions.

Some of these factors are outside of our control and/or will be outside the control of the combined company, and any one of them could result in lower revenues, higher costs and diversion of management time and energy, which could materially impact the business, financial condition and results of operations of the combined company. In addition, even if the operations of our and Sprint's businesses are integrated successfully, the full benefits of the Merger may not be realized, including, among others, the synergies, cost savings or sales or growth opportunities that are expected. These benefits may not be achieved within the anticipated time frame or at all. Further, additional unanticipated costs may be incurred in the integration of our and Sprint's businesses. All of these factors could cause dilution to the earnings per share of the combined company, decrease or delay the projected accretive effect of the Merger, and negatively impact the price of our common stock following the Merger. As a result, it cannot be assured that the combination of T-Mobile and Sprint will result in the realization of the full benefits expected from the Transactions within the anticipated time frames or at all.

The indebtedness of the combined company following the completion of the Transactions will be substantially greater than the indebtedness of each of T-Mobile and Sprint on a standalone basis prior to the execution of the Business Combination Agreement. This increased level of indebtedness could adversely affect the combined company's business flexibility and increase its borrowing costs.

In connection with the Transactions, we and Sprint have conducted, and expect to conduct, certain pre-Merger financing transactions, which will be used in part to prepay a portion of our and Sprint's existing indebtedness and to fund liquidity needs. After giving effect to the pre-Merger financing transactions and the Transactions, we anticipate that the combined company will have consolidated indebtedness of up to approximately \$75.0 billion to \$77.0 billion, based on estimated December 31, 2018 debt and cash balances and excluding tower obligations.

Our substantially increased indebtedness following the Transactions will have the effect, among other things, of reducing our flexibility to respond to changing business, economic, market and industry conditions and increasing the amount of cash required to meet interest payments. In addition, this increased level of indebtedness following the Transactions may reduce funds available to support efforts to combine our and Sprint's businesses and realize the expected benefits of the Transactions, and may also reduce funds available for capital expenditures, share repurchases and other activities that may put the combined company at a competitive disadvantage relative to other companies with lower debt levels. Further, it may be necessary for the combined company to incur substantial additional indebtedness in the future, subject to the restrictions contained in its debt instruments, which could increase the risks associated with the capital structure of the combined company.

Because of the substantial indebtedness of the combined company following the completion of the Transactions, there is a risk that the combined company may not be able to service its debt obligations in accordance with their terms.

The ability of the combined company to service its substantial debt obligations following the Transactions will depend in part on future performance, which will be affected by business, economic, market and industry conditions and other factors, including the ability of the combined company to achieve the expected benefits of the Transactions. There is no guarantee that the combined company will be able to generate sufficient cash flow to service its debt obligations when due. If the combined company is unable to meet such obligations or fails to comply with the financial and other restrictive covenants contained in the agreements governing such debt obligations, it may be required to refinance all or part of its debt, sell important strategic assets at unfavorable prices or make additional borrowings. The combined company may not be able to, at any given time, refinance its debt, sell assets or make additional borrowings on commercially reasonable terms or at all, which could have a material adverse effect on its business, financial condition and results of operations after the Transactions.

Some or all of the combined company's variable-rate indebtedness may use the LIBOR as a benchmark for establishing the rate. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms and other pressures may cause LIBOR to disappear entirely or to perform differently than in the past. The consequence of these developments cannot be entirely predicted, but could include an increase in the cost of our variable rate indebtedness. In addition, any hedging agreements we have and may continue to enter into to limit our exposure to interest rate increases or foreign currency fluctuations may not offer complete protection from these risks or may be unsuccessful, and consequently may effectively increase the interest rate we pay on our debt or the exchange rate with respect to such debt, and any portion not subject to such hedging agreements would have full exposure to interest rate increases or foreign currency fluctuations, as applicable. If any financial institutions that are parties to our hedging agreements were to default on their payment obligations to us, declare bankruptcy or become insolvent, we would be unhedged against the underlying exposures. Any of these risks could have a material adverse effect on our business, financial condition and operating results.

The agreements governing the combined company's indebtedness and other financings will include restrictive covenants that limit the combined company's operating flexibility.

The agreements governing the combined company's indebtedness and other financings will impose material operating and financial restrictions on the combined company. These restrictions, subject in certain cases to customary baskets, exceptions and maintenance and incurrence-based financial tests, may limit the combined company's ability to engage in transactions and pursue strategic business opportunities, including the following:

- incurring additional indebtedness and issuing preferred stock;
- paying dividends, redeeming capital stock or making other restricted payments or investments;
- selling or buying assets, properties or licenses;
- developing assets, properties or licenses which the combined company has or in the future may procure;
- creating liens on assets securing indebtedness or other obligations;
- participating in future FCC auctions of spectrum or private sales of spectrum;
- engaging in mergers, acquisitions, business combinations or other transactions;
- entering into transactions with affiliates; and
- placing restrictions on the ability of subsidiaries to pay dividends or make other payments.

These restrictions could limit the combined company's ability to obtain debt financing, make share repurchases, refinance or pay principal on its outstanding indebtedness, complete acquisitions for cash or indebtedness or react to business, economic, market and industry conditions and other changes in its operating environment or the economy. Any future indebtedness that the combined company incurs may contain similar or more restrictive covenants. Any failure to comply with the restrictions of the combined company's debt agreements may result in an event of default under these agreements, which in turn may result in defaults or acceleration of obligations under these and other agreements, giving the combined company's lenders the right to terminate any commitments they had made to provide it with further funds and to require the combined company to repay all amounts then outstanding.

The financing of the Transactions is not assured.

Although we have received debt financing commitments from lenders to provide various financing arrangements to facilitate the Transactions, the obligation of the lenders to provide these facilities is subject to a number of conditions and the financing of the Transactions may not be obtained on the expected terms or at all.

In particular, we have received commitments for \$30.0 billion in debt financing to fund the Transactions which is comprised of (i) a \$4.0 billion secured revolving credit facility, (ii) a \$7.0 billion term loan credit facility and (iii) a \$19.0 billion secured bridge loan facility. Our reliance on the financing from the \$19.0 billion secured bridge loan facility commitment is intended to be reduced through one or more secured note offerings or other long-term financings prior to the merger closing. However, there can be no assurance that we will be able to issue any such secured notes or other long-term financings on terms we find acceptable or at all, especially in light of the recent debt market volatility, in which case we may have to exercise some or all of the commitments under the secured bridge facility to fund the Transactions. Accordingly, the costs of financing for the Transactions may be higher than expected.

Credit rating downgrades could adversely affect the businesses, cash flows, financial condition and operating results of T-Mobile and, following the Transactions, the combined company.

Credit ratings impact the cost and availability of future borrowings, and, as a result, cost of capital. Our current ratings reflect each rating agency's opinion of our financial strength, operating performance and ability to meet our debt obligations or, following the completion of the Transactions, obligations to the combined company's obligors. Each rating agency reviews these ratings periodically and there can be no assurance that such ratings will be maintained in the future. A downgrade in the rating of us and/or Sprint could adversely affect the businesses, cash flows, financial condition and operating results of T-Mobile and, following the Transactions, the combined company.

We have incurred, and will incur, direct and indirect costs as a result of the Transactions.

We have incurred, and will incur, substantial expenses in connection with and as a result of completing the Transactions, and over a period of time following the completion of the Transactions, the combined company also expects to incur substantial expenses in connection with integrating and coordinating our and Sprint's businesses, operations, policies and procedures. A portion of the transaction costs related to the Transactions will be incurred regardless of whether the Transactions are completed. While we have assumed that a certain level of transaction expenses will be incurred, factors beyond our control could affect the total amount or the timing of these expenses. Many of the expenses that will be incurred, by their nature, are difficult to estimate accurately. These expenses will exceed the costs historically borne by us. These costs could adversely affect our financial condition and results of operations prior to the Transactions and the financial condition and results of operations of the combined company following the Transactions.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of December 31, 2018, our significant properties that we primarily lease and use in connection with switching centers, data centers, call centers and warehouses were as follows:

	Approximate Number	Approximate Size in Square Feet
Switching centers	61	1,300,000
Data centers	6	500,000
Call center	17	1,300,000
Warehouses	21	500,000

As of December 31, 2018, we primarily leased:

- Approximately 64,000 macro towers and 21,000 distributed antenna system and small cell sites.
- Approximately 2,200 T-Mobile and Metro by T-Mobile retail locations, including stores and kiosks ranging in size from approximately 100 square feet to 17,000 square feet.
- Office space totaling approximately 1,000,000 square feet for our corporate headquarters in Bellevue, Washington. In January 2019, we executed leases totaling approximately 170,000 additional square feet for our corporate headquarters. We use these offices for engineering and administrative purposes.
- Office space throughout the U.S., totaling approximately 1,700,000 square feet, for use by our regional offices primarily for administrative, engineering and sales purposes.

Item 3. Legal Proceedings

See [Note 15 – Commitments and Contingencies](#) of the Notes to the Consolidated Financial Statements for information regarding certain legal proceedings in which we are involved.

Item 4. Mine Safety Disclosures

None.

PART II.

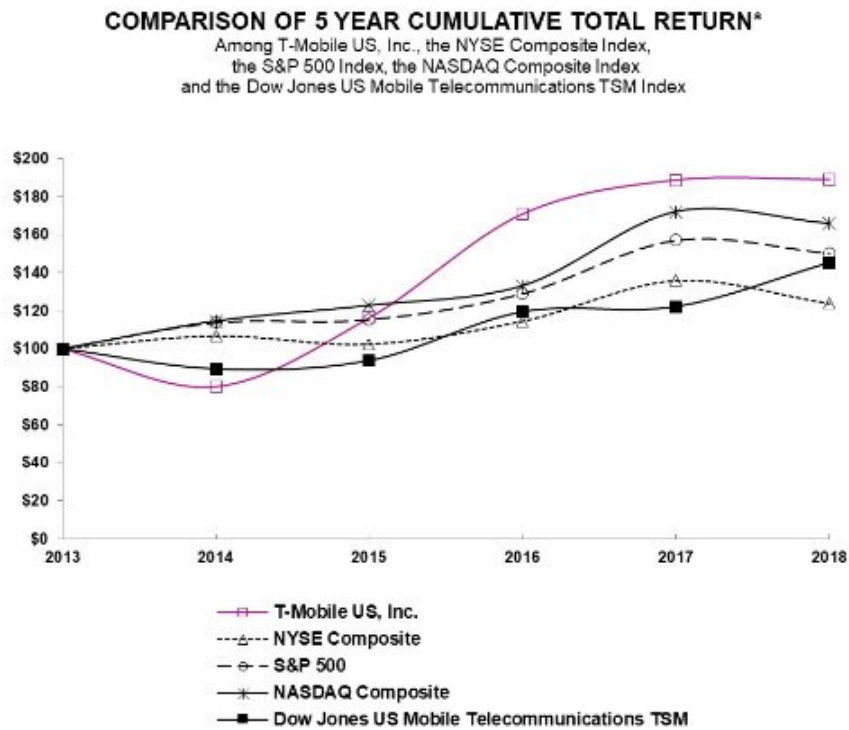
Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on the NASDAQ Global Select Market under the symbol “TMUS.” As of December 31, 2018, there were 265 registered stockholders of record of our common stock, but we estimate the total number of stockholders to be much higher as a number of our shares are held by brokers or dealers for their customers in street name.

Performance Graph

The graph below compares the five-year cumulative total returns of T-Mobile, the S&P 500 index, the NASDAQ Composite index and the Dow Jones US Mobile Telecommunications TSM index. The graph tracks the performance of a \$100 investment, with the reinvestment of all dividends, from December 31, 2013 to December 31, 2018.



*\$100 invested on 12/31/13 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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	At December 31,					
	2013	2014	2015	2016	2017	2018
T-Mobile US, Inc.	\$ 100.00	\$ 80.08	\$ 116.29	\$ 170.96	\$ 188.79	\$ 189.09
S&P 500	100.00	113.69	115.26	129.05	157.22	150.33
NASDAQ Composite	100.00	114.62	122.81	133.19	172.11	165.84
Dow Jones US Mobile Telecommunications TSM	100.00	89.33	93.68	119.39	122.09	145.29

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Item 6. Selected Financial Data

The following selected financial data are derived from our consolidated financial statements. The data below should be read together with [Risk Factors](#) included in Part I, Item 1A, [Management’s Discussion and Analysis of Financial Condition and Results of Operations](#) included in Part II, Item 7 and [Financial Statements and Supplementary Data](#) included in Part II, Item 8 of this Form 10-K.

Selected Financial Data

(in millions, except per share and customer amounts)	As of and for the Year Ended December 31,				
	2018 ⁽¹⁾	2017	2016	2015	2014
Statement of Operations Data					
Total service revenues	\$ 31,992	\$ 30,160	\$ 27,844	\$ 24,821	\$ 22,375
Total revenues	43,310	40,604	37,490	32,467	29,920
Operating income	5,309	4,888	4,050	2,479	1,772
Total other expense, net	(1,392)	(1,727)	(1,723)	(1,501)	(1,359)
Income tax (expense) benefit ⁽²⁾	(1,029)	1,375	(867)	(245)	(166)
Net income	2,888	4,536	1,460	733	247
Net income attributable to common stockholders	2,888	4,481	1,405	678	247
Earnings per share					
Basic	\$ 3.40	\$ 5.39	\$ 1.71	\$ 0.83	\$ 0.31
Diluted	3.36	5.20	1.69	0.82	0.30
Balance Sheet Data					
Cash and cash equivalents	\$ 1,203	\$ 1,219	\$ 5,500	\$ 4,582	\$ 5,315
Property and equipment, net	23,359	22,196	20,943	20,000	16,245
Spectrum licenses	35,559	35,366	27,014	23,955	21,955
Total assets	72,468	70,563	65,891	62,413	56,639
Total debt, excluding tower obligations	27,547	28,319	27,786	26,243	21,946
Stockholders' equity	24,718	22,559	18,236	16,557	15,663
Statement of Cash Flows and Operational Data					
Net cash provided by operating activities ⁽³⁾	\$ 3,899	\$ 3,831	\$ 2,779	\$ 1,877	\$ 1,957
Purchases of property and equipment	(5,541)	(5,237)	(4,702)	(4,724)	(4,317)
Purchases of spectrum licenses and other intangible assets, including deposits	(127)	(5,828)	(3,968)	(1,935)	(2,900)
Proceeds related to beneficial interests in securitization transactions ⁽³⁾	5,406	4,319	3,356	3,537	2,228
Net cash (used in) provided by financing activities ⁽³⁾	(3,336)	(1,367)	463	3,413	2,485
Total customers (in thousands) ⁽⁴⁾	79,651	72,585	71,455	63,282	55,018

- On January 1, 2018, we adopted Accounting Standards Update (“ASU”) 2014-09, “Revenue from Contracts with Customers (Topic 606)” and all the related amendments (collectively, the “new revenue standard”), using the modified retrospective method with the cumulative effect of initially applying the guidance recognized at the date of initial application. Comparative information has not been restated and continues to be reported under the standards in effect for those periods. See [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K for further information.
- In December 2017, the Tax Cuts and Jobs Act of 2017 (“TCJA”) was signed into legislation. The TCJA included numerous changes to existing tax law, including a permanent reduction in the federal corporate income tax rate from 35% to 21%. The rate reduction took place on January 1, 2018. We recognized a net tax benefit of \$2.2 billion associated with the enactment of the TCJA in Income tax (expense) benefit in our Consolidated Statements of Comprehensive Income in the fourth quarter of 2017, primarily due to a re-measurement of deferred tax assets and liabilities.
- On January 1, 2018, we adopted ASU 2016-15, “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments” (the “new cash flow standard”) which impacted the presentation of our cash flows related to our beneficial interests in securitization transactions, which is the deferred purchase price, resulting in a reclassification of cash inflows from Operating activities to Investing activities of approximately \$5.4 billion, \$4.3 billion, \$3.4 billion, \$3.5 billion and \$2.2 billion for the years ended December 31, 2018, 2017, 2016, 2015 and 2014, respectively, in our Consolidated Statements of Cash Flows. The new cash flow standard also impacted the presentation of our cash payments for debt prepayment and debt extinguishment costs, resulting in a reclassification of cash outflows from Operating activities to Financing activities of \$212 million, \$188 million and \$39 million for the years ended December 31, 2018, 2017 and 2014, respectively, in our Consolidated Statements of Cash Flows. There were no cash payments for debt prepayment and debt extinguishment costs during the years ended December 31, 2016 and 2015. We have applied the new cash flow standard retrospectively to all periods presented.
- We believe current and future regulatory changes have made the Lifeline program offered by our wholesale partners uneconomical. We will continue to support our wholesale partners offering the Lifeline program, but have excluded the Lifeline customers from our reported wholesale subscriber base resulting in the removal of 4,528,000 reported wholesale customers in 2017.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations**Overview**

The objectives of our Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”) are to provide users of our Consolidated Financial Statements with the following:

- A narrative explanation from the perspective of management of our financial condition, results of operations, cash flows, liquidity and certain other factors that may affect future results;
- Context to the financial statements; and
- Information that allows assessment of the likelihood that past performance is indicative of future performance.

Our MD&A is provided as a supplement to, and should be read together with, our audited Consolidated Financial Statements for the three years ended December 31, 2018, included in Part II, Item 8 of this Form 10-K. Except as expressly stated, the financial condition and results of operations discussed throughout our MD&A are those of T-Mobile US, Inc. and its consolidated subsidiaries.

Business Overview**Un-carrier Strategy**

We are the Un-carrier. Through our Un-carrier strategy, we’ve disrupted the wireless communication services industry by listening to our customers and providing them with added value and an exceptional experience, including implementing signature initiatives that changed the wireless industry forever. These Un-carrier initiatives include the following launched during 2018:

- In August 2018, we introduced Un-carrier Next, a new initiative that radically changes the structure of our customer service department and solves several significant pain points for customers. Postpaid customers will get directly through to a human when they call customer support, and that human will be one member of a “Team of Experts” devoted to that customer and other customers in their geographic region. No bots, no bouncing, no BS.
- Un-carrier Next also provided customers exclusive access to a free one-year Pandora Plus subscription via the T-Mobile Tuesdays App in August 2018. In addition, we announced an exclusive multi-year partnership with Live Nation, the world’s largest live entertainment company, giving Un-carrier customers rock star status at Live Nation amphitheater and arena concerts, including access to last-minute reserve seats in sold-out sections and discounted tickets.

In September 2018, in connection with the rebranding of our prepaid brand, MetroPCS, as Metro by T-Mobile, we introduced new unlimited rate plans with tiers that feature added benefits of Google One and Amazon Prime as well as an expanded selection of the latest and greatest smartphones. Gone are the outdated perceptions that prepaid service is synonymous with limited coverage, cheap flip phones or bad credit.

Our ability to acquire and retain branded customers is important to our business in the generation of revenues and we believe our Un-carrier strategy, along with ongoing network improvements, has been successful in attracting and retaining customers as evidenced by continued branded customer growth and improved branded postpaid phone and branded prepaid customer churn.

(in thousands)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	# Change	% Change	# Change	% Change
Net customer additions							
Branded postpaid customers	4,459	3,620	4,097	839	23 %	(477)	(12)%
Branded prepaid customers	460	855	2,508	(395)	(46)%	(1,653)	(66)%
Total branded customers	4,919	4,475	6,605	444	10 %	(2,130)	(32)%

	Year Ended December 31,			Bps Change 2018 Versus 2017	Bps Change 2017 Versus 2016
	2018	2017	2016		
Branded postpaid phone churn	1.01%	1.18%	1.30%	-17 bps	-12 bps
Branded prepaid churn	3.96%	4.04%	3.88%	-8 bps	16 bps

Proposed Sprint Transaction

On April 29, 2018, we entered into the Business Combination Agreement to merge with Sprint in an all-stock transaction at a fixed exchange ratio of 0.10256 shares of T-Mobile common stock for each share of Sprint common stock, or 9.75 shares of Sprint common stock for each share of T-Mobile common stock. The combined company will be named “T-Mobile” and, as a result of the Merger, is expected to be able to rapidly launch a nationwide 5G network, accelerate innovation and increase competition in the U.S. wireless, video and broadband industries. Immediately following the Merger, it is anticipated that DT and SoftBank Group Corp. will hold, directly or indirectly, on a fully diluted basis, approximately 41.7% and 27.4% , respectively, of the outstanding T-Mobile common stock, with the remaining approximately 30.9% of the outstanding T-Mobile common stock held by other stockholders, based on closing share prices and certain other assumptions as of December 31, 2018. The Merger is subject to regulatory approvals and certain other customary closing conditions. We expect to receive regulatory approval in the first half of 2019.

For more information regarding our Business Combination Agreement, see [Note 2 – Business Combinations](#) of the Notes to the Consolidated Financial Statements .

Acquisitions

- On January 1, 2018, we closed on our previously announced Unit Purchase Agreement to acquire the remaining equity in Iowa Wireless Services, LLC (“IWS”), a 54% owned unconsolidated subsidiary, for a purchase price of \$25 million . We accounted for our acquisition of IWS as a business combination and recognized a bargain purchase gain of approximately \$25 million as part of our purchase price allocation and a gain on our previously held equity interest of approximately \$15 million in Other income, net in 2018.
- On January 22, 2018, we completed our acquisition of television innovator Layer3 TV for cash consideration of \$318 million. Upon closing of the transaction, Layer3 TV became a wholly-owned consolidated subsidiary. Layer3 TV acquires and distributes digital entertainment programming primarily through the internet to residential customers, offering direct to home digital television and multi-channel video programming distribution services. This transaction represented an opportunity to acquire a complementary service to our existing wireless service to advance our video strategy. We accounted for the purchase of Layer3 TV as a business combination and recognized \$218 million of goodwill as part of our purchase price allocation.

For more information regarding our acquisitions, see [Note 2 – Business Combinations](#) of the Notes to the Consolidated Financial Statements .

Accounting Pronouncements Adopted During the Current Year***Revenue Recognition***

On January 1, 2018, we adopted the new revenue standard. See [Note 10 – Revenue from Contracts with Customers](#) of the Notes to the Consolidated Financial Statements for information regarding the new revenue standard and [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements for information regarding recently issued accounting standards.

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The impact of our adoption of the new revenue standard is presented in [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements and in the following table which presents a comparison of selected financial information under both the new revenue standard and the previous revenue standard for the year ended December 31, 2018 :

	Year Ended December 31, 2018		
	Previous Revenue Standard	New Revenue Standard	Change
GAAP financial measures			
Branded postpaid service revenues (in millions)	\$ 20,887	\$ 20,862	\$ (25)
Branded prepaid service revenues (in millions)	9,608	9,598	(10)
Net income (in millions)	2,593	2,888	295
Performance measures			
Branded postpaid phone ARPU	\$ 46.45	\$ 46.40	\$ (0.05)
Branded postpaid ABPU	58.49	58.44	(0.05)
Branded prepaid ARPU	38.56	38.53	(0.03)
Non-GAAP financial measure			
Adjusted EBITDA (in millions)	\$ 12,000	\$ 12,398	\$ 398

Statement of Cash Flows

On January 1, 2018, we adopted the new cash flow standard which impacted the presentation of our cash flows related to our beneficial interests in securitization transactions, which is the deferred purchase price, resulting in a reclassification of cash inflows from Operating activities to Investing activities in our Consolidated Statements of Cash Flows . The new cash flow standard also impacted the presentation of our cash payments for debt prepayment and debt extinguishment costs, resulting in a reclassification of cash outflows from Operating activities to Financing activities in our Consolidated Statements of Cash Flows . We have applied the new cash flow standard retrospectively to all periods presented. For additional information regarding the new cash flow standard and the impact of our adoption, see “ [Selected Financial Data](#) ” and [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements .

Financial Instruments

In January 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-01, “Financial Instruments (Topic 825): Recognition and Measurement of Financial Assets and Financial Liabilities.” The standard addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The standard became effective for us, and we adopted the standard, on January 1, 2018. The standard requires the impact of adoption to be recorded to retained earnings under a modified retrospective approach. The implementation of this standard did not have a material impact on our Consolidated Financial Statements .

Income Taxes

In October 2016, the FASB issued ASU 2016-16, “Accounting for Income Taxes: Intra-Entity Transfers of Assets Other Than Inventory.” The standard requires that the income tax impact of intra-entity sales and transfers of property, except for inventory, be recognized when the transfer occurs. The standard became effective for us, and we adopted the standard, on January 1, 2018. The standard requires any deferred taxes not yet recognized on intra-entity transfers to be recorded to retained earnings under a modified retrospective approach. The implementation of this standard did not have a material impact on our Consolidated Financial Statements .

Derivatives and Hedging

In August 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging (Topic 815): Targeted Improvement to Accounting for Hedging Activities.” The standard modified the guidance for the designation and measurement of qualifying hedging relationships and the presentation of hedge results. We adopted this standard on October 1, 2018, and have applied the standard to hedging transactions prospectively.

Hurricane Impacts

During 2018, we recognized \$61 million in costs related to hurricanes, including \$36 million in incremental costs to maintain services primarily in Puerto Rico related to hurricanes that occurred in 2017 and \$25 million related to hurricanes that occurred in 2018. Additional costs related to a hurricane that occurred in 2018 are expected to be immaterial in the first quarter of 2019.

During 2018, we received reimbursement payments from our insurance carriers of \$307 million related to hurricanes, of which \$93 million was previously accrued for as a receivable as of December 31, 2017.

We have accrued insurance recoveries related to a hurricane that occurred in 2018 of approximately \$5 million for the year ended December 31, 2018 as an offset to the costs incurred within Cost of services in our Consolidated Statements of Comprehensive Income and as an increase to Other current assets in our Consolidated Balance Sheets.

The following table shows the impacts of hurricanes to our results, operating metrics and non-GAAP financial measures for the years ended December 31, 2018 and 2017. There were no significant hurricane impacts in 2016.

(in millions, except per share amounts)	Year Ended December 31, 2018			Year Ended December 31, 2017		
	Gross	Reim- bursement	Net	Gross	Reim- bursement	Net
Increase (decrease)						
Revenues						
Branded postpaid revenues	\$ —	\$ —	\$ —	\$ (37)	\$ —	\$ (37)
<i>Of which, branded postpaid phone revenues</i>	—	—	—	(35)	—	(35)
Branded prepaid revenues	—	—	—	(11)	—	(11)
Total service revenues	—	—	—	(48)	—	(48)
Equipment revenues	—	—	—	(8)	—	(8)
Other revenues	—	71	71	—	—	—
Total revenues	—	71	71	(56)	—	(56)
Operating expenses						
Cost of services	59	(135)	(76)	198	(93)	105
Cost of equipment sales	1	—	1	4	—	4
Selling, general and administrative	1	(13)	(12)	36	—	36
<i>Of which, bad debt expense</i>	—	—	—	20	—	20
Total operating expenses	61	(148)	(87)	238	(93)	145
Operating income (loss)	(61)	219	158	(294)	93	(201)
Net income (loss)	\$ (41)	\$ 140	\$ 99	\$ (193)	\$ 63	\$ (130)
Earnings per share						
Basic	\$ (0.05)	\$ 0.17	\$ 0.12	\$ (0.23)	\$ 0.07	\$ (0.16)
Diluted	(0.05)	0.17	0.12	(0.22)	0.07	(0.15)
Operating metrics						
Bad debt expense and losses from sales of receivables as a percentage of total revenues	—	—	—	0.05%	—%	0.05%
Branded postpaid phone ARPU	\$ —	\$ —	\$ —	\$ (0.09)	\$ —	\$ (0.09)
Branded postpaid ABPU	—	—	—	(0.08)	—	(0.08)
Branded prepaid ARPU	—	—	—	(0.05)	—	(0.05)
Non-GAAP financial measures						
Adjusted EBITDA	\$ (61)	\$ 219	\$ 158	\$ (294)	\$ 93	\$ (201)

Results of Operations

Highlights for the years ended December 31, 2018 , compared to the same period in 2017

- Total revenues of \$43.3 billion for the year ended December 31, 2018 increased \$2.7 billion , or 7% , primarily driven by growth in service and equipment revenues as further discussed below.
- Service revenues of \$32.0 billion for the year ended December 31, 2018 increased \$1.8 billion , or 6% , primarily due to growth in our average branded customer base driven by the continued growth in existing and Greenfield markets including the growing success of new customer segments and rate plans such as T-Mobile ONE Unlimited 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials, along with lower churn, growth in connected devices and the success of our Metro by T-Mobile brand.
- Equipment revenues of \$10.0 billion for the year ended December 31, 2018 increased \$634 million , or 7% , primarily due to a higher average revenue per device sold and a positive impact from the new revenue standard of \$393 million , partially offset by a decrease in the number of devices sold, excluding purchased leased devices, lower volumes of purchased leased devices at the end of the lease term and lower lease revenues.
- Operating income of \$5.3 billion for the year ended December 31, 2018 increased \$421 million , or 9% , primarily due to higher Total revenues, partially offset by higher Selling, general and administrative expenses, Depreciation and amortization, Cost of equipment sales, Cost of services and lower Gains on disposal of spectrum licenses. Operating income for the year ended December 31, 2018 included the positive impacts from the adoption of the new revenue standard of \$398 million and from insurance reimbursements related to hurricanes, net of costs incurred, of \$158 million as well as the negative impact of Costs associated with the Transactions of \$196 million . Operating income also included gains on disposal of spectrum licenses of \$235 million and the negative impact from hurricanes of \$201 million for the year ended December 31, 2017 .
- Net income of \$2.9 billion for the year ended December 31, 2018 decreased \$1.6 billion , or 36% , primarily due to higher Income tax (expense) benefit , partially offset by higher Operating income and lower Other income (expense), net . Net income for the year ended December 31, 2018 included the positive impacts from the adoption of the new revenue standard of \$295 million and from insurance reimbursements related to hurricanes, net of costs, of \$99 million as well as the negative impact of Costs associated with the Transactions of \$180 million . Net income also included the negative impact from hurricanes of \$130 million and net, after-tax gains on disposal of spectrum licenses of \$174 million for the year ended December 31, 2017 .
- Adjusted EBITDA of \$12.4 billion for the year ended December 31, 2018 increased \$1.2 billion , or 11% , primarily due to higher Operating income driven by the factors described above. See “ [Performance Measures](#) ” for additional information.
- Net cash provided by operating activities of \$3.9 billion for the year ended December 31, 2018 increased \$68 million , or 2% . See “ [Liquidity and Capital Resources](#) ” for additional information.
- Free Cash Flow of \$3.6 billion for the year ended December 31, 2018 increased \$827 million , or 30% . See “ [Liquidity and Capital Resources](#) ” for additional information.

Set forth below is a summary of our consolidated financial results:

(in millions)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
Revenues							
Branded postpaid revenues	\$ 20,862	\$ 19,448	\$ 18,138	\$ 1,414	7 %	\$ 1,310	7 %
Branded prepaid revenues	9,598	9,380	8,553	218	2 %	827	10 %
Wholesale revenues	1,183	1,102	903	81	7 %	199	22 %
Roaming and other service revenues	349	230	250	119	52 %	(20)	(8)%
Total service revenues	31,992	30,160	27,844	1,832	6 %	2,316	8 %
Equipment revenues	10,009	9,375	8,727	634	7 %	648	7 %
Other revenues	1,309	1,069	919	240	22 %	150	16 %
Total revenues	43,310	40,604	37,490	2,706	7 %	3,114	8 %
Operating expenses							
Cost of services, exclusive of depreciation and amortization shown separately below	6,307	6,100	5,731	207	3 %	369	6 %
Cost of equipment sales	12,047	11,608	10,819	439	4 %	789	7 %
Selling, general and administrative	13,161	12,259	11,378	902	7 %	881	8 %
Depreciation and amortization	6,486	5,984	6,243	502	8 %	(259)	(4)%
Cost of MetroPCS business combination	—	—	104	—	NM	(104)	(100)%
Gains on disposal of spectrum licenses	—	(235)	(835)	235	(100)%	600	(72)%
Total operating expense	38,001	35,716	33,440	2,285	6 %	2,276	7 %
Operating income	5,309	4,888	4,050	421	9 %	838	21 %
Other income (expense)							
Interest expense	(835)	(1,111)	(1,418)	276	(25)%	307	(22)%
Interest expense to affiliates	(522)	(560)	(312)	38	(7)%	(248)	79 %
Interest income	19	17	13	2	12 %	4	31 %
Other income (expense), net	(54)	(73)	(6)	19	(26)%	(67)	NM
Total other expense, net	(1,392)	(1,727)	(1,723)	335	(19)%	(4)	— %
Income before income taxes	3,917	3,161	2,327	756	24 %	834	36 %
Income tax (expense) benefit	(1,029)	1,375	(867)	(2,404)	(175)%	2,242	(259)%
Net income	\$ 2,888	\$ 4,536	\$ 1,460	\$ (1,648)	(36)%	\$ 3,076	211 %
Statement of Cash Flows Data							
Net cash provided by operating activities	\$ 3,899	\$ 3,831	\$ 2,779	\$ 68	2 %	\$ 1,052	38 %
Net cash used in investing activities	(579)	(6,745)	(2,324)	6,166	(91)%	(4,421)	190 %
Net cash (used in) provided by financing activities	(3,336)	(1,367)	463	(1,969)	144 %	(1,830)	(395)%
Non-GAAP Financial Measures							
Adjusted EBITDA	\$ 12,398	\$ 11,213	\$ 10,639	\$ 1,185	11 %	\$ 574	5 %
Free Cash Flow	3,552	2,725	1,433	827	30 %	1,292	90 %

NM - Not Meaningful

The following discussion and analysis is for the year ended December 31, 2018, compared to the same period in 2017 unless otherwise stated.

Total revenues increased \$2.7 billion, or 7%, as discussed below.

Branded postpaid revenues increased \$1.4 billion, or 7%, primarily from:

- Higher average branded postpaid phone customers, primarily from growth in our customer base driven by the continued growth in existing and Greenfield markets including the growing success of new customer segments and rate plans such as T-Mobile ONE Unlimited 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials, along with lower churn; and
- Higher average branded postpaid other customers; partially offset by
- Lower branded postpaid phone Average Revenue Per User (“ARPU”). See “Branded Postpaid Phone ARPU” in the “[Performance Measures](#)” section of this MD&A; and
- The negative impact of the new revenue standard of \$25 million, primarily due to the impact of certain promotions previously recognized as a reduction in equipment revenues now recognized as a reduction in branded postpaid revenues, partially offset by certain equipment revenues reclassified to branded postpaid revenues.

Branded prepaid revenues increased \$218 million, or 2%, primarily from:

- Higher average branded prepaid customers driven by the success of our Metro by T-Mobile brand; partially offset by
- Lower branded prepaid ARPU. See “Branded Prepaid APRU” in the “[Performance Measures](#)” section of this MD&A; and
- The negative impact of the new revenue standard of \$10 million, primarily due to the impact of certain promotions previously recognized as a reduction in equipment revenues now recognized as a reduction in branded prepaid revenues.

Wholesale revenues increased \$81 million, or 7%, primarily from the continued success of our MVNO partnerships.

Roaming and other service revenues increased \$119 million, or 52%, primarily from an increase in international and domestic roaming revenues.

Equipment revenues increased \$634 million, or 7%, primarily from:

- An increase of \$1.1 billion in device sales revenues, excluding purchased leased devices, primarily due to:
 - Higher average revenue per device sold due to an increase in the high-end device mix; and
 - A positive impact from the new revenue standard of \$393 million primarily related to:
 - Commission costs of \$438 million previously recorded as a reduction in Equipment revenues now recorded as Selling, general and administrative expenses and certain promotions previously recorded as a reduction in Equipment revenues now recorded as a reduction in Service revenues; partially offset by
 - Certain promotional bill credits now capitalized as contract assets and certain Equipment revenues now recognized as Service revenues; partially offset by
 - A 6% decrease in the number of devices sold, excluding purchased leased devices; partially offset by
- A decrease of \$310 million from lower volumes of purchased leased devices at the end of the lease term; and
- A decrease of \$185 million in lease revenues from JUMP! On Demand customers preferring affordable device options on leasing programs with lower monthly lease payments and shifting focus to our EIP financing option for high-end devices.

Under our JUMP! On Demand program, upon device upgrade or at lease end, customers must return or purchase their device. Revenue for purchased leased devices is recorded as equipment revenues when revenue recognition criteria have been met.

Other revenues increased \$240 million , or 22% , primarily due to revenue share agreements with third parties, the positive impact from \$71 million in insurance reimbursements related to the hurricanes, and higher amortized imputed discount on EIP receivables due to continued growth in EIP sales.

Our operating expenses consist of the following categories:

- **Cost of services** primarily includes costs directly attributable to providing wireless service through the operation of our network, including direct switch and cell site costs, such as rent, network access and transport costs, utilities, maintenance, associated labor costs, long distance costs, regulatory program costs, roaming fees paid to other carriers and data content costs. In addition, certain costs for customer appreciation programs are included in Cost of services.
- **Cost of equipment sales** primarily includes costs of devices and accessories sold to customers and dealers, device costs to fulfill insurance and warranty claims, costs related to returned and purchased leased devices, write-downs of inventory related to shrinkage and obsolescence, and shipping and handling costs.
- **Selling, general and administrative** primarily includes costs not directly attributable to providing wireless service for the operation of sales, customer care and corporate activities. These include commissions paid to dealers and retail employees for activations and upgrades, labor and facilities costs associated with retail sales force and administrative space, marketing and promotional costs, customer support and billing, bad debt expense, losses from sales of receivables and back office administrative support activities.

Operating expenses increased \$2.3 billion , or 6% , primarily from higher Selling, general and administrative expenses, Depreciation and amortization expense, Cost of equipment sales, Cost of services, and lower Gains on disposal of spectrum licenses as discussed below.

Cost of services increased \$207 million , or 3% , primarily from:

- Higher lease, employee-related and repair and maintenance expenses associated with network expansion; and
- The impact from the new revenue standard of \$74 million primarily related to certain contract fulfillment costs reclassified to Cost of services from Selling, general and administrative expenses; partially offset by
- Lower regulatory program costs; and
- The positive impact from insurance reimbursements related to hurricanes, net of costs, of \$76 million in the year ended December 31, 2018 , compared to costs incurred related to hurricanes, net of insurance recoveries, of \$105 million for the year ended December 31, 2017 .

Cost of equipment sales increased \$439 million , or 4% , primarily from:

- An increase of \$947 million in device cost of equipment sales, excluding purchased leased devices, primarily due to:
 - A higher average cost per device sold, primarily due to an increase in the high-end device mix; partially offset by
 - A 6% decrease in the number of devices sold, excluding purchased lease devices. This increase was partially offset by
- A decrease of \$342 million in leased device cost of equipment sales, primarily from lower volumes of purchased leased devices at the end of the lease term; and
- A decrease of \$178 million primarily due to lower inventory adjustments and lower warranty program costs.

Under our JUMP! On Demand program, upon device upgrade or at the end of the lease term, customers must return or purchase their device. The cost of purchased leased devices is recorded as Cost of equipment sales. Returned devices transferred from Property and equipment, net are recorded as inventory and are valued at the lower of cost or market with any write-down to market recognized as Cost of equipment sales.

Selling, general and administrative expenses increased \$902 million , or 7% , primarily from:

- Higher employee-related costs and costs related to managed services;
- Higher commissions driven by compensation structure and channel mix changes; and
- Costs associated with the Transactions of \$196 million ; partially offset by
- The positive impact from the new revenue standard of \$96 million , primarily due to:
 - Capitalized commission costs in excess of the related amortization of \$495 million ; and
 - Certain contract fulfillment costs reclassified to Cost of services from Selling, general and administrative expenses partially offset by
 - Commission costs of \$438 million previously recorded as a reduction in Equipment revenues now recognized in Selling, general and administrative expense;
- Lower bad debt expense and losses from sales of receivables reflecting our ongoing focus on managing customer quality;
- Lower promotional and advertising costs;
- Lower handset repair services costs due to lower demand for repaired phones for the fulfillment of warranty and insurance claims following the introduction of the AppleCare+ Program in the third quarter of 2017; and
- The positive impact from insurance reimbursements related to hurricanes, net of costs, of \$12 million in the year ended December 31, 2018 , compared to costs incurred related to hurricanes of \$36 million for the year ended December 31, 2017 .

Depreciation and amortization increased \$502 million , or 8% , primarily from:

- The continued build-out of our 4G LTE network and deployment of low band spectrum and 5G compatible radios; and
- The implementation of the first component of our new billing system; partially offset by
- Lower depreciation expense related to our JUMP! On Demand program resulting from an increase in the affordable device mix. Under our JUMP! On Demand program, the cost of a leased wireless device is depreciated to its estimated residual value over the period expected to provide utility to us.

Gains on disposal of spectrum licenses were \$0 for the year ended December 31, 2018 , as compared to \$235 million for the year ended December 31, 2017 , due to gains from spectrum license transactions with AT&T and Verizon in 2017.

Operating income , the components of which are discussed above, increased \$421 million , or 9% , for the year ended December 31, 2018 and included:

- The net positive impacts from the new revenue standard of \$398 million ; and
- The positive impact from insurance reimbursements related to hurricanes, net of costs, of \$158 million , compared to a negative impact of \$201 million in the same period in 2017; partially offset by
- Gains on disposal of spectrum licenses of \$235 million in 2017. There were no gains on disposal of spectrum licenses in 2018; and
- Costs associated with the Transactions of \$196 million .

Interest expense decreased \$276 million , or 25% , primarily from:

- Redemption in April 2017 of aggregate principal amount of \$6.8 billion of Senior Notes, with various interest rates and maturity dates;
- Redemption in January 2018 of \$1.0 billion of 6.125% Senior Notes due 2022 ;
- Redemption in April 2018 of aggregate principal amount of \$2.4 billion of Senior Notes due 2023, with various interest rates and maturity dates; and
- Increase in capitalized interest costs of \$100 million primarily due to the build out of our network to utilize our 600 MHz spectrum licenses in the year ended December 31, 2018 , compared to the year ended December 31, 2017 ;

partially offset by

- Issuance in March 2017 of aggregate principal amount of \$1.5 billion of Senior Notes, with various interest rates and maturity dates;
- Issuance in January 2018 of \$1.0 billion of public 4.500% Senior Notes due 2026; and
- Issuance in January 2018 of \$1.5 billion of public 4.750% Senior Notes due 2028.

See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for further information.

Interest expense to affiliates decreased \$38 million , or 7% , primarily from:

- A decrease from lower interest rates achieved through refinancing in April 2017 of a total of \$2.5 billion of Senior Reset Notes;
- A decrease from lower interest rates achieved through refinancing in April 2018 of a total of \$2.5 billion of Senior Reset Notes; and
- Increase in capitalized interest costs of \$126 million primarily due to build out of our network to utilize our 600 MHz spectrum licenses in the year ended December 31, 2018 , compared to the year ended December 31, 2017 ; partially offset by
- Issuance in January 2017 of \$4.0 billion of Incremental Secured Term Loan facility, which refinanced \$1.98 billion of outstanding senior secured term loans;
- Issuance in May 2017 of aggregate principal amount of \$4.0 billion of Senior Notes, with various interest rates and maturity dates;
- Issuance in April 2017 of aggregate principal amount of \$3.0 billion of Senior Notes, with various interest rates and maturity dates; and
- Issuance in September 2017 of aggregate principal amount of \$500 million of 5.375% Senior Notes due 2027 .

See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for further information.

Other income (expense), net decreased \$19 million , or 26% , primarily from:

- A \$30 million gain on sale of certain investments;
- A \$25 million bargain purchase gain as part of our purchase price allocation of the IWS acquisition; and
- A \$15 million gain on our previously held equity interest in IWS; partially offset by
- A \$36 million increase in losses on early redemption of debt, including:
 - An \$86 million loss on early redemption of \$2.5 billion in DT Senior Reset Notes in April 2018; and
 - A \$32 million loss on early redemption of \$1.0 billion of 6.125% Senior Notes due 2022 in January 2018; partially offset by
 - A \$73 million net loss on early redemption of aggregate principal amount of \$8.25 billion in Senior Notes, with various interest rates and maturity dates, during the year ended December 31, 2017 ; and
 - A \$13 million loss on refinancing of \$1.98 billion of outstanding senior secured term loans in January 2017.

Income tax expense increased \$2.4 billion , or 175% , primarily from:

- The impact of the TCJA, which resulted in a net tax benefit of \$2.2 billion in 2017, substantially due to a re-measurement of deferred tax assets and liabilities; and
- Higher income before taxes in 2018.

See [Note 13 – Income Taxes](#) of the Notes to the Consolidated Financial Statements for further information.

Net income , the components of which are discussed above, decreased \$1.6 billion , or 36% , and included:

- The impact of the TCJA as discussed above;
- Costs associated with the Transactions of \$180 million ; and
- Gains on disposal of spectrum licenses of \$174 million in 2017. There were no gains on disposal of spectrum licenses in 2018; partially offset by
- The net positive impact from the new revenue standard of \$295 million ; and
- Insurance reimbursements related to the hurricanes, net of costs, of \$99 million , compared to costs of \$130 million in the same period in 2017.

Guarantor Subsidiaries

The financial condition and results of operations of the Parent, Issuer and Guarantor Subsidiaries is substantially similar to our consolidated financial condition. The most significant components of the financial condition of our Non-Guarantor Subsidiaries were as follows:

(in millions)	December 31,	December 31,	Change	
	2018	2017	\$	%
Other current assets	\$ 645	\$ 628	\$ 17	3 %
Property and equipment, net	297	306	(9)	(3)%
Goodwill	218	—	218	NM
Tower obligations	2,173	2,198	(25)	(1)%
Total stockholders' deficit	(1,142)	(1,454)	312	(21)%

NM - Not Meaningful

The most significant components of the results of operations of our Non-Guarantor Subsidiaries were as follows:

(in millions)	Year Ended December 31,		Change	
	2018	2017	\$	%
Service revenues	\$ 2,339	\$ 2,113	\$ 226	11%
Cost of equipment sales	1,011	1,003	8	1%
Selling, general and administrative	985	856	129	15%
Total comprehensive income	193	28	165	589%

The change to the results of operations of our Non-Guarantor Subsidiaries for the year ended December 31, 2018 was primarily from:

- Higher Service revenues primarily due to an increase in activity of the non-guarantor subsidiary that provides device insurance, primarily driven by growth in our customer base and higher average revenue related to the new device protection product launched at the end of August 2018; partially offset by
- Higher Selling, general and administrative expenses primarily due to operating costs from the non-guarantor Layer3 TV subsidiary acquired in the first quarter of 2018, an increase in customer notification expenses related to the new insurance product launched at the end of August 2018, and an increase in program expenses related to Apple Care Service Fees, partially offset by lower valuation losses in the non-guarantor subsidiary involved in the EIP sale arrangement; and
- Higher Cost of equipment sales primarily due to an increase in higher cost devices used for device insurance claims fulfillment, partially offset by an increase in device liquidations and a decrease in device non-return fees charged to customers.

All other results of operations of the Parent, Issuer and Guarantor Subsidiaries are substantially similar to the Company's consolidated results of operations. See [Note 17 – Guarantor Financial Information](#) of the Notes to the Consolidated Financial Statements .

Performance Measures

In managing our business and assessing financial performance, we supplement the information provided by our financial statements with other operating or statistical data and non-GAAP financial measures. These operating and financial measures are utilized by our management to evaluate our operating performance and, in certain cases, our ability to meet liquidity requirements. Although companies in the wireless industry may not define each of these measures in precisely the same way, we believe that these measures facilitate comparisons with other companies in the wireless industry on key operating and financial measures.

Total Customers

A customer is generally defined as a SIM number with a unique T-Mobile identifier which is associated with an account that generates revenue. Branded customers generally include customers that are qualified either for postpaid service utilizing phones, DIGITS or connected devices which includes tablets, wearables and SyncUp DRIVE, where they generally pay after receiving service, or prepaid service, where they generally pay in advance. Wholesale customers include M2M and MVNO customers that operate on our network but are managed by wholesale partners.

The following table sets forth the number of ending customers:

(in thousands)	December 31, 2018	December 31, 2017	December 31, 2016	2018 Versus 2017		2017 Versus 2016	
				# Change	% Change	# Change	% Change
Customers, end of period							
Branded postpaid phone customers ⁽¹⁾⁽²⁾	37,224	34,114	31,297	3,110	9%	2,817	9%
Branded postpaid other customers ⁽²⁾	5,295	3,933	3,130	1,362	35%	803	26%
Total branded postpaid customers	42,519	38,047	34,427	4,472	12%	3,620	11%
Branded prepaid customers ⁽¹⁾	21,137	20,668	19,813	469	2%	855	4%
Total branded customers	63,656	58,715	54,240	4,941	8%	4,475	8%
Wholesale customers ⁽³⁾	15,995	13,870	17,215	2,125	15%	(3,345)	(19)%
Total customers, end of period	79,651	72,585	71,455	7,066	10%	1,130	2%
Adjustments to branded postpaid phone customers ⁽⁴⁾	—	—	(1,365)	—	—%	1,365	(100)%
Adjustments to branded prepaid customers ⁽⁴⁾	—	—	(326)	—	—%	326	(100)%
Adjustments to wholesale customers ⁽⁴⁾	—	—	1,691	—	—%	(1,691)	(100)%

(1) As a result of the acquisition of IWS, we included an adjustment of 13,000 branded postpaid phone and 4,000 branded prepaid IWS customers in our reported subscriber base as of January 1, 2018. Additionally, as a result of the acquisition of Layer3 TV, we included an adjustment of 5,000 branded prepaid customers in our reported subscriber base as of January 22, 2018.

(2) During 2017, we retitled our “Branded postpaid mobile broadband customers” category to “Branded postpaid other customers” and reclassified 253,000 DIGITS customers from our “Branded postpaid phone customers” category for the second quarter of 2017, when the DIGITS product was released.

(3) We believe current and future regulatory changes have made the Lifeline program offered by our wholesale partners uneconomical. We will continue to support our wholesale partners offering the Lifeline program, but have excluded the Lifeline customers from our reported wholesale subscriber base resulting in the removal of 4,528,000 reported wholesale customers in 2017.

(4) As a result of the MVNO transaction, we included an adjustment of 1,365,000 branded postpaid phone customers and 326,000 branded prepaid customers to wholesale customers on September 1, 2016. Prospectively from September 1, 2016, net customer additions for these customers are included within wholesale customers.

Branded Customers

Total branded customers increased 4,941,000, or 8%, in 2018 primarily from:

- Higher branded postpaid phone customers driven by the growing success of new customer segments and rate plans such as T-Mobile ONE Unlimited 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials and continued growth in existing and Greenfield markets, along with lower churn, partially offset by competitive activity;
- Higher branded postpaid other customers primarily due to higher gross customer additions from wearables; and
- Higher branded prepaid customers driven by the continued success of our Metro by T-Mobile brand due to promotional activities and rate plan offers.

Wholesale

Wholesale customers increased 2,125,000 , or 15% , in 2018 primarily due to the continued success of our M2M and MVNO partnerships.

Net Customer Additions

The following table sets forth the number of net customer additions:

(in thousands)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	# Change	% Change	# Change	% Change
Net customer additions							
Branded postpaid phone customers ⁽¹⁾⁽²⁾	3,097	2,817	3,307	280	10 %	(490)	(15)%
Branded postpaid other customers ⁽²⁾	1,362	803	790	559	70 %	13	2 %
Total branded postpaid customers	4,459	3,620	4,097	839	23 %	(477)	(12)%
Branded prepaid customers ⁽¹⁾	460	855	2,508	(395)	(46)%	(1,653)	(66)%
Total branded customers	4,919	4,475	6,605	444	10 %	(2,130)	(32)%
Wholesale customers ⁽³⁾	2,125	1,183	1,568	942	80 %	(385)	(25)%
Total net customer additions	7,044	5,658	8,173	1,386	24 %	(2,515)	(31)%

- (1) As a result of the acquisition of IWS and Layer3 TV, customer activity post acquisition was included in our net customer additions beginning in the first quarter of 2018.
- (2) During 2017, we retitled our “Branded postpaid mobile broadband customers” category to “Branded postpaid other customers” and included DIGITS customers and reclassified 253,000 DIGITS customer net additions from our “Branded postpaid phone customers” category for the second quarter of 2017, when the DIGITS product was released.
- (3) Net customer activity for Lifeline was excluded beginning in the second quarter of 2017, due to our determination based upon changes in the applicable government regulations that the Lifeline program offered by our wholesale partners is uneconomical.

Branded Customers

Total branded net customer additions increased 444,000 , or 10% , in 2018 primarily from:

- Higher branded postpaid other net customer additions primarily due to higher gross customer additions from wearables and lower churn, partially offset by lower gross customer additions from other connected devices; and
- Higher branded postpaid phone net customer additions primarily due to lower churn and continued growth in existing and Greenfield markets including the growing success of new customer segments and rate plans such as T-Mobile ONE Unlimited 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials, partially offset by the impact from more aggressive service promotions and the launch of Un-carrier Next - All Unlimited with taxes and fees in the first quarter of 2017. These increases were partially offset by
- Lower branded prepaid net customer additions primarily due to increased competitive activity, partially offset by lower migrations to branded postpaid plans.

Wholesale

Wholesale net customer additions increased 942,000 , or 80% , in 2018 primarily due to lower deactivations driven by the removal of Lifeline program customers .

Customers Per Account

Customers per account is calculated by dividing the number of branded postpaid customers as of the end of the period by the number of branded postpaid accounts as of the end of the period. An account may include branded postpaid phone customers and branded postpaid other customers which includes DIGITS and connected devices such as tablets, wearables and SyncUp DRIVE. We believe branded postpaid customers per account provides management, investors and analysts with useful information to evaluate our branded postpaid customer base on a per account basis.

The following table sets forth the branded postpaid customers per account:

	December 31, 2018	December 31, 2017	December 31, 2016	2018 Versus 2017		2017 Versus 2016	
				# Change	% Change	# Change	% Change
Branded postpaid customers per account	3.03	2.93	2.86	0.10	3%	0.07	2%

Branded postpaid customers per account increased 3% in 2018 primarily from continued growth of new customer segments and rate plans such as T-Mobile ONE Unlimited 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials, promotional activities targeting families and the success of connected devices.

Churn

Churn represents the number of customers whose service was disconnected as a percentage of the average number of customers during the specified period. The number of customers whose service was disconnected is presented net of customers that subsequently have their service restored within a certain period of time. We believe that churn provides management, investors and analysts with useful information to evaluate customer retention and loyalty.

The following table sets forth the churn:

	Year Ended December 31,			Bps Change 2018 Versus 2017	Bps Change 2017 Versus 2016
	2018	2017	2016		
Branded postpaid phone churn	1.01%	1.18%	1.30%	-17 bps	-12 bps
Branded prepaid churn	3.96%	4.04%	3.88%	-8 bps	16 bps

Branded postpaid phone churn decreased 17 basis points in 2018 , primarily from increased customer satisfaction and loyalty from ongoing improvements to network quality, industry-leading customer service and the overall value of our offerings.

Branded prepaid churn decreased 8 basis points in 2018 , primarily due to the continued impact from the optimization of our third-party distribution channels which was substantially completed during the first quarter of 2017, partially offset by higher deactivations from a growing customer base and increased competitive activity.

Average Revenue Per User, Average Billings Per User

Average Revenue Per User (“ARPU”) represents the average monthly service revenue earned from customers. We believe ARPU provides management, investors and analysts with useful information to assess and evaluate our service revenue realization per customer and assist in forecasting our future service revenues generated from our customer base. Branded postpaid phone ARPU excludes Branded postpaid other customers and related revenues which includes DIGITS and connected devices such as tablets, wearables and SyncUp DRIVE.

Average Billings Per User (“ABPU”) represents the average monthly customer billings, including monthly lease revenues and EIP billings before securitization, per customer. We believe Branded Postpaid ABPU was an important metric during the transition from classic plans to EIP based plans as it helped explain the customer billing relationship in a period which had shifts in customer billings from branded postpaid service revenues to equipment sales revenues. We believe the usefulness of ABPU to management, investors and analysts has decreased in recent periods as the remaining classic plan base is immaterial and Branded postpaid service revenue and Branded postpaid phone ARPU metrics in periods presented are now comparable. We therefore plan to discontinue reporting ABPU beginning with the quarter ending March 31, 2019.

The following tables illustrate the calculation of our operating measures ARPU and ABPU and reconcile these measures to the related service revenues:

(in millions, except average number of customers, ARPU and ABPU)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
Calculation of Branded Postpaid Phone ARPU							
Branded postpaid service revenues	\$ 20,862	\$ 19,448	\$ 18,138	\$ 1,414	7 %	\$ 1,310	7 %
Less: Branded postpaid other revenues	(1,117)	(1,077)	(773)	(40)	4 %	(304)	39 %
Branded postpaid phone service revenues	\$ 19,745	\$ 18,371	\$ 17,365	\$ 1,374	7 %	\$ 1,006	6 %
Divided by: Average number of branded postpaid phone customers (in thousands) and number of months in period	35,458	32,596	30,484	2,862	9 %	2,112	7 %
Branded postpaid phone ARPU	\$ 46.40	\$ 46.97	\$ 47.47	\$ (0.57)	(1)%	\$ (0.50)	(1)%
Calculation of Branded Postpaid ABPU							
Branded postpaid service revenues	\$ 20,862	\$ 19,448	\$ 18,138	\$ 1,414	7 %	\$ 1,310	7 %
EIP billings	6,548	5,866	5,432	682	12 %	434	8 %
Lease revenues	692	877	1,416	(185)	(21)%	(539)	(38)%
Total billings for branded postpaid customers	\$ 28,102	\$ 26,191	\$ 24,986	\$ 1,911	7 %	\$ 1,205	5 %
Divided by: Average number of branded postpaid customers (in thousands) and number of months in period	40,075	36,079	33,184	3,996	11 %	2,895	9 %
Branded postpaid ABPU	\$ 58.44	\$ 60.49	\$ 62.75	\$ (2.05)	(3)%	\$ (2.26)	(4)%
Calculation of Branded Prepaid ARPU							
Branded prepaid service revenues	\$ 9,598	\$ 9,380	\$ 8,553	\$ 218	2 %	\$ 827	10 %
Divided by: Average number of branded prepaid customers (in thousands) and number of months in period	20,761	20,204	18,797	557	3 %	1,407	7 %
Branded prepaid ARPU	\$ 38.53	\$ 38.69	\$ 37.92	\$ (0.16)	— %	\$ 0.77	2 %

Branded Postpaid Phone ARPU

Branded postpaid phone ARPU decreased \$0.57 , or 1% , in 2018 primarily due to:

- The growing success of new customer segments and rate plans such as T-Mobile ONE Unlimited 55+, T-Mobile ONE Military, T-Mobile for Business and T-Mobile Essentials;
- The ongoing growth in our Netflix offering, which totaled \$0.35 for 2018 and decreased branded postpaid phone ARPU by \$0.32 compared to full-year 2017;
- A reduction in certain non-recurring charges;
- The negative impact of the new revenue standard of \$0.05 ; partially offset by
- A net reduction in promotional activities.

We continue to expect that Branded postpaid phone ARPU in full-year 2019 will be generally stable compared to full-year 2018.

Branded Postpaid ABPU

Branded postpaid ABPU decreased \$2.05 , or 3% , in 2018 primarily from:

- Lower branded postpaid phone ARPU;
- Lower lease revenues; and
- Growth in the branded postpaid other customer base with a lower ARPU than branded postpaid phone.

Branded Prepaid ARPU

Branded prepaid ARPU decreased \$0.16 in 2018 primarily from dilution from promotional rate plans, partially offset by the continued growth of Metro by T-Mobile customers.

Adjusted EBITDA

Adjusted EBITDA represents earnings before Interest expense, net of Interest income, Income tax expense, Depreciation and amortization, non-cash Stock-based compensation and certain income and expenses not reflective of our operating performance. Net income margin represents Net income divided by Service revenues. Adjusted EBITDA margin represents Adjusted EBITDA divided by Service revenues.

Adjusted EBITDA is a non-GAAP financial measure utilized by our management to monitor the financial performance of our operations. We use Adjusted EBITDA internally as a measure to evaluate and compensate our personnel and management for their performance, and as a benchmark to evaluate our operating performance in comparison to our competitors. Management believes analysts and investors use Adjusted EBITDA as a supplemental measure to evaluate overall operating performance and facilitate comparisons with other wireless communications companies because it is indicative of our ongoing operating performance and trends by excluding the impact of interest expense from financing, non-cash depreciation and amortization from capital investments, non-cash stock-based compensation, network decommissioning costs and costs related to the Transactions, as they are not indicative of our ongoing operating performance, as well as certain other nonrecurring income and expenses. Adjusted EBITDA has limitations as an analytical tool and should not be considered in isolation or as a substitute for income from operations, net income or any other measure of financial performance reported in accordance with U.S. Generally Accepted Accounting Principles (“GAAP”).

The following table illustrates the calculation of Adjusted EBITDA and reconciles Adjusted EBITDA to Net income, which we consider to be the most directly comparable GAAP financial measure:

(in millions)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
Net income	\$ 2,888	\$ 4,536	\$ 1,460	\$ (1,648)	(36)%	\$ 3,076	211 %
Adjustments:							
Interest expense	835	1,111	1,418	(276)	(25)%	(307)	(22)%
Interest expense to affiliates	522	560	312	(38)	(7)%	248	79 %
Interest income	(19)	(17)	(13)	(2)	12 %	(4)	31 %
Other (income) expense, net	54	73	6	(19)	(26)%	67	1,117 %
Income tax expense (benefit)	1,029	(1,375)	867	2,404	(175)%	(2,242)	(259)%
Operating income	5,309	4,888	4,050	421	9 %	838	21 %
Depreciation and amortization	6,486	5,984	6,243	502	8 %	(259)	(4)%
Cost of MetroPCS business combination	—	—	104	—	NM	(104)	(100)%
Stock-based compensation ⁽¹⁾	389	307	235	82	27 %	72	31 %
Cost associated with the Transactions	196	—	—	196	NM	—	NM
Other, net ⁽²⁾	18	34	7	(16)	(47)%	27	386 %
Adjusted EBITDA	\$ 12,398	\$ 11,213	\$ 10,639	\$ 1,185	11 %	\$ 574	5 %
Net income margin (Net income divided by service revenues)	9%	15%	5%			-600 bps	1000 bps
Adjusted EBITDA margin (Adjusted EBITDA divided by service revenues)	39%	37%	38%			200 bps	-100 bps

(1) Stock-based compensation includes payroll tax impacts and may not agree to stock-based compensation expense in the Consolidated Financial Statements .

(2) Other, net may not agree to the Consolidated Statements of Comprehensive Income primarily due to certain non-routine operating activities, such as other special items that would not be expected to reoccur or are not reflective of T-Mobile’s ongoing operating performance, and are therefore excluded in Adjusted EBITDA.

Adjusted EBITDA increased \$1.2 billion , or 11% , in 2018 primarily from:

- Higher service revenues, as further discussed above;

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- The positive impact from the new revenue standard of \$398 million ;
- Higher other revenues, as further discussed above;
- Lower losses on equipment;
- The positive impact of the reimbursements from our insurance carriers, net of costs incurred related to hurricanes, for the year ended December 31, 2018 of \$158 million , compared to costs incurred related to hurricanes, net of insurance recoveries, of \$201 million in the year ended December 31, 2017 ; partially offset by
- Higher selling, general and administrative expenses;
- Lower gains on disposal of spectrum licenses of \$235 million ; and
- Higher cost of services.

Liquidity and Capital Resources

Our principal sources of liquidity are our cash and cash equivalents and cash generated from operations, proceeds from issuance of long-term debt and common stock, capital leases, the sale of certain receivables, financing arrangements of vendor payables which effectively extend payment terms and secured and unsecured revolving credit facilities with DT. Upon consummation of the Transactions, we will incur substantial third-party indebtedness which will increase our future financial commitments, including aggregate interest payments on higher total indebtedness, and may adversely impact our liquidity. Further, the incurrence of additional indebtedness may inhibit our ability to incur new debt under the terms governing our existing and future indebtedness, which may make it more difficult for us to incur new debt in the future to finance our business strategy.

Cash Flows

On January 1, 2018, we adopted the new cash flow standard which impacted the presentation of our cash flows related to our beneficial interests in securitization transactions, which is the deferred purchase price, resulting in a reclassification of cash inflows from Operating activities to Investing activities of approximately \$5.4 billion , \$4.3 billion and \$3.4 billion for the years ended December 31, 2018 , 2017 and 2016, respectively, in our Consolidated Statements of Cash Flows . The new cash flow standard also impacted the presentation of our cash payments for debt prepayment and debt extinguishment costs, resulting in a reclassification of cash outflows from Operating activities to Financing activities of \$212 million and \$188 million for the years ended December 31, 2018 and 2017 , respectively, in our Consolidated Statements of Cash Flows . There were no cash payments for debt prepayment and debt extinguishment costs during the year ended December 31, 2016 . We have applied the new cash flow standard retrospectively to all periods presented.

For additional information regarding the new cash flow standard and the impact of our adoption, see “ [Selected Financial Data](#) ” and [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements .

The following is a condensed schedule of our cash flows for the years ended December 31, 2018 , 2017 and 2016 :

(in millions)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
Net cash provided by operating activities	\$ 3,899	\$ 3,831	\$ 2,779	\$ 68	2 %	\$ 1,052	38 %
Net cash used in investing activities	(579)	(6,745)	(2,324)	6,166	(91)%	(4,421)	190 %
Net cash (used in) provided by financing activities	(3,336)	(1,367)	463	(1,969)	144 %	(1,830)	(395)%

Operating Activities

Net cash provided by operating activities increased \$68 million , or 2% , primarily from higher net non-cash adjustments to Net income, partially offset by lower Net income and higher net cash outflows from working capital changes.

- The change in Net income and the net non-cash adjustments to Net income were primarily from the impacts of the TCJA in 2017 and the absence of Gains on disposal of spectrum licenses in 2018.
- The higher net use in working capital was primarily from a paydown of Accounts payable and changes in Accounts receivable, partially offset by changes in Inventories and EIP receivables.

Investing Activities

Net cash used in investing activities decreased \$6.2 billion , or 91% , to a use of \$579 million for 2018.

The use of cash for the year ended December 31, 2018 was primarily from:

- \$5.5 billion in Purchases of property and equipment, including capitalized interest, primarily driven by growth in network build as we continued deployment of low band spectrum, including the continued deployment of 600 MHz, and started laying the groundwork for 5G; and
- \$338 million of cash consideration paid, net of cash acquired, for the acquisitions of Layer3 TV and IWS; partially offset by
- \$5.4 billion in Proceeds related to beneficial interest in securitization transactions.

Financing Activities

Net cash (used in) provided by financing activities increased \$2.0 billion , or 144% , to a use of \$3.3 billion for 2018.

The use of cash for the year ended December 31, 2018 was primarily from:

- \$6.3 billion for Repayments of our revolving credit facility;
- \$3.3 billion for Repayments of long-term debt ;
- \$1.1 billion for Repurchases of common stock; and
- \$700 million for Repayments of capital lease obligations; partially offset by
- \$6.3 billion in Proceeds from borrowing on our revolving credit facility; and
- \$2.5 billion in Proceeds from issuance of long-term debt.

Cash and Cash Equivalents

As of December 31, 2018 , our Cash and cash equivalents were \$1.2 billion .

Free Cash Flow

Free Cash Flow represents Net cash provided by operating activities less payments for Purchases of property and equipment, including Proceeds related to beneficial interests in securitization transactions and less Cash payments for debt prepayment or debt extinguishment costs. Free Cash Flow is a non-GAAP financial measure utilized by our management, investors and analysts of our financial information to evaluate cash available to pay debt and provide further investment in the business.

In the first quarter of 2018, we redefined our non-GAAP financial measure Free Cash Flow to reflect the adoption of the new cash flow standard to present cash flows on a consistent basis for investor transparency. We have applied the change in definition retrospectively in the table below, which illustrates the calculation of Free Cash Flow and reconciles Free Cash Flow to Net cash provided by operating activities, which we consider to be the most directly comparable GAAP financial measure:

(in millions)	Year Ended December 31,			2018 Versus 2017		2017 Versus 2016	
	2018	2017	2016	\$ Change	% Change	\$ Change	% Change
Net cash provided by operating activities	\$ 3,899	\$ 3,831	\$ 2,779	\$ 68	2%	\$ 1,052	38%
Cash purchases of property and equipment	(5,541)	(5,237)	(4,702)	(304)	6%	(535)	11%
Proceeds related to beneficial interests in securitization transactions	5,406	4,319	3,356	1,087	25%	963	29%
Cash payments for debt prepayment or debt extinguishment costs	(212)	(188)	—	(24)	13%	(188)	NM
Free Cash Flow	\$ 3,552	\$ 2,725	\$ 1,433	\$ 827	30%	\$ 1,292	90%

Free Cash Flow increased \$827 million , or 30% , for 2018 from:

- Higher proceeds related to our deferred purchase price from securitization transactions and net cash provided by operating activities; partially offset by
- Higher Purchases of property and equipment, net of capitalized interest of \$362 million and \$136 million for the years ended December 31, 2018 and 2017 , respectively. The increase in cash purchases of property and equipment was primarily due to growth in network build as we continued deployment of low band spectrum, including the continued deployment of 600 MHz, and started laying the groundwork for 5G.

Borrowing Capacity and Debt Financing

As of December 31, 2018 , our total debt was \$27.5 billion , excluding our tower obligations, of which \$26.7 billion was classified as long-term debt. See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for a detailed discussion of our debt to third parties and debt to affiliates.

In December 2016, T-Mobile USA entered into a \$2.5 billion revolving credit facility with DT which is comprised of (i) a three -year \$1.0 billion unsecured revolving credit agreement and (ii) a three -year \$1.5 billion secured revolving credit agreement. In January 2018, we utilized proceeds under the revolving credit facility to redeem \$1.0 billion in aggregate principal amount of our 6.125% Senior Notes due 2022 and for general corporate purposes. On January 29, 2018, the proceeds utilized under our revolving credit facility with DT were repaid. As of December 31, 2018 and 2017 , there were no outstanding borrowings under the revolving credit facility. In November 2018, we amended the terms of the revolving credit facility with DT to extend the maturity date to December 29, 2021.

We maintain a handset financing arrangement with Deutsche Bank AG (“Deutsche Bank”), which allows for up to \$108 million in borrowings. Under the handset financing arrangement, we can effectively extend payment terms for invoices payable to certain handset vendors. As of December 31, 2018 and 2017 , there was no outstanding balance.

We maintain vendor financing arrangements with our primary network equipment suppliers. Under the respective agreements, we can obtain extended financing terms. As of December 31, 2018 and 2017 , there was no outstanding balance.

Consents on Debt to Third Parties

On May 18, 2018, under the terms and conditions described in the Consent Solicitation Statement, we obtained consents necessary to effect certain amendments to our Senior Notes to third parties in connection with the Business Combination Agreement. Pursuant to the Consent Solicitation Statement, third-party note holders agreed, among other things, to consent to increasing the amount of Secured Indebtedness under Credit Facilities that can be incurred from the greater of \$9 billion and 150% of Consolidated Cash Flow to the greater of \$9 billion and an amount that would not cause the Secured Debt to Cash Flow Ratio (calculated net of cash and cash equivalents) to exceed 2.00x (the “Ratio Secured Debt Proposed Amendments”) and in each case as such capitalized term is defined in the Indenture. In connection with receiving the requisite consents for the Ratio Secured Debt Proposed Amendments, we made upfront payments to third-party note holders of \$17 million during the second quarter of 2018. These payments were recognized as a reduction to Long-term debt in our Consolidated Balance Sheets. These upfront payments increased the effective interest rate of the related debt.

In addition, note holders agreed, among other things, to allow certain entities related to Sprint’s existing spectrum securitization notes program (“Existing Sprint Spectrum Program”) to be non-guarantor Restricted Subsidiaries, provided that the principal amount of the spectrum notes issued and outstanding under the Existing Sprint Spectrum Program does not exceed \$7.0 billion and that the principal amount of such spectrum notes reduces the amount available under the Credit Facilities ratio basket, and to revise the definition of GAAP to mean generally accepted accounting principles in effect from time to time, unless the Company elects to “freeze” GAAP as of any date, and to exclude the effect of the changes in the accounting treatment of lease obligations (the “Existing Sprint Spectrum and GAAP Proposed Amendments,” and together with the Ratio Secured Debt Proposed Amendments, the “Proposed Amendments”). In connection with receiving the requisite consents for the Existing Sprint Spectrum and GAAP Proposed Amendments, we made upfront payments to third-party note holders of \$14 million during the second quarter of 2018. These payments were recognized as a reduction to Long-term debt in our Consolidated Balance Sheets. These upfront payments increased the effective interest rate of the related debt.

In connection with obtaining the requisite consents, on May 20, 2018, T-Mobile USA, the guarantors and Deutsche Bank Trust Company Americas, as trustee, executed and delivered the 37th supplemental indenture to the Indenture, pursuant to which, with respect to each of the Notes, the Proposed Amendments will become effective immediately prior to the consummation of the Merger.

We paid third-party bank fees associated with obtaining the requisite consents related to the Proposed Amendments of \$6 million during the second quarter of 2018, which we recognized as Selling, general and administrative expenses in our Consolidated Statements of Comprehensive Income . If the Merger is consummated, we will make additional payments to third-party note holders for requisite consents related to the Ratio Secured Debt Proposed Amendments of up to \$54 million and additional payments to third-party note holders for requisite consents related to the Existing Sprint Spectrum and GAAP Proposed Amendments of up to \$41 million . We have not accrued these payments as of December 31, 2018 .

See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for further information.

Future Sources and Uses of Liquidity

We may seek additional sources of liquidity, including through the issuance of additional long-term debt in 2019 , to continue to opportunistically acquire spectrum licenses or other assets in private party transactions or for the refinancing of existing long-term debt on an opportunistic basis. Excluding liquidity that could be needed for spectrum acquisitions, or for other assets, we expect our principal sources of funding to be sufficient to meet our anticipated liquidity needs for business operations for the next 12 months as well as our longer-term liquidity needs. Our intended use of any such funds is for general corporate purposes, including for capital expenditures, spectrum purchases, opportunistic investments and acquisitions, redemption of high yield callable debt and stock purchases.

We determine future liquidity requirements, for both operations and capital expenditures, based in large part upon projected financial and operating performance, and opportunities to acquire additional spectrum. We regularly review and update these projections for changes in current and projected financial and operating results, general economic conditions, the competitive landscape and other factors. There are a number of risks and uncertainties that could cause our financial and operating results and capital requirements to differ materially from our projections, which could cause future liquidity to differ materially from our assessment.

The indentures and credit facilities governing our long-term debt to affiliates and third parties, excluding capital leases, contain covenants that, among other things, limit the ability of the Issuer and the Guarantor Subsidiaries to: incur more debt; pay dividends and make distributions on our common stock; make certain investments; repurchase stock; create liens or other encumbrances; enter into transactions with affiliates; enter into transactions that restrict dividends or distributions from subsidiaries; and merge, consolidate or sell, or otherwise dispose of, substantially all of their assets. Certain provisions of each of the credit facilities, indentures and supplemental indentures relating to the long-term debt to affiliates and third parties restrict the ability of the Issuer to loan funds or make payments to the Parent. However, the Issuer is allowed to make certain permitted payments to the Parent under the terms of each of the credit facilities, indentures and supplemental indentures relating to the long-term debt to affiliates and third parties. We were in compliance with all restrictive debt covenants as of December 31, 2018 .

Capital Lease Facilities

We have entered into uncommitted capital lease facilities with certain partners, which provide us with the ability to enter into capital leases for network equipment and services. As of December 31, 2018 , we have committed to \$3.0 billion of capital leases under these capital lease facilities, of which \$885 million was executed during the year ended December 31, 2018 .

Capital Expenditures

Our liquidity requirements have been driven primarily by capital expenditures for spectrum licenses and the construction, expansion and upgrading of our network infrastructure. Property and equipment capital expenditures primarily relate to our network transformation, including the build-out of 600 MHz low-band spectrum licenses. We expect cash purchases of property and equipment, excluding capitalized interest of approximately \$400 million, to be \$5.4 to \$5.7 billion and cash purchases of property and equipment, including capitalized interest, to be to be \$5.8 to \$6.1 billion in 2019. This includes expenditures for 600 MHz and 5G deployment. This does not include property and equipment obtained through capital lease agreements, leased wireless devices transferred from inventory or any additional purchases of spectrum licenses.

Share Repurchases

On December 6, 2017, our Board of Directors authorized a stock repurchase program for up to \$1.5 billion of our common stock through December 31, 2018 (the “2017 Stock Repurchase Program”). Repurchased shares are retired. The 2017 Stock Repurchase Program completed on April 29, 2018.

On April 27, 2018, our Board of Directors authorized an increase in the total stock repurchase program to \$9.0 billion, consisting of the \$1.5 billion in repurchases previously completed and up to an additional \$7.5 billion of repurchases of our common stock. The additional \$7.5 billion repurchase authorization is contingent upon the termination of the Business Combination Agreement and the abandonment of the Transactions contemplated under the Business Combination Agreement. See [Note 12 – Repurchases of Common Stock](#) of the Notes to the Consolidated Financial Statements for further information.

Dividends

We have never paid or declared any cash dividends on our common stock, and we do not intend to declare or pay any cash dividends on our common stock in the foreseeable future. Our credit facilities and the indentures and supplemental indentures governing our long-term debt to affiliates and third parties, excluding capital leases, contain covenants that, among other things, restrict our ability to declare or pay dividends on our common stock.

Contractual Obligations

The following table summarizes our contractual obligations and borrowings as of December 31, 2018 and the timing and effect that such commitments are expected to have on our liquidity and capital requirements in future periods:

(in millions)	Less Than 1 Year	1 - 3 Years	4 - 5 Years	More Than 5 Years	Total
Long-term debt ⁽¹⁾	\$ —	\$ 2,000	\$ 5,400	\$ 18,200	\$ 25,600
Interest on long-term debt	1,366	2,679	2,273	1,950	8,268
Capital lease obligations, including interest and maintenance	909	1,020	168	106	2,203
Tower obligations ⁽²⁾	195	391	392	835	1,813
Operating leases ⁽³⁾	2,698	4,684	3,290	3,762	14,434
Purchase obligations ⁽⁴⁾	3,377	2,800	1,786	1,367	9,330
Network decommissioning ⁽⁵⁾	79	79	39	5	202
Total contractual obligations	\$ 8,624	\$ 13,653	\$ 13,348	\$ 26,225	\$ 61,850

- (1) Represents principal amounts of long-term debt to affiliates and third parties at maturity, excluding unamortized premium from purchase price allocation fair value adjustment, capital lease obligations and vendor financing arrangements. See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for further information.
- (2) Future minimum payments, including principal and interest payments and imputed lease rental income, related to the tower obligations. See [Note 9 – Tower Obligations](#) of the Notes to the Consolidated Financial Statements for further information.
- (3) Future minimum lease payments for all cell site leases presented above to include payments due for the initial non-cancelable lease term only as they represent the payments which we cannot avoid at our option and also corresponds to our lease term assessment for new leases.
- (4) The minimum commitment for certain obligations is based on termination penalties that could be paid to exit the contracts. Termination penalties are included in the above table as payments due as of the earliest we could exit the contract, typically in less than one year. For certain contracts that include fixed volume purchase commitments and fixed prices for various products, the purchase obligations are calculated using fixed volumes and contractually fixed prices for the products that are expected to be purchased. This table does not include open purchase orders as of December 31, 2018 under normal business purposes. See [Note 15 – Commitments and Contingencies](#) of the Notes to the Consolidated Financial Statements for further information.
- (5) Represents future undiscounted cash flows related to decommissioned MetroPCS CDMA network and certain other redundant cell sites as of December 31, 2018.

Certain commitments and obligations are included in the table based on the year of required payment or an estimate of the year of payment. Other long-term liabilities, excluding network decommissioning, have been omitted from the table above due to the uncertainty of the timing of payments, combined with the absence of historical trending to be used as a predictor of such payments. See [Note 16 – Additional Financial Information](#) of the Notes to the Consolidated Financial Statements for further information.

The purchase obligations reflected in the table above are primarily commitments to purchase handsets and accessories, equipment, software, programming and network services and marketing activities, which will be used or sold in the ordinary course of business. These amounts do not represent our entire anticipated purchases in the future, but represent only those items for which we are contractually committed. Where we are committed to make a minimum payment to the supplier regardless of whether we take delivery, we have included only that minimum payment as a purchase obligation. Additionally, included within purchase obligations are amounts for the acquisition of spectrum licenses, which are subject to regulatory approval and other customary closing conditions.

In October 2018, we entered into, and designated, interest rate lock derivatives as cash flow hedges to reduce variability in cash flows due to changes in interest payments attributable to increases or decreases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt. The fair value of interest rate lock derivatives as of December 31, 2018 was \$447 million and is included in Other current liabilities in our Consolidated Balance Sheets. Balances related to the cash flow hedges have been omitted from the table above due to the uncertainty of the amount and timing of settlements. See [Note 7 – Fair Value Measurements](#) of the Notes to the Consolidated Financial Statements for further information.

Off-Balance Sheet Arrangements

We have arrangements, as amended from time to time, to sell certain EIP accounts receivable and service accounts receivable on a revolving basis as a source of liquidity. As of December 31, 2018, we derecognized net receivables of \$2.6 billion upon sale through these arrangements. See [Note 4 – Sales of Certain Receivables](#) of the Notes to the Consolidated Financial Statements for further information.

Related Party Transactions

During the year ended December 31, 2018, we entered into certain debt-related transactions with affiliates. See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for further information.

In the first quarter of 2018, DT, our majority stockholder and an affiliated purchaser, purchased 3.3 million additional shares of our common stock at an aggregate market value of \$200 million in the public market or from other parties, in accordance with the rules of the SEC and other applicable legal requirements. There were no purchases in the remainder of 2018. We did not receive proceeds from these purchases. See [Note 12 – Repurchases of Common Stock](#) of the Notes to the Consolidated Financial Statements for further information.

We also have related party transactions associated with DT or its affiliates in the ordinary course of business, including intercompany servicing and licensing.

Disclosure of Iranian Activities under Section 13(r) of the Securities Exchange Act of 1934

Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 added Section 13(r) to the Exchange Act of 1934, as amended (“Exchange Act”). Section 13(r) requires an issuer to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with designated natural persons or entities involved in terrorism or the proliferation of weapons of mass destruction. Disclosure is required even where the activities, transactions or dealings are conducted outside the U.S. by non-U.S. affiliates in compliance with applicable law, and whether or not the activities are sanctionable under U.S. law.

As of the date of this report, we are not aware of any activity, transaction or dealing by us or any of our affiliates for the year ended December 31, 2018, that requires disclosure in this report under Section 13(r) of the Exchange Act, except as set forth below with respect to affiliates that we do not control and that are our affiliates solely due to their common control with DT. We have relied upon DT for information regarding their activities, transactions and dealings.

DT, through certain of its non-U.S. subsidiaries, is party to roaming and interconnect agreements with the following mobile and fixed line telecommunication providers in Iran, some of which are or may be government-controlled entities: Gostaresh Ertebatat Taliya, Irancell Telecommunications Services Company, Telecommunication Kish Company, Mobile Telecommunication Company of Iran, and Telecommunication Infrastructure Company of Iran. In addition, DT, through certain of its non-U.S. subsidiaries, provided basic telecommunications services in 2018 to Telecommunication Company of Iran and to three customers in Germany identified on the Specially Designated Nationals and Blocked Persons List maintained by the U.S. Department of Treasury’s Office of Foreign Assets Control: Bank Melli, Bank Sepah, and Europäisch-Iranische Handelsbank. These services have been terminated or are in the process of being terminated. For the year ended December 31, 2018, gross revenues of all DT affiliates generated by roaming and interconnection traffic and telecommunications services with the Iranian parties identified herein were less than \$1 million, and the estimated net profits were less than \$1 million.

In addition, DT, through certain of its non-U.S. subsidiaries, operating a fixed-line network in their respective European home countries (in particular Germany), provides telecommunications services in the ordinary course of business to the Embassy of Iran in those European countries. Gross revenues and net profits recorded from these activities for the year ended December 31, 2018 were less than \$0.1 million. We understand that DT intends to continue these activities.

Critical Accounting Policies and Estimates

Our significant accounting policies are fundamental to understanding our results of operations and financial condition as they require that we use estimates and assumptions that may affect the value of our assets or liabilities and financial results. See [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements for further information.

Seven of these policies, below, are critical because they require management to make difficult, subjective and complex judgments about matters that are inherently uncertain and because it is likely that materially different amounts would be reported under different conditions or using different assumptions or inputs. Actual results could differ from those estimates.

Management and the Audit Committee of the Board of Directors have reviewed and approved these critical accounting policies.

Revenue Recognition

We primarily generate our revenue from providing wireless services to customers and selling or leasing devices and accessories. Our contracts with customers may involve multiple performance obligations, which include wireless services, wireless devices or a combination thereof, and we allocate the transaction price between each performance obligation based on its relative standalone selling price.

Significant Judgments

The most significant judgments affecting the amount and timing of revenue from contracts with our customers include the following items:

- Revenue for service contracts that we assess are not probable of collection is not recognized until the contract is completed and cash is received. Collectibility is re-assessed when there is a significant change in facts or circumstances. Our assessment of collectibility considers whether we may limit our exposure to credit risk through our right to stop transferring additional service in the event the customer is delinquent as well as certain contract terms such as down payments that reduce our exposure to credit risk. Customer credit behavior is inherently uncertain. See “Allowances,” below, for more discussion on how we assess credit risk.
- Promotional EIP bill credits offered to a customer on an equipment sale that are paid over time and are contingent on the customer maintaining a service contract may result in an extended service contract based on whether a substantive penalty is deemed to exist. Determining whether contingent EIP bill credits result in a substantive termination penalty may require significant judgment.
- The identification of distinct performance obligations within our service plans may require significant judgment.
- Revenue is recorded net of costs paid to another party for performance obligations where we arrange for the other party to transfer goods or services to the customer (i.e., when we are acting as an agent). For example, performance obligations relating to services provided by third-party content providers where we neither controls a right to the content provider’s service nor controls the underlying service itself are presented net because we are acting as an agent. The determination of whether we control the underlying service or right to the service prior to our transfer to the customer requires, at times, significant judgment.
- For transactions where we recognize a significant financing component, judgment is required to determine the discount rate. For EIP sales, the discount rate used to adjust the transaction price primarily reflects current market interest rates and the estimated credit risk of the customer. Customer credit behavior is inherently uncertain. See “Allowances”, below, for more discussion on how we assess credit risk.
- Our products are generally sold with a right of return, which is accounted for as variable consideration when estimating the amount of revenue to recognize. Device return levels are estimated based on the expected value method as there are a large number of contracts with similar characteristics and the outcome of each contract is independent of the others. Historical return rate experience is a significant input to our expected value methodology.
- Sales of equipment to indirect dealers who have been identified as our customer (referred to as the sell-in model) often include credits subsequently paid to the dealer as a reimbursement for any discount promotions offered to the end consumer. These credits (payments to a customer) are accounted for as variable consideration when estimating the amount of revenue to recognize from the sales of equipment to indirect dealers and are estimated based on historical experience and other factors, such as expected promotional activity.
- The determination of the standalone selling price for contracts that involve more than one performance obligation may require significant judgment, such as when the selling price of a good or service is not readily observable.
- For capitalized contract costs, determining the amortization period over which such costs are recognized as well as assessing the indicators of impairment may require significant judgment.

Allowances

We maintain an allowance for credit losses, which is management's estimate of such losses inherent in our receivables portfolio, comprised of accounts receivable and EIP receivable segments. Changes in the allowance for credit losses and, therefore, in related provision for credit losses ("bad debt expense") can materially affect earnings. Credit risk characteristics are assessed for each receivable segment. In applying the judgment and review required to determine the allowance for credit losses, management considers a number of factors, including receivable volumes, receivable delinquency status, historical loss experience and other conditions influencing loss expectations, such as macro-economic conditions. While our methodology attributes portions of the allowance to specific portfolio segments, the entire allowance for credit losses is available to absorb credit losses inherent in the total receivables portfolio.

Management also considers an amount that represents management's judgment of risks inherent in the process and assumptions used in establishing the allowance for credit losses, including process risk and other subjective factors, including industry trends and emerging risk assessments.

To the extent that actual loss experience differs significantly from historical trends or assumptions, the appropriate allowance levels for realized credit losses could differ from the estimate. We write off account balances if collection efforts are unsuccessful and the receivable balance is deemed uncollectible, based on customer credit ratings and the length of time from the original billing date.

We offer certain retail customers the option to pay for their devices and other purchases in installments over a period of up to 36 months using an EIP. EIP receivables not held for sale are reported in our Consolidated Balance Sheets at outstanding principal adjusted for any charge-offs, allowance for credit losses and unamortized discounts. Receivables held for sale are reported at the lower of amortized cost or fair value. At the time of an installment sale, we impute a discount for interest if the EIP term exceeds 12 months as there is no stated rate of interest on the EIP receivables. The EIP receivables are recorded at their present value, which is determined by discounting future cash payments at the imputed interest rate. The difference between the recorded amount of the EIP receivables and their unpaid principal balance (i.e., the contractual amount due from the customer) results in a discount which is recorded as a reduction in transaction price and allocated to the performance obligations of the arrangement. We determine the imputed discount rate based primarily on current market interest rates and the estimated credit risk on the EIP receivables. As a result, we do not recognize a separate credit loss allowance at the time of issuance as the effects of uncertainty about future cash flows resulting from credit risk are included in the initial present value measurement of the receivable. The imputed discount on EIP receivables is amortized over the financed installment term using the effective interest method and recognized as Other revenues in our Consolidated Statements of Comprehensive Income.

Subsequent to the initial determination of the imputed discount, we assess the need for and, if necessary, recognize an allowance for credit losses to the extent the amount of estimated probable losses on the gross EIP receivable balances exceed the remaining unamortized imputed discount balances.

Total imputed discount and allowances was approximately 8.1% of the total amount of gross accounts receivable, including EIP receivables at both December 31, 2018 and 2017 .

Deferred Purchase Price Assets

In connection with the sales of certain service and EIP accounts receivable pursuant to the sale arrangements, we have deferred purchase price assets measured at fair value that are based on a discounted cash flow model using unobservable Level 3 inputs, including customer default rates and credit worthiness, dilutions and recoveries. See [Note 4 – Sales of Certain Receivables](#) for further information .

Depreciation

Depreciation commences once assets have been placed in service. We generally depreciate property and equipment over the period the property and equipment provide economic benefit. Leased wireless devices are depreciated to their estimated residual value over the period expected to provide utility to us, which is generally shorter than the lease term and considers expected losses. Depreciable life studies are performed periodically to confirm the appropriateness of depreciable lives for certain categories of property, plant and equipment. These studies consider actual usage, physical wear and tear, replacement history and assumptions about technology evolution. When these factors indicate that the useful life of an asset is different from the previous assessment, the remaining book values are depreciated prospectively over the adjusted remaining estimated useful

life. See [Note 1 – Summary of Significant Accounting Policies](#) and [Note 5 – Property and Equipment](#) of the Notes to the Consolidated Financial Statements for information regarding depreciation of assets, including management’s underlying estimates of useful lives.

Evaluation of Goodwill and Indefinite-Lived Intangible Assets for Impairment

We assess the carrying value of our goodwill and other indefinite-lived intangible assets, such as our spectrum licenses, for potential impairment annually as of December 31, or more frequently if events or changes in circumstances indicate such assets might be impaired.

When assessing goodwill for impairment we may elect to first perform a qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. If we do not perform a qualitative assessment, or if the qualitative assessment indicates it is more likely than not the fair value of the reporting unit is less than its carrying amount, we perform a quantitative test. We recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized would not exceed the total amount of goodwill allocated to that reporting unit.

The fair value of the reporting unit is determined using a market approach, which is based on market capitalization. We recognize market capitalization is subject to volatility and will monitor changes in market capitalization to determine whether declines, if any, necessitate an interim impairment review. In the event market capitalization does decline below its book value, we will consider the length, severity and reasons for the decline when assessing whether potential impairment exists, including considering whether a control premium should be added to the market capitalization. We believe short-term fluctuations in share price may not necessarily reflect the underlying aggregate fair value.

We test spectrum licenses for impairment on an aggregate basis, consistent with our management of the overall business at a national level. We may elect to first perform a qualitative assessment to determine whether it is more likely than not that the fair value of an intangible asset is less than its carrying value. If we do not perform the qualitative assessment, or if the qualitative assessment indicates it is more likely than not the fair value of the intangible asset is less than its carrying amount, we calculate the estimated fair value of the intangible asset. If the estimated fair value of the spectrum licenses is lower than their carrying amount, an impairment loss is recognized. We estimate fair value using the Greenfield methodology, which is an income approach, to estimate the price at which an orderly transaction to sell the asset would take place between market participants at the measurement date under current market conditions. The Greenfield methodology values the spectrum licenses by calculating the cash flow generating potential of a hypothetical start-up company that goes into business with no assets except the asset to be valued (in this case, spectrum licenses). The value of the spectrum licenses can be considered as equal to the present value of the cash flows of this hypothetical start-up company. We base the assumptions underlying the Greenfield methodology on a combination of market participant data and our historical results, trends and business plans. Future cash flows in the Greenfield methodology are based on estimates and assumptions of market participant revenues, EBITDA margin, network build-out period and a long-term growth rate for a market participant. The cash flows are discounted using a weighted average cost of capital.

The valuation approaches utilized to estimate fair value for the purposes of the impairment tests of goodwill and spectrum licenses require the use of assumptions and estimates, which involve a degree of uncertainty. If actual results or future expectations are not consistent with the assumptions, this may result in the recording of significant impairment charges on goodwill or spectrum licenses. The most significant assumptions within the valuation models are the discount rate, revenues, EBITDA margins, capital expenditures and the long-term growth rate. See [Note 1 – Summary of Significant Accounting Policies](#) and [Note 6 – Goodwill, Spectrum Licenses and Other Intangible Assets](#) of the Notes to the Consolidated Financial Statements for information regarding our annual impairment test and impairment charges.

Rent Expense

We have operating leases for cell sites, retail locations, corporate offices and dedicated transportation lines, some of which have escalating rentals during the initial lease term and during subsequent optional renewal periods. We recognize rent expense on a straight-line basis, over the non-cancelable lease term and renewal periods that are considered reasonably assured at the inception of the lease. We consider several factors in assessing whether renewal periods are reasonably assured of being exercised, including the continued maturation of our network nationwide, technological advances within the telecommunications industry and the availability of alternative sites.

Income Taxes

Deferred tax assets and liabilities are recognized based on temporary differences between the financial statement and tax bases of assets and liabilities using enacted tax rates expected to be in effect when these differences are realized. A valuation allowance is recorded when it is more likely than not that some portion or all of a deferred tax asset will not be realized. The ultimate realization of a deferred tax asset depends on the ability to generate sufficient taxable income of the appropriate character and in the appropriate taxing jurisdictions within the carryforward periods available.

We account for uncertainty in income taxes recognized in the financial statements in accordance with the accounting guidance for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. We assess whether it is more likely than not that a tax position will be sustained upon examination based on the technical merits of the position and adjust the unrecognized tax benefits in light of changes in facts and circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law.

Accounting Pronouncements Not Yet Adopted

See [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements for information regarding recently issued accounting standards.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to economic risks in the normal course of business, primarily from changes in interest rates, including changes in investment yields and changes in spreads due to credit risk and other factors. These risks, along with other business risks, impact our cost of capital. Our policy is to manage exposure related to fluctuations in interest rates in order to manage capital costs, control financial risks and maintain financial flexibility over the long term. We have established interest rate risk limits that are closely monitored by measuring interest rate sensitivities of our debt portfolio. We do not foresee significant changes in the strategies used to manage market risk in the near future.

We are exposed to changes in interest rates on our Incremental Term Loan Facility with DT, our majority stockholder. See [Note 8 – Debt](#) of the Notes to the Consolidated Financial Statements for further information.

To perform the sensitivity analysis, we selected hypothetical changes in market rates that are expected to reflect reasonably possible near-term changes in those rates. We assessed the risk of a change in the fair value from the effect of a hypothetical interest rate change for 30-day LIBOR rates of positive 150 and negative 50 basis points. In cases where the debt is redeemable and the fair value calculation results in a liability greater than the cost to replace the debt, the maximum liability is assumed to be no greater than the current cost to redeem the debt. As of December 31, 2018, the change in the fair value of our Incremental Term Loan Facility, based on this hypothetical change, is shown in the table below:

(in millions)	Carrying Amount	Fair Value	Fair Value Assuming	
			+150 Basis Point Shift	-50 Basis Point Shift
LIBOR plus 1.50% Senior Secured Term Loan due 2022	\$ 2,000	\$ 1,991	\$ 1,933	\$ 2,011
LIBOR plus 1.75% Senior Secured Term Loan due 2024	2,000	1,985	1,913	2,010

We are exposed to changes in the benchmark interest rate associated with our interest rate lock derivatives. See [Note 7 – Fair Value Measurements](#) of the Notes to the Consolidated Financial Statements for further information.

To perform the sensitivity analysis, we selected hypothetical changes in market rates that are expected to reflect reasonably possible near-term changes in those rates. We assessed the risk of a change in fair value from the effect of a hypothetical interest rate change for eight and 10-year LIBOR swap rates of positive 200 and negative 100 basis points. As of December 31, 2018, the change in the fair value of our interest rate lock derivatives, based on this hypothetical change, is shown in the table below:

(in millions)	Fair Value	Fair Value Assuming	
		+200 Basis Point Shift	-100 Basis Point Shift
Interest rate lock derivatives	\$ (447)	\$ 1,007	\$ (1,303)

Item 8. Financial Statements and Supplementary Data

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of T-Mobile US, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of T-Mobile US, Inc. and its subsidiaries as of December 31, 2018 and 2017, and the related consolidated statements of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for revenues and the manner in which it accounts for cash receipts and cash payments in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with

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generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ PricewaterhouseCoopers LLP
Seattle, Washington
February 6, 2019

We have served as the Company's auditor since 2001.

T-Mobile US, Inc.
Consolidated Balance Sheets

(in millions, except share and per share amounts)	December 31, 2018	December 31, 2017
Assets		
Current assets		
Cash and cash equivalents	\$ 1,203	\$ 1,219
Accounts receivable, net of allowances of \$67 and \$86	1,769	1,915
Equipment installment plan receivables, net	2,538	2,290
Accounts receivable from affiliates	11	22
Inventories	1,084	1,566
Other current assets	1,676	1,903
Total current assets	8,281	8,915
Property and equipment, net	23,359	22,196
Goodwill	1,901	1,683
Spectrum licenses	35,559	35,366
Other intangible assets, net	198	217
Equipment installment plan receivables due after one year, net	1,547	1,274
Other assets	1,623	912
Total assets	\$ 72,468	\$ 70,563
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable and accrued liabilities	\$ 7,741	\$ 8,528
Payables to affiliates	200	182
Short-term debt	841	1,612
Deferred revenue	698	779
Other current liabilities	787	414
Total current liabilities	10,267	11,515
Long-term debt	12,124	12,121
Long-term debt to affiliates	14,582	14,586
Tower obligations	2,557	2,590
Deferred tax liabilities	4,472	3,537
Deferred rent expense	2,781	2,720
Other long-term liabilities	967	935
Total long-term liabilities	37,483	36,489
Commitments and contingencies (Note 15)		
Stockholders' equity		
Common Stock, par value \$0.00001 per share, 1,000,000,000 shares authorized; 851,675,119 and 860,861,998 shares issued, 850,180,317 and 859,406,651 shares outstanding	—	—
Additional paid-in capital	38,010	38,629
Treasury stock, at cost, 1,494,802 and 1,455,347 shares issued	(6)	(4)
Accumulated other comprehensive income	(332)	8
Accumulated deficit	(12,954)	(16,074)
Total stockholders' equity	24,718	22,559
Total liabilities and stockholders' equity	\$ 72,468	\$ 70,563

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

T-Mobile US, Inc.
Consolidated Statements of Comprehensive Income

(in millions, except share and per share amounts)	Year Ended December 31,		
	2018	2017	2016
Revenues			
Branded postpaid revenues	\$ 20,862	\$ 19,448	\$ 18,138
Branded prepaid revenues	9,598	9,380	8,553
Wholesale revenues	1,183	1,102	903
Roaming and other service revenues	349	230	250
Total service revenues	31,992	30,160	27,844
Equipment revenues	10,009	9,375	8,727
Other revenues	1,309	1,069	919
Total revenues	43,310	40,604	37,490
Operating expenses			
Cost of services, exclusive of depreciation and amortization shown separately below	6,307	6,100	5,731
Cost of equipment sales	12,047	11,608	10,819
Selling, general and administrative	13,161	12,259	11,378
Depreciation and amortization	6,486	5,984	6,243
Cost of MetroPCS business combination	—	—	104
Gains on disposal of spectrum licenses	—	(235)	(835)
Total operating expense	38,001	35,716	33,440
Operating income	5,309	4,888	4,050
Other income (expense)			
Interest expense	(835)	(1,111)	(1,418)
Interest expense to affiliates	(522)	(560)	(312)
Interest income	19	17	13
Other income (expense), net	(54)	(73)	(6)
Total other expense, net	(1,392)	(1,727)	(1,723)
Income before income taxes	3,917	3,161	2,327
Income tax (expense) benefit	(1,029)	1,375	(867)
Net income	2,888	4,536	1,460
Dividends on preferred stock	—	(55)	(55)
Net income attributable to common stockholders	\$ 2,888	\$ 4,481	\$ 1,405
Net income	\$ 2,888	\$ 4,536	\$ 1,460
Other comprehensive (loss) income, net of tax			
Unrealized gain on available-for-sale securities, net of tax effect of \$0, \$2 and \$1	—	7	2
Unrealized loss on cash flow hedges, net of tax effect of (\$115), \$0 and \$0	(332)	—	—
Other comprehensive (loss) income	(332)	7	2
Total comprehensive income	\$ 2,556	\$ 4,543	\$ 1,462
Earnings per share			
Basic	\$ 3.40	\$ 5.39	\$ 1.71
Diluted	3.36	5.20	1.69
Weighted average shares outstanding			
Basic	849,744,152	831,850,073	822,470,275
Diluted	858,290,174	871,787,450	833,054,545

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

T-Mobile US, Inc.
Consolidated Statements of Cash Flows

(in millions)	Year Ended December 31,		
	2018	2017	2016
Operating activities			
Net income	\$ 2,888	\$ 4,536	\$ 1,460
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation and amortization	6,486	5,984	6,243
Stock-based compensation expense	424	306	235
Deferred income tax expense (benefit)	980	(1,404)	914
Bad debt expense	297	388	477
Losses from sales of receivables	157	299	228
Deferred rent expense	26	76	121
Losses on redemption of debt	122	86	—
Gains on disposal of spectrum licenses	—	(235)	(835)
Changes in operating assets and liabilities			
Accounts receivable	(4,617)	(3,931)	(3,459)
Equipment installment plan receivables	(1,598)	(1,812)	(673)
Inventories	(201)	(844)	(802)
Other current and long-term assets	(181)	(575)	(133)
Accounts payable and accrued liabilities	(867)	1,079	(1,201)
Other current and long-term liabilities	(69)	(233)	158
Other, net	52	111	46
Net cash provided by operating activities	3,899	3,831	2,779
Investing activities			
Purchases of property and equipment, including capitalized interest of \$362, \$136 and \$142	(5,541)	(5,237)	(4,702)
Purchases of spectrum licenses and other intangible assets, including deposits	(127)	(5,828)	(3,968)
Proceeds related to beneficial interests in securitization transactions	5,406	4,319	3,356
Acquisition of companies, net of cash acquired	(338)	—	—
Sales of short-term investments	—	—	2,998
Other, net	21	1	(8)
Net cash used in investing activities	(579)	(6,745)	(2,324)
Financing activities			
Proceeds from issuance of long-term debt	2,494	10,480	997
Proceeds from borrowing on revolving credit facility	6,265	2,910	—
Repayments of revolving credit facility	(6,265)	(2,910)	—
Repayments of capital lease obligations	(700)	(486)	(205)
Repayments of short-term debt for purchases of inventory, property and equipment, net	(300)	(300)	(150)
Repayments of long-term debt	(3,349)	(10,230)	(20)
Repurchases of common stock	(1,071)	(427)	—
Tax withholdings on share-based awards	(146)	(166)	(121)
Dividends on preferred stock	—	(55)	(55)
Cash payments for debt prepayment or debt extinguishment costs	(212)	(188)	—
Other, net	(52)	5	17
Net cash (used in) provided by financing activities	(3,336)	(1,367)	463
Change in cash and cash equivalents	(16)	(4,281)	918
Cash and cash equivalents			
Beginning of period	1,219	5,500	4,582
End of period	\$ 1,203	\$ 1,219	\$ 5,500
Supplemental disclosure of cash flow information			
Interest payments, net of amounts capitalized, \$0, \$79 and \$0 of which recorded as debt discount	\$ 1,525	\$ 2,028	\$ 1,681
Income tax payments	51	31	25
Noncash beneficial interest obtained in exchange for securitized receivables	4,972	4,063	3,411
Noncash investing and financing activities			

Changes in accounts payable for purchases of property and equipment	\$	65	\$	313	\$	285
Leased devices transferred from inventory to property and equipment		1,011		1,131		1,588
Returned leased devices transferred from property and equipment to inventory		(326)		(742)		(602)
Issuance of short-term debt for financing of property and equipment		291		292		150
Assets acquired under capital lease obligations		885		887		799

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

T-Mobile US, Inc.
Consolidated Statement of Stockholders' Equity

(in millions, except shares)	Preferred Stock Outstanding	Common Stock Outstanding	Treasury Shares at Cost	Par Value and Additional Paid- in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance as of December 31, 2015	20,000,000	818,391,219	\$ —	\$ 38,666	\$ (1)	\$ (22,108)	\$ 16,557
Net income	—	—	—	—	—	1,460	1,460
Other comprehensive income	—	—	—	—	2	—	2
Stock-based compensation	—	—	—	264	—	—	264
Exercise of stock options	—	982,904	—	29	—	—	29
Stock issued for employee stock purchase plan	—	1,905,534	—	63	—	—	63
Issuance of vested restricted stock units	—	7,712,463	—	—	—	—	—
Shares withheld related to net share settlement of stock awards and stock options	—	(2,605,807)	—	(122)	—	—	(122)
Transfer RSU to NQDC plan	—	(28,982)	(1)	1	—	—	—
Dividends on preferred stock	—	—	—	(55)	—	—	(55)
Prior year Retained Earnings	—	—	—	—	—	38	38
Balance as of December 31, 2016	20,000,000	826,357,331	(1)	38,846	1	(20,610)	18,236
Net income	—	—	—	—	—	4,536	4,536
Other comprehensive income	—	—	—	—	7	—	7
Stock-based compensation	—	—	—	344	—	—	344
Exercise of stock options	—	450,493	—	19	—	—	19
Stock issued for employee stock purchase plan	—	1,832,043	—	82	—	—	82
Issuance of vested restricted stock units	—	8,338,271	—	—	—	—	—
Shares withheld related to net share settlement of stock awards and stock options	—	(2,754,721)	—	(166)	—	—	(166)
Mandatory conversion of preferred shares to common shares	(20,000,000)	32,237,983	—	—	—	—	—
Repurchases of common stock	—	(7,010,889)	—	(444)	—	—	(444)
Transfer RSU to NQDC plan	—	(43,860)	(3)	3	—	—	—
Dividends on preferred stock	—	—	—	(55)	—	—	(55)
Balance as of December 31, 2017	—	859,406,651	(4)	38,629	8	(16,074)	22,559
Net income	—	—	—	—	—	2,888	2,888
Other comprehensive income	—	—	—	—	(332)	—	(332)
Stock-based compensation	—	—	—	473	—	—	473
Exercise of stock options	—	187,965	—	3	—	—	3
Stock issued for employee stock purchase plan	—	2,011,794	—	103	—	—	103
Issuance of vested restricted stock units	—	7,448,148	—	—	—	—	—
Issuance of restricted stock awards	—	225,799	—	—	—	—	—
Shares withheld related to net share settlement of stock awards and stock options	—	(2,321,827)	—	(146)	—	—	(146)
Repurchases of common stock	—	(16,738,758)	—	(1,054)	—	—	(1,054)
Transfer RSU to NQDC plan	—	(39,455)	(2)	2	—	—	—
Prior year Retained Earnings ⁽¹⁾	—	—	—	—	(8)	232	224
Balance as of December 31, 2018	—	850,180,317	(6)	38,010	(332)	(12,954)	24,718

(1) On January 1, 2018, we adopted three ASUs which resulted in adjustments to Accumulated other comprehensive income and Accumulated deficit. The adoption of the new revenue standard resulted in an adjustment to Accumulated deficit of \$213 million. The adoption of ASU 2016-01 resulted in a reclassification of Accumulated other comprehensive income to Accumulated deficit of \$8 million. The adoption of ASU 2016-16 resulted in an adjustment to Accumulated deficit of \$11 million. See [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K for further information.

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

T-Mobile US, Inc.
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T-Mobile US, Inc.
Notes to the Consolidated Financial Statements

Note 1 – Summary of Significant Accounting Policies

Description of Business

T-Mobile US, Inc. (“T-Mobile,” “we,” “our,” “us” or the “Company”), together with its consolidated subsidiaries, is a leading provider of mobile communications services, including voice, messaging and data, under its flagship brands, T-Mobile and Metro™ by T-Mobile (“Metro by T-Mobile”), in the United States (“U.S.”), Puerto Rico and the U.S. Virgin Islands. All of our revenues were earned in, and all of our long-lived assets are located in, the U.S., Puerto Rico and the U.S. Virgin Islands. We provide mobile communications services primarily using 4G Long-Term Evolution (“LTE”) technology. We also offer a wide selection of wireless devices, including handsets, tablets and other mobile communication devices, and accessories for sale, as well as financing through Equipment Installment Plans (“EIP”) and leasing through JUMP! On Demand™. Additionally, we provide reinsurance for handset insurance policies and extended warranty contracts offered to our mobile communications customers.

Basis of Presentation

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires our management to make estimates and assumptions which affect the financial statements and accompanying notes. Examples include service revenues earned but not yet billed, service revenues billed but not yet earned, relative standalone selling prices, allowances for credit losses and sales returns, discounts for imputed interest on EIP receivables, guarantee liabilities, losses incurred but not yet reported, tax liabilities, deferred income taxes including valuation allowances, useful lives of long-lived assets, fair value estimates of asset retirement obligations, residual values on leased handsets, reasonably assured renewal terms for operating leases, stock-based compensation forfeiture rates, and fair value measurements, including those related to goodwill, spectrum licenses, intangible assets, beneficial interests in factoring and securitization transactions and derivative financial instruments. Estimates are based on historical experience, where applicable, and other assumptions which our management believes are reasonable under the circumstances. These estimates are inherently subject to judgment and actual results could differ from these estimates. We operate as a single operating segment.

Certain prior year amounts have been reclassified to conform to the current year’s presentation. See “Accounting Pronouncements Adopted in the Current Year” below.

Cash and Cash Equivalents

Cash equivalents consist of highly liquid money market funds and U.S. Treasury securities with remaining maturities of three months or less at the date of purchase.

Receivables and Allowance for Credit Losses

Accounts receivable consist primarily of amounts currently due from customers, other carriers and third-party retail channels. Accounts receivable not held for sale are reported in our Consolidated Balance Sheets at outstanding principal adjusted for any charge-offs and the allowance for credit losses. Accounts receivable held for sale are reported at the lower of amortized cost or fair value. We have an arrangement to sell the majority of service accounts receivable on a revolving basis, which are treated as sales of financial assets.

We offer certain retail customers the option to pay for their devices and other purchases in installments over a period of up to 36 months using an EIP. EIP receivables not held for sale are reported in our Consolidated Balance Sheets at outstanding principal adjusted for any charge-offs, allowance for credit losses and unamortized discounts. Receivables held for sale are reported at the lower of amortized cost or fair value. At the time of an installment sale, we impute a discount for interest if the EIP term exceeds 12 months as there is no stated rate of interest on the EIP receivables. The EIP receivables are recorded at their present value, which is determined by discounting future cash payments at the imputed interest rate. The difference between the recorded amount of the EIP receivables and their unpaid principal balance (i.e., the contractual amount due from the customer) results in a discount which is allocated to the performance obligation of the arrangement and recorded as a reduction in transaction price in Total service revenues and Equipment revenues in our Consolidated Statements of Comprehensive Income. We determine the imputed discount rate based primarily on current market interest rates and the estimated credit risk on the EIP receivables. As a result, we do not recognize a separate credit loss allowance at the time of

issuance as the effects of uncertainty about future cash flows resulting from credit risk are included in the initial present value measurement of the receivable. The imputed discount on EIP receivables is amortized over the financed installment term using the effective interest method and recognized as Other revenues in our Consolidated Statements of Comprehensive Income .

Subsequent to the initial determination of the imputed discount, we assess the need for and, if necessary, recognize an allowance for credit losses to the extent the amount of estimated probable losses on the gross EIP receivable balances exceed the remaining unamortized imputed discount balances.

Total imputed discount and allowances was approximately 8.1% of the total amount of gross accounts receivable, including EIP receivables at both December 31, 2018 and 2017.

The current portion of the EIP receivables is included in Equipment installment plan receivables, net and the long-term portion of the EIP receivables is included in Equipment installment plan receivables due after one year, net in our Consolidated Balance Sheets . We have an arrangement to sell certain EIP receivables on a revolving basis, which are treated as sales of financial assets.

We maintain an allowance for credit losses and determine its appropriateness through an established process that assesses the losses inherent in our receivables portfolio. We develop and document our allowance methodology at the portfolio segment level - accounts receivable portfolio and EIP receivable portfolio segments. While we attribute portions of the allowance to our respective accounts receivable and EIP portfolio segments, the entire allowance is available to absorb credit losses inherent in the total receivables portfolio.

Our process involves procedures to appropriately consider the unique risk characteristics of our accounts receivable and EIP receivable portfolio segments. For each portfolio segment, losses are estimated collectively for groups of receivables with similar characteristics. Our allowance levels are influenced by receivable volumes, receivable delinquency status, historical loss experience and other conditions influencing loss expectations, such as macro-economic conditions.

Inventories

Inventories consist primarily of wireless devices and accessories, which are valued at the lower of cost or market. Cost is determined using standard cost which approximates average cost. Shipping and handling costs paid to wireless device and accessories vendors, and costs to refurbish used devices recovered through our device upgrade programs are included in the standard cost of inventory. We record inventory write-downs to net realizable value for obsolete and slow-moving items based on inventory turnover trends and historical experience.

Long-Lived Assets

Long-lived assets include assets that do not have indefinite lives, such as property and equipment and other intangible assets. All of our long-lived assets are located in the U.S., including Puerto Rico and the U.S. Virgin Islands. We assess potential impairments to our long-lived assets when events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. If any indicators of impairment are present, we test recoverability. The carrying value of a long-lived asset or asset group is not recoverable if it exceeds the sum of the undiscounted cash flows expected to be generated from the use and eventual disposition of the asset or asset group. If the undiscounted cash flows do not exceed the asset or asset group's carrying amount, then an impairment loss is recorded, measured as the amount by which the carrying amount of a long-lived asset or asset group exceeds its fair value.

Property and Equipment

Property and equipment consists of buildings and equipment, wireless communication systems, leasehold improvements, capitalized software, leased wireless devices and construction in progress. Buildings and equipment include certain network server equipment. Wireless communication systems include assets to operate our wireless network and IT data centers, including tower assets and leasehold improvements, assets related to the liability for the retirement of long-lived assets and capital leases. Leasehold improvements include asset improvements other than those related to the wireless network.

Property and equipment are recorded at cost less accumulated depreciation and impairments, if any, in Property and equipment, net on our Consolidated Balance Sheets . We generally depreciate property and equipment over the period the property and equipment provide economic benefit. Depreciable life studies are performed periodically to confirm the appropriateness of depreciable lives for certain categories of property and equipment. These studies take into account actual usage, physical wear and tear, replacement history and assumptions about technology evolution. When these factors indicate the useful life of an

asset is different from the previous assessment, the remaining book value is depreciated prospectively over the adjusted remaining estimated useful life. Leasehold improvements are depreciated over the shorter of their estimated useful lives or the related lease term.

JUMP! On Demand allows customers to lease a device over a period of up to 18 months and upgrade it for a new device up to one time per month. To date, all of our leased devices were classified as operating leases. At operating lease inception, leased wireless devices are transferred from inventory to property and equipment. Leased wireless devices are depreciated to their estimated residual value over the period expected to provide utility to us, which is generally shorter than the lease term and considers expected losses. Revenues associated with the leased wireless devices, net of incentives, are generally recognized over the lease term. Upon device upgrade or at lease end, customers must return or purchase their device. Returned devices transferred from Property and equipment, net are recorded as inventory and are valued at the lower of cost or market with any write-down to market recognized as Cost of equipment sales in our Consolidated Statements of Comprehensive Income .

Costs of major replacements and improvements are capitalized. Repair and maintenance expenditures which do not enhance or extend the asset's useful life are charged to operating expenses as incurred. Construction costs, labor and overhead incurred in the expansion or enhancement of our wireless network are capitalized. Capitalization commences with pre-construction period administrative and technical activities, which includes obtaining leases, zoning approvals and building permits, and ceases at the point at which the asset is ready for its intended use. We capitalize interest associated with the acquisition or construction of certain property and equipment. Capitalized interest is reported as a reduction in interest expense and depreciated over the useful life of the related assets.

Future obligations related to capital leases are included in Short-term debt and Long-term debt in our Consolidated Balance Sheets . Depreciation of assets held under capital leases is included in Depreciation and amortization expense in our Consolidated Statements of Comprehensive Income .

We record an asset retirement obligation for the fair value of legal obligations associated with the retirement of tangible long-lived assets and a corresponding increase in the carrying amount of the related asset in the period in which the obligation is incurred. In periods subsequent to initial measurement, we recognize changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate. Over time, the liability is accreted to its present value and the capitalized cost is depreciated over the estimated useful life of the asset. Our obligations relate primarily to certain legal obligations to remediate leased property on which our network infrastructure and administrative assets are located.

We capitalize certain costs incurred in connection with developing or acquiring internal use software. Capitalization of software costs commences once the final selection of the specific software solution has been made and management authorizes and commits to funding the software project. Capitalized software costs are included in Property and equipment, net in our Consolidated Balance Sheets and are amortized on a straight-line basis over the estimated useful life of the asset. Costs incurred during the preliminary project stage, as well as maintenance and training costs, are expensed as incurred.

Other Intangible Assets

Intangible assets that do not have indefinite useful lives are amortized over their estimated useful lives. Customer lists are amortized using the sum-of-the-years-digits method over the expected period in which the relationship is expected to contribute to future cash flows. The remaining finite-lived intangible assets are amortized using the straight-line method.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill

Goodwill consists of the excess of the purchase price over the fair value of identifiable net assets acquired in a business combination.

Spectrum Licenses

Spectrum licenses are carried at costs incurred to acquire the spectrum licenses and the costs to prepare the spectrum licenses for their intended use, such as costs to clear acquired spectrum licenses. The Federal Communications Commission ("FCC") issues spectrum licenses which provide us with the exclusive right to utilize designated radio frequency spectrum within specific geographic service areas to provide wireless communication services. While spectrum licenses are issued for a fixed period of time, typically for up to fifteen years , the FCC has granted license renewals routinely and at a nominal cost. The spectrum licenses held by us expire at various dates. We believe we will be able to meet all requirements necessary to secure

renewal of our spectrum licenses at nominal costs. Moreover, we determined there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful lives of our spectrum licenses. Therefore, we determined the spectrum licenses should be treated as indefinite-lived intangible assets.

At times, we enter into agreements to sell or exchange spectrum licenses. Upon entering into the arrangement, if the transaction has been deemed to have commercial substance, spectrum licenses are reviewed for impairment and transferred at their carrying value, net of any impairment, to assets held for sale included in Other current assets in our Consolidated Balance Sheets until approval and completion of the exchange or sale. Upon closing of the transaction, spectrum licenses acquired as part of an exchange of nonmonetary assets are valued at fair value and the difference between the fair value of the spectrum licenses obtained, book value of the spectrum licenses transferred and cash paid, if any, is recognized as a gain and included in Gains on disposal of spectrum licenses in our Consolidated Statements of Comprehensive Income. Our fair value estimates of spectrum licenses are based on information for which there is little or no observable market data. If the transaction lacks commercial substance or the fair value is not measurable, the acquired spectrum licenses are recorded at the book value of the assets transferred or exchanged.

Impairment

We assess the carrying value of our goodwill and other indefinite-lived intangible assets, such as our spectrum licenses, for potential impairment annually as of December 31, or more frequently if events or changes in circumstances indicate such assets might be impaired.

When assessing goodwill for impairment we may elect to first perform a qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. If we do not perform a qualitative assessment, or if the qualitative assessment indicates it is more likely than not that the fair value of the two reporting units, wireless business and Layer3 TV, is less than its carrying amount, we perform a quantitative test. We recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized would not exceed the total amount of goodwill allocated to that reporting unit.

We test our spectrum licenses for impairment on an aggregate basis, consistent with our management of the overall business at a national level. We may elect to first perform a qualitative assessment to determine whether it is more likely than not that the fair value of an intangible asset is less than its carrying value. If we do not perform the qualitative assessment, or if the qualitative assessment indicates it is more likely than not that the fair value of the intangible asset is less than its carrying amount, we calculate the estimated fair value of the intangible asset. If the estimated fair value of the spectrum licenses is lower than their carrying amount, an impairment loss is recognized for the difference. We estimate fair value using the Greenfield methodology, which is an income approach, to estimate the price at which an orderly transaction to sell the asset would take place between market participants at the measurement date under current market conditions.

Guarantee Liabilities

We offer a device trade-in program, Just Upgrade My Phone ("JUMP!"), which provides eligible customers a specified-price trade-in right to upgrade their device. Upon enrollment, participating customers must finance the purchase of a device on an EIP and have a qualifying T-Mobile monthly wireless service plan, which is treated as a single multiple-element arrangement when entered into at or near the same time. Upon a qualifying JUMP! program upgrade, the customer's remaining EIP balance is settled provided they trade-in their eligible used device in good working condition and purchase a new device from us on a new EIP.

For customers who enroll in JUMP!, we recognize a liability and reduce revenue for the portion of revenue which represents the estimated fair value of the specified-price trade-in right guarantee. The guarantee liability is valued based on various economic and customer behavioral assumptions, which requires judgment, including estimating the customer's remaining EIP balance at trade-in, the expected fair value of the used device at trade-in, and the probability and timing of trade-in. When customers upgrade their device, the difference between the EIP balance credit to the customer and the fair value of the returned device is recorded against the guarantee liabilities. All assumptions are reviewed periodically.

Fair Value Measurements

We carry certain assets and liabilities at fair value. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The three-tier hierarchy for inputs used in measuring fair value, which prioritizes the inputs based on the observability as of the measurement date, is as follows:

- Level 1 Quoted prices in active markets for identical assets or liabilities;
- Level 2 Observable inputs other than the quoted prices in active markets for identical assets and liabilities; and
- Level 3 Unobservable inputs for which there is little or no market data, which require us to develop assumptions of what market participants would use in pricing the asset or liability.

Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the placement of assets and liabilities being measured within the fair value hierarchy.

The carrying values of cash and cash equivalents, short-term investments, accounts receivable, accounts receivable from affiliates and accounts payable approximate fair value due to the short-term maturities of these instruments. The carrying values of EIP receivables approximate fair value as the receivables are recorded at their present value, net of unamortized discount and allowance for credit losses. There were no financial instruments with a carrying value materially different from their fair value, based on quoted market prices or rates for the same or similar instruments, or internal valuation models.

Derivative Financial Instruments

Derivative financial instruments are recognized as either assets or liabilities and are measured at fair value. We do not use derivatives for trading or speculative purposes.

For derivative instruments designated as cash flow hedges, changes in fair value are reported as a component of Accumulated other comprehensive income (“AOCI”) until reclassified into Interest expense in the same period the hedged transaction affects earnings, generally over the life of the related debt. Unrealized gains on derivatives designated as cash flow hedges are recorded at fair value as assets, and unrealized losses on derivatives designated as cash flow hedges are recorded at fair value as liabilities.

We have embedded derivatives for certain components of the reset feature of the Senior Reset Notes to affiliates, which are required to be bifurcated and are recorded on the Consolidated Balance Sheets at fair value. Changes in fair value are recognized in Interest expense to affiliates in our Consolidated Statements of Comprehensive Income.

Revenue Recognition (effective January 1, 2018)

We primarily generate our revenue from providing wireless services to customers and selling or leasing devices and accessories. Our contracts with customers may involve multiple performance obligations, which include wireless services, wireless devices or a combination thereof, and we allocate the transaction price between each performance obligation based on its relative standalone selling price.

Significant Judgments

The most significant judgments affecting the amount and timing of revenue from contracts with our customers include the following items:

- Revenue for service contracts that we assess are not probable of collection is not recognized until the contract is completed and cash is received. Collectibility is re-assessed when there is a significant change in facts or circumstances. Our assessment of collectibility considers whether we may limit our exposure to credit risk through our right to stop transferring additional service in the event the customer is delinquent as well as certain contract terms such as down payments that reduce our exposure to credit risk. Customer credit behavior is inherently uncertain. See “Receivables and Allowance for Credit Losses”, above, for more discussion on how we assess credit risk.
- Promotional EIP bill credits offered to a customer on an equipment sale that are paid over time and are contingent on the customer maintaining a service contract may result in an extended service contract based on whether a substantive penalty is deemed to exist. Determining whether contingent EIP bill credits result in a substantive termination penalty may require significant judgment.

- The identification of distinct performance obligations within our service plans may require significant judgment.
- Revenue is recorded net of costs paid to another party for performance obligations where we arrange for the other party to transfer goods or services to the customer (i.e., when we are acting as an agent). For example, performance obligations relating to services provided by third-party content providers where we neither controls a right to the content provider's service nor controls the underlying service itself are presented net because we are acting as an agent. The determination of whether we control the underlying service or right to the service prior to our transfer to the customer requires, at times, significant judgment.
- For transactions where we recognize a significant financing component, judgment is required to determine the discount rate. For EIP sales, the discount rate used to adjust the transaction price primarily reflects current market interest rates and the estimated credit risk of the customer. Customer credit behavior is inherently uncertain. See "Receivables and Allowance for Credit Losses", above, for more discussion on how we assess credit risk.
- Our products are generally sold with a right of return, which is accounted for as variable consideration when estimating the amount of revenue to recognize. Device return levels are estimated based on the expected value method as there are a large number of contracts with similar characteristics and the outcome of each contract is independent of the others. Historical return rate experience is a significant input to our expected value methodology.
- Sales of equipment to indirect dealers who have been identified as our customer (referred to as the sell-in model) often include credits subsequently paid to the dealer as a reimbursement for any discount promotions offered to the end consumer. These credits (payments to a customer) are accounted for as variable consideration when estimating the amount of revenue to recognize from the sales of equipment to indirect dealers and are estimated based on historical experience and other factors, such as expected promotional activity.
- The determination of the standalone selling price for contracts that involve more than one performance obligation may require significant judgment, such as when the selling price of a good or service is not readily observable.
- For capitalized contract costs, determining the amortization period over which such costs are recognized as well as assessing the indicators of impairment may require significant judgment.

Wireless Services Revenue

We generate our wireless services revenues from providing access to, and usage of, our wireless communications network. Service revenues also include revenues earned for providing value added services to customers, such as handset insurance services. Service contracts are billed monthly either in advance or arrears, or are prepaid. Generally, service revenue is recognized as we satisfy our performance obligation to transfer service to our customers. We typically satisfy our stand-ready performance obligations, including unlimited wireless services, evenly over the contract term. For usage-based and prepaid wireless services, we satisfy our performance obligations when services are rendered.

Revenue for service contracts that we assess are not probable of collection is not recognized until the contract is completed and cash is received. Collectibility is reassessed when there is a significant change in facts or circumstances. Our assessment of collectibility considers whether we may limit our exposure to credit risk through our right to stop transferring additional service in the event the customer is delinquent.

Consideration payable to a customer is treated as a reduction of the total transaction price, unless the payment is in exchange for a distinct good or service, such as certain commissions paid to dealers.

Revenue is recorded net of costs paid to another party for performance obligations where we arrange for the other party to transfer goods or services to the customer (i.e., when we are acting as an agent). For example, performance obligations relating to services provided by third-party content providers where we neither controls a right to the content provider's service nor controls the underlying service itself are presented net because we are acting as an agent.

Federal Universal Service Fund ("USF") and other regulatory fees are assessed by various governmental authorities in connection with the services we provide to our customers and are included in Cost of services. When we separately bill and collect these regulatory fees from customers, they are recorded gross in Total service revenues in our Consolidated Statements of Comprehensive Income. For the years ended December 31, 2018, 2017 and 2016, we recorded approximately \$161 million, \$258 million and \$409 million, respectively, of USF fees on a gross basis.

We have made an accounting policy election to exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by us from a customer (for example, sales, use, value added, and some excise taxes).

Equipment Revenues

We generate equipment revenues from the sale or lease of mobile communication devices and accessories. For performance obligations related to equipment contracts, we typically transfer control at a point in time when the device or accessory is delivered to, and accepted by, the customer or dealer. We have elected to account for shipping and handling activities that occur after control of the related good transfers as fulfillment activities instead of assessing such activities as performance obligations. We estimate variable consideration (e.g., device returns or certain payments to indirect dealers) primarily based on historical experience. Equipment sales not probable of collection are generally recorded as payments are received. Our assessment of collectibility considers contract terms such as down payments that reduce our exposure to credit risk.

We offer certain customers the option to pay for devices and accessories in installments using an EIP. Generally, we recognize as a reduction of the total transaction price the effects of a financing component in contracts where customers purchase their devices and accessories on an EIP with a term of more than one year, including those financing components that are not considered to be significant to the contract. However, we have elected the practical expedient to not recognize the effects of a significant financing component for contracts where we expect, at contract inception, that the period between the transfer of a performance obligation to a customer and the customer's payment for that performance obligation will be one year or less.

In addition, for customers who enroll in our JUMP! program, we recognize a liability based on the estimated fair value of the specified-price trade-in right guarantee. The fair value of the guarantee is deducted from the transaction price and the remaining transaction price is allocated to other elements of the contract, including service and equipment performance obligations. See "Guarantee Liabilities" above for further information.

JUMP! On Demand allows customers to lease a device over a period of up to 18 months and upgrade it for a new device up to one time per month. To date, all of our leased wireless devices are accounted for as operating leases and estimated contract consideration is allocated between lease elements and non-lease elements (such as service and equipment performance obligations) based on the relative standalone selling price of each performance obligation in the contract. Lease revenues are recorded as equipment revenues and recognized as earned on a straight-line basis over the lease term. Lease revenues on contracts not probable of collection are limited to the amount of payments received. See "Property and Equipment" above for further information.

Contract Balances

Generally, our devices and service plans are available at standard prices, which are maintained on price lists and published on our website and/or within our retail stores.

For contracts that involve more than one product or service that are identified as separate performance obligations, the transaction price is allocated to the performance obligations based on their relative standalone selling prices. The standalone selling price is the price at which we would sell the good or service separately to a customer and is most commonly evidenced by the price at which we sell that good or service separately in similar circumstances and to similar customers.

A contract asset is recorded when revenue is recognized in advance of our right to receive consideration (i.e., we must perform additional services in order to receive consideration). Amounts are recorded as receivables when our right to consideration is unconditional. When consideration is received, or we have an unconditional right to consideration in advance of delivery of goods or services, a contract liability is recorded. The transaction price can include non-refundable upfront fees, which are allocated to the identifiable performance obligations.

Contract assets are included in Other current assets and Other assets and contract liabilities are included in Deferred revenue in our Consolidated Balance Sheets .

Contract Modifications

Our service contracts allow customers to frequently modify their contracts without incurring penalties in many cases. Each time a contract is modified, we evaluate the change in scope or price of the contract to determine if the modification should be treated as a separate contract, as if there is a termination of the existing contract and creation of a new contract, or if the modification should be considered a change associated with the existing contract. We typically do not have significant impacts from contract modifications.

Contract Costs

We incur certain incremental costs to obtain a contract that we expect to recover, such as sales commissions. We record an asset when these incremental costs to obtain a contract are incurred and amortize them on a systematic basis that is consistent with the transfer to the customer of the goods or services to which the asset relates.

We amortize deferred costs incurred to obtain service contracts on a straight-line basis over the term of the initial contract and anticipated renewal contracts to which the costs relate, currently 24 months. However, we have elected the practical expedient permitting expensing of costs to obtain a contract when the expected amortization period is one year or less.

Incremental costs to obtain equipment contracts (e.g., commissions paid on device and accessory sales) are recognized when the equipment is transferred to the customer.

See Note 1 - Summary of Significant Accounting Policies included in our Annual Report on [Form 10-K for the year ended December 31, 2017](#) for more discussion regarding the accounting policies that governed revenue recognition prior to January 1, 2018.

Rent Expense

We have operating leases for cell sites, retail locations, corporate offices and dedicated transportation lines, some of which have escalating rentals during the initial lease term and during subsequent optional renewal periods. We recognize rent expense on a straight-line basis, over the non-cancelable lease term and renewal periods that are considered reasonably assured at the inception of the lease. We consider several factors in assessing whether renewal periods are reasonably assured of being exercised, including the continued maturation of our network nationwide, technological advances within the telecommunications industry and the availability of alternative sites.

Advertising Expense

We expense the cost of advertising and other promotional expenditures to market our services and products as incurred. For the years ended December 31, 2018, 2017 and 2016, advertising expenses included in Selling, general and administrative expenses in our Consolidated Statements of Comprehensive Income were \$1.7 billion, \$1.8 billion and \$1.7 billion, respectively.

Income Taxes

Deferred tax assets and liabilities are recognized based on temporary differences between the financial statement and tax bases of assets and liabilities using enacted tax rates expected to be in effect when these differences are realized. A valuation allowance is recorded when it is more likely than not that some portion or all of a deferred tax asset will not be realized. The ultimate realization of a deferred tax asset depends on the ability to generate sufficient taxable income of the appropriate character and in the appropriate taxing jurisdictions within the carryforward periods available.

We account for uncertainty in income taxes recognized in the financial statements in accordance with the accounting guidance for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. We assess whether it is more likely than not that a tax position will be sustained upon examination based on the technical merits of the position and adjust the unrecognized tax benefits in light of changes in facts and circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law.

Other Comprehensive Income (Loss)

Other comprehensive income (loss) consists of adjustments, net of tax, related to unrealized gains (losses) on cash flow hedges and available-for-sale securities. This is reported in AOCI as a separate component of stockholders' equity until realized in earnings.

Stock-Based Compensation

Stock-based compensation cost for stock awards, which include restricted stock units ("RSUs") and performance-based restricted stock units ("PRSUs"), is measured at fair value on the grant date and recognized as expense, net of expected forfeitures, over the related service period. The fair value of stock awards is based on the closing price of our common stock on the date of grant. RSUs are recognized as expense using the straight-line method. PRSUs are recognized as expense following a graded vesting schedule.

Earnings Per Share

Basic earnings per share is computed by dividing Net income attributable to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted earnings per share is computed by giving effect to all potentially dilutive common shares outstanding during the period. Potentially dilutive common shares consist of outstanding stock options, RSUs and PRSUs, calculated using the treasury stock method, and prior to the conversion of our preferred stock, potentially dilutive common shares included mandatory convertible preferred stock calculated using the if-converted method. See [Note 14 – Earnings Per Share](#) for further information.

Our Board of Directors authorized a share repurchase program during the fourth quarter of 2017 and increased the repurchase program in the second quarter of 2018. Repurchased shares are retired and reduce the number of shares issued and outstanding. See [Note 12 – Repurchases of Common Stock](#) for further information.

Variable Interest Entities

Variable Interest Entities (“VIEs”) are entities which lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, have equity investors which do not have the ability to make significant decisions relating to the entity's operations through voting rights, do not have the obligation to absorb the expected losses or do not have the right to receive the residual returns of the entity. The most common type of VIE is a special purpose entity (“SPE”). SPEs are commonly used in securitization transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. SPEs are generally structured to insulate investors from claims on the SPE's assets by creditors of other entities, including the creditors of the seller of the assets.

The primary beneficiary is required to consolidate the assets and liabilities of the VIE. The primary beneficiary is the party which has both the power to direct the activities of an entity that most significantly impact the VIE's economic performance, and through its interests in the VIE, the obligation to absorb losses or the right to receive benefits from the VIE which could potentially be significant to the VIE. We consolidate VIEs when we are deemed to be the primary beneficiary or when the VIE cannot be deconsolidated.

In assessing which party is the primary beneficiary, all the facts and circumstances are considered, including each party's role in establishing the VIE and its ongoing rights and responsibilities. This assessment includes, first, identifying the activities that most significantly impact the VIE's economic performance, and second, identifying which party, if any, has power over those activities. In general, the parties that make the most significant decisions affecting the VIE (such as asset managers and servicers) or have the right to unilaterally remove those decision-makers are deemed to have the power to direct the activities of a VIE.

Accounting Pronouncements Adopted During the Current Year

Revenue

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, “Revenue from Contracts with Customers (Topic 606),” and has since modified the standard with several ASUs (collectively, the “new revenue standard”). The new revenue standard requires entities to recognize revenue through the application of a five-step model, which includes: identification of the contract; identification of the performance obligations; determination of the transaction price; allocation of the transaction price to the performance obligations; and recognition of revenue as the entity satisfies the performance obligations. We adopted the new revenue standard on January 1, 2018, using the modified retrospective method with the cumulative effect of initially applying the guidance recognized at the date of initial application. Comparative information has not been restated and continues to be reported under the standards in effect for those periods. We have applied the new revenue standard only to contracts not completed as of the date of initial application, referred to as open contracts. We have elected the practical expedient that permits an entity to reflect the aggregate effect of all of the modifications (on a contract-by-contract basis) that occurred before the date of initial application in determining the transaction price, identifying the satisfied and unsatisfied performance obligations, and allocating the transaction price to the performance obligations. Electing this practical expedient does not have a significant impact on our financial statements due to the short-term duration of most of our contracts and the nature of our contract modifications.

We have implemented significant new revenue accounting systems, processes and internal controls over revenue recognition to assist us in the application of the new revenue standard.

Financial Statement Impacts of Applying the New Revenue Standard

The cumulative effect of initially applying the new revenue standard to all open contracts as of January 1, 2018 is as follows:

(in millions)	January 1, 2018		
	Beginning Balance	Cumulative Effect Adjustment	Beginning Balance, As Adjusted
Assets			
Other current assets	\$ 1,903	\$ 140	\$ 2,043
Other assets	912	150	1,062
Liabilities and Stockholders' Equity			
Deferred revenue	\$ 779	\$ 4	\$ 783
Deferred tax liabilities	3,537	73	3,610
Accumulated deficit	(16,074)	213	(15,861)

The most significant impacts upon adoption of the new revenue standard on January 1, 2018 include the following items:

- A deferred contract cost asset of \$150 million was recorded at transition in Other assets in our Consolidated Balance Sheets for incremental contract acquisition costs paid on open contracts, which consists primarily of commissions paid to acquire branded postpaid service contracts; and
- A contract asset of \$140 million was recorded at transition in Other current assets in our Consolidated Balance Sheets primarily for contracts with promotional bill credits offered to customers on equipment sales that are paid over time and are contingent on the customer maintaining a service contract.

Financial statement results as reported under the new revenue standard as compared to the previous revenue standard for the year ended December 31, 2018 are as follows:

(in millions, except per share amounts)	Year Ended December 31, 2018		
	Previous Revenue Standard	New Revenue Standard	Change
Revenues			
Branded postpaid revenues	\$ 20,887	\$ 20,862	\$ (25)
Branded prepaid revenues	9,608	9,598	(10)
Wholesale revenues	1,183	1,183	—
Roaming and other service revenues	349	349	—
Total service revenues	32,027	31,992	(35)
Equipment revenues	9,616	10,009	393
Other revenues	1,309	1,309	—
Total revenues	42,952	43,310	358
Operating expenses			
Cost of services, exclusive of depreciation and amortization shown separately below	6,233	6,307	74
Cost of equipment sales	12,065	12,047	(18)
Selling, general and administrative	13,257	13,161	(96)
Depreciation and amortization	6,486	6,486	—
Total operating expenses	38,041	38,001	(40)
Operating income	4,911	5,309	398
Total other expense, net	(1,392)	(1,392)	—
Income before income taxes	3,519	3,917	398
Income tax expense	(926)	(1,029)	(103)
Net income	\$ 2,593	\$ 2,888	\$ 295
Earnings per share			
Basic earnings per share	\$ 3.05	\$ 3.40	\$ 0.35
Diluted earnings per share	\$ 3.02	\$ 3.36	\$ 0.34

(in millions)	December 31, 2018		
	Previous Revenue Standard	New Revenue Standard	Change
Assets			
Other current assets	\$ 1,625	\$ 1,676	\$ 51
Other assets	979	1,623	644
Liabilities and Stockholders' Equity			
Deferred revenue	\$ 685	\$ 698	\$ 13
Deferred tax liabilities	4,297	4,472	175
Accumulated deficit	(13,461)	(12,954)	507

The most significant impacts to financial statement results as reported under the new revenue standard as compared to the previous revenue standard for the current reporting period are as follows:

- Under the new revenue standard, certain commissions paid to dealers previously recognized as a reduction to Equipment revenues in our Consolidated Statements of Comprehensive Income are now recorded as commission costs in Selling, general and administrative expense.
- Contract costs capitalized for new contracts accumulated in Other assets in our Consolidated Balance Sheets during 2018. As a result, there was a net benefit to Operating income in our Consolidated Statements of Comprehensive Income during 2018 as capitalization of costs exceeded amortization. As capitalized costs amortize into expense over time, the accretive benefit to Operating income is expected to moderate in 2019 and normalize in 2020.
- Certain promotions previously recognized as a reduction in Equipment revenues in our Consolidated Statements of Comprehensive Income are now recorded as a reduction in Service revenues.
- Certain revenues previously recognized as Equipment revenues in our Consolidated Statements of Comprehensive Income are now recorded as Service revenues.
- Certain contract fulfillment costs have been reclassified to Cost of services in our Consolidated Statements of Comprehensive Income from Selling, general and administrative expenses.
- Wholesale revenues for minimum guaranteed amounts (guarantee shortfall) are recognized when it is probable that a reversal of such revenue will not occur, which may impact the timing of recognition as compared to the previous standard.
- For contracts with promotional bill credits that are contingent on the customer maintaining a service contract that result in an extended service contract, a contract asset is recorded when control of the equipment transfers to the customer and is subsequently amortized as a reduction to Total service revenues in our Consolidated Statements of Comprehensive Income over the extended contract term.

See disclosures related to Contracts with Customers under the new revenue standard in [Note 10 – Revenue from Contracts with Customers](#).

Statement of Cash Flows

On January 1, 2018, we adopted ASU 2016-15, “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments” (the “new cash flow standard”) which impacted the presentation of our cash flows related to our beneficial interests in securitization transactions, which is the deferred purchase price, resulting in a reclassification of cash inflows from Operating activities to Investing activities of approximately \$5.4 billion, \$4.3 billion, and \$3.4 billion for the years ended December 31, 2018, 2017, and 2016, respectively, in our Consolidated Statements of Cash Flows. The new cash flow standard also impacted the presentation of our cash payments for debt prepayment and debt extinguishment costs, resulting in a reclassification of cash outflows from Operating activities to Financing activities of \$212 million and \$188 million for the years ended December 31, 2018 and 2017, respectively, in our Consolidated Statements of Cash Flows. There were no cash payments for debt prepayment and debt extinguishment costs during the year ended December 31, 2016. We have applied the new cash flow standard retrospectively to all periods presented.

Financial Instruments

In January 2016, the FASB issued ASU 2016-01, “Financial Instruments (Topic 825): Recognition and Measurement of Financial Assets and Financial Liabilities,” and has since modified the standard in February 2018 with ASU 2018-03,

“Technical Corrections and Improvements to Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities”. The standard addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The standard became effective for us, and we adopted the standard, on January 1, 2018. The standard requires the impact of adoption to be recorded to retained earnings under a modified retrospective approach, resulting in a reclassification of Accumulated other comprehensive income to Accumulated deficit of \$8 million .

Income Taxes

In October 2016, the FASB issued ASU 2016-16, “Accounting for Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory.” The standard requires that the income tax impact of intra-entity sales and transfers of property, except for inventory, be recognized when the transfer occurs. The standard became effective for us, and we adopted the standard, on January 1, 2018. The standard requires any deferred taxes not yet recognized on intra-entity transfers to be recorded to retained earnings under a modified retrospective approach, resulting in an adjustment to Accumulated deficit of \$11 million .

Derivatives and Hedging

In August 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging (Topic 815): Targeted Improvement to Accounting for Hedging Activities” (the “new derivatives and hedging standard”). The standard modified the guidance for the designation and measurement of qualifying hedging relationships and the presentation of hedge results. We adopted this standard on October 1, 2018 and have applied the standard to hedging transactions prospectively.

Accounting Pronouncements Not Yet Adopted

Leases

In February 2016, the FASB issued ASU 2016-02, “Leases (Topic 842),” and has since modified the standard with several ASUs (collectively, the “new lease standard”). The standard is effective for us, and we adopted the standard, on January 1, 2019.

The new lease standard requires most lessees to report a right-of-use asset and a lease liability. The income statement recognition is similar to existing lease accounting and is based on lease classification. The new lease standard requires lessees and lessors to classify most leases using principles similar to existing lease accounting. For lessors, the new lease standard modifies the classification criteria and the accounting for sales-type and direct financing leases. The new lease standard provides entities two options for applying the modified retrospective approach, either (1) retrospectively to each prior reporting period presented in the financial statements with the cumulative-effect adjustment recognized at the beginning of the earliest comparative period presented or (2) retrospectively at the beginning of the period of adoption (January 1, 2019) through a cumulative-effect adjustment. We plan to adopt the standard by recognizing and measuring leases at the adoption date with a cumulative effect of initially applying the guidance recognized at the date of initial application.

The new standard provides for a number of optional practical expedients in transition. We do not expect to elect the “package of practical expedients” and as a result we would be required to reassess under the new standard our prior accounting conclusions about lease identification, lease classification and initial direct costs. We do expect to elect the use of hindsight for determining the reasonably certain lease term. We do not expect to elect the practical expedient pertaining to land easements as it is not applicable to us.

Upon the adoption of the new lease standard entities are required to reassess any previous failed sale-leaseback transactions that remain failed as of the effective date of the new standard. This reassessment should consider if a sale would have occurred as of the beginning of the reporting period in which the entity applies the new lease standard. Under the new lease standard, a sale is assessed using the transfer of control criteria in the new revenue standard. If the revised sale-leaseback guidance criteria are met and a sale has occurred as of the effective date, the gain or loss on the sale of the underlying asset is recognized as an adjustment to equity and the accounting for the leaseback will follow the transition provisions provided for all other operating leases.

We expect the most significant judgments and impacts upon adoption of the standard to include the following items:

- Upon adoption on January 1, 2019, we will recognize right-of-use assets and lease liabilities that have not previously been recorded. The lease liability for operating leases is based on the net present value of future minimum lease payments. The right-of-use asset for operating leases is based on the lease liability adjusted for the reclassification of certain balance sheet amounts such as deferred rent, subsequent to re-measurement from the assessment of lease term

described below, and prepaid rent. Deferred and prepaid rent will not be presented separately after the adoption of the new lease standard.

- We expect to elect the use of hindsight in determining the expected lease term for all cell sites and have generally concluded to include only payments due for the initial non-cancelable lease term. This assessment of expected lease term corresponds to our lease term assessment for new leases and aligns with the payments that have been disclosed as lease commitments in prior years. As a result, the average remaining lease term for cell sites has decreased from approximately 9 years to 4 years based on lease contracts in effect at transition on January 1, 2019.
- We are also required to reassess the previously failed sale-leaseback of certain T-Mobile-owned wireless communication tower sites and determine whether the transfer of the assets to the tower operator under the arrangement met the transfer of control criteria in the new revenue standard and whether a sale should be recognized. We are continuing to finalize our assessment of the previously failed sale-leaseback. If we conclude a sale should be recognized, upon adoption on January 1, 2019, we would derecognize our existing long-term financial obligation and the net book value of the tower-related property and equipment associated with the previously failed sale-leaseback transaction. A change in the sale-leaseback accounting conclusion would also result in the recognition of a lease liability and right of use asset for the leaseback, decreases in Other revenues and Interest expense and a reclassification of certain cash payments from financing outflows to operating outflows in our Consolidated Statements of Cash Flows.
- Excluding the impacts of a potential change in the accounting conclusion around the previously failed sale leaseback, the cumulative effects of initially applying the new lease standard on January 1, 2019 and for fiscal year 2019 would be as follows:
 - The cumulative effect of initially applying the new lease standard on January 1, 2019 is estimated to be an increase in total assets of \$8.5 billion to \$9.4 billion , an increase in total liabilities of \$8.2 billion to \$8.9 billion and a decrease to Accumulated deficit of \$300 million to \$500 million .
 - The aggregate impact is expected to result in a decrease in Total operating expenses of \$190 million to \$230 million and an increase to Net income of \$140 million to \$180 million in fiscal year 2019.
- Including the impacts that would result from a change in the accounting conclusion on the previously failed sale-leaseback, the cumulative effects of initially applying the new lease standard on January 1, 2019 and for fiscal year 2019 would be as follows:
 - The cumulative effect of initially applying the new lease standard on January 1, 2019 is estimated to be an increase in total assets of \$9.1 billion to \$10.0 billion , an increase in total liabilities of \$7.0 billion to \$7.5 billion and a decrease to Accumulated deficit of \$2.1 billion to \$2.5 billion .
 - The aggregate impact is expected to result in a decrease in Other revenues of \$230 million to \$250 million , a decrease in Interest expense of \$200 million to \$240 million , a decrease in Total operating expense s of \$220 million to \$260 million and an increase to Net income of \$140 million to \$180 million in fiscal year 2019.
 - The expected impact on our Consolidated Statements of Cash Flows in fiscal year 2019 is a decrease in Net cash provided by operating activities of \$20 million to \$40 million and a decrease in Net cash used in financing activities of \$20 million to \$40 million .

The new lease standard provides practical expedients and policy elections for an entity's ongoing accounting. We currently expect to elect the practical expedient to not separate lease and non-lease components for all of our leases. We do not expect to elect the short-term lease recognition exemption, which includes the recognition of right-of-use assets and lease liabilities for existing short-term leases at transition.

For arrangements where we are the lessor, we do not expect the adoption of the new lease standard to have a material impact on our financial statements as all of our leases are operating leases. The new lease standard provides a practical expedient for lessors in which the lessor may elect, by class of underlying asset, to not separate non-lease components from the associated lease component and, instead, to account for these components as a single component if both of the following are met: (1) the timing and pattern of transfer of the non-lease component(s) and associated lease component are the same and (2) the lease component, if accounted for separately, would be classified as an operating lease. We do not expect to elect this expedient for leased wireless devices under our JUMP! On Demand program.

We are in the process of implementing significant new lease accounting systems and are updating processes and implementing new internal controls over lease recognition to assist in the application of the new lease standard.

Financial Instruments

In June 2016, the FASB issued ASU 2016-13, “Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.” In November 2018, the FASB issued ASU 2018-19, “Codification Improvements to Topic 326, Financial Instruments-Credit Losses,” which amends the scope and transition requirements of ASU 2016-13. The standard requires a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions and reasonable and supportable forecasts that affect the collectibility of the reported amount. The standard will become effective for us beginning January 1, 2020 and will require a cumulative-effect adjustment to Accumulated deficit as of the beginning of the first reporting period in which the guidance is effective (that is, a modified-retrospective approach). Early adoption is permitted for us as of January 1, 2019. We are currently evaluating the impact this guidance will have on our Consolidated Financial Statements and the timing of adoption.

Cloud Computing Arrangements

In August 2018, the FASB issued ASU 2018-15, “Intangibles - Goodwill and Other - Internal-Use Software (Topic 350): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract.” The standard aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The standard will become effective for us beginning January 1, 2020 and can be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. Early adoption is permitted for us at any time. We are currently evaluating the impact this guidance will have on our Consolidated Financial Statements and the timing of adoption.

Other recent accounting pronouncements issued by the FASB (including its Emerging Issues Task Force), the American Institute of Certified Public Accountants, and the Securities and Exchange Commission (the “SEC”) did not have, or are not believed by management to have, a significant impact on our present or future Consolidated Financial Statements.

Note 2 – Business Combinations

Proposed Sprint Transactions

On April 29, 2018, we entered into a Business Combination Agreement to merge with Sprint in an all-stock transaction at a fixed exchange ratio of 0.10256 shares of T-Mobile common stock for each share of Sprint common stock, or 9.75 shares of Sprint common stock for each share of T-Mobile common stock (the “Merger”). The combined company will be named “T-Mobile” and, as a result of the Merger, is expected to be able to rapidly launch a nationwide 5G network, accelerate innovation and increase competition in the U.S. wireless, video and broadband industries. Neither T-Mobile nor Sprint on its own could generate comparable benefits to consumers.

The Transactions have been approved by the boards of directors of T-Mobile and Sprint and the required approvals of each of T-Mobile and Sprint have been obtained. Immediately following the Merger, it is anticipated that Deutsche Telekom (“DT”) and SoftBank Group Corp. will hold, directly or indirectly, on a fully diluted basis, approximately 41.7% and 27.4% , respectively, of the outstanding T-Mobile common stock, with the remaining approximately 30.9% of the outstanding T-Mobile common stock held by other stockholders, based on closing share prices and certain other assumptions as of December 31, 2018.

In connection with the entry into the Business Combination Agreement, T-Mobile USA, Inc. (“T-Mobile USA”) entered into a commitment letter, dated as of April 29, 2018 (as amended and restated on May 15, 2018, the “Commitment Letter”). The funding of the debt facilities provided for in the Commitment Letter is subject to the satisfaction of the conditions set forth therein, including consummation of the Merger. The proceeds of the debt financing provided for in the Commitment Letter will be used to refinance certain existing debt of us, Sprint and our and Sprint’s respective subsidiaries and for post-closing working capital needs of the combined company. See [Note 8 – Debt](#) for further information.

In connection with the entry into the Business Combination Agreement, DT and T-Mobile USA entered into a financing matters agreement, dated as of April 29, 2018 (the “Financing Matters Agreement”). See [Note 8 – Debt](#) for further information.

On May 18, 2018, under the terms and conditions described in the Consent Solicitation Statement dated as of May 14, 2018, (the “Consent Solicitation Statement”) we obtained consents necessary to effect certain amendments to certain existing debt of us and our subsidiaries. In connection with receiving the requisite consents, we made upfront payments to third-party note holders of approximately \$31 million during 2018. These payments were recognized as a reduction to Long-term debt. We paid third-party bank fees associated with obtaining the requisite consents of \$6 million during 2018, which we recognized as Selling, general and administrative expenses in our Consolidated Statements of Comprehensive Income.

Under the terms of the Business Combination Agreement, Sprint may be required to reimburse us for 33% of the upfront consent and related bank fees we paid, or \$14 million, if the Business Combination Agreement is terminated. There was no reimbursement accrued as of December 31, 2018. On May 18, 2018, Sprint also obtained consents necessary to effect certain amendments to certain existing debt of it and its subsidiaries. In connection with receiving the requisite consents, Sprint made upfront payments to third-party note holders and related bank fees of \$241 million during 2018. Under the terms of the Business Combination Agreement, we may also be required to reimburse Sprint for 67% of the upfront consent and related bank fees it paid, or \$161 million, if the Business Combination Agreement is terminated. There was no fee accrued as of December 31, 2018.

For the year ended December 31, 2018, we recognized costs associated with the Transactions of \$196 million. These costs generally included bank fees associated with obtaining the requisite consents on debt to third parties, consulting and legal fees and were recognized as Selling, general and administrative expenses in our Consolidated Statements of Comprehensive Income.

The consummation of the Transactions is subject to regulatory approvals and certain other customary closing conditions. We expect to receive regulatory approval in the first half of 2019. The Business Combination Agreement contains certain termination rights for both Sprint and us. If we terminate the Business Combination Agreement in connection with a failure to satisfy the closing condition related to specified minimum credit ratings for the combined company on the closing date of the Merger (after giving effect to the Merger) from at least two of the three credit rating agencies, then in certain circumstances, we may be required to pay Sprint an amount equal to \$600 million.

On June 18, 2018, we filed the Public Interest Statement and applications for approval of our Merger with Sprint with the FCC. On July 18, 2018, the FCC issued a Public Notice formally accepting our applications and establishing a period for public comment. The FCC is reviewing the modeling provided by us and Sprint under its informal 180-day transaction shot clock. On July 30, 2018, we filed a registration statement on Form S-4 with the SEC related to the Merger. The registration statement became effective on October 29, 2018.

Acquisition of Layer3 TV

On January 22, 2018, we completed our acquisition of television innovator Layer3 TV, Inc. (“Layer3 TV”) for cash consideration of \$318 million. The consideration included a \$5 million payment that was made after the closing date in the second quarter of 2018. Upon closing of the transaction, Layer3 TV became a wholly-owned consolidated subsidiary. Layer3 TV acquires and distributes digital entertainment programming primarily through the internet to residential customers, offering direct to home digital television and multi-channel video programming distribution services. This transaction represented an opportunity to acquire a complementary service to our existing wireless service to advance our video strategy.

We accounted for the purchase of Layer3 TV as a business combination. Costs related to this acquisition were immaterial to our Consolidated Statements of Comprehensive Income. The grant-date fair value of cash-based and share-based incentive compensation awards attributable to post-combination services was approximately \$37 million.

The following table shows the amounts recognized as of the acquisition date for each major class of assets acquired and liabilities assumed and the resultant purchase price allocation:

(in millions)	January 22, 2018
Assets acquired	
Cash and cash equivalents	\$ 2
Other current assets	14
Property and equipment, net	11
Intangible assets	100
Goodwill	218
Deferred tax assets	2
Total assets acquired	\$ 347
Liabilities assumed	
Accounts payable and accrued liabilities	\$ 27
Short-term debt	2
Total liabilities assumed	29
Total consideration transferred	\$ 318

We recognized a liability of \$21 million within Accounts payable and accrued liabilities in our Consolidated Balance Sheets and an associated indemnification asset of \$12 million in our Consolidated Balance Sheets related to minimum commitments under acquired content agreements. As of December 31, 2018, the \$12 million had been received.

Goodwill of \$218 million is calculated as the excess of the purchase price paid over the net assets acquired. The goodwill recorded as part of the Layer3 TV acquisition primarily reflects industry knowledge of the retained management team, as well as intangible assets that do not qualify for separate recognition. None of the goodwill is deductible for tax purposes. See [Note 6 – Goodwill, Spectrum Licenses and Other Intangible Assets](#) for further information.

As part of the transaction, we acquired an identifiable intangible asset of developed technology with an estimated fair value of \$100 million, which is being amortized on a straight-line basis over a useful life of 5 years.

The financial results from the acquisition of Layer3 TV since the closing date through December 31, 2018 were not material to our Consolidated Statements of Comprehensive Income.

Acquisition of Iowa Wireless

On January 1, 2018 (the “IWS Acquisition Date”), we closed on our previously announced Unit Purchase Agreement to acquire the remaining equity in Iowa Wireless Services, LLC (“IWS”), a 54% owned unconsolidated subsidiary, for a purchase price of \$25 million. We accounted for our acquisition of IWS as a business combination.

Prior to the IWS Acquisition Date, we accounted for our previously-held investment in IWS under the equity method as we had significant influence, but not control. Authoritative guidance on accounting for business combinations requires that an acquirer re-measure its previously held equity interest in the acquiree at its acquisition date fair value and recognize the resulting gain or loss in earnings. As such, we valued our previously held equity interest in IWS at \$56 million as of the IWS Acquisition Date and recognized a gain of \$15 million.

The following table highlights the consideration transferred, the fair value of our previously held equity interest and bargain purchase:

(in millions)	January 1, 2018
Consideration transferred:	
Cash paid	\$ 25
Previously held equity interest:	
Acquisition date fair value of previously held equity interest	56
Bargain purchase gain	25
Net assets acquired	\$ 106

As part of the acquisition of IWS, we recognized a bargain purchase gain of approximately \$25 million, which represents the fair value of the identifiable net assets acquired, primarily IWS spectrum licenses, in excess of the purchase price and fair value of our previously held equity interest. We were in a favorable position to acquire the remaining shares of IWS as a result of our previously held 54% equity interest in IWS, an unprofitable business with valuable spectrum holdings.

The following table shows the amounts recognized as of the IWS Acquisition Date for each major class of assets acquired and liabilities assumed and the resultant purchase price allocation:

(in millions)	January 1, 2018
Assets acquired	
Current assets	
Cash and cash equivalents	\$ 3
Accounts receivable, net	6
Equipment installment plan receivables, net	3
Inventories	1
Other current assets	2
Current assets, total	15
Property and equipment, net	36
Spectrum licenses	87
Total assets acquired	\$ 138
Liabilities assumed	
Accounts payable and accrued liabilities	\$ 6
Deferred revenue	2
Current liabilities, total	8
Deferred tax liabilities	17
Other long-term liabilities	7
Total long-term liabilities	24
Net assets acquired	\$ 106

We included both the gain on our previously held equity interest in IWS and the bargain purchase gain within Other income (expense), net for the year ended December 31, 2018.

Pro Forma Information

The acquisitions of Layer3 TV and IWS were not material to our prior period consolidated results on a pro forma basis.

Note 3 – Receivables and Allowance for Credit Losses

Our portfolio of receivables is comprised of two portfolio segments, accounts receivable and EIP receivables. Our accounts receivable segment primarily consists of amounts currently due from customers, including service and leased device receivables, other carriers and third-party retail channels.

Based upon customer credit profiles, we classify the EIP receivables segment into two customer classes of “Prime” and “Subprime.” Prime customer receivables are those with lower delinquency risk and Subprime customer receivables are those with higher delinquency risk. Customers may be required to make a down payment on their equipment purchases. In addition, certain customers within the Subprime category are required to pay an advance deposit.

To determine a customer’s credit profile, we use a proprietary credit scoring model that measures the credit quality of a customer using several factors, such as credit bureau information, consumer credit risk scores and service and device plan characteristics.

The following table summarizes the EIP receivables, including imputed discounts and related allowance for credit losses:

(in millions)	December 31, 2018	December 31, 2017
EIP receivables, gross	\$ 4,534	\$ 3,960
Unamortized imputed discount	(330)	(264)
EIP receivables, net of unamortized imputed discount	4,204	3,696
Allowance for credit losses	(119)	(132)
EIP receivables, net	\$ 4,085	\$ 3,564
Classified on the balance sheet as:		
Equipment installment plan receivables, net	\$ 2,538	\$ 2,290
Equipment installment plan receivables due after one year, net	1,547	1,274
EIP receivables, net	\$ 4,085	\$ 3,564

To determine the appropriate level of the allowance for credit losses, we consider a number of credit quality indicators, including historical credit losses and timely payment experience as well as current collection trends such as write-off frequency and severity, aging of the receivable portfolio, credit quality of the customer base and other qualitative factors such as macro-economic conditions.

We write off account balances if collection efforts are unsuccessful and the receivable balance is deemed uncollectible, based on customer credit quality and the aging of the receivable.

For EIP receivables, subsequent to the initial determination of the imputed discount, we assess the need for and, if necessary, recognize an allowance for credit losses to the extent the amount of estimated probable losses on the gross EIP receivable balances exceed the remaining unamortized imputed discount balances.

The EIP receivables had weighted average effective imputed interest rates of 10.0% , 9.6% and 9.0% as of December 31, 2018 , 2017 and 2016 , respectively.

Activity for the years ended December 31, 2018 , 2017 and 2016 in the allowance for credit losses and unamortized imputed discount balances for the accounts receivable and EIP receivables segments were as follows:

(in millions)	December 31, 2018			December 31, 2017			December 31, 2016		
	Accounts Receivable Allowance	EIP Receivables Allowance	Total	Accounts Receivable Allowance	EIP Receivables Allowance	Total	Accounts Receivable Allowance	EIP Receivables Allowance	Total
Allowance for credit losses and imputed discount, beginning of period	\$ 86	\$ 396	\$ 482	\$ 102	\$ 316	\$ 418	\$ 116	\$ 333	\$ 449
Bad debt expense	69	228	297	104	284	388	227	250	477
Write-offs, net of recoveries	(88)	(240)	(328)	(120)	(273)	(393)	(241)	(277)	(518)
Change in imputed discount on short-term and long-term EIP receivables	N/A	250	250	N/A	252	252	N/A	186	186
Impact on the imputed discount from sales of EIP receivables	N/A	(185)	(185)	N/A	(183)	(183)	N/A	(176)	(176)
Allowance for credit losses and imputed discount, end of period	\$ 67	\$ 449	\$ 516	\$ 86	\$ 396	\$ 482	\$ 102	\$ 316	\$ 418

Management considers the aging of receivables to be an important credit indicator. The following table provides delinquency status for the unpaid principal balance for receivables within the EIP portfolio segment, which we actively monitor as part of our current credit risk management practices and policies:

(in millions)	December 31, 2018			December 31, 2017		
	Prime	Subprime	Total EIP Receivables, gross	Prime	Subprime	Total EIP Receivables, gross
Current - 30 days past due	\$ 1,987	\$ 2,446	\$ 4,433	\$ 1,727	\$ 2,133	\$ 3,860
31 - 60 days past due	15	32	47	17	29	46
61 - 90 days past due	6	19	25	6	16	22
More than 90 days past due	7	22	29	8	24	32
Total receivables, gross	\$ 2,015	\$ 2,519	\$ 4,534	\$ 1,758	\$ 2,202	\$ 3,960

Note 4 – Sales of Certain Receivables

We have entered into transactions to sell certain service and EIP receivables. The transactions, including our continuing involvement with the sold receivables and the respective impacts to our Consolidated Financial Statements, are described below.

Sales of Service Accounts Receivable

Overview of the Transaction

In 2014, we entered into an arrangement to sell certain service accounts receivable on a revolving basis and in November 2016, the arrangement was amended to increase the maximum funding commitment to \$950 million (the “service receivable sale arrangement”) and extend the scheduled expiration date to March 2018. In February 2018, the service receivable sale arrangement was amended and restated to extend the scheduled expiration date to March 2019. In November 2018, the service receivable sale arrangement was again amended to extend the maturity of certain third-party credit support under the arrangement until March 2019. As of December 31, 2018 and 2017, the service receivable sale arrangement provided funding of \$774 million and \$880 million, respectively. Sales of receivables occur daily and are settled on a monthly basis. The receivables consist of service charges currently due from customers and are short-term in nature.

In connection with the service receivable sale arrangement, we formed a wholly-owned subsidiary, which qualifies as a bankruptcy remote entity, to sell service accounts receivable (the “Service BRE”). The Service BRE does not qualify as a VIE, and due to the significant level of control we exercise over the entity, it is consolidated. Pursuant to the service receivable sale arrangement, certain of our wholly-owned subsidiaries transfer selected receivables to the Service BRE. The Service BRE then sells the receivables to an unaffiliated entity (the “Service VIE”), which was established to facilitate the sale of beneficial ownership interests in the receivables to certain third parties.

Variable Interest Entity

We determined that the Service VIE qualifies as a VIE as it lacks sufficient equity to finance its activities. We have a variable interest in the Service VIE but are not the primary beneficiary as we lack the power to direct the activities that most significantly impact the Service VIE’s economic performance. Those activities include committing the Service VIE to legal agreements to purchase or sell assets, selecting which receivables are purchased in the service receivable sale arrangement, determining whether the Service VIE will sell interests in the purchased service receivables to other parties, funding of the entity and servicing of receivables. We do not hold the power to direct the key decisions underlying these activities. For example, while we act as the servicer of the sold receivables, which is considered a significant activity of the Service VIE, we are acting as an agent in our capacity as the servicer and the counterparty to the service receivable sale arrangement has the ability to remove us as the servicing agent of the receivables at will with no recourse available to us. As we have determined we are not the primary beneficiary, the balances and results of the Service VIE are not included in our Consolidated Financial Statements.

The following table summarizes the carrying amounts and classification of assets, which consists primarily of the deferred purchase price and liabilities included in our Consolidated Balance Sheets that relate to our variable interest in the Service VIE:

(in millions)	December 31, 2018	December 31, 2017
Other current assets	\$ 339	\$ 236
Accounts payable and accrued liabilities	59	25
Other current liabilities	149	180

Sales of EIP Receivables

Overview of the Transaction

In 2015, we entered into an arrangement to sell certain EIP accounts receivable on a revolving basis. In August 2017, the EIP sale arrangement was amended to reduce the maximum funding commitment to \$1.2 billion (the “EIP sale arrangement”) and extend the scheduled expiration date to November 2018. In December 2017, the EIP sale arrangement was again amended to increase the maximum funding commitment to \$1.3 billion. In October 2018, we amended and restated the EIP sale arrangement to, among other things, extend the scheduled expiration date to November 2020 and expand the types of EIP receivables that may be sold. In December 2018, we amended the EIP sale arrangement to increase the term of EIP accounts receivables relating to handset devices that may be sold in the EIP sale arrangement to expand the eligibility criteria for longer tenor EIP loans.

As of both December 31, 2018 and 2017, the EIP sale arrangement provided funding of \$1.3 billion. Sales of EIP receivables occur daily and are settled on a monthly basis.

In connection with this EIP sale arrangement, we formed a wholly-owned subsidiary, which qualifies as a bankruptcy remote entity (the “EIP BRE”). Pursuant to the EIP sale arrangement, our wholly-owned subsidiary transfers selected receivables to the EIP BRE. The EIP BRE then sells the receivables to a non-consolidated and unaffiliated third-party entity for which we do not exercise any level of control, nor does the third-party entity qualify as a VIE.

Variable Interest Entity

We determined that the EIP BRE is a VIE as its equity investment at risk lacks the obligation to absorb a certain portion of its expected losses. We have a variable interest in the EIP BRE and determined that we are the primary beneficiary based on our ability to direct the activities which most significantly impact the EIP BRE’s economic performance. Those activities include selecting which receivables are transferred into the EIP BRE and sold in the EIP sale arrangement and funding of the EIP BRE. Additionally, our equity interest in the EIP BRE obligates us to absorb losses and gives us the right to receive benefits from the EIP BRE that could potentially be significant to the EIP BRE. Accordingly, we include the balances and results of operations of the EIP BRE in our Consolidated Financial Statements.

The following table summarizes the carrying amounts and classification of assets, which consists primarily of the deferred purchase price and liabilities included in our Consolidated Balance Sheets that relate to the EIP BRE:

(in millions)	December 31, 2018	December 31, 2017
Other current assets	\$ 321	\$ 403
Other assets	88	109
Other long-term liabilities	22	3

In addition, the EIP BRE is a separate legal entity with its own separate creditors who will be entitled, prior to any liquidation of the EIP BRE, to be satisfied prior to any value in the EIP BRE becoming available to us. Accordingly, the assets of the EIP BRE may not be used to settle our general obligations and creditors of the EIP BRE have limited recourse to our general credit.

Sales of Receivables

The transfers of service receivables and EIP receivables to the non-consolidated entities are accounted for as sales of financial assets. Once identified for sale, the receivable is recorded at the lower of cost or fair value. Upon sale, we derecognize the net carrying amount of the receivables.

We recognize the cash proceeds received upon sale in Net cash provided by operating activities in our Consolidated Statements of Cash Flows . We recognize proceeds net of the deferred purchase price, consisting of a receivable from the purchasers that entitles us to certain collections on the receivables. We recognize the collection of the deferred purchase price in Net cash used in investing activities in our Consolidated Statements of Cash Flows as Proceeds related to beneficial interests in securitization transactions .

The deferred purchase price represents a financial asset that is primarily tied to the creditworthiness of the customers and which can be settled in such a way that we may not recover substantially all of our recorded investment, due to default by the customers on the underlying receivables. We elected, at inception, to measure the deferred purchase price at fair value with changes in fair value included in Selling, general and administrative expense in our Consolidated Statements of Comprehensive Income . The fair value of the deferred purchase price is determined based on a discounted cash flow model which uses primarily unobservable inputs (Level 3 inputs), including customer default rates. As of December 31, 2018 and 2017 , our deferred purchase price related to the sales of service receivables and EIP receivables was \$746 million and \$745 million , respectively.

The following table summarizes the impacts of the sale of certain service receivables and EIP receivables in our Consolidated Balance Sheets :

(in millions)	December 31, 2018	December 31, 2017
Derecognized net service receivables and EIP receivables	\$ 2,577	\$ 2,725
Other current assets	660	639
<i>of which, deferred purchase price</i>	<i>658</i>	<i>636</i>
Other long-term assets	88	109
<i>of which, deferred purchase price</i>	<i>88</i>	<i>109</i>
Accounts payable and accrued liabilities	59	25
Other current liabilities	149	180
Other long-term liabilities	22	3
Net cash proceeds since inception	1,879	2,058
Of which:		
Change in net cash proceeds during the year-to-date period	(179)	28
Net cash proceeds funded by reinvested collections	2,058	2,030

We recognized losses from sales of receivables, including adjustments to the receivables' fair values and changes in fair value of the deferred purchase price, of \$157 million , \$299 million and \$228 million for the years ended December 31, 2018 , 2017 and 2016 , respectively, in Selling, general and administrative expense in our Consolidated Statements of Comprehensive Income .

Continuing Involvement

Pursuant to the sale arrangements described above, we have continuing involvement with the service receivables and EIP receivables we sell as we service the receivables and are required to repurchase certain receivables, including ineligible receivables, aged receivables and receivables where write-off is imminent. We continue to service the customers and their related receivables, including facilitating customer payment collection, in exchange for a monthly servicing fee. As the receivables are sold on a revolving basis, the customer payment collections on sold receivables may be reinvested in new receivable sales. While servicing the receivables, we apply the same policies and procedures to the sold receivables as we apply to our owned receivables, and we continue to maintain normal relationships with our customers. Pursuant to the EIP sale arrangement, under certain circumstances, we are required to deposit cash or replacement EIP receivables primarily for contracts terminated by customers under our JUMP! Program.

In addition, we have continuing involvement with the sold receivables as we may be responsible for absorbing additional credit losses pursuant to the sale arrangements. Our maximum exposure to loss related to the involvement with the service receivables

and EIP receivables sold under the sale arrangements was \$1.2 billion as of December 31, 2018 . The maximum exposure to loss, which is a required disclosure under GAAP, represents an estimated loss that would be incurred under severe, hypothetical circumstances whereby we would not receive the deferred purchase price portion of the contractual proceeds withheld by the purchasers and would also be required to repurchase the maximum amount of receivables pursuant to the sale arrangements without consideration for any recovery. As we believe the probability of these circumstances occurring is remote, the maximum exposure to loss is not an indication of our expected loss.

Note 5 – Property and Equipment

The components of property and equipment were as follows:

(in millions)	Useful Lives	December 31, 2018	December 31, 2017
Buildings and equipment	Up to 40 years	\$ 2,423	\$ 2,066
Wireless communications systems	Up to 20 years	35,282	32,706
Leasehold improvements	Up to 12 years	1,299	1,182
Capitalized software	Up to 10 years	11,712	10,563
Leased devices	Up to 18 months	1,164	1,209
Construction in progress		2,776	1,771
Accumulated depreciation and amortization		(31,297)	(27,301)
Property and equipment, net		<u>\$ 23,359</u>	<u>\$ 22,196</u>

Wireless communication systems include capital lease agreements for network equipment with varying expiration terms through 2033 . Capital lease assets and accumulated amortization were \$3.1 billion and \$867 million , and \$2.4 billion and \$533 million , as of December 31, 2018 and 2017 , respectively.

We capitalize interest associated with the acquisition or construction of certain property and equipment and spectrum intangible assets. We recognized capitalized interest of \$362 million , \$136 million and \$142 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

The components of leased wireless devices under our JUMP! On Demand program were as follows:

(in millions)	December 31, 2018	December 31, 2017
Leased wireless devices, gross	\$ 1,159	\$ 1,209
Accumulated depreciation	(622)	(417)
Leased wireless devices, net	<u>\$ 537</u>	<u>\$ 792</u>

Future minimum payments expected to be received over the lease term related to the leased wireless devices, which exclude optional residual buy-out amounts at the end of the lease term, are summarized below:

(in millions)	Total
Year Ended December 31,	
2019	\$ 419
2020	59
Total	<u>\$ 478</u>

Total depreciation expense relating to property and equipment was \$6.4 billion , \$5.8 billion and \$6.0 billion for the years ended December 31, 2018 , 2017 and 2016 , respectively. Included in the total depreciation expense for the years ended December 31, 2018 , 2017 and 2016 was \$940 million , \$1.0 billion and \$1.5 billion , respectively, related to leased wireless devices.

For the years ended December 31, 2018 , 2017 and 2016 , we recorded additional depreciation expense of \$60 million , \$63 million and \$101 million , respectively, as a result of adjustments to useful lives of network equipment expected to be replaced in connection with our network transformation and decommissioning the MetroPCS CDMA network and redundant network cell sites.

Asset retirement obligations are primarily for certain legal obligations to remediate leased property on which our network infrastructure and administrative assets are located.

Activity in our asset retirement obligations was as follows:

(in millions)	December 31, 2018	December 31, 2017
Asset retirement obligations, beginning of year	\$ 562	\$ 539
Liabilities incurred	26	25
Liabilities settled	(9)	(16)
Accretion expense	30	27
Changes in estimated cash flows	—	(13)
Asset retirement obligations, end of year	<u>\$ 609</u>	<u>\$ 562</u>
Classified on the balance sheet as:		
Other current liabilities	\$ —	\$ 3
Other long-term liabilities	609	559
Asset retirement obligations	<u>\$ 609</u>	<u>\$ 562</u>

The corresponding assets, net of accumulated depreciation, related to asset retirement obligations were \$194 million and \$220 million as of December 31, 2018 and 2017, respectively.

Note 6 – Goodwill, Spectrum License Transactions and Other Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2018 and 2017 are as follows:

(in millions)	Goodwill
Historical goodwill	\$ 12,449
Accumulated impairment losses at December 31, 2017	(10,766)
Balance as of December 31, 2017	1,683
Goodwill from acquisition of Layer3 TV	218
Balance as of December 31, 2018	<u>\$ 1,901</u>
Accumulated impairment losses at December 31, 2018	<u>\$ (10,766)</u>

On January 22, 2018, we completed our acquisition of Layer3 TV. This purchase was accounted for as a business combination resulting in \$218 million in goodwill. Layer3 TV is a separate reporting unit and the acquired goodwill is tested for impairment at this level. See [Note 2 – Business Combinations](#) for further information.

Spectrum Licenses

The following table summarizes our spectrum license activity for the years ended December 31, 2018 and 2017 :

(in millions)	2018	2017
Spectrum licenses, beginning of year	\$ 35,366	\$ 27,014
Spectrum license acquisitions	138	8,599
Spectrum licenses transferred to held for sale	(1)	(271)
Costs to clear spectrum	56	24
Spectrum licenses, end of year	<u>\$ 35,559</u>	<u>\$ 35,366</u>

We had the following spectrum license transactions during 2018 :

- We recorded spectrum licenses received as part of our acquisition of the remaining equity interest in IWS at their estimated fair value of approximately \$87 million. See [Note 2 – Business Combinations](#) for further information.

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- We closed on multiple spectrum purchase agreements in which we acquired total spectrum licenses of approximately \$50 million for cash consideration.
- In September 2018, we signed a reciprocal long-term lease agreement with Sprint in which both parties have the right to use a portion of spectrum owned by the other party. This executory agreement does not qualify as an acquisition of spectrum licenses, and we have not capitalized amounts related to the lease. The reciprocal long-term lease is a distinct transaction from the Merger. See [Note 15 – Commitments and Contingencies](#) for further information.

We had the following spectrum license transactions during 2017 :

- In March 2017, we closed on an agreement with a third party for the exchange of certain AWS and PCS spectrum licenses. Upon closing of the transaction, we recorded the spectrum licenses received at their estimated fair value of approximately \$123 million and recognized a gain of \$37 million included in Gains on disposal of spectrum licenses in our Consolidated Statements of Comprehensive Income .
- In April 2017, the FCC announced that we were the winning bidder of 1,525 licenses in the 600 MHz spectrum auction for an aggregate price of \$8.0 billion . At inception of the auction in June 2016, we deposited \$2.2 billion with the FCC which, based on the outcome of the auction, was sufficient to cover our down payment obligation due in April 2017. In May 2017, we paid the FCC the remaining \$5.8 billion of the purchase price using cash reserves and by issuing debt to Deutsche Telekom AG (“DT”), our majority stockholder, pursuant to existing purchase commitments. The licenses are included in Spectrum licenses as of December 31, 2017, in our Consolidated Balance Sheets . We began deployment of these licenses on our network in the third quarter of 2017.
- In September 2017, we closed on an agreement with a third party for the exchange of certain AWS and PCS spectrum licenses. Upon closing of the transaction, we recorded the spectrum licenses received at their estimated fair value of approximately \$115 million and recognized a gain of \$29 million included in Gains on disposal of spectrum licenses in our Consolidated Statements of Comprehensive Income .
- In September 2017, we entered into a Unit Purchase Agreement (“UPA”) to acquire the remaining equity in Iowa Wireless Services, LLC (“IWS”), a 54% owned unconsolidated subsidiary, for a purchase price of \$25 million . On January 1, 2018, we closed on the purchase agreement and received the IWS spectrum licenses, among other assets. As of December 31, 2017, we accounted for our existing investment in IWS under the equity method as we had significant influence, but not control.
- In December 2017, we closed on an agreement with a third party for the exchange of certain AWS and PCS spectrum licenses. Upon closing of the transaction, we recorded the spectrum licenses received at their estimated fair value of approximately \$352 million and recognized a gain of \$168 million included in Gains on disposal of spectrum licenses in our Consolidated Statements of Comprehensive Income .

Goodwill and Other Intangible Assets Impairment Assessments

Our impairment assessment of goodwill and other indefinite-lived intangible assets (spectrum licenses) resulted in no impairment as of December 31, 2018 and 2017 .

Other Intangible Assets

The components of Other intangible assets were as follows:

(in millions)	Useful Lives	December 31, 2018			December 31, 2017		
		Gross Amount	Accumulated Amortization	Net Amount	Gross Amount	Accumulated Amortization	Net Amount
Customer lists	Up to 6 years	\$ 1,104	\$ (1,086)	\$ 18	\$ 1,104	\$ (1,016)	\$ 88
Trademarks and patents	Up to 19 years	312	(225)	87	307	(192)	115
Other	Up to 28 years	149	(56)	93	49	(35)	14
Other intangible assets		\$ 1,565	\$ (1,367)	\$ 198	\$ 1,460	\$ (1,243)	\$ 217

Amortization expense for intangible assets subject to amortization was \$124 million , \$163 million and \$220 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

The estimated aggregate future amortization expense for intangible assets subject to amortization are summarized below:

(in millions)	Estimated Future Amortization
Year Ending December 31,	
2019	\$ 73
2020	55
2021	35
2022	25
2023	6
Thereafter	4
Total	\$ 198

Note 7 – Fair Value Measurements

The carrying values of Cash and cash equivalents , Accounts receivable, Accounts receivable from affiliates , Accounts payable and accrued liabilities , and borrowings under our revolving credit facility with DT, our majority stockholder, approximate fair value due to the short-term maturities of these instruments.

Derivative Financial Instruments

Interest rate lock derivatives

On October 1, 2018, we adopted the new derivatives and hedging standard and have applied the standard to hedging transactions prospectively. See [Note 1 – Summary of Significant Accounting Policies](#) for further discussion on the adoption of this standard.

Periodically, we use derivatives to manage exposure to market risk, such as interest rate risk. We designate certain derivatives as hedging instruments in a qualifying hedge accounting relationship (cash flow hedge) to help minimize significant, unplanned fluctuations in cash flows caused by interest rate volatility. We do not use derivatives for trading or speculative purposes.

We enter into and designate interest rate lock derivatives (forward-starting swap instruments) as cash flow hedges to reduce variability in cash flows due to changes in interest payments attributable to increases or decreases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt.

We record interest rate lock derivatives on our Consolidated Balance Sheets at fair value that is derived primarily from observable market data, including yield curves. Interest rate lock derivatives were classified as Level 2 in the fair value hierarchy. Cash flows associated with derivative instruments are presented in the same category on the Consolidated Statements of Cash Flows as the item being hedged.

In October 2018, we entered into interest rate lock derivatives with notional amounts of \$9.6 billion . The fair value of interest rate lock derivatives as of December 31, 2018 was \$447 million and is included in Other current liabilities in our Consolidated Balance Sheets . As of and for the year ended December 31, 2018 , no amounts were accrued or amortized into Interest expense in the Consolidated Statements of Comprehensive Income while changes in fair value, net of tax, of \$332 million are presented in AOCI.

Embedded derivatives

In connection with our business combination with MetroPCS, we issued senior reset notes to DT. We determined certain components of the reset feature are required to be bifurcated from the senior reset notes and separately accounted for as embedded derivative instruments.

The interest rates on our senior reset notes to DT were adjusted at the reset dates to rates defined in the applicable supplemental indentures to manage interest rate risk related to the senior reset notes. Our embedded derivatives are recorded at fair value primarily based on unobservable inputs and were classified as Level 3 in the fair value hierarchy for 2018 and 2017.

The fair value of embedded derivative instruments was \$19 million and \$66 million as of December 31, 2018 and 2017, respectively, and is included in Other long-term liabilities in our Consolidated Balance Sheets . For the years ended December

31, 2018, 2017 and 2016, we recognized \$29 million, \$52 million and \$25 million from the gain activity related to embedded derivatives instruments in Interest expense to affiliates in our Consolidated Statements of Comprehensive Income.

Deferred Purchase Price Assets

In connection with the sales of certain service and EIP accounts receivable pursuant to the sale arrangements, we have deferred purchase price assets measured at fair value that are based on a discounted cash flow model using unobservable Level 3 inputs, including customer default rates. See [Note 4 – Sales of Certain Receivables](#) for further information.

The carrying amounts and fair values of our assets measured at fair value on a recurring basis included in our Consolidated Balance Sheets were as follows:

(in millions)	Level within the Fair Value Hierarchy	December 31, 2018		December 31, 2017	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Assets:					
Deferred purchase price assets	3	\$ 746	\$ 746	\$ 745	\$ 745

Long-term Debt

The fair value of our Senior Notes to third parties was determined based on quoted market prices in active markets, and therefore was classified as Level 1 within the fair value hierarchy. The fair values of our Senior Notes to affiliates, Incremental Term Loan Facility to affiliates and Senior Reset Notes to affiliates were determined based on a discounted cash flow approach using market interest rates of instruments with similar terms and maturities and an estimate for our standalone credit risk. Accordingly, our Senior Notes to affiliates, Incremental Term Loan Facility to affiliates and Senior Reset Notes to affiliates were classified as Level 2 within the fair value hierarchy.

Although we have determined the estimated fair values using available market information and commonly accepted valuation methodologies, considerable judgment was required in interpreting market data to develop fair value estimates for the Senior Notes to affiliates, Incremental Term Loan Facility to affiliates and Senior Reset Notes to affiliates. The fair value estimates were based on information available as of December 31, 2018 and 2017. As such, our estimates are not necessarily indicative of the amount we could realize in a current market exchange.

The carrying amounts and fair values of our short-term and long-term debt included in our Consolidated Balance Sheets were as follows:

(in millions)	Level within the Fair Value Hierarchy	December 31, 2018		December 31, 2017	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Liabilities:					
Senior Notes to third parties	1	\$ 10,950	\$ 10,945	\$ 11,910	\$ 12,540
Senior Notes to affiliates	2	9,984	9,802	7,486	7,852
Incremental Term Loan Facility to affiliates	2	4,000	3,976	4,000	4,020
Senior Reset Notes to affiliates	2	598	640	3,100	3,260

Guarantee Liabilities

We offer a device trade-in program, JUMP!, which provides eligible customers a specified-price trade-in right to upgrade their device. For customers who enroll in JUMP!, we recognize a liability and reduce revenue for the portion of revenue which represents the estimated fair value of the specified-price trade-in right guarantee, incorporating the expected probability and timing of handset upgrade and the estimated fair value of the handset which is returned. Accordingly, our guarantee liabilities were classified as Level 3 within the fair value hierarchy. When customers upgrade their device, the difference between the EIP balance credit to the customer and the fair value of the returned device is recorded against the guarantee liabilities. Guarantee liabilities are included in Other current liabilities in our Consolidated Balance Sheets.

The carrying amounts of our guarantee liabilities measured at fair value on a non-recurring basis included in our Consolidated Balance Sheets were \$73 million and \$105 million as of December 31, 2018 and 2017, respectively.

The total estimated remaining gross EIP receivable balances of all enrolled handset upgrade program customers, which are the

remaining EIP amounts underlying the JUMP! guarantee, including EIP receivables that have been sold, was \$3.0 billion as of December 31, 2018. This is not an indication of our expected loss exposure as it does not consider the expected fair value of the used handset or the probability and timing of the trade-in.

Note 8 – Debt

Debt was as follows:

(in millions)	December 31, 2018	December 31, 2017
8.097% Senior Reset Notes to affiliates due 2021	\$ —	\$ 1,250
5.300% Senior Notes to affiliates due 2021	2,000	2,000
8.195% Senior Reset Notes to affiliates due 2022	—	1,250
4.000% Senior Notes to affiliates due 2022	1,000	1,000
4.000% Senior Notes due 2022	500	500
6.125% Senior Notes due 2022	—	1,000
Incremental term loan facility to affiliates due 2022	2,000	2,000
6.000% Senior Notes due 2023	1,300	1,300
6.625% Senior Notes due 2023	—	1,750
6.836% Senior Notes due 2023	—	600
9.332% Senior Reset Notes to affiliates due 2023	600	600
6.000% Senior Notes due 2024	1,000	1,000
6.500% Senior Notes due 2024	1,000	1,000
6.000% Senior Notes to affiliates due 2024	1,350	1,350
6.000% Senior Notes to affiliates due 2024	650	650
Incremental term loan facility to affiliates due 2024	2,000	2,000
5.125% Senior Notes to affiliates due 2025	1,250	1,250
5.125% Senior Notes due 2025	500	500
6.375% Senior Notes due 2025	1,700	1,700
6.500% Senior Notes due 2026	2,000	2,000
4.500% Senior Notes due 2026	1,000	—
4.500% Senior Notes to affiliates due 2026	1,000	—
5.375% Senior Notes due 2027	500	500
5.375% Senior Notes to affiliates due 2027	1,250	1,250
4.750% Senior Notes due 2028	1,500	—
4.750% Senior Notes to affiliates due 2028	1,500	—
Capital leases	2,015	1,824
Unamortized premium from purchase price allocation fair value adjustment	—	78
Unamortized premium on debt to affiliates	52	59
Unamortized discount on Senior Notes to affiliates	(64)	(73)
Debt issuance costs and consent fees	(56)	(19)
Total debt	27,547	28,319
Less: Current portion of Senior Notes	—	999
Less: Current portion of capital leases	841	613
Total long-term debt	\$ 26,706	\$ 26,707
Classified on the balance sheet as:		
Long-term debt	\$ 12,124	\$ 12,121
Long-term debt to affiliates	14,582	14,586
Total long-term debt	\$ 26,706	\$ 26,707

Debt to Third Parties

During the year ended December 31, 2018 we issued the following Senior Notes:

(in millions)	Principal Issuances	Issuance Costs	Net Proceeds from Issuance of Long-Term Debt	Issue Date
4.500% Senior Notes due 2026	\$ 1,000	\$ 2	\$ 998	January 25, 2018
4.750% Senior Notes due 2028	1,500	4	1,496	January 25, 2018
Total of Senior Notes issued	\$ 2,500	\$ 6	\$ 2,494	

We used the net proceeds of \$2.494 billion from the public debt issuance to redeem our \$1.750 billion of 6.625% Senior Notes due 2023 on April 1, 2018, and to redeem our \$600 million of 6.836% Senior Notes due 2023 on April 28, 2018, and for general corporate purposes, including the partial repayment of borrowings under our revolving credit facility with DT.

During the year ended December 31, 2018 we made the following note redemptions:

(in millions)	Principal Amount	Write-off of Premiums, Discounts and Issuance Costs ⁽¹⁾	Call Penalties ⁽¹⁾⁽²⁾	Redemption Date	Redemption Price
6.125% Senior Notes due 2022	\$ 1,000	\$ 1	\$ 31	January 15, 2018	103.063%
6.625% Senior Notes due 2023	1,750	(75)	58	April 1, 2018	103.313%
6.836% Senior Notes due 2023	600	—	21	April 28, 2018	103.418%

- (1) Write-off of premiums, discounts, issuance costs and call penalties are included in Other income (expense), net in our Consolidated Statements of Comprehensive Income. Write-off of premiums, discounts and issuance costs are included in Losses on redemption of debt within Net cash provided by operating activities in our Consolidated Statements of Cash Flows.
- (2) The call penalty is the excess paid over the principal amount. Call penalties are included within Net cash (used in) provided by financing activities in our Consolidated Statements of Cash Flows.

Debt to Affiliates

On April 30, 2018, DT purchased (i) \$1.0 billion in aggregate principal amount of 4.500% Senior Notes due 2026 and (ii) \$1.5 billion in aggregate principal amount of 4.750% Senior Notes due 2028 directly from T-Mobile USA and certain of its affiliates, as guarantors, with no underwriting discount (the “New DT Notes”).

We used the net proceeds of \$2.5 billion from the transaction to refinance existing indebtedness to DT as follows:

(in millions)	Principal Amount	Write-off of Embedded Derivatives ⁽¹⁾	Other ⁽²⁾	Redemption Date	Redemption Price
8.097% Senior Notes due 2021	\$ 1,250	\$ (8)	\$ 51	April 28, 2018	104.0485%
8.195% Senior Notes due 2022	1,250	(8)	51	April 28, 2018	104.0975%
Total	\$ 2,500	\$ (16)	\$ 102		

- (1) Certain components of the reset features were required to be bifurcated from the DT Senior Reset Notes and separately accounted for as embedded derivative instruments. Write-off of embedded derivatives are included in Losses on redemption of debt within Net cash provided by operating activities in our Consolidated Statements of Cash Flows.
- (2) Cash for the premium portion of the redemption price set forth in the indenture governing the DT Senior Reset Notes, plus accrued but unpaid interest on the DT Senior Reset Notes to, but not including, the exchange date.

Incremental Term Loan Facility

In March 2018, we amended the terms of our secured term loan facility (“Incremental Term Loan Facility”) with DT, our majority stockholder. Following this amendment, the applicable margin payable on LIBOR indexed loans is 1.50% under the \$2.0 billion Incremental Term Loan Facility maturing on November 9, 2022 and 1.75% under the \$2.0 billion Incremental Term Loan Facility maturing on January 31, 2024. The amendment also modified the Incremental Term Loan Facility to (i) include a soft-call prepayment premium of 1.00% of the outstanding principal amount of the loans under the Incremental Term Loan Facility payable to DT upon certain refinancings of such loans by us with lower priced debt prior to a date that is six months after March 29, 2018 and (ii) update certain covenants and other provisions to make them substantially consistent, subject to certain additional carve outs, with our most recently issued public notes. No issuance fees were incurred related to this debt facility for the years ended December 31, 2018 or 2017.

Commitment Letter

Under the Commitment Letter in connection with the Merger, certain financial institutions named therein have committed to provide up to \$30.0 billion in secured and unsecured debt financing, including a \$4.0 billion secured revolving credit facility, a \$7.0 billion secured term loan facility and a \$19.0 billion secured bridge loan facility. In connection with the financing provided for in the Commitment Letter, we expect to incur certain fees if the Merger closes, including fees for the financial institutions structuring and providing the commitments for the secured term loan facility, secured revolving loan facility and the secured bridge loan, and certain take-out fees associated with the issuance of permanent secured bond debt in lieu of the secured bridge loan. We expect to incur up to approximately \$340 million if the closing date occurs on or after April 29, 2019. There was no fee accrued as of December 31, 2018. We also may be required to draw down on the \$7.0 billion secured term loan facility on May 1, 2019, and would be required to place the proceeds in escrow and pay interest thereon until the Merger closes.

Financing Matters Agreement

Pursuant to the Financing Matters Agreement, DT agreed, among other things, to consent to the incurrence by T-Mobile USA of secured debt in connection with and after the consummation of the Merger, and to provide a lock up on sales thereby as to certain senior notes of T-Mobile USA held thereby. In addition, T-Mobile USA agreed, among other things, to repay and terminate, upon closing of the Merger, the Incremental Term Loan Facility and the revolving credit facility of T-Mobile USA which are provided by DT, as well as \$2.0 billion of T-Mobile USA's 5.300% Senior Notes due 2021 and \$2.0 billion of T-Mobile USA's 6.000% Senior Notes due 2024. In addition, T-Mobile USA and DT agreed, upon closing of the Merger, to amend the \$1.25 billion of T-Mobile USA's 5.125% Senior Notes due 2025 and \$1.25 billion of T-Mobile USA's 5.375% Senior Notes due 2027 to change the maturity dates thereof to April 15, 2021 and April 15, 2022, respectively (the "2025 and 2027 Amendments"). In connection with receiving the requisite consents, we made upfront payments to DT of \$7 million during the second quarter of 2018. These payments were recognized as a reduction to Long-term debt to affiliates in our Consolidated Balance Sheets. In accordance with the consents received from DT, on December 20, 2018, T-Mobile USA, the guarantors and Deutsche Bank Trust Company Americas, as trustee, executed and delivered the 38th supplemental indenture to the Indenture, pursuant to which, with respect to certain T-Mobile USA Senior Notes held by DT, the Proposed Amendments (as defined below under "Consents on Debt to Third Parties") and the 2025 and 2027 Amendments will become effective immediately prior to the consummation of the Merger. If the Merger is consummated, we will make additional payments for requisite consents to DT of \$20 million. There was no additional payment accrued as of December 31, 2018.

Consents on Debt to Third Parties

On May 18, 2018, under the terms and conditions described in the Consent Solicitation Statement, we obtained consents necessary to effect certain amendments to our Senior Notes to third parties in connection with the Business Combination Agreement. Pursuant to the Consent Solicitation Statement, third-party note holders agreed, among other things, to consent to increasing the amount of Secured Indebtedness under Credit Facilities that can be incurred from the greater of \$9.0 billion and 150% of Consolidated Cash Flow to the greater of \$9.0 billion and an amount that would not cause the Secured Debt to Cash Flow Ratio (calculated net of cash and cash equivalents) to exceed 2.00x (the "Ratio Secured Debt Proposed Amendments") and in each case as such capitalized term is defined in the Indenture. In connection with receiving the requisite consents for the Ratio Secured Debt Proposed Amendments, we made upfront payments to third-party note holders of \$17 million during the second quarter of 2018. These payments were recognized as a reduction to Long-term debt in our Consolidated Balance Sheets. These upfront payments increased the effective interest rate of the related debt.

In addition, note holders agreed, among other things, to allow certain entities related to Sprint's existing spectrum securitization notes program ("Existing Sprint Spectrum Program") to be non-guarantor Restricted Subsidiaries, provided that the principal amount of the spectrum notes issued and outstanding under the Existing Sprint Spectrum Program does not exceed \$7.0 billion and that the principal amount of such spectrum notes reduces the amount available under the Credit Facilities ratio basket, and to revise the definition of GAAP to mean generally accepted accounting principles in effect from time to time, unless the Company elects to "freeze" GAAP as of any date, and to exclude the effect of the changes in the accounting treatment of lease obligations (the "Existing Sprint Spectrum and GAAP Proposed Amendments," and together with the Ratio Secured Debt Proposed Amendments, the "Proposed Amendments"). In connection with receiving the requisite consents for the Existing Sprint Spectrum and GAAP Proposed Amendments, we made upfront payments to third-party note holders of \$14 million during the second quarter of 2018. These payments were recognized as a reduction to Long-term debt in our Consolidated Balance Sheets. These upfront payments increased the effective interest rate of the related debt.

In connection with obtaining the requisite consents, on May 20, 2018, T-Mobile USA, the guarantors and Deutsche Bank Trust Company Americas, as trustee, executed and delivered the 37th supplemental indenture to the Indenture, pursuant to which,

with respect to each of the Notes, the Proposed Amendments will become effective immediately prior to the consummation of the Merger.

We paid third-party bank fees associated with obtaining the requisite consents related to the Proposed Amendments of \$6 million during the second quarter of 2018, which we recognized as Selling, general and administrative expenses in our Consolidated Statements of Comprehensive Income. If the Merger is consummated, we will make additional payments to third-party note holders for requisite consents related to the Ratio Secured Debt Proposed Amendments of up to \$54 million and additional payments to third-party note holders for requisite consents related to the Existing Sprint Spectrum and GAAP Proposed Amendments of up to \$41 million. There was no payment accrued as of December 31, 2018.

Financing Arrangements

We maintain a handset financing arrangement with Deutsche Bank AG (“Deutsche Bank”), which allows for up to \$108 million in borrowings. Under the handset financing arrangement, we can effectively extend payment terms for invoices payable to certain handset vendors. The interest rate on the handset financing arrangement is determined based on LIBOR plus a specified margin per the arrangement. Obligations under the handset financing arrangement are included in Short-term debt in our Consolidated Balance Sheets. In 2017, we utilized and repaid \$100 million under the financing arrangement. As of December 31, 2018 and 2017, there was no outstanding balance.

We maintain vendor financing arrangements with our primary network equipment suppliers. Under the respective agreements, we can obtain extended financing terms. The interest rate on the vendor financing arrangements is determined based on the difference between LIBOR and a specified margin per the agreements. Obligations under the vendor financing arrangements are included in Short-term debt in our Consolidated Balance Sheets. In 2018, we utilized and repaid \$300 million under the financing arrangement. As of December 31, 2018 and 2017, there was no outstanding balance.

Revolving Credit Facility

We have a \$2.5 billion revolving credit facility with DT that is comprised of (i) a \$1.0 billion unsecured revolving credit agreement (“Unsecured Revolving Credit Facility”) and (ii) a \$1.5 billion secured revolving credit agreement (“Secured Revolving Credit Facility”). In January 2018, we utilized proceeds under our revolving credit facility with DT to redeem \$1.0 billion in aggregate principal amount of our 6.125% Senior Notes due 2022 and for general corporate purposes. On January 29, 2018, the proceeds utilized under our revolving credit facility with DT were repaid.

In March 2018, we amended the terms of our Unsecured Revolving Credit Facility and our Secured Revolving Credit Facility. Following these amendments, (i) the range of the applicable margin payable under the Unsecured Revolving Credit Facility is 2.05% to 3.05%, (ii) the range of applicable margin payable under the Secured Revolving Credit Facility is 1.05% to 1.80%, (iii) the range of the undrawn commitment fee applicable to the Unsecured Revolving Credit Facility is 0.20% to 0.575%, (iv) the range of the undrawn commitment fee applicable to the Secured Revolving Credit Facility is 0.25% to 0.45%, and (v) the maturity date of the revolving credit facility with DT is December 29, 2020. The amendments also modify the facility to update certain covenants and other provisions to make them substantially consistent, subject to certain additional carve outs, with our most recently issued public notes.

In November 2018, we amended the terms of the revolving credit facility with DT to extend the maturity date to December 29, 2021.

The proceeds and borrowings from the revolving credit facility are presented in Proceeds from borrowing on revolving credit facility and Repayments of revolving credit facility within Net cash (used in) provided by financing activities in our Consolidated Statements of Cash Flows. As of December 31, 2018 and 2017, there were no outstanding borrowings under the revolving credit facility.

Capital Leases

Capital lease agreements primarily relate to network equipment with varying expiration terms through 2033 . Future minimum payments required under capital leases, including interest and maintenance, over their remaining terms are summarized below:

(in millions)	Future Minimum Payments
Year Ended December 31,	
2019	\$ 909
2020	631
2021	389
2022	102
2023	66
Thereafter	106
Total	\$ 2,203
Included in Total	
Interest	\$ 143
Maintenance	45

Standby Letters of Credit

For the purposes of securing our obligations to provide handset insurance services, we maintain an agreement for standby letters of credit with JP Morgan Chase Bank, N.A. (“JP Morgan Chase”). For purposes of securing our general purpose obligations, we maintain a letter of credit reimbursement agreement with Deutsche Bank.

The following table summarizes the outstanding standby letters of credit under each agreement:

(in millions)	December 31, 2018	December 31, 2017
JP Morgan Chase	\$ 20	\$ 20
Deutsche Bank	66	59
Total outstanding balance	\$ 86	\$ 79

Note 9 – Tower Obligations

In 2012, we conveyed to Crown Castle International Corp. (“CCI”) the exclusive right to manage and operate approximately 7,100 T-Mobile-owned wireless communication tower sites (“CCI Tower Sites”) in exchange for net proceeds of \$2.5 billion (the “2012 Tower Transaction”). Rights to approximately 6,200 of the tower sites were transferred to CCI via a master prepaid lease with site lease terms ranging from 23 to 37 years (“CCI Lease Sites”), while the remaining tower sites were sold to CCI (“CCI Sales Sites”). CCI has fixed-price purchase options for these towers totaling approximately \$2.0 billion , based on the estimated fair market value at the end of the lease term. We lease back space at certain tower sites for an initial term of ten years , followed by optional renewals at customary terms.

In 2015, we conveyed to Phoenix Tower International (“PTI”) the exclusive right to manage and operate approximately 600 T-Mobile-owned wireless communication tower sites (“PTI Tower Sites”) in exchange for net proceeds of approximately \$140 million (the “2015 Tower Transaction”). As of December 31, 2018 , rights to approximately 150 of the tower sites remain operated by PTI under a management agreement (“PTI Managed Sites”). We lease back space at certain tower sites for an initial term of ten years , followed by optional renewals at customary terms.

Assets and liabilities associated with the operation of certain of the tower sites were transferred to SPEs. Assets included ground lease agreements or deeds for the land on which the towers are situated, the towers themselves and existing subleasing agreements with other mobile network operator tenants, who lease space at the tower sites. Liabilities included the obligation to pay ground lease rentals, property taxes and other executory costs. Upon closing of the 2012 Tower Transaction, CCI acquired all of the equity interests in the SPEs containing CCI Sales Sites and an option to acquire the CCI Lease Sites at the end of their respective lease terms and entered into a master lease agreement under which we agreed to lease back space at certain of the tower sites. Upon closing of the 2015 Tower Transaction, PTI acquired all of the equity interests in the SPEs containing PTI Sales Sites and entered into a master lease agreement under which we agreed to lease back space at certain of the tower sites.

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We determined the SPEs containing the CCI Lease Sites (“Lease Site SPEs”) are VIEs as our equity investment lacks the power to direct the activities that most significantly impact the economic performance of the VIEs. These activities include managing tenants and underlying ground leases, performing repair and maintenance on the towers, the obligation to absorb expected losses and the right to receive the expected future residual returns from the purchase option to acquire the CCI Lease Sites. As we determined that we are not the primary beneficiary and do not have a controlling financial interest in the Lease Site SPEs, the balances and operating results of the Lease Site SPEs are not included in our Consolidated Financial Statements.

Due to our continuing involvement with the tower sites, we determined that we were precluded from applying sale-leaseback accounting. We recorded long-term financial obligations in the amount of the net proceeds received and recognized interest on the tower obligations at a rate of approximately 8% for the 2012 Tower Transaction and 5% for the 2015 Tower Transaction using the effective interest method. The tower obligations are increased by interest expense and amortized through contractual leaseback payments made by us to CCI or PTI and through estimated future net cash flows generated and retained by CCI or PTI from operation of the tower sites. Our historical tower site asset costs continue to be reported in Property and equipment, net in our Consolidated Balance Sheets and are depreciated.

The following table summarizes the impacts to the Consolidated Balance Sheets :

(in millions)	December 31, 2018	December 31, 2017
Property and equipment, net	\$ 329	\$ 402
Long-term financial obligation	2,557	2,590

Future minimum payments related to the tower obligations are expected to be approximately \$195 million in 2019 , \$391 million in total for 2020 and 2021 , \$392 million in total for 2022 and 2023 and \$835 million in total for years thereafter.

We are contingently liable for future ground lease payments through the remaining term of the CCI Lease Sites. These contingent obligations are not included in the above table as any amount due is contractually owed by CCI based on the subleasing arrangement. See [Note 15 – Commitments and Contingencies](#) for further information.

If we conclude a sale should be recognized, upon adoption of the new lease standard on January 1, 2019, we would derecognize our existing long-term financial obligation and the net book value of the tower-related property and equipment associated with the previous failed sale-leaseback transaction. See [Note 1 – Summary of Significant Accounting Policies](#) for further information.

Note 10 – Revenue from Contracts with Customers

Disaggregation of Revenue

We provide wireless communication services to three primary categories of customers:

- Branded postpaid customers generally include customers who are qualified to pay after receiving wireless communication services utilizing phones, mobile broadband devices (including tablets), DIGITS, SyncUP DRIVE™ or other devices including wearables;
- Branded prepaid customers generally include customers who pay for wireless communication services in advance. Our branded prepaid customers include customers of T-Mobile and Metro by T-Mobile; and
- Wholesale customers include M2M and MVNO customers that operate on our network but are managed by wholesale partners.

See [Note 1 – Summary of Significant Accounting Policies](#) for further discussion.

Branded postpaid service revenues, including branded postpaid phone revenues and branded postpaid other revenues, were as follows:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Branded postpaid service revenues			
Branded postpaid phone revenues	\$ 19,745	\$ 18,371	\$ 17,365
Branded postpaid other revenues	1,117	1,077	773
Total branded postpaid service revenues	\$ 20,862	\$ 19,448	\$ 18,138

We operate as a single operating segment. The balances presented within each revenue line item in our Consolidated Statements of Comprehensive Income represent categories of revenue from contracts with customers disaggregated by type of product and service. Service revenues also include revenues earned for providing value added services to customers, such as handset insurance services. Revenue generated from the lease of mobile communication devices and accessories is included within Equipment revenues in our Consolidated Statements of Comprehensive Income .

Equipment revenues from the lease of mobile communication devices and accessories were as follows:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Equipment revenues from the lease of mobile communication devices and accessories	\$ 692	\$ 877	\$ 1,416

Contract Balances

The opening and closing balances of our contract asset and contract liability balances from contracts with customers as of January 1, 2018 and December 31, 2018 , were as follows:

(in millions)	Contract Assets Included in Other Current Assets	Contract Liabilities Included in Deferred Revenue
Balance as of January 1, 2018	\$ 140	\$ 718
Balance as of December 31, 2018	51	645
Change	\$ (89)	\$ (73)

Contract assets primarily represent revenue recognized for equipment sales with promotional bill credits offered to customers that are paid over time and are contingent on the customer maintaining a service contract. The change in the contract asset balance includes customer activity related to new promotions, offset by billings on existing contracts and impairment which is recognized as bad debt expense.

Contract liabilities are recorded when fees are collected, or we have an unconditional right to consideration (a receivable) in advance of delivery of goods or services. The change in contract liabilities is primarily related to customer activity associated with our prepaid plans including the receipt of cash payments and the satisfaction of our performance obligations.

Revenues for the year ended December 31, 2018 , include the following:

(in millions)	Year Ended December 31, 2018
Amounts included in the January 1, 2018 contract liability balance	\$ 710
Amounts associated with performance obligations satisfied in previous periods	2

Remaining Performance Obligations

As of December 31, 2018 , the aggregate amount of transaction price allocated to remaining service performance obligations for branded postpaid contracts with promotional bill credits that result in an extended service contract is \$308 million . We expect to recognize this revenue as service is provided over the extended contract term in the next 24 months .

Certain of our wholesale, roaming and other service contracts include variable consideration based on usage. This variable consideration has been excluded from the disclosure of remaining performance obligations. As of December 31, 2018 , the

aggregate amount of the contractual minimum consideration allocated to remaining service performance obligations for wholesale, roaming and other service contracts is \$1.1 billion, \$1.0 billion and \$1.5 billion for 2019, 2020 and 2021 and beyond, respectively. These contracts have a remaining duration of less than one year to six years.

Information about remaining performance obligations that are part of a contract that has an original expected duration of one year or less have been excluded from the above, which primarily consists of monthly service contracts. The aggregate amount of the transaction price allocated to remaining service performance obligations includes the estimated amount to be invoiced to the customer.

Contract Costs

The total balance of deferred incremental costs to obtain contracts as of December 31, 2018 was \$644 million. Deferred contract costs incurred to obtain postpaid service contracts are amortized over a period of 24 months. The amortization period is monitored to reflect any significant change in assumptions. Amortization of deferred contract costs was \$267 million for the year ended December 31, 2018.

The deferred contract cost asset is assessed for impairment on a periodic basis. There were no impairment losses recognized on deferred contract cost assets for the year ended December 31, 2018.

Note 11 – Employee Compensation and Benefit Plans

On February 14, 2018, our Board of Directors adopted, and on June 13, 2018, our stockholders approved an amendment (the “Amendment”) to the 2013 Omnibus Incentive Plan (as amended, the “Plan”) which increased the number of shares authorized for issuance under the Plan by 18,500,000 shares. On June 18, 2018, we filed a Form S-8 to register a total of 19,345,005 shares of common stock pursuant to the Plan, representing those covered by the Amendment, certain other predecessor plans, and certain equity arrangements assumed in connection with the acquisition of Layer3 TV in January 2018.

During the year ended December 31, 2018, we granted or assumed an aggregate of 6,259,169 RSUs and restricted stock awards (“RSAs”) to eligible employees, certain non-employee directors, and eligible key executives, which primarily included annual awards. RSUs entitle the grantee to receive shares of our common stock at the end of a vesting period of generally up to three years, subject to continued service through the applicable vesting date.

During the year ended December 31, 2018, we granted an aggregate of 3,364,629 PRSUs to eligible key executives, which primarily included annual awards and an aggregate of 1,317,386 PRSUs to certain executive officers in connection with the entry into the Business Combination Agreement with Sprint. PRSUs entitle the holder to receive shares of our common stock at the end of a performance period of generally up to three years, based on the attainment of the applicable performance goals and generally subject to continued employment through the applicable performance period. The number of shares ultimately received by the holder of PRSUs is dependent on our business performance against the specified performance goal(s) over a pre-established performance period.

As discussed in [Note 2 – Business Combinations](#), in January 2018 we completed our acquisition of Layer3 TV. The fair value of share-based incentive compensation awards attributable to post-combination services was approximately \$30 million.

Stock-based compensation expense and related income tax benefits were as follows:

(in millions, except shares, per share and contractual life amounts)	December 31, 2018	December 31, 2017	December 31, 2016
Stock-based compensation expense	\$ 424	\$ 306	\$ 235
Income tax benefit related to stock-based compensation	81	73	80
Weighted average fair value per stock award granted	61.52	60.21	45.07
Unrecognized compensation expense	547	445	389
Weighted average period to be recognized (years)	1.8	1.9	2.0
Fair value of stock awards vested	471	503	354

Stock Awards

Time-Based Restricted Stock Units and Restricted Stock Awards

(in millions, except shares, per share and contractual life amounts)	Number of Units or Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Nonvested, December 31, 2017	12,061,608	\$ 50.69	1.1	\$ 766
Granted	6,259,169	60.44		
Vested	6,455,617	47.89		
Forfeited	854,525	56.90		
Nonvested, December 31, 2018	11,010,635	57.66	1.0	\$ 700

Performance-Based Restricted Stock Units and Restricted Stock Awards

(in millions, except shares, per share and contractual life amounts)	Number of Units or Awards	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Nonvested, December 31, 2017	1,633,935	\$ 48.06	1.1	\$ 104
Granted	3,364,629	63.54		
Vested	1,006,769	36.47		
Forfeited	140,241	64.14		
Nonvested, December 31, 2018	3,851,554	64.03	1.6	\$ 245

PRSUs included in the table above are shown at target. Share payout can range from 0% to 200% based on different performance outcomes.

Payment of the underlying shares in connection with the vesting of stock awards generally triggers a tax obligation for the employee, which is required to be remitted to the relevant tax authorities. We have agreed to withhold shares of common stock otherwise issuable under the award to cover certain of these tax obligations, with the net shares issued to the employee accounted for as outstanding common stock. We withheld 2,321,827 and 2,754,721 shares of common stock to cover tax obligations associated with the payment of shares upon vesting of stock awards and remitted cash of \$146 million and \$166 million to the appropriate tax authorities for the years ended December 31, 2018 and 2017, respectively.

Employee Stock Purchase Plan

Our employee stock purchase plan (“ESPP”) allows eligible employees to contribute up to 15% of their eligible earnings toward the semi-annual purchase of our common stock at a discounted price, subject to an annual maximum dollar amount. Employees can purchase stock at a 15% discount applied to the closing stock price on the first or last day of the six -month offering period, whichever price is lower. The number of shares issued under our ESPP was 2,011,794 and 1,832,043 for the years ended December 31, 2018 and 2017, respectively.

Stock Options

Stock options outstanding relate to the Metro Communications, Inc. 2010 Equity Incentive Compensation Plan, the Amended and Restated Metro Communications, Inc. 2004 Equity Incentive Compensation Plan, the Second Amended and Restated 1995 Stock Option Plan and the Layer3 TV, Inc. 2013 Stock Plan (collectively, the “Stock Option Plans”). No new awards have been or may be granted under the Stock Option Plans.

The following activity occurred under the Stock Option Plans:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)
Outstanding and exercisable, December 31, 2017	373,158	\$ 16.36	2.8
Assumed through acquisition of Layer3 TV	118,645	15.51	
Exercised	187,965	18.28	
Expired/canceled	19,027	18.81	
Outstanding at December 31, 2018	284,811	14.58	3.8
Exercisable at December 31, 2018	244,224	14.18	3.1

Stock options exercised under the Stock Option Plans generated proceeds of approximately \$3 million and \$21 million for the years ended December 31, 2018 and 2017, respectively.

Employee Retirement Savings Plan

We sponsor a retirement savings plan for the majority of our employees under Section 401(k) of the Internal Revenue Code and similar plans. The plans allow employees to contribute a portion of their pretax income in accordance with specified guidelines. The plans provide that we match a percentage of employee contributions up to certain limits. Employer matching contributions were \$102 million, \$87 million and \$83 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Legacy Long-Term Incentive Plan

Prior to the business combination with MetroPCS Communications, Inc., we maintained a performance-based Long-Term Incentive Plan (“LTIP”) which aligned to our long-term business strategy. As of December 31, 2018 and 2017, there were no LTIP awards outstanding and no new awards are expected to be granted under the LTIP. There was no compensation expense reported within operating expenses related to our LTIP for the years ended December 31, 2018, 2017 and 2016. There were no payments to participants related to our LTIP for the years ended December 31, 2018 and 2017. Payments were \$52 million for the year ended December 31, 2016.

Note 12 – Repurchases of Common Stock

2017 Stock Repurchase Program

On December 6, 2017, our Board of Directors authorized a stock repurchase program for up to \$1.5 billion of our common stock through December 31, 2018 (the “2017 Stock Repurchase Program”). Repurchased shares are retired. The 2017 Stock Repurchase Program completed on April 29, 2018.

The following table summarizes information regarding repurchases of our common stock under the 2017 Stock Repurchase Program:

(In millions, except shares and per share price)

Year ended December 31	Number of Shares Repurchased	Average Price Paid Per Share	Total Purchase Price
2018	16,738,758	\$ 62.96	\$ 1,054
2017	7,010,889	63.34	444
	23,749,647	63.07	\$ 1,498

2018 Stock Repurchase Program

On April 27, 2018, our Board of Directors authorized an increase in the total stock repurchase program to \$9.0 billion, consisting of the \$1.5 billion in repurchases previously completed and for up to an additional \$7.5 billion of repurchases of our common stock, allocated as up to \$500 million of shares of common stock through December 31, 2018, up to \$3.0 billion of shares of common stock for the year ending December 31, 2019 and up to \$4.0 billion of shares of common stock for the year ending December 31, 2020, with any authorized but unutilized repurchase capacity for any of the foregoing periods increasing

the authorized repurchase capacity for the succeeding period by the amount of such unutilized repurchase capacity. The additional \$7.5 billion repurchase authorization is contingent upon the termination of the Business Combination Agreement and the abandonment of the transactions contemplated under the Business Combination Agreement.

Under the repurchase program, repurchases can be made from time to time using a variety of methods, which may include open market purchases, privately negotiated transactions or otherwise, all in accordance with the rules of the SEC and other applicable legal requirements. The specific timing, price and size of purchases will depend on prevailing stock prices, general economic and market conditions, and other considerations. The repurchase program does not obligate us to acquire any particular amount of common stock, and the repurchase program may be suspended or discontinued at any time at our discretion. Repurchased shares are retired.

Stock Purchases by Affiliate

In the first quarter of 2018, DT, our majority stockholder and an affiliated purchaser, purchased 3.3 million additional shares of our common stock at an aggregate market value of \$200 million in the public market or from other parties, in accordance with the rules of the SEC and other applicable legal requirements. There were no purchases in the remainder of 2018. We did not receive proceeds from these purchases.

Note 13 – Income Taxes

Our sources of Income before income taxes were as follows:

(in millions)	Year Ended December 31,		
	2018	2017	2016
U.S.	\$ 3,686	\$ 3,274	\$ 2,286
Puerto Rico	231	(113)	41
Income before income taxes	\$ 3,917	\$ 3,161	\$ 2,327

Income tax expense is summarized as follows:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Current tax benefit (expense)			
Federal	\$ 39	\$ —	\$ 66
State	(63)	(28)	(29)
Puerto Rico	(25)	(1)	10
Total current tax benefit (expense)	(49)	(29)	47
Deferred tax benefit (expense)			
Federal	(750)	1,182	(804)
State	(160)	173	(96)
Puerto Rico	(70)	49	(14)
Total deferred tax (expense) benefit	(980)	1,404	(914)
Total income tax (expense) benefit	\$ (1,029)	\$ 1,375	\$ (867)

The reconciliation between the U.S. federal statutory income tax rate and our effective income tax rate is as follows:

	Year Ended December 31,		
	2018	2017	2016
Federal statutory income tax rate	21.0 %	35.0 %	35.0 %
Effect of law and rate changes	1.9	(68.9)	0.8
Change in valuation allowance	(1.6)	(11.4)	1.0
State taxes, net of federal benefit	4.8	4.8	3.2
Equity-based compensation	(0.6)	(2.4)	(2.2)
Puerto Rico taxes, net of federal benefit	2.4	(1.5)	—
Permanent differences	1.3	0.5	0.6
Federal tax credits, net of reserves	(2.9)	0.3	(0.5)
Other, net	—	0.1	(0.6)
Effective income tax rate	26.3 %	(43.5)%	37.3 %

Significant components of deferred income tax assets and liabilities, tax effected, are as follows:

(in millions)	December 31, 2018	December 31, 2017
Deferred tax assets		
Loss carryforwards	\$ 1,526	\$ 1,576
Deferred rents	784	759
Reserves and accruals	668	667
Federal and state tax credits	340	298
Other	620	403
Deferred tax assets, gross	3,938	3,703
Valuation allowance	(210)	(273)
Deferred tax assets, net	3,728	3,430
Deferred tax liabilities		
Spectrum licenses	5,494	5,038
Property and equipment	2,434	1,840
Other intangible assets	40	41
Other	232	48
Total deferred tax liabilities	8,200	6,967
Net deferred tax liabilities	\$ 4,472	\$ 3,537

Classified on the balance sheet as:

Deferred tax liabilities	\$ 4,472	\$ 3,537
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In 2017, the SEC issued Staff Accounting Bulletin (“SAB”) No. 118 which permitted the recording of provisional amounts related to the impact of the U.S. Tax Cuts and Jobs Act of 2017 (the “TCJA”) during a measurement period not to exceed one year from the enactment date of the TCJA. We recorded an immaterial amount for provisional items related to the TCJA in our Consolidated Statements of Comprehensive Income for the year ended December 31, 2017. Our accounting for these items is now complete. Current period adjustments related to the provisional items were immaterial.

As of December 31, 2018, we have tax effected net operating loss (“NOL”) carryforwards of \$1.1 billion for federal income tax purposes and \$797 million for state income tax purposes, expiring through 2038. Federal NOLs and certain state NOLs generated in 2018 do not expire. As of December 31, 2018, our tax effected federal and state NOL carryforwards for financial reporting purposes were approximately \$119 million and \$261 million, respectively, less than our NOL carryforwards for federal and state income tax purposes, due to unrecognized tax benefits of the same amount. The financial reporting amounts exclude indirect tax effects in other jurisdictions.

As of December 31, 2018, we have available Alternative Minimum Tax (“AMT”) credit carryforwards of \$48 million. Under the TCJA, the AMT credits will be fully recovered by 2021. We also have research and development and foreign tax credit carryforwards with a combined value of \$312 million for federal income tax purposes, which begin to expire in 2019.

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As of December 31, 2018, 2017 and 2016, our valuation allowance was \$210 million, \$273 million and \$573 million, respectively. The change from December 31, 2017 to December 31, 2018 primarily related to a reduction in the valuation allowance against deferred tax assets in certain state jurisdictions from a change in tax status of certain subsidiaries. The change from December 31, 2016 to December 31, 2017 primarily related to a reduction in the valuation allowance against deferred tax assets in state jurisdictions of \$359 million, partially offset by a \$26 million valuation allowance established during 2017 for the impact of the TCJA on certain tax credits and a \$33 million increase in the valuation allowance associated with the reduced federal benefit of state items. We will continue to monitor positive and negative evidence related to the utilization of the remaining deferred tax assets for which a valuation allowance continues to be provided. It is possible that our valuation allowance may change within the next twelve months.

We file income tax returns in the U.S. federal jurisdiction, various state jurisdictions and in Puerto Rico. We are currently under examination by various states. Management does not believe the resolution of any of the audits will result in a material change to our financial condition, results of operations or cash flows. The IRS has concluded its audits of our federal tax returns through the 2013 tax year; however, NOL and other carryforwards for certain audited periods remain open for examination. We are generally closed to U.S. federal, state and Puerto Rico examination for years prior to 1999.

A reconciliation of the beginning and ending amount of unrecognized tax benefits were as follows:

(in millions)	Year Ended December 31,		
	2018	2017	2016
Unrecognized tax benefits, beginning of year	\$ 412	\$ 410	\$ 411
Gross increases (decreases) to tax positions in prior periods	6	(10)	(5)
Gross increases due to current period business acquisitions	10	—	—
Gross increases to current period tax positions	34	12	4
Unrecognized tax benefits, end of year	\$ 462	\$ 412	\$ 410

As of December 31, 2018 and 2017, we had \$315 million and \$254 million, respectively, in unrecognized tax benefits that, if recognized, would affect our annual effective tax rate. Included in the 2018 increase to unrecognized tax benefits is \$10 million related to tax positions acquired through the acquisition of Layer3 TV. Penalties and interest on income tax assessments are included in Selling, general and administrative expenses and Interest expense, respectively, in our Consolidated Statements of Comprehensive Income. The accrued interest and penalties associated with unrecognized tax benefits are insignificant.

Note 14 – Earnings Per Share

The computation of basic and diluted earnings per share was as follows:

(in millions, except shares and per share amounts)	Year Ended December 31,		
	2018	2017	2016
Net income	\$ 2,888	\$ 4,536	\$ 1,460
Less: Dividends on mandatory convertible preferred stock	—	(55)	(55)
Net income attributable to common stockholders - basic	2,888	4,481	1,405
Add: Dividends related to mandatory convertible preferred stock	—	55	—
Net income attributable to common stockholders - diluted	\$ 2,888	\$ 4,536	\$ 1,405
Weighted average shares outstanding - basic	849,744,152	831,850,073	822,470,275
Effect of dilutive securities:			
Outstanding stock options and unvested stock awards	8,546,022	9,200,873	10,584,270
Mandatory convertible preferred stock	—	30,736,504	—
Weighted average shares outstanding - diluted	858,290,174	871,787,450	833,054,545
Earnings per share - basic	\$ 3.40	\$ 5.39	\$ 1.71
Earnings per share - diluted	\$ 3.36	\$ 5.20	\$ 1.69
Potentially dilutive securities:			
Outstanding stock options and unvested stock awards	148,422	33,980	3,528,683
Mandatory convertible preferred stock	—	—	32,238,000

As of December 31, 2018, we had authorized 100 million shares of 5.50% mandatory convertible preferred stock series A, with a par value of \$0.00001 per share. There were no preferred shares outstanding as of December 31, 2018 and 2017, respectively.

Potentially dilutive securities were not included in the computation of diluted earnings per share if to do so would have been anti-dilutive.

Note 15 – Commitments and Contingencies

Commitments

Operating Leases

We have non-cancellable operating leases for cell sites, switch sites, retail stores and office facilities with contractual terms expiring through 2028. The majority of cell site leases have an initial non-cancelable term of five to ten years with several renewal options. In addition, we have operating leases for dedicated transportation lines with varying expiration terms through 2027. Our commitments under these leases are approximately \$2.7 billion for the year ending December 31, 2019, \$4.7 billion in total for the years ending December 31, 2020 and 2021, \$3.3 billion in total for the years ending December 31, 2022 and 2023 and \$3.8 billion in total for years thereafter.

As of December 31, 2018, we were contingently liable for future ground lease payments related to the tower obligations. These contingent obligations are not included in the above table as the amounts due are contractually owed by CCI based on the subleasing arrangement. See [Note 9 – Tower Obligations](#) for further information.

Total rent expense under operating leases, including dedicated transportation lines, was \$3.0 billion, \$2.9 billion and \$2.8 billion for the years ended December 31, 2018, 2017 and 2016, respectively, and is classified as Cost of services and Selling, general and administrative expense in our Consolidated Statements of Comprehensive Income.

Purchase Commitments

We have commitments for non-dedicated transportation lines with varying expiration terms through 2029. In addition, we have commitments to purchase and lease spectrum licenses, wireless devices, network services, equipment, software, marketing sponsorship agreements and other items in the ordinary course of business, with various terms through 2043. These amounts are not reflective of our entire anticipated purchases under the related agreements but are determined based on the non-cancelable quantities or termination amounts to which we are contractually obligated.

Our purchase obligations are approximately \$3.4 billion for the year ending December 31, 2019, \$2.8 billion in total for the years ending December 31, 2020 and 2021, \$1.8 billion in total for the years ending December 31, 2022 and 2023 and \$1.4 billion in total for the years thereafter.

In June 2018, we entered into an agreement for the purchase of network equipment totaling approximately \$3.5 billion. Based on unavoidable spend, the minimum commitment under this agreement is \$377 million as of December 31, 2018.

In September 2018, we amended an agreement with a third party to increase the total amount of network equipment to purchase by approximately \$3.5 billion. Based on unavoidable spend, the minimum commitment under this agreement is \$259 million as of December 31, 2018.

In September 2018, we signed a reciprocal long-term spectrum lease with Sprint that included a total commitment of \$535 million and an offsetting amount to be received from Sprint for the lease of our spectrum. Lease payments began in the fourth quarter of 2018. The reciprocal long-term lease is a distinct transaction from the Merger.

In October 2018, we entered into agreements with a third-party associated with a device upgrade program, trade-in services, and device protection products and services offered to our mobile communications customers, with initial terms of one to three years. Device protection products and services include reinsurance for device insurance policies and extended warranty contracts, mobile security applications, and technical support services.

Interest rate lock derivatives

In October 2018, we entered into interest rate lock derivatives with notional amounts of \$9.6 billion. These interest rate lock derivatives were designated as cash flow hedges to reduce variability in cash flows due to changes in interest payments.

attributable to increases or decreases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt. The fair value of interest rate lock derivatives as of December 31, 2018 was \$447 million and is included in Other current liabilities in our Consolidated Balance Sheets. See [Note 7 – Fair Value Measurements](#) for further information.

Renewable Energy Purchase Agreements

During 2018, T-Mobile USA entered four renewable energy purchase agreements (“REPAs”) with third parties. The REPAs are based on the expected operation of energy-generating facilities and will remain in effect for terms of between 15 and 20 years from the commencement of facility’s entry into commercial operation. Commercial operations are set to begin at the end of 2019 or 2020. Each REPA consists of an energy forward agreement that is net settled based on energy prices and the energy output generated by the facility. We have determined that each of the REPAs does not meet the definition of a derivative because the expected energy output of the facility may not be reliably estimated (the arrangement lacks a notional amount). The REPAs do not contain any unconditional purchase obligations because amounts under the agreement are not fixed and determinable. Our participations in the REPAs did not require upfront investments or capital commitments. We do not control the activities that most significantly impact the energy-generating facilities, nor do we receive specific energy output from them.

Contingencies and Litigation

Litigation Matters

We are involved in various lawsuits and disputes, claims, government agency investigations and enforcement actions, and other proceedings (“Litigation Matters”) that arise in the ordinary course of business, which include claims of patent infringement (most of which are asserted by non-practicing entities primarily seeking monetary damages), class actions, and proceedings to enforce FCC rules and regulations. The Litigation Matters described above have progressed to various stages and some of them may proceed to trial, arbitration, hearing or other adjudication that could result in fines, penalties, or awards of monetary or injunctive relief in the coming 12 months if they are not otherwise resolved. We have established an accrual with respect to certain of these matters, where appropriate, which is reflected in the Consolidated Financial Statements but that we do not consider, individually or in the aggregate, material. An accrual is established when we believe it is both probable that a loss has been incurred and an amount can be reasonably estimated. For other matters, where we have not determined that a loss is probable or because the amount of loss cannot be reasonably estimated, we have not recorded an accrual due to various factors typical in contested proceedings, including but not limited to uncertainty concerning legal theories and their resolution by courts or regulators, uncertain damage theories and demands, and a less than fully developed factual record. While we do not expect that the ultimate resolution of these proceedings, individually or in the aggregate, will have a material adverse effect on our financial position, an unfavorable outcome of some or all of these proceedings could have a material adverse impact on results of operations or cash flows for a particular period. This assessment is based on our current understanding of relevant facts and circumstances. As such, our view of these matters is subject to inherent uncertainties and may change in the future.

Note 16 – Additional Financial Information**Supplemental Consolidated Balance Sheets Information*****Accounts Payable and Accrued Liabilities***

Accounts payable and accrued liabilities are summarized as follows:

(in millions)	December 31, 2018	December 31, 2017
Accounts payable	\$ 5,487	\$ 6,182
Payroll and related benefits	709	614
Property and other taxes, including payroll	642	620
Interest	227	253
Commissions	243	324
Network decommissioning	65	92
Toll and interconnect	157	109
Advertising	76	46
Other	135	288
Accounts payable and accrued liabilities	<u>\$ 7,741</u>	<u>\$ 8,528</u>

Book overdrafts included in accounts payable and accrued liabilities were \$630 million and \$455 million as of December 31, 2018 and 2017, respectively.

Hurricane Impacts

During 2018, we recognized \$61 million in costs related to hurricanes, including \$36 million in incremental costs to maintain services primarily in Puerto Rico related to hurricanes that occurred in 2017 and \$25 million related to hurricanes that occurred in 2018. Additional costs related to a hurricane that occurred in 2018 are expected to be immaterial in the first quarter of 2019.

During 2018, we received reimbursement payments from our insurance carriers of \$307 million related to hurricanes, of which \$93 million was previously accrued for as a receivable as of December 31, 2017.

We have accrued insurance recoveries related to a hurricane that occurred in 2018 of approximately \$5 million for the year ended December 31, 2018 as an offset to the costs incurred within Cost of services in our Consolidated Statements of Comprehensive Income and as an increase to Other current assets in our Consolidated Balance Sheets.

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The following table shows the hurricane impacts in our Consolidated Statements of Comprehensive Income for the years ended December 31, 2018 and 2017 . There were no significant hurricane impacts in 2016 .

(in millions, except per share amounts)	Year Ended December 31, 2018			Year Ended December 31, 2017		
	Gross	Reimbursement	Net	Gross	Reimbursement	Net
Increase (decrease)						
Revenues						
Branded postpaid revenues	\$ —	\$ —	\$ —	\$ (37)	\$ —	\$ (37)
<i>Of which, postpaid phone revenues</i>	—	—	—	(35)	—	(35)
Branded prepaid revenues	—	—	—	(11)	—	(11)
Total service revenues	—	—	—	(48)	—	(48)
Equipment revenues	—	—	—	(8)	—	(8)
Other revenues	—	71	71	—	—	—
Total revenues	—	71	71	(56)	—	(56)
Operating expenses						
Cost of services	59	(135)	(76)	198	(93)	105
Cost of equipment sales	1	—	1	4	—	4
Selling, general and administrative	1	(13)	(12)	36	—	36
<i>Of which, bad debt expense</i>	—	—	—	20	—	20
Total operating expenses	61	(148)	(87)	238	(93)	145
Operating income (loss)	\$ (61)	\$ 219	\$ 158	\$ (294)	\$ 93	\$ (201)
Net income (loss)	\$ (41)	\$ 140	\$ 99	\$ (193)	\$ 63	\$ (130)
Earnings per share - basic	\$ (0.05)	\$ 0.17	\$ 0.12	\$ (0.23)	\$ 0.07	\$ (0.16)
Earnings per share - diluted	\$ (0.05)	\$ 0.17	\$ 0.12	\$ (0.22)	\$ 0.07	\$ (0.15)

Supplemental Consolidated Statements of Comprehensive Income Information

Related Party Transactions

We have related party transactions associated with DT or its affiliates in the ordinary course of business, which are included in the Consolidated Financial Statements.

The following table summarizes the impact of significant transactions with DT or its affiliates included in Operating expenses in the Consolidated Statements of Comprehensive Income :

(in millions)	Year Ended December 31,		
	2018	2017	2016
Discount related to roaming expenses	\$ —	\$ —	\$ (15)
Fees incurred for use of the T-Mobile brand	84	79	74
Expenses for telecommunications and IT services	—	12	25
International long distance agreement	36	55	60

We have an agreement with DT for the reimbursement of certain administrative expenses, which were \$11 million for each of the years ended December 31, 2018 , 2017 and 2016 .

Note 17 – Guarantor Financial Information

Pursuant to the applicable indentures and supplemental indentures, the long-term debt to affiliates and third parties issued by T-Mobile USA (“Issuer”) is fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis by T-Mobile (“Parent”) and certain of the Issuer’s 100% owned subsidiaries (“Guarantor Subsidiaries”). See [Note 8 – Debt](#) for further information.

The guarantees of the Guarantor Subsidiaries are subject to release in limited circumstances only upon the occurrence of certain customary conditions. The indentures and credit facilities governing the long-term debt contain covenants that, among other

things, limit the ability of the Issuer and the Guarantor Subsidiaries to incur more debt, pay dividends and make distributions, make certain investments, repurchase stock, create liens or other encumbrances, enter into transactions with affiliates, enter into transactions that restrict dividends or distributions from subsidiaries, and merge, consolidate or sell, or otherwise dispose of, substantially all of their assets. Certain provisions of each of the credit facilities, indentures and supplemental indentures relating to the long-term debt restrict the ability of the Issuer to loan funds or make payments to Parent. However, the Issuer and Guarantor Subsidiaries are allowed to make certain permitted payments to the Parent under the terms of the indentures and the supplemental indentures.

On October 23, 2018, SLMA LLC was formed as a limited liability company in Delaware to serve as an escrow subsidiary to facilitate the contemplated issuance of notes by Parent in connection with the Transactions. SLMA LLC is an indirect, 100% owned finance subsidiary of Parent, as such term is used in Rule 3-10(b) of Regulation S-X, and has been designated as an unrestricted subsidiary under Issuer's existing debt securities. Any debt securities that may be issued from time to time by SLMA LLC will be fully and unconditionally guaranteed by Parent.

Presented below is the condensed consolidating financial information as of December 31, 2018 and 2017 , and for the years ended December 31, 2018 , 2017 and 2016 .

Condensed Consolidating Balance Sheet Information
December 31, 2018

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Assets						
Current assets						
Cash and cash equivalents	\$ 2	\$ 1	\$ 1,079	\$ 121	\$ —	\$ 1,203
Accounts receivable, net	—	—	1,510	259	—	1,769
Equipment installment plan receivables, net	—	—	2,538	—	—	2,538
Accounts receivable from affiliates	—	—	11	—	—	11
Inventories	—	—	1,084	—	—	1,084
Other current assets	—	—	1,031	645	—	1,676
Total current assets	2	1	7,253	1,025	—	8,281
Property and equipment, net ⁽¹⁾	—	—	23,062	297	—	23,359
Goodwill	—	—	1,683	218	—	1,901
Spectrum licenses	—	—	35,559	—	—	35,559
Other intangible assets, net	—	—	116	82	—	198
Investments in subsidiaries, net	25,314	46,516	—	—	(71,830)	—
Intercompany receivables and note receivables	—	5,174	—	—	(5,174)	—
Equipment installment plan receivables due after one year, net	—	—	1,547	—	—	1,547
Other assets	—	7	1,540	221	(145)	1,623
Total assets	\$ 25,316	\$ 51,698	\$ 70,760	\$ 1,843	\$ (77,149)	\$ 72,468
Liabilities and Stockholders' Equity						
Current liabilities						
Accounts payable and accrued liabilities	\$ —	\$ 228	\$ 7,240	\$ 273	\$ —	\$ 7,741
Payables to affiliates	—	157	43	—	—	200
Short-term debt	—	—	841	—	—	841
Deferred revenue	—	—	698	—	—	698
Other current liabilities	—	447	164	176	—	787
Total current liabilities	—	832	8,986	449	—	10,267
Long-term debt	—	10,950	1,174	—	—	12,124
Long-term debt to affiliates	—	14,582	—	—	—	14,582
Tower obligations ⁽¹⁾	—	—	384	2,173	—	2,557
Deferred tax liabilities	—	—	4,617	—	(145)	4,472
Deferred rent expense	—	—	2,781	—	—	2,781
Negative carrying value of subsidiaries, net	—	—	676	—	(676)	—
Intercompany payables and debt	598	—	4,234	342	(5,174)	—
Other long-term liabilities	—	20	926	21	—	967
Total long-term liabilities	598	25,552	14,792	2,536	(5,995)	37,483
Total stockholders' equity (deficit)	24,718	25,314	46,982	(1,142)	(71,154)	24,718
Total liabilities and stockholders' equity	\$ 25,316	\$ 51,698	\$ 70,760	\$ 1,843	\$ (77,149)	\$ 72,468

(1) Assets and liabilities for Non-Guarantor Subsidiaries are primarily included in VIEs related to the 2012 Tower Transaction. See [Note 9 – Tower Obligations](#) for further information.

Condensed Consolidating Balance Sheet Information
December 31, 2017

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Assets						
Current assets						
Cash and cash equivalents	\$ 74	\$ 1	\$ 1,086	\$ 58	\$ —	\$ 1,219
Accounts receivable, net	—	—	1,659	256	—	1,915
Equipment installment plan receivables, net	—	—	2,290	—	—	2,290
Accounts receivable from affiliates	—	—	22	—	—	22
Inventories	—	—	1,566	—	—	1,566
Other current assets	—	—	1,275	628	—	1,903
Total current assets	74	1	7,898	942	—	8,915
Property and equipment, net ⁽¹⁾	—	—	21,890	306	—	22,196
Goodwill	—	—	1,683	—	—	1,683
Spectrum licenses	—	—	35,366	—	—	35,366
Other intangible assets, net	—	—	217	—	—	217
Investments in subsidiaries, net	22,534	40,988	—	—	(63,522)	—
Intercompany receivables and note receivables	—	8,503	—	—	(8,503)	—
Equipment installment plan receivables due after one year, net	—	—	1,274	—	—	1,274
Other assets	—	2	814	236	(140)	912
Total assets	\$ 22,608	\$ 49,494	\$ 69,142	\$ 1,484	\$ (72,165)	\$ 70,563
Liabilities and Stockholders' Equity						
Current liabilities						
Accounts payable and accrued liabilities	\$ —	\$ 253	\$ 8,014	\$ 261	\$ —	\$ 8,528
Payables to affiliates	—	146	36	—	—	182
Short-term debt	—	999	613	—	—	1,612
Deferred revenue	—	—	779	—	—	779
Other current liabilities	17	—	192	205	—	414
Total current liabilities	17	1,398	9,634	466	—	11,515
Long-term debt	—	10,911	1,210	—	—	12,121
Long-term debt to affiliates	—	14,586	—	—	—	14,586
Tower obligations ⁽¹⁾	—	—	392	2,198	—	2,590
Deferred tax liabilities	—	—	3,677	—	(140)	3,537
Deferred rent expense	—	—	2,720	—	—	2,720
Negative carrying value of subsidiaries, net	—	—	629	—	(629)	—
Intercompany payables and debt	32	—	8,201	270	(8,503)	—
Other long-term liabilities	—	65	866	4	—	935
Total long-term liabilities	32	25,562	17,695	2,472	(9,272)	36,489
Total stockholders' equity (deficit)	22,559	22,534	41,813	(1,454)	(62,893)	22,559
Total liabilities and stockholders' equity	\$ 22,608	\$ 49,494	\$ 69,142	\$ 1,484	\$ (72,165)	\$ 70,563

(1) Assets and liabilities for Non-Guarantor Subsidiaries are primarily included in VIEs related to the 2012 Tower Transaction. See [Note 9 – Tower Obligations](#) for further information.

Condensed Consolidating Statement of Comprehensive Income Information
Year Ended December 31, 2018

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Revenues						
Service revenues	\$ —	\$ —	\$ 30,631	\$ 2,339	\$ (978)	\$ 31,992
Equipment revenues	—	—	10,208	2	(201)	10,009
Other revenues	—	29	1,113	228	(61)	1,309
Total revenues	—	29	41,952	2,569	(1,240)	43,310
Operating expenses						
Cost of services, exclusive of depreciation and amortization shown separately below	—	—	6,257	50	—	6,307
Cost of equipment sales	—	—	11,238	1,011	(202)	12,047
Selling, general and administrative	—	11	13,203	985	(1,038)	13,161
Depreciation and amortization	—	—	6,396	90	—	6,486
Gains on disposal of spectrum licenses	—	—	—	—	—	—
Total operating expense	—	11	37,094	2,136	(1,240)	38,001
Operating (loss) income	—	18	4,858	433	—	5,309
Other income (expense)						
Interest expense	—	(528)	(114)	(193)	—	(835)
Interest expense to affiliates	—	(522)	(21)	—	21	(522)
Interest income	—	23	16	1	(21)	19
Other (expense) income, net	—	(87)	33	—	—	(54)
Total other (expense) income, net	—	(1,114)	(86)	(192)	—	(1,392)
Income (loss) before income taxes	—	(1,096)	4,772	241	—	3,917
Income tax expense	—	—	(981)	(48)	—	(1,029)
Earnings of subsidiaries	2,888	3,984	32	—	(6,904)	—
Net income	2,888	2,888	3,823	193	(6,904)	2,888
Dividends on preferred stock	—	—	—	—	—	—
Net income attributable to common stockholders	\$ 2,888	\$ 2,888	\$ 3,823	\$ 193	\$ (6,904)	\$ 2,888
Net income	\$ 2,888	\$ 2,888	\$ 3,823	\$ 193	\$ (6,904)	\$ 2,888
Other comprehensive income, net of tax						
Other comprehensive income, net of tax	(332)	(332)	116	—	216	(332)
Total comprehensive income	\$ 2,556	\$ 2,556	\$ 3,939	\$ 193	\$ (6,688)	\$ 2,556

Condensed Consolidating Statement of Comprehensive Income Information
Year Ended December 31, 2017

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Revenues						
Service revenues	\$ —	\$ —	\$ 28,894	\$ 2,113	\$ (847)	\$ 30,160
Equipment revenues	—	—	9,620	—	(245)	9,375
Other revenues	—	3	879	212	(25)	1,069
Total revenues	—	3	39,393	2,325	(1,117)	40,604
Operating expenses						
Cost of services, exclusive of depreciation and amortization shown separately below	—	—	6,076	24	—	6,100
Cost of equipment sales	—	—	10,849	1,003	(244)	11,608
Selling, general and administrative	—	—	12,276	856	(873)	12,259
Depreciation and amortization	—	—	5,914	70	—	5,984
Gains on disposal of spectrum licenses	—	—	(235)	—	—	(235)
Total operating expenses	—	—	34,880	1,953	(1,117)	35,716
Operating income	—	3	4,513	372	—	4,888
Other income (expense)						
Interest expense	—	(811)	(109)	(191)	—	(1,111)
Interest expense to affiliates	—	(560)	(23)	—	23	(560)
Interest income	1	29	10	—	(23)	17
Other income (expense), net	—	(88)	16	(1)	—	(73)
Total other expense, net	1	(1,430)	(106)	(192)	—	(1,727)
Income (loss) before income taxes	1	(1,427)	4,407	180	—	3,161
Income tax expense	—	—	1,527	(152)	—	1,375
Earnings (loss) of subsidiaries	4,535	5,962	(57)	—	(10,440)	—
Net income	4,536	4,535	5,877	28	(10,440)	4,536
Dividends on preferred stock	(55)	—	—	—	—	(55)
Net income attributable to common stockholders	\$ 4,481	\$ 4,535	\$ 5,877	\$ 28	\$ (10,440)	\$ 4,481
Net income	\$ 4,536	\$ 4,535	\$ 5,877	\$ 28	\$ (10,440)	\$ 4,536
Other comprehensive income, net of tax						
Other comprehensive income, net of tax	7	7	7	—	(14)	7
Total comprehensive income	\$ 4,543	\$ 4,542	\$ 5,884	\$ 28	\$ (10,454)	\$ 4,543

Condensed Consolidating Statement of Comprehensive Income Information
Year Ended December 31, 2016

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Revenues						
Service revenues	\$ —	\$ —	\$ 26,613	\$ 2,023	\$ (792)	\$ 27,844
Equipment revenues	—	—	9,145	—	(418)	8,727
Other revenues	—	3	739	195	(18)	919
Total revenues	—	3	36,497	2,218	(1,228)	37,490
Operating expenses						
Cost of services, exclusive of depreciation and amortization shown separately below	—	—	5,707	24	—	5,731
Cost of equipment sales	—	—	10,209	1,027	(417)	10,819
Selling, general and administrative	—	—	11,321	868	(811)	11,378
Depreciation and amortization	—	—	6,165	78	—	6,243
Cost of MetroPCS business combination	—	—	104	—	—	104
Gains on disposal of spectrum licenses	—	—	(835)	—	—	(835)
Total operating expenses	—	—	32,671	1,997	(1,228)	33,440
Operating income	—	3	3,826	221	—	4,050
Other income (expense)						
Interest expense	—	(1,147)	(82)	(189)	—	(1,418)
Interest expense to affiliates	—	(312)	—	—	—	(312)
Interest income	—	31	(18)	—	—	13
Other income (expense), net	—	2	(8)	—	—	(6)
Total other expense, net	—	(1,426)	(108)	(189)	—	(1,723)
Income (loss) before income taxes	—	(1,423)	3,718	32	—	2,327
Income tax expense	—	—	(857)	(10)	—	(867)
Earnings (loss) of subsidiaries	1,460	2,883	(17)	—	(4,326)	—
Net income	1,460	1,460	2,844	22	(4,326)	1,460
Dividends on preferred stock	(55)	—	—	—	—	(55)
Net income attributable to common stockholders	\$ 1,405	\$ 1,460	\$ 2,844	\$ 22	\$ (4,326)	\$ 1,405
Net income	\$ 1,460	\$ 1,460	\$ 2,844	\$ 22	\$ (4,326)	\$ 1,460
Other comprehensive income, net of tax						
Other comprehensive income, net of tax	2	2	2	2	(6)	2
Total comprehensive income	\$ 1,462	\$ 1,462	\$ 2,846	\$ 24	\$ (4,332)	\$ 1,462

Condensed Consolidating Statement of Cash Flows Information
Year Ended December 31, 2018

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Operating activities						
Net cash (used in) provided by operating activities	\$ —	\$ (1,254)	\$ 10,483	\$ (5,110)	\$ (220)	\$ 3,899
Investing activities						
Purchases of property and equipment	—	—	(5,505)	(36)	—	(5,541)
Purchases of spectrum licenses and other intangible assets	—	—	(127)	—	—	(127)
Proceeds related to beneficial interests in securitization transactions	—	—	53	5,353	—	5,406
Acquisition of companies, net of cash acquired	—	—	(338)	—	—	(338)
Equity investment in subsidiary	—	—	(43)	—	43	—
Other, net	—	(7)	28	—	—	21
Net cash (used in) provided by investing activities	—	(7)	(5,932)	5,317	43	(579)
Financing activities						
Proceeds from issuance of long-term debt	—	2,494	—	—	—	2,494
Proceeds from borrowing on revolving credit facility, net	—	6,265	—	—	—	6,265
Repayments of revolving credit facility	—	—	(6,265)	—	—	(6,265)
Repayments of capital lease obligations	—	—	(698)	(2)	—	(700)
Repayments of short-term debt for purchases of inventory, property and equipment, net	—	—	(300)	—	—	(300)
Repayments of long-term debt	—	—	(3,349)	—	—	(3,349)
Repurchases of common stock	(1,071)	—	—	—	—	(1,071)
Intercompany advances, net	995	(7,498)	6,468	35	—	—
Equity investment from parent	—	—	—	43	(43)	—
Tax withholdings on share-based awards	—	—	(146)	—	—	(146)
Cash payments for debt prepayment or debt extinguishment costs	—	—	(212)	—	—	(212)
Intercompany dividend paid	—	—	—	(220)	220	—
Other, net	4	—	(56)	—	—	(52)
Net cash (used in) provided by financing activities	(72)	1,261	(4,558)	(144)	177	(3,336)
Change in cash and cash equivalents	(72)	—	(7)	63	—	(16)
Cash and cash equivalents						
Beginning of period	74	1	1,086	58	—	1,219
End of period	\$ 2	\$ 1	\$ 1,079	\$ 121	\$ —	\$ 1,203

Condensed Consolidating Statement of Cash Flows Information
Year Ended December 31, 2017

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Operating activities						
Net cash provided by (used in) operating activities	\$ 1	\$ (1,613)	\$ 9,761	\$ (4,218)	\$ (100)	\$ 3,831
Investing activities						
Purchases of property and equipment	—	—	(5,237)	—	—	(5,237)
Purchases of spectrum licenses and other intangible assets	—	—	(5,828)	—	—	(5,828)
Proceeds related to beneficial interests in securitization transactions	—	—	43	4,276	—	4,319
Equity investment in subsidiary	(308)	—	—	—	308	—
Other, net	—	—	1	—	—	1
Net cash (used in) provided by investing activities	(308)	—	(11,021)	4,276	308	(6,745)
Financing activities						
Proceeds from issuance of long-term debt	—	10,480	—	—	—	10,480
Proceeds from borrowing on revolving credit facility, net	—	2,910	—	—	—	2,910
Repayments of revolving credit facility	—	—	(2,910)	—	—	(2,910)
Repayments of capital lease obligations	—	—	(486)	—	—	(486)
Repayments of short-term debt for purchases of inventory, property and equipment, net	—	—	(300)	—	—	(300)
Repayments of long-term debt	—	—	(10,230)	—	—	(10,230)
Repurchases of common stock	(427)	—	—	—	—	(427)
Intercompany advances, net	484	(14,817)	14,300	33	—	—
Equity investment from parent	—	308	—	—	(308)	—
Tax withholdings on share-based awards	—	—	(166)	—	—	(166)
Dividends on preferred stock	(55)	—	—	—	—	(55)
Cash payments for debt prepayment or debt extinguishment costs	—	—	(188)	—	—	(188)
Intercompany dividend paid	—	—	—	(100)	100	—
Other, net	21	—	(16)	—	—	5
Net cash provided by (used in) financing activities	23	(1,119)	4	(67)	(208)	(1,367)
Change in cash and cash equivalents	(284)	(2,732)	(1,256)	(9)	—	(4,281)
Cash and cash equivalents						
Beginning of period	358	2,733	2,342	67	—	5,500
End of period	\$ 74	\$ 1	\$ 1,086	\$ 58	\$ —	\$ 1,219

Balances have been revised based on the guidance in ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments." See [Note 1 – Summary of Significant Accounting Policies](#) for further information.

Condensed Consolidating Statement of Cash Flows Information
Year Ended December 31, 2016

(in millions)	Parent	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Consolidating and Eliminating Adjustments	Consolidated
Operating activities						
Net cash provided by (used in) operating activities	\$ 6	\$ (1,335)	\$ 7,516	\$ (3,298)	\$ (110)	\$ 2,779
Investing activities						
Purchases of property and equipment	—	—	(4,702)	—	—	(4,702)
Purchases of spectrum licenses and other intangible assets, including deposits	—	—	(3,968)	—	—	(3,968)
Proceeds related to beneficial interests in securitization transactions	—	—	25	3,331	—	3,356
Sales of short-term investments	—	2,000	998	—	—	2,998
Other, net	—	—	(8)	—	—	(8)
Net cash provided by (used in) investing activities	—	2,000	(7,655)	3,331	—	(2,324)
Financing activities						
Proceeds from issuance of long-term debt	—	997	—	—	—	997
Repayments of capital lease obligations	—	—	(205)	—	—	(205)
Repayments of short-term debt for purchases of inventory, property and equipment, net	—	—	(150)	—	—	(150)
Repayments of long-term debt	—	—	(20)	—	—	(20)
Intercompany advances, net	—	(696)	625	71	—	—
Tax withholdings on share-based awards	—	—	(121)	—	—	(121)
Dividends on preferred stock	(55)	—	—	—	—	(55)
Intercompany dividend paid	—	—	—	(110)	110	—
Other, net	29	—	(12)	—	—	17
Net cash (used in) provided by financing activities	(26)	301	117	(39)	110	463
Change in cash and cash equivalents	(20)	966	(22)	(6)	—	918
Cash and cash equivalents						
Beginning of period	378	1,767	2,364	73	—	4,582
End of period	\$ 358	\$ 2,733	\$ 2,342	\$ 67	\$ —	\$ 5,500

Balances have been revised based on the guidance in ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments." See [Note 1 – Summary of Significant Accounting Policies](#) of the Notes to the Consolidated Financial Statements, for further information.

Supplementary Data**Quarterly Financial Information (Unaudited)**

(in millions, except share and per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
2018					
Total revenues	\$ 10,455	\$ 10,571	\$ 10,839	\$ 11,445	\$ 43,310
Operating income	1,282	1,450	1,440	1,137	5,309
Net income	671	782	795	640	2,888
Net income attributable to common stockholders	671	782	795	640	2,888
Earnings per share					
Basic	\$ 0.78	\$ 0.92	\$ 0.94	\$ 0.75	\$ 3.40
Diluted	0.78	0.92	0.93	0.75	3.36
Weighted average shares outstanding					
Basic	855,222,664	847,660,488	847,087,120	849,102,785	849,744,152
Diluted	862,244,084	852,040,670	853,852,764	856,344,347	858,290,174
2017					
Total revenues	\$ 9,613	\$ 10,213	\$ 10,019	\$ 10,759	\$ 40,604
Operating income	1,037	1,416	1,323	1,112	4,888
Net income	698	581	550	2,707	4,536
Dividends on preferred stock	(14)	(14)	(13)	(14)	(55)
Net income attributable to common stockholders	684	567	537	2,693	4,481
Earnings per share					
Basic	\$ 0.83	\$ 0.68	\$ 0.65	\$ 3.22	\$ 5.39
Diluted	0.80	0.67	0.63	3.11	5.20
Weighted average shares outstanding					
Basic	827,723,034	830,971,528	831,189,779	837,416,683	831,850,073
Diluted	869,395,984	870,457,181	871,420,065	871,501,578	871,787,450
Net income includes:					
Gains on disposal of spectrum licenses	\$ (37)	\$ (1)	\$ (29)	\$ (168)	\$ (235)

In December 2017, the TCJA was signed into legislation. The TCJA included numerous changes to existing tax law, including a permanent reduction in the federal corporate income tax rate from 35% to 21%. The rate reduction took place on January 1, 2018. We recognized a net tax benefit of \$2.2 billion associated with the enactment of the TCJA in Income tax (expense) benefit in our Consolidated Statements of Comprehensive Income in the fourth quarter of 2017, primarily due to a re-measurement of deferred tax assets and liabilities.

Earnings per share is computed independently for each quarter and the sum of the quarters may not equal earnings per share for the full year.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures**Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures designed to ensure information required to be disclosed in our periodic reports filed or submitted under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Our disclosure controls are also designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and

procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective, as of the end of the period covered by this Form 10-K .

The certifications required by Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits [31.1](#) and [31.2](#), respectively, to this Form 10-K .

Changes in Internal Control over Financial Reporting

Beginning January 1, 2018, we adopted the new revenue standard and implemented significant new revenue accounting systems, processes and internal controls over revenue recognition to assist us in the application of the new revenue standard. Other than as discussed above, there were no changes in our internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act, during our most recently completed fiscal quarter that materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions, providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements in accordance with generally accepted accounting principles, providing reasonable assurance that receipts and expenditures are made in accordance with management authorization, and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies and procedures may deteriorate.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in Internal Control – Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2018 .

The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report herein.

Item 9B. Other Information

None.

PART III.

Item 10. Directors, Executive Officers and Corporate Governance

We maintain a code of ethics applicable to our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer, Treasurer, and Controller, which is a “Code of Ethics for Senior Financial Officers” as defined by applicable rules of the SEC. This code is publicly available on our website at investor.t-mobile.com. If we make any amendments to this code other than technical, administrative or other non-substantive amendments, or grant any waivers, including implicit waivers, from a provision of this code we will disclose the nature of the amendment or waiver, its effective date and to whom it applies on our website at investor.t-mobile.com or in a Current Report on Form 8-K filed with the SEC.

The remaining information required by this item, including information about our Directors, Executive Officers and Audit Committee, will be incorporated by reference from our definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A or be included in an amendment to this Report.

Item 11. Executive Compensation

The information required by this item will be incorporated by reference from our definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A or to be included in an amendment to this Report.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item will be incorporated by reference from our definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A or to be included in an amendment to this Report.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be incorporated by reference from our definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A or to be included in an amendment to this Report.

Item 14. Principal Accounting Fees and Services

The information required by this item will be incorporated by reference from our definitive Proxy Statement to be filed with the SEC pursuant to Regulation 14A or to be included in an amendment to this Report.

PART IV.

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as a part of this Form 10-K :

1. Financial Statements

The following financial statements are included in Part II, Item 8 of this Form 10-K :

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets
Consolidated Statements of Comprehensive Income
Consolidated Statements of Cash Flows
Consolidated Statement of Stockholders' Equity
Notes to the Consolidated Financial Statements

2. Financial Statement Schedules

All other schedules have been omitted because they are not required, not applicable, or the required information is otherwise included.

3. Exhibits

See the [Index to Exhibits](#) immediately following "Item 16. Form 10-K Summary" of this Form 10-K .

Item 16. Form 10-K Summary

None .

INDEX TO EXHIBITS

Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
2.1	Business Combination Agreement, dated as of October 3, 2012, by and among MetroPCS Communications, Inc., Deutsche Telekom AG, T-Mobile Zwischenholding GMBH, T-Mobile Global Holding GMBH and T-Mobile USA, Inc.	8-K	10/3/2012	2.1	
2.2	Consent Solicitation Letter Agreement, dated December 5, 2012, by and among MetroPCS Communications, Inc. and Deutsche Telekom AG, amending Exhibit G to the Business Combination Agreement.	8-K	12/7/2012	2.1	
2.3	Amendment No. 1 to the Business Combination Agreement by and among Deutsche Telekom AG, T-Mobile USA, Inc., T-Mobile Global Zwischenholding GmbH, T-Mobile Global Holding GmbH and MetroPCS Communications, Inc., dated April 14, 2013.	8-K	4/15/2013	2.1	
2.4	Business Combination Agreement, dated as of April 29, 2018, by and among T-Mobile US, Inc., Huron Merger Sub LLC, Superior Merger Sub Corporation, Sprint Corporation, Starburst I, Inc., Galaxy Investment Holdings, Inc., and for the limited purposes set forth therein, Deutsche Telekom AG, Deutsche Telekom Holding B.V. and SoftBank Group Corp.	8-K	04/30/2018	2.1	
3.1	Fourth Amended and Restated Certificate of Incorporation.	8-K	5/2/2013	3.1	
3.2	Fifth Amended and Restated Bylaws.	8-K	5/2/2013	3.2	
3.3	Certificate of Designations of 5.50% Mandatory Convertible Preferred Stock, Series A, of T-Mobile US, Inc., dated December 12, 2014.	8-K	12/15/2014	3.1	
3.4	Certificate of Elimination of 5.5% Mandatory Convertible Preferred Stock, Series A, Par Value \$0.00001 Per Share, dated February 15, 2018.	8-K	2/22/2018	3.1	
4.1	Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.1	
4.2	First Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.2	
4.3	Second Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.3	
4.4	Third Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.4	
4.5	Fourth Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.5	
4.6	Fifth Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.6	
4.7	Sixth Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.7	
4.8	Seventh Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.8	
4.9	Eighth Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.9	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
4.10	Ninth Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.10	
4.11	Tenth Supplemental Indenture, dated as of April 28, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.11	
4.12	Eleventh Supplemental Indenture, dated as of May 1, 2013 among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/2/2013	4.12	
4.13	Twelfth Supplemental Indenture, dated as of July 15, 2013, among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as trustee.	10-Q	8/8/2013	4.18	
4.14	Thirteenth Supplemental Indenture, dated as of August 21, 2013, by and among T-Mobile USA, Inc., the Guarantors (as defined therein) and Deutsche Bank Trust Company Americas, as trustee, including the Form of 5.250% Senior Note due 2018.	8-K	8/22/2013	4.1	
4.15	Fourteenth Supplemental Indenture, dated as of November 21, 2013, by and among T-Mobile USA, Inc., the Guarantors and Deutsche Bank Trust Company Americas, as trustee, including the Form of 6.125% Senior Note due 2022.	8-K	11/22/2013	4.1	
4.16	Fifteenth Supplemental Indenture, dated as of November 21, 2013, by and among T-Mobile USA, Inc., the Guarantors and Deutsche Bank Trust Company Americas, as trustee, including the Form of 6.500% Senior Note due 2024.	8-K	11/22/2013	4.2	
4.17	Sixteenth Supplemental Indenture, dated as of August 11, 2014, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	10-Q	10/28/2014	4.3	
4.18	Seventeenth Supplemental Indenture, dated as of September 5, 2014, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 6.000% Senior Notes due 2023.	8-K	9/5/2014	4.1	
4.19	Eighteenth Supplemental Indenture, dated as of September 5, 2014, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 6.375% Senior Notes due 2025.	8-K	9/5/2014	4.2	
4.20	Nineteenth Supplemental Indenture, dated as of September 28, 2015, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	10-Q	10/27/2015	4.3	
4.21	Twentieth Supplemental Indenture, dated as of November 5, 2015, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Bank Trust Company Americas, as Trustee, including the Form of 6.500% Senior Notes due 2026.	8-K	11/5/2015	4.1	
4.22	Twenty-First Supplemental Indenture, dated as of November 5, 2015, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Bank Trust Company Americas, as Trustee, including the Form of 6.000% Senior Notes due 2024.	8-K	4/1/2016	4.1	
4.23	Twenty-Second Supplemental Indenture, dated as of August 30, 2016, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	10-Q	10/24/2016	4.3	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
4.24	Twenty-Third Supplemental Indenture, dated as of March 16, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.000% Senior Note due 2022.	8-K	3/16/2017	4.1	
4.25	Twenty-Fourth Supplemental Indenture, dated as of March 16, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.000% Senior Note due 2025.	8-K	3/16/2017	4.2	
4.26	Twenty-Fifth Supplemental Indenture, dated as of March 16, 2017, by and among T-Mobile USA, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 5.375% Senior Note due 2027.	8-K	3/16/2017	4.3	
4.27	Twenty-Sixth Supplemental Indenture, dated as of April 27, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.000% Senior Note due 2022-1.	8-K	4/28/2017	4.1	
4.28	Twenty-Seventh Supplemental Indenture, dated as of April 28, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 5.125% Senior Note due 2025-1.	8-K	4/28/2017	4.2	
4.29	Twenty-Eighth Supplemental Indenture, dated as of April 28, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 5.375% Senior Note due 2027-1.	8-K	4/28/2017	4.3	
4.30	Twenty-Ninth Supplemental Indenture, dated as of May 9, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 5.300% Senior Notes due 2021.	8-K	5/9/2017	4.1	
4.31	Thirtieth Supplemental Indenture, dated as of May 9, 2017, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	8-K	5/9/2017	4.2	
4.32	Thirty-First Supplemental Indenture, dated as of January 25, 2018, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	10-K	2/8/2018	4.56	
4.33	Thirty-Second Supplemental Indenture, dated as of January 25, 2018, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.500% Senior Note due 2026.	8-K	1/25/2018	4.1	
4.34	Thirty-Third Supplemental Indenture, dated as of January 25, 2018, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.750% Senior Note due 2028.	8-K	1/25/2018	4.2	
4.35	Noteholder Agreement dated as of April 28, 2013, by and between Deutsche Telekom AG and T-Mobile USA, Inc.	8-K	5/2/2013	4.13	
4.36	Thirty-Fourth Supplemental Indenture, dated as of April 26, 2018, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	10-Q	5/1/2018	4.5	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
4.37	Thirty-Fifth Supplemental Indenture, dated as of April 30, 2018, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.500% Senior Note due 2026-1.	8-K	5/4/2018	4.1	
4.38	Thirty-Sixth Supplemental Indenture, dated as of April 30, 2018, by and among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee, including the Form of 4.750% Senior Note due 2028-1.	8-K	5/4/2018	4.2	
4.39	Thirty-Seventh Supplemental Indenture, dated as of May 20, 2018, by and among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas.	8-K	5/21/2018	4.1	
4.40	Thirty-Eighth Supplemental Indenture, dated as of December 20, 2018, by and among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas.	8-K	12/21/2018	4.1	
4.41	Thirty-Ninth Supplemental Indenture, dated as of December 20, 2018, by and among T-Mobile USA, Inc., the guarantors party thereto, and Deutsche Bank Trust Company Americas.				X
10.1	Master Agreement, dated as of September 28, 2012, among T-Mobile USA, Inc., Crown Castle International Corp., and certain T-Mobile and Crown subsidiaries.	10-Q	8/8/2013	10.1	
10.2	Amendment No. 1, dated as of November 30, 2012, to Master Agreement, dated as of November 30, 2012, among Crown Castle International Corp., and certain T-Mobile and Crown subsidiaries.	10-Q	8/8/2013	10.2	
10.3	Settlement and Amendment No. 2, dated as of May 8, 2014, to Master Agreement, dated as of November 2012, among Crown Castle International Corp., and certain T-Mobile and Crown subsidiaries.				X
10.4	Master Prepaid Lease, dated as of November 30, 2012, by and among T-Mobile USA Tower LLC, T-Mobile West Tower LLC, T-Mobile USA, Inc. and CCTMO LLC.	10-Q	8/8/2013	10.3	
10.5	MPL Site Master Lease Agreement, dated as of November 30, 2012, by and among Cook Inlet/VIS GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, Suncom Wireless Operating Company, L.L.C., T-Mobile USA, Inc. and CCTMO LLC.	10-Q	8/8/2013	10.4	
10.6	First Amendment, dated as of November 30, 2012, to MPL Site Master Lease Agreement, dated as of November 30, 2012, by and among Cook Inlet/VIS GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, Suncom Wireless Operating Company, L.L.C., T-Mobile USA, Inc. and CCTMO LLC.	10-Q	8/8/2013	10.5	
10.7	Second Amendment, dated as of October 31, 2014, to MPL Site Master Lease Agreement, dated as of November 30, 2012, by and among Cook Inlet/VIS GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Suncom Wireless Operating Company, L.L.C., T-Mobile USA, Inc.				X

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.8	Sale Site Master Lease Agreement, dated as of November 30, 2012, by and among Cook Inlet/V5 GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, Suncom Wireless Operating Company, L.L.C., T-Mobile USA, Inc., T3 Tower 1 LLC and T3 Tower 2 LLC.	10-Q	8/8/2013	10.6	
10.9	First Amendment, dated as of November 30, 2012, to Sale Site Master Lease Agreement, dated as of November 30, 2012, by and among Cook Inlet/V5 GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, Suncom Wireless Operating Company, L.L.C., T-Mobile USA, Inc., T3 Tower 1 LLC and T3 Tower 2 LLC.	10-Q	8/8/2013	10.7	
10.10	Second Amendment, dated as of October 31, 2014, to Sale Site Master Lease Agreement, dated as of November 30, 2012, by and among Cook Inlet/V5 GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Suncom Wireless Operating Company, L.L.C., T-Mobile USA, Inc., T3 Tower 1 LLC and T3 Tower 2 LLC.				X
10.11	Settlement Technical Closing Agreement, dated as of October 1, 2014, among Crown Castle International Corp., and certain T-Mobile and Crown subsidiaries.				X
10.12	Management Agreement, dated as of November 30, 2012, by and among Suncom Wireless Operating Company, L.L.C., Cook Inlet/V5 GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., Voicestream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, Suncom Wireless Property Company, L.L.C., T-Mobile USA Tower LLC, T-Mobile West Tower LLC, CCTMO LLC, T3 Tower 1 LLC and T3 Tower 2 LLC.	10-Q	8/8/2013	10.8	
10.13	Stockholder's Agreement dated as of April 30, 2013 by and between MetroPCS Communications, Inc. and Deutsche Telekom AG.	8-K	5/2/2013	10.1	
10.14	Waiver of Required Approval Under Section 3.6(a) of the Stockholder's Agreement, dated August 7, 2013, between T-Mobile US, Inc. and Deutsche Telekom AG.	10-Q	8/8/2013	10.10	
10.15	License Agreement dated as of April 30, 2013 by and between T-Mobile US, Inc. and Deutsche Telekom AG.	8-K	5/2/2013	10.2	
10.16	License Exchange Agreement, dated January 5, 2014, among T-Mobile USA, Inc., T-Mobile License LLC, Cellco Partnership d/b/a Verizon Wireless, Verizon Wireless (VAW) LLC, Athens Cellular, Inc. and Verizon Wireless of the East LP.	8-K	1/6/2014	10.1	
10.17	License Purchase Agreement, dated January 5, 2014, among T-Mobile USA, Inc., T-Mobile License LLC and Cellco Partnership d/b/a Verizon Wireless.	8-K	1/6/2014	10.2	
10.18	Receivables Sale and Conveyancing Agreement, dated as of February 26, 2014, among T-Mobile West LLC, T-Mobile Central LLC, T-Mobile Northeast LLC and T-Mobile South LLC, as sellers, and T-Mobile PCS Holdings LLC, as purchaser.	8-K	3/4/2014	10.1	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.19	Joinder and First Amendment to the Receivables Sale and Conveyancing Agreement, dated as of November 28, 2014, among Powertel/Memphis, Inc., Triton PCS Holdings Company L.L.C., T-Mobile West LLC, T-Mobile Central LLC, T-Mobile Northeast LLC and T-Mobile South LLC, as sellers, and T-Mobile PCS Holdings LLC, as purchaser.	10-K	2/19/2015	10.55	
10.20	Joinder and Second Amendment to the Receivables Sale and Conveyancing Agreement, dated as of January 9, 2015, among SunCom Wireless Operating Company, LLC, Powertel/Memphis, Inc., Triton PCS Holdings Company L.L.C., T-Mobile West LLC, T-Mobile Central LLC, T-Mobile Northeast LLC and T-Mobile South LLC, as sellers, and T-Mobile PCS Holdings LLC, as purchaser.	10-Q	4/28/2015	10.5	
10.21	Receivables Sale and Contribution Agreement, dated as of February 26, 2014, between T-Mobile PCS Holdings LLC, as seller, and T-Mobile Airtime Funding LLC, as purchaser.	8-K	3/4/2014	10.2	
10.22	First Amendment to the Receivables Sale and Contribution Agreement, dated as of November 28, 2014, between T-Mobile PCS Holdings LLC, as seller, and T-Mobile Airtime Funding LLC, as purchaser.	10-K	2/19/2015	10.56	
10.23	Second Amendment to the Receivables Sale and Contribution Agreement, dated as of January 9, 2015, by and among T-Mobile PCS Holdings LLC, as seller, and T-Mobile Airtime Funding LLC, as purchaser.	10-Q	4/28/2015	10.6	
10.24	Third Amendment to the Receivables Sale and Contribution Agreement, dated as of November 30, 2016, by and among T-Mobile PCS Holdings LLC, as seller, and T-Mobile Airtime Funding LLC, as purchaser.	10-K	2/14/2017	10.33	
10.25	Fourth Amendment to the Receivables Sale and Contribution Agreement, dated as of May 5, 2017, by and among T-Mobile PCS Holdings LLC, as seller, and T-Mobile Airtime Funding LLC, as purchaser.	10-Q	7/20/2017	10.1	
10.26	Second Amended and Restated Master Receivables Purchase Agreement, dated as of November 30, 2016, among T-Mobile Airtime Funding LLC, as funding seller, Billing Gate One LLC, as purchaser, Landesbank Hessen-Thüringen Girozentrale, as bank purchasing agent, The Bank of Tokyo Mitsubishi UFJ, Ltd., as bank collection agent, T-Mobile PCS Holdings LLC, as servicer, and T-Mobile US, Inc., as performance guarantor.	8-K	12/6/2016	10.1	
10.27	First Amendment to Second Amended and Restated Master Receivables Purchase Agreement, dated as of May 5, 2017, among T-Mobile Airtime Funding LLC, as funding seller, Billing Gate One LLC, as purchaser, Landesbank Hessen-Thüringen Girozentrale, as bank purchasing agent, The Bank of Tokyo Mitsubishi UFJ, Ltd., as bank collection agent, T-Mobile PCS Holdings LLC, as servicer, and T-Mobile US, Inc., as performance guarantor.	10-Q	7/20/2017	10.2	
10.28	Third Amended and Restated Master Receivables Purchase Agreement, dated as of February 5, 2018, among T-Mobile Airtime Funding LLC, as funding seller, Billing Gate One LLC, as purchaser, Landesbank Hessen-Thüringen Girozentrale, as bank purchasing agent, The Bank of Tokyo Mitsubishi UFJ, Ltd., as bank collection agent, T-Mobile PCS Holdings LLC, as servicer, and T-Mobile US, Inc., as performance guarantor.	10-K	2/8/2018	10.31	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.29	First Amendment, dated as of April 3, 2018, to Third Amended and Restated Master Receivables Purchase Agreement, dated as of February 5, 2018, among T-Mobile Airtime Funding LLC, as funding seller, Billing Gate One LLC, as purchaser, Landesbank Hessen-Thüringen Girozentrale, as bank purchasing agent, MUFG Bank (Europe) N.V. Germany Branch, as bank collection agent, T-Mobile PCS Holdings LLC, as servicer, and T-Mobile US, Inc. and T-Mobile USA, Inc., as performance guarantors.	10-Q	5/1/2018	10.13	
10.30	Second Amendment to the Third Amended and Restated Master Receivables Purchase Agreement, dated as of November 21, 2018, by and among T-Mobile Airtime Funding LLC, as funding seller, Billing Gate One LLC, as purchaser, Landesbank Hessen-Thüringen Girozentrale, as bank purchasing agent, MUFG Bank (Europe) N.V. Germany Branch, as bank collection agent, T-Mobile PCS Holdings LLC, as servicer, and T-Mobile US, Inc., as performance				X
10.31	Term Loan Credit Agreement, dated as of November 9, 2015, among T-Mobile USA, Inc., the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	8-K	11/12/2015	10.1	
10.32	Amendment No.1 to the Term Loan Credit Agreement, dated as of January 25, 2017, among T-Mobile USA, Inc., the guarantors party thereto, the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	10-Q	4/24/2017	10.3	
10.33	Amendment No.2 to the Term Loan Credit Agreement, dated as of January 25, 2017, among T-Mobile USA, Inc., the guarantors party thereto, the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	10-Q	4/24/2017	10.4	
10.34	Amendment No.3 to the Term Loan Credit Agreement, dated as of March 28, 2017, among T-Mobile USA, Inc., the guarantors party thereto, the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	10-Q	4/24/2017	10.5	
10.35	Amendment No.4 to the Term Loan Credit Agreement, dated as of July 25, 2017, among T-Mobile USA, Inc., the guarantors party thereto, the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	8-K	7/27/2017	10.1	
10.36	Amendment No. 5 to the Term Loan Credit Agreement, dated as of March 29, 2018, among T-Mobile USA, Inc., the guarantors party thereto, the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	8-K	3/30/2018	10.1	
10.37	First Incremental Facility Amendment, dated as of December 29, 2016, to the Term Loan Credit Agreement, dated as of November 9, 2015, by and among T-Mobile USA, Inc., the guarantors party thereto, the several banks and other financial institutions or entities from time to time parties thereto as lenders, and Deutsche Bank AG New York Branch, as administrative agent.	8-K	12/30/2016	10.3	
10.38	Second Incremental Facility Amendment, dated as of January 25, 2017, to the Term Loan Credit Agreement, dated as of November 9, 2015, as amended by that certain First Incremental Facility Amendment dated as of December 29, 2016, by and among T-Mobile USA, Inc., the guarantors party thereto, the several banks and other financial institutions or entities from time to time parties thereto as lenders, and Deutsche Bank AG New York Branch, as administrative agent.	8-K	1/25/2017	10.1	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.39	Second Amended and Restated Receivables Sale Agreement, dated as of August 21, 2017, by and between T-Mobile Financial LLC, as seller, and T-Mobile Handset Funding LLC, as purchaser.	10-Q	10/23/2017	10.2	
10.40	Third Amended and Restated Receivables Sale Agreement, dated as of October 23, 2018, by and between T-Mobile Financial LLC, as seller, and T-Mobile Handset Funding LLC, as purchaser.	10-Q	10/30/2018	10.2	
10.41	Second Amended and Restated Receivables Purchase and Administration Agreement, dated as of August 21, 2017, by and among T-Mobile Handset Funding LLC, as transferor, T-Mobile Financial LLC, as servicer, T-Mobile US, Inc., as performance guarantor, Royal Bank of Canada, as administrative agent, and certain financial institutions party thereto	10-Q	10/23/2017	10.3	
10.42	First Amendment, dated as of December 18, 2017, to the Second Amended and Restated Receivables Purchase and Administration Agreement, dated as of August 21, 2017, by and among T-Mobile Handset Funding LLC, as transferor, T-Mobile Financial LLC, as servicer, T-Mobile US, Inc., as performance guarantor, Royal Bank of Canada, as administrative agent, and certain financial institutions party thereto.	10-K	2/8/2018	10.48	
10.43	Second Amendment, dated as of April 3, 2018, to the Second Amended and Restated Receivables Purchase and Administration Agreement, dated as of August 21, 2017, among T-Mobile Handset Funding LLC, as transferor, T-Mobile Financial LLC, as servicer, T-Mobile US, Inc. and T-Mobile USA, Inc., as performance guarantors, Royal Bank of Canada, as administrative agent, and certain financial institutions party thereto.	10-Q	5/1/2018	10.14	
10.44	Third Amended and Restated Receivables Purchase and Administration Agreement, dated as of October 23, 2018, by and among T-Mobile Handset Funding LLC, as transferor, T-Mobile Financial LLC, as servicer, T-Mobile US, Inc., as performance guarantor, Royal Bank of Canada, as administrative agent, and certain financial institutions party thereto.	10-Q	10/30/2018	10.1	
10.45	First Amendment, dated as of December 21, 2018, to Third Amended and Restated Receivables Purchase and Administration Agreement, dated as of October 23, 2018, by and among T-Mobile Handset Funding LLC, as transferor, T-Mobile Financial LLC, as servicer, T-Mobile US, Inc., as performance guarantor, Royal Bank of Canada, as administrative agent, and certain financial institutions party thereto				X
10.46	Purchase Agreement, dated as of March 6, 2016, among T-Mobile USA, Inc., the guarantor party thereto and Deutsche Telekom AG.	8-K	3/7/2016	1.1	
10.47	Amendment No. 1 to Purchase Agreement, dated as of October 28, 2016, to Purchase Agreement, dated as of March 6, 2016, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Telekom AG.	8-K	11/2/2016	10.1	
10.48	Purchase Agreement, dated as of April 25, 2016, among T-Mobile USA, Inc., the guarantor party thereto and Deutsche Telekom AG.	8-K	4/26/2016	1.1	
10.49	Amendment No. 1 to Purchase Agreement, dated as of October 28, 2016, to Purchase Agreement, dated as of April 25, 2016, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Telekom AG.	8-K	11/2/2016	10.2	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.50	Purchase Agreement, dated as of April 29, 2016, among T-Mobile USA, Inc., the guarantor party thereto and Deutsche Telekom AG.	8-K	4/29/2016	1.1	
10.51	Amendment No. 1 to Purchase Agreement, dated as of October 28, 2016, to Purchase Agreement, dated as of April 29, 2016, by and among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Telekom AG.	8-K	11/2/2016	10.3	
10.52	Purchase Agreement, dated as of March 13, 2017, among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Telekom AG.	8-K	3/16/2017	10.1	
10.53	Purchase Agreement, dated as of January 22, 2018, among T-Mobile USA, Inc., the guarantors party thereto and Deutsche Telekom AG.	8-K	1/25/2018	10.1	
10.54	Unsecured Revolving Credit Agreement, dated as of December 29, 2016, by and among T-Mobile US, Inc., T-Mobile USA, Inc., the several banks and other financial institutions or entities from time to time party thereto as lenders, and Deutsche Telekom AG, as administrative agent.	8-K	12/30/2016	10.1	
10.55	Amendment No. 1, dated as of March 29, 2018, to the Unsecured Revolving Credit Agreement, dated as of December 29, 2016, among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Telekom AG, as administrative agent and lender.	8-K	3/30/2018	10.3	
10.56	Secured Revolving Credit Agreement, dated as of December 29, 2016, by and among T-Mobile US, Inc., T-Mobile USA, Inc., the several banks and other financial institutions or entities from time to time party thereto as lenders, and Deutsche Telekom AG, as administrative agent.	8-K	12/30/2016	10.2	
10.57	Amendment No. 1, dated as of March 29, 2018, to the Secured Revolving Credit Agreement, dated as of December 29, 2016, among T-Mobile USA, Inc., T-Mobile US, Inc., the other guarantors party thereto and Deutsche Telekom AG, as administrative agent and lender.	8-K	3/30/2018	10.2	
10.58*	Amended and Restated MetroPCS Communications, Inc. 2004 Equity Incentive Compensation Plan.	S-1/A	2/27/2007	10.1(a)	
10.59*	MetroPCS Communications, Inc. 2010 Equity Incentive Compensation Plan.	Schedule 14A	4/19/2010	Annex A	
10.60*	Form Change in Control Agreement for MetroPCS Communications, Inc.	10-Q	8/9/2010	10.2	
10.61*	Form Change in Control Agreement Amendment for MetroPCS Communications, Inc.	10-Q	10/30/2012	10.1	
10.62*	MetroPCS Communications, Inc. Employee Non-qualified Stock Option Award Agreement relating to the MetroPCS Communications, Inc. Amended and Restated 2004 Equity Incentive Compensation Plan.	10-K	3/1/2013	10.9(a)	
10.63*	Form Amendment to the MetroPCS Communications, Inc. Notice of Grant of Stock Option relating to the Second Amended and Restated 1995 Stock Option Plan of MetroPCS, Inc.	10-Q	8/9/2010	10.5	
10.64*	Form MetroPCS Communications, Inc. 2010 Equity Incentive Compensation Plan Employee Non-Qualified Stock Option Award Agreement.	10-K	2/29/2012	10.12	
10.65*	Amended and Restated Employment Agreement of J. Braxton Carter dated as of December 20, 2017.	10-K	2/8/2018	10.69	
10.66*	First Amendment, dated as of April 28, 2018, to Amended and Restated Employment Agreement, dated as of December 20, 2017, between T-Mobile US, Inc. and J. Braxton Carter.	10-Q	5/1/2018	10.12	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.67*	Employment Agreement of Thomas C. Keys dated as of January 25, 2013.	8-K	5/2/2013	10.4	
10.68*	Amended and Restated Employment Agreement of John J. Legere dated as of March 28, 2017.	10-Q	4/24/2017	10.7	
10.69*	First Amendment, dated as of April 28, 2018, to Amended and Restated Employment Agreement, dated as of April 1, 2017, between T-Mobile US, Inc. and John Legere.	10-Q	5/1/2018	10.10	
10.70*	T-Mobile US, Inc. Amended and Restated Compensation Term Sheet for Michael Sievert Effective as of January 1, 2017.	10-Q	4/24/2017	10.6	
10.71*	First Amendment, dated as of April 28, 2018, to Updated Compensation Term Sheet, dated as of January 1, 2017, between T-Mobile US, Inc. and G. Michael Sievert.	10-Q	5/1/2018	10.11	
10.72*	Form of Severance Letter Agreement.	10-Q	5/1/2018	10.9	
10.73*	Form of Indemnification and Advancement Agreement.	10-K	2/8/2018	10.76	
10.74*	T-Mobile US, Inc. Non-Qualified Deferred Executive Compensation Plan (As Amended and Restated Effective as of January 1, 2014).	10-K	2/25/2014	10.39	
10.75*	First Amendment to T-Mobile US, Inc. Non-Qualified Deferred Executive Compensation Plan				X
10.76*	T-Mobile US, Inc. Executive Continuity Plan as Amended and Restated Effective as of January 1, 2014.	8-K	10/25/2013	10.1	
10.77*	T-Mobile US, Inc. 2013 Omnibus Incentive Plan (as amended and restated on August 7, 2013).	10-Q	8/8/2013	10.20	
10.78*	Amendment to T-Mobile US, Inc. 2013 Omnibus Incentive Plan (as amended and restated on August 7, 2013).	Schedule 14A	4/26/2018	Annex A	
10.79*	T-Mobile USA, Inc. 2011 Long-Term Incentive Plan.	10-Q	8/8/2013	10.21	
10.80*	Annual Incentive Award Notice under the 2013 Omnibus Incentive Plan.	10-K	2/25/2014	10.45	
10.81*	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors under the T-Mobile US, Inc. 2013 Omnibus Incentive Plan.	8-K	6/4/2013	10.2	
10.82*	Form of Restricted Stock Unit Award Agreement (Time-Vesting) for Executive Officers under the T-Mobile US, Inc. 2013 Omnibus Incentive Plan.	10-Q	8/8/2013	10.24	
10.83*	Form of Restricted Stock Unit Award Agreement (Performance-Vesting) for Executive Officers under the T-Mobile US, Inc. 2013 Omnibus Incentive Plan.	10-Q	8/8/2013	10.25	
10.84*	Form of Restricted Stock Unit Award Agreement (Performance-Vesting) with Deferral Option for Executive Officers under the T-Mobile US, Inc. 2013 Omnibus Incentive Plan.	10-K	2/19/2015	10.43	
10.85*	Form of Restricted Stock Unit Award Agreement (Time-Vesting) with Deferral Option for Executive Officers under the T-Mobile US, Inc. 2013 Omnibus Incentive Plan.	10-K	2/19/2015	10.44	
10.86*	T-Mobile US, Inc. 2014 Employee Stock Purchase Plan.	S-8	2/19/2015	99.1	
10.87*	Amended Director Compensation Program effective as of May 1, 2013 (amended June 4, 2014 and further amended on June 1, 2015, June 16, 2016 and June 13, 2017).	10-Q	7/20/2017	10.4	
10.88	Support Agreement, dated as of April 29, 2018, by and among SoftBank Group Corp., SoftBank Group Capital Limited, Starburst I, Inc., Galaxy Investment Holdings, Inc., T-Mobile US, Inc., and Deutsche Telekom AG.	8-K	04/30/2018	10.1	

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Exhibit No.	Exhibit Description	Incorporated by Reference			Filed Herein
		Form	Date of First Filing	Exhibit Number	
10.89	Commitment Letter, dated as of April 29, 2018, by and among T-Mobile USA, Inc. and the financial institutions party thereto.	8-K	04/30/2018	10.2	
10.90	Amended and Restated Commitment Letter, dated as of May 15, 2018, by and among T-Mobile USA, Inc. and the financial institutions party thereto.	8-K	05/17/2018	10.1	
10.91	Financing Matters Agreement, dated as of April 29, 2018, by and between T-Mobile USA, Inc. and Deutsche Telekom AG.	8-K	04/30/2018	10.3	
21.1	Subsidiaries of Registrant.				X
23.1	Consent of PricewaterhouseCoopers LLP.				X
24.1	Power of Attorney, pursuant to which amendments to this Form 10-K may be filed (included on the signature page contained in Part IV of the Form 10-K).	10-K	02/08/2018	24.1	
31.1	Certifications of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certifications of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1**	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2**	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document.				X
101.SCH	XBRL Taxonomy Extension Schema Document.				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.				X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.				X

* Indicates a management contract or compensatory plan or arrangement.

** Furnished herein.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

T-MOBILE US, INC.

February 6, 2019

/s/ John J. Legere

John J. Legere
Chief Executive Officer

Each person whose signature appears below constitutes and appoints John J. Legere and J. Braxton Carter, and each or either of them, his or her true and lawful attorney-in-fact and agent, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments or supplements (including post-effective amendments) to this Report, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated as of February 6, 2019 .

Signature

Title

/s/ John J. Legere

John J. Legere

Chief Executive Officer and
Director (Principal Executive Officer)

/s/ G. Michael Sievert

G. Michael Sievert

President and Chief Operating Officer
Director

/s/ J. Braxton Carter

J. Braxton Carter

Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

/s/ Peter Osvaldik

Peter Osvaldik

Senior Vice President, Finance and Chief Accounting
Officer (Principal Accounting Officer)

/s/ Timotheus Höttges

Timotheus Höttges

Chairman of the Board

/s/ Srikant Datar

Srikant Datar

Director

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/s/ Lawrence H. Guffey Director
Lawrence H. Guffey

/s/ Christian P. Illek Director
Christian P. Illek

/s/ Bruno Jacobfeuerborn Director
Bruno Jacobfeuerborn

/s/ Raphael Kübler Director
Raphael Kübler

/s/ Thorsten Langheim Director
Thorsten Langheim

/s/ Olaf Swantee Director
Olaf Swantee

/s/ Teresa A. Taylor Director
Teresa A. Taylor

/s/ Kelvin R. Westbrook Director
Kelvin R. Westbrook

THIRTY-NINTH SUPPLEMENTAL INDENTURE

THIRTY-NINTH SUPPLEMENTAL INDENTURE (this “*Thirty-Ninth Supplemental Indenture*”), dated as of December 20, 2018, among T-Mobile USA, Inc. (the “*Company*”), Magenta Ventures LLC (the “*New Guarantor*”), the existing guarantors signatory hereto (the “*Existing Guarantors*”) and Deutsche Bank Trust Company Americas, as trustee under the Indenture referred to below (the “*Trustee*”).

WITNESSETH:

WHEREAS, the Company has heretofore executed and delivered to the Trustee an Indenture, dated as of April 28, 2013 (the “*Base Indenture*”) as amended and supplemented with respect to the Company’s (a) Senior Reset Notes due 2023 pursuant to the Fifth Supplemental Indenture dated as of April 28, 2013 (the “*2023 Reset Notes*”), (b) 6.500% Senior Notes due 2024 pursuant to the Fifteenth Supplemental Indenture dated as of November 21, 2013 (the “*6.500% 2024 Notes*”), (c) 6.000% Senior Notes due 2023 pursuant to the Seventeenth Supplemental Indenture dated as of September 5, 2014 (the “*6.000% 2023 Notes*”), (d) 6.375% Senior Notes due 2025 pursuant to the Eighteenth Supplemental Indenture dated as of September 5, 2014 (the “*6.375% 2025 Notes*”), (e) 6.500% Senior Notes due 2026 pursuant to the Twentieth Supplemental Indenture dated as of November 5, 2015 (the “*6.500% 2026 Notes*”), (f) 6.000% Senior Notes due 2024 pursuant to the Twenty-First Supplemental Indenture dated as of April 1, 2016 (the “*6.000% 2024 Notes*”), (g) 4.000% Senior Notes due 2022 pursuant to the Twenty-Third Supplemental Indenture dated as of March 16, 2017 (the “*4.000% 2022 Notes*”), (h) 5.125% Senior Notes due 2025 pursuant to the Twenty-Fourth Supplemental Indenture dated as of March 16, 2017 (the “*5.125% 2025 Notes*”), (i) 5.375% Senior Notes due 2027 pursuant to the Twenty-Fifth Supplemental Indenture dated as of March 16, 2017 (the “*5.375% 2027 Notes*”), (j) 4.000% Senior Notes due 2022 pursuant to the Twenty-Sixth Supplemental Indenture dated as of April 27, 2017 (the “*4.000% 2022-1 Notes*”), (k) 5.125% Senior Notes due 2025-1 pursuant to the Twenty-Seventh Supplemental Indenture dated as of April 28, 2017 (the “*5.125% 2025-1 Notes*”), (l) 5.375% Senior Notes due 2027-1 pursuant to the Twenty-Eighth Supplemental Indenture dated as of April 28, 2017 (the “*5.375% 2027-1 Notes*”), (m) 5.300% Senior Notes due 2021 pursuant to the Twenty-Ninth Supplemental Indenture dated as of May 9, 2017 (the “*5.300% 2021 Notes*”), (n) 4.500% Senior Notes due 2026 pursuant to the Thirty-Second Supplemental Indenture dated as of January 25, 2018 (the “*4.500% 2026 Notes*”), (o) 4.750% Senior Notes due 2028 pursuant to the Thirty-Third Supplemental Indenture dated as of January 25, 2018 (the “*4.750% 2028 Notes*”), (p) 4.500% Senior Notes due 2026-1 pursuant to the Thirty-Fifth Supplemental Indenture dated as of April 30, 2018 (the “*4.500% 2026-1 Notes*”) and (q) 4.750% Senior Notes due 2028-1 pursuant to the Thirty-Sixth Supplemental Indenture dated as of April 30, 2018 (the “*4.750% 2028-1 Notes*”) and together with the 2023 Reset Notes, the 6.500% 2024 Notes, the 6.000% 2023 Notes, the 6.375% 2025 Notes, the 6.500% 2026 Notes, the 6.000% 2024 Notes, the 4.000% 2022 Notes, the 5.125% 2025 Notes, the 5.375% 2027 Notes, the 4.000% 2022-1 Notes, the 5.125% 2025-1 Notes, the 5.375% 2027-1 Notes, the 5.300% 2021 Notes, 4.500% 2026 Notes, the 4.750% 2028 Notes and the 4.500% 2026-1 Notes, the “*Notes*”), and as amended and supplemented by the Eleventh Supplemental Indenture dated as of May 1, 2013, the Twelfth Supplemental Indenture dated as of July 15, 2013, the Sixteenth

Supplemental Indenture dated as of August 11, 2014, the Nineteenth Supplemental Indenture dated as of September 28, 2015, the Twenty-Second Supplemental Indenture dated as of August 30, 2016, the Thirtieth Supplemental Indenture dated as of May 9, 2017, the Thirty-First Supplemental Indenture dated as of January 25, 2018, the Thirty-Fourth Supplemental Indenture dated as of April 26, 2018, the Thirty-Seventh Supplemental Indenture dated as of May 20, 2018 and the Thirty-Eighth Supplemental Indenture dated as of December 20, 2018 (the Base Indenture as so amended and supplemented, the “*Indenture*”);

WHEREAS, Section 4.17 of the Indenture provides that under certain circumstances the Company is required to cause the New Guarantor to execute and deliver to the Trustee a supplemental indenture pursuant to which the New Guarantor shall become a Guarantor of the applicable Notes on the terms and conditions set forth herein; and

WHEREAS, pursuant to Section 9.01 of the Indenture, the Trustee, the Company, the Existing Guarantors and the New Guarantor are authorized to execute and deliver this Thirty-Ninth Supplemental Indenture.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Company, the New Guarantor, the Existing Guarantors and the Trustee mutually covenant and agree for the benefit of the Holders of the applicable Notes as follows:

1. Defined Terms. As used in this Thirty-Ninth Supplemental Indenture, capitalized terms used but not defined herein shall have the meaning set forth in the Indenture. The words “herein,” “hereof” and “hereby” and other words of similar import used in this Thirty-Ninth Supplemental Indenture refer to this Thirty-Ninth Supplemental Indenture as a whole and not to any particular section hereof.

2. Agreement to Guarantee. The New Guarantor hereby agrees to unconditionally guarantee the Company’s obligations under the Notes and the Indenture on the terms and subject to the conditions set forth in the Indenture including but not limited to ARTICLE X thereof.

3. Notices. All notices or other communications to the Company and the New Guarantor shall be given as provided in Section 12.02 of the Indenture.

4. Ratification of Indenture; Supplemental Indentures Part of Indenture. Except as expressly contemplated hereby, the Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect.

5. Governing Law. THIS THIRTY-NINTH SUPPLEMENTAL INDENTURE WILL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK.

6. The Trustee. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Thirty-Ninth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the New Guarantor and the Company.

7. Counterpart Originals. This Thirty-Ninth Supplemental Indenture may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed will be deemed to be an original and all of which taken together will constitute one and the same agreement. The exchange of copies of this Thirty-Ninth Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Thirty-Ninth Supplemental Indenture as to the parties hereto and may be used in lieu of the original Thirty-Ninth Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF transmission shall be deemed to be their original signatures for all purposes. The parties may sign any number of copies of this Thirty-Ninth Supplemental Indenture. Each signed copy will be an original, but all of them together represent the same agreement.

8. Headings, etc. The headings of the Articles and Sections of this Thirty-Ninth Supplemental Indenture have been inserted for convenience of reference only, are not to be considered a part of this Thirty-Ninth Supplemental Indenture and will in no way modify or restrict any of the terms or provisions hereof.

[Signatures on following page]

IN WITNESS WHEREOF, the parties hereto have caused this Thirty-Ninth Supplemental Indenture to be duly executed, as of the date first above written.

MAGENTA VENTURES LLC

By: /s/ J. Braxton Carter
Name: J. Braxton Carter
Title: Executive Vice President and
Chief Financial Officer

[Thirty-Ninth Supplemental Indenture]

T-MOBILE USA, INC.

By: /s/ J. Braxton Carter
Name: J. Braxton Carter
Title: Executive Vice President and
Chief Financial Officer

T-MOBILE US, INC.

By: /s/ J. Braxton Carter
Name: J. Braxton Carter
Title: Executive Vice President and
Chief Financial Officer

[Thirty-Ninth Supplemental Indenture]

IBSV LLC
IOWA WIRELESS SERVICES, LLC
IOWA WIRELESS SERVICES HOLDING CORPORATION
METROPCS CALIFORNIA, LLC
METROPCS FLORIDA, LLC
METROPCS GEORGIA, LLC
METROPCS MASSACHUSETTS, LLC
METROPCS MICHIGAN, LLC
METROPCS NETWORKS CALIFORNIA, LLC
METROPCS NETWORKS FLORIDA, LLC
METROPCS NEVADA, LLC
METROPCS NEW YORK, LLC
METROPCS PENNSYLVANIA, LLC
METROPCS TEXAS, LLC
POWERTEL MEMPHIS LICENSES, INC.
POWERTEL/MEMPHIS, INC.
SUNCOM WIRELESS HOLDINGS, INC.
SUNCOM WIRELESS INVESTMENT COMPANY LLC
SUNCOM WIRELESS LICENSE COMPANY, LLC
SUNCOM WIRELESS MANAGEMENT COMPANY, INC.
SUNCOM WIRELESS OPERATING COMPANY, L.L.C.
SUNCOM WIRELESS PROPERTY COMPANY, L.L.C.
SUNCOM WIRELESS, INC.
T-MOBILE CENTRAL LLC
T-MOBILE FINANCIAL LLC
T-MOBILE LEASING LLC
T-MOBILE LICENSE LLC
T-MOBILE NORTHEAST LLC
T-MOBILE PCS HOLDINGS LLC
T-MOBILE PUERTO RICO HOLDINGS LLC
T-MOBILE PUERTO RICO LLC
T-MOBILE RESOURCES CORPORATION
T-MOBILE SOUTH LLC
T-MOBILE SUBSIDIARY IV CORPORATION
T-MOBILE WEST LLC
TRITON PCS FINANCE COMPANY, INC.
TRITON PCS HOLDINGS COMPANY L.L.C.
VOICESTREAM PCS I IOWA LLC

By: /s/ J. Braxton Carter
Name: J. Braxton Carter
Title: Authorized Person

DEUTSCHE BANK TRUST COMPANY AMERICAS, as Trustee

By: /s/ Jeffrey Schoenfeld
Name: Jeffrey Schoenfeld
Title: Vice President

By: /s/ Debra A. Schwalb
Name: Debra A. Schwalb
Title: Vice President

[Thirty-Ninth Supplemental Indenture]

**SETTLEMENT AGREEMENT AND
AMENDMENT NO. 2 TO MASTER AGREEMENT**

This **SETTLEMENT AGREEMENT AND AMENDMENT NO. 2 TO MASTER AGREEMENT** (this “*Amendment*”), dated and effective as of May 8th, 2014 (the “*Effective Date*”), is by and among the Persons identified on the signature pages to this Amendment as T-Mobile Contributors (collectively, “*T-Mobile Contributors*” and each, a “*T-Mobile Contributor*”), the Persons identified on the signature pages to this Amendment as T-Mobile SPEs (collectively, “*T-Mobile SPEs*” and each, a “*T-Mobile SPE*”), T-Mobile USA, Inc., a Delaware corporation (“*T-Mobile Parent*” and, together with the T-Mobile Contributors and the T-Mobile SPEs, the “*T-Mobile Parties*”), CCTMO LLC, a Delaware limited liability company (“*CCTMO*”), CCTM1 LLC (formerly known as T3 Tower 1 LLC) and CCTM2 LLC (formerly known as T3 Tower 2 LLC), each a Delaware limited liability company (collectively, “*Sale Site Subsidiaries*” and each, a “*Sale Site Subsidiary*”), and Crown Castle International Corp., a Delaware corporation (“*Crown*” and, together with CCTMO and the Sale Site Subsidiaries, the “*Crown Parties*”). Each of the Crown Parties and the T-Mobile Parties may hereafter be referred to as a “*Party*” and, collectively, as the “*Parties*”.

RECITALS:

A . The Parties (or their predecessors in interest) entered into that certain Master Agreement, dated as of September 28, 2012, as amended by Amendment No. 1 to Master Agreement, dated November 30, 2012 (as amended, supplemented, or otherwise modified from time to time, the “*Master Agreement*”);

B . The Parties were unable to agree upon the Final Site Designation and the Final Total TCF for each Portfolio Site in accordance with the procedures set forth in Section 3.3(a) and (b) of the Master Agreement; and

C . The Parties desire to: (i) settle any disagreements with respect to the Final Site Designation and the Final Total TCF for each Portfolio Site; (ii) mutually agree upon the Final Site Designation and the Final Total TCF for each Portfolio Site without submitting any such disagreements to the Settlement Firm; and (iii) make certain amendments to the Master Agreement and the Collateral Agreements as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, the Parties agree as follows:

1. Construction. Initially capitalized terms used and not otherwise defined in this Amendment have the meanings ascribed to them in the Master Agreement (as defined above and as amended hereby). The rules of construction set forth in Section 1.2 of the Master Agreement shall apply to this Amendment. All provisions of the Master Agreement and the Collateral Agreements that are not expressly amended by this Amendment will continue to remain binding on the Parties.
2. Final Site Designation and Final TCF for each Portfolio Site. Notwithstanding anything to the contrary in the Master Agreement (including in Section 3.3 of the Master Agreement) or any other Collateral Agreement, the Parties agree that: (i) the Final Site Designation, as of January 3, 2014, and the Final Total TCF for each Portfolio Site is set forth in Exhibit A attached hereto; (ii) such Final Total TCF for each Portfolio Site is conclusively binding on the Parties and final; and (iii) such Final Site Designation, as of January 3, 2014, is conclusively binding on the Parties and, subject to the terms and conditions of this Amendment (including Section 4 of this Amendment) and Sections 2.7(e), 4.2(a) and 4.2(b) of the Master Agreement, final. For the avoidance of doubt, the Parties acknowledge that, in accordance with Sections 4.2(a) and (b) of the Master Agreement, but subject to Section 4(a)(1) of this Amendment, if any outstanding Exceptions for a Portfolio Site shown as a Managed Site on Exhibit A attached hereto were cured on or prior to April 28, 2014, the resulting Site Designation for such Site will be used for purposes of the Settlement Technical Closing (as defined in Section 4 of this Amendment). Notwithstanding anything herein to the contrary, (i) pursuant to Section 2.7(e) of the Master Agreement, the Crown Parties' right to continue any of their efforts to cause the conversion of any remaining Managed Sites to Lease Sites or Assignable Sites, as applicable, shall not be diminished; and (ii) subject to Section 6 of this Amendment, the Parties' rights under the Master Agreement with respect to Authorizations or purported Authorizations obtained after April 28, 2014 shall not be modified by this Amendment.
3. Settlement Payment. In consideration of the Parties' entering into this Amendment, T-Mobile will make a single payment in immediately available funds by wire transfer to an account designated in writing by Crown in the aggregate amount of \$8.0 million (the "**Settlement Payment**") within ten (10) business days after the Effective Date and, subject to Section 4(a)(1) of this Amendment, such Settlement Payment and the rights provided under this Amendment will be the Parties' sole and exclusive remedy for any matters relating to Site Designations and the calculation of TCF, Supplemental TCF, Closing Total Consideration, Subsequent Closing Total CA/NV Consideration, and Final Total Consideration, and the Parties hereby acknowledge and agree that they are not entitled to, and expressly waive, any and all other rights and remedies that the Parties may have (including under Article 12 of the Master Agreement) relating to Site Designation and the calculation of TCF, Supplemental TCF, Closing Total Consideration, Subsequent Closing Total CA/NV Consideration, and Final Total Consideration.
4. Settlement Technical Closing. The Parties will conduct a Technical Closing (the "**Settlement Technical Closing**") in accordance with this Section 4, the other applicable provisions of this Amendment, and Section 2.7 of the Master Agreement on or before May 28, 2014 (the

“ **Settlement Technical Closing Date** ”). To facilitate the Settlement Technical Closing and preparation of the necessary closing documents, on or before May 9, 2014, the T-Mobile Parties will deliver to the Crown Parties a list identifying the T-Mobile Parties’ determination of any re-designated Portfolio Sites to which the Settlement Technical Closing will apply as contemplated by this Section 4 and any payments to be made with respect to any such Portfolio Sites under Section 4(a)(1) of this Amendment for any Portfolio Sites for which the Site Designations have been re-designated from the Final Site Designation on Exhibit A attached hereto as a result of any Authorizations obtained on or prior to the Final Closing Date (which the Parties acknowledge to be March 28, 2014). The Parties will use commercially reasonable efforts to mutually agree upon such list (with any changes as may be necessary so that such list is consistent with this Section 4) as soon as practicable after delivery of such list to Crown.

- (a) *Re-Designated Sites* . The Settlement Technical Closing will apply to those Portfolio Sites for which, as of April 28, 2014, the Site Designation has been re-designated from its original Site Designation on the Updated Site List or from the Final Site Designation on Exhibit A attached hereto; provided, however, that, notwithstanding the foregoing or anything to the contrary in the Master Agreement:
- (1) the only payments that the Crown Parties will be required to make to the T-Mobile Parties at and in connection with the Settlement Technical Closing will be, for each such re-designated Portfolio Site for which the Site Designation has been re-designated from the Final Site Designation on Exhibit A attached hereto as a result of Authorizations obtained on or prior to the Final Closing Date to a Lease Site or an Assignable Site, an amount equal to the product of 10% of the Final Total TCF multiplied by the TCF Multiple; provided, however, that the Crown Parties will not be required to make any payments with respect to the Portfolio Sites listed on Exhibit B attached hereto; and
 - (2) the T-Mobile Parties will not be obligated to make any additional payments under Section 3.5 of the Master Agreement or otherwise to the Crown Parties with respect to any such re-designated Portfolio Sites described in Section 4(a) above.
- (b) *Re-Designated Excluded Sites* . In addition, at the Settlement Technical Closing, subject to Section 11 of this Amendment, with respect to any Portfolio Site that has been re-designated as of the Settlement Technical Closing Date as an Excluded Site from its original Site Designation on the Updated Site List, the Parties will execute and deliver such documents and instruments as may be required to rescind the transaction that occurred with respect to such Portfolio Sites at the applicable Closing under the Master Agreement and the Collateral Agreements (such rescission to be deemed effective as of the applicable Closing); provided, however, that, for the avoidance of doubt, the Parties will not be obligated to make any additional payments

under Section 3.5 of the Master Agreement or otherwise with respect to, or as a result of, the rescission of any such Portfolio Sites.

- (c) *Other Re-Designated Sites* . In addition, at the Settlement Technical Closing, with respect to any Portfolio Site that has been re-designated as of the Settlement Technical Closing Date: (i) as a Non-Contributable Site or as a Non-Assignable Site from its original Site Designation on the Updated Site List; or (ii) as a Pre-Lease Site from its original Site Designation on the Updated Site List (other than if it were a Non-Contributable Site on the Updated Site List), the Parties will execute and deliver such documents and instruments as may be required to reflect such re-designation with respect to such Portfolio Sites; provided, however, that, for the avoidance of doubt, the Parties will not be obligated to make any additional payments under Section 3.5 of the Master Agreement or otherwise to the other Parties with respect to, or as a result of, the re-designation of any such Portfolio Sites.
5. Closing Conditions Satisfied . For purposes of Section 3.4(c) of the Master Agreement, the Parties agree that the Minimum Lease Site and Assignable Site Closing Condition and Minimum Contributable Site and Assignable Site Closing Condition were satisfied as of the Initial Closing Date, and would have been satisfied on the Initial Closing Date, irrespective of the Final Site Designation and Final Total TCF for each Portfolio Site.
6. Exhibit B Sites; Matters Related to Curing of Exceptions .
- (a) *Acknowledgement of Certain Cure Obligation* . Notwithstanding anything to the contrary in the Master Agreement, but subject to Section 6(c) of this Amendment, the T-Mobile Parties will not be required to cure any Exception required for any assignment or sublease of any Ground Lease for any of the Portfolio Sites listed on Exhibit B attached hereto that are Managed Sites.
- (b) *Exhibit B Sites that are Special Zoning Sites* . Subject to Section 6(c) of this Amendment, the Portfolio Sites listed on Exhibit B attached hereto designated as Special Zoning Sites shall continue to be Non-Contributable Sites unless Crown, at Crown's sole discretion, elects to cure any Exceptions causing such Portfolio Sites listed on Exhibit B attached hereto to be Special Zoning Sites.
- (c) *Cooperation to Cure Exceptions* . Subject to Section 6(d) of this Amendment, the Parties acknowledge their continuing obligations under Sections 4.2(a), 4.2(b), and 2.7(e)(ii) of the Master Agreement regarding uncured Exceptions (except that the Parties acknowledge and agree that such obligations arising under Sections 4.2(a) and (b) of the Master Agreement do not apply to the Portfolio Sites listed on Exhibit B attached hereto).
- (d) *Termination of Certain Cure Obligations* . The Parties agree that the T-Mobile Parties' obligations to cure any uncured Exceptions under the Master Agreement (other than under Section 2.7(e)(ii) of the Master Agreement) will terminate effective as of the Final Closing Date.

7. Mutual Releases. Each Party hereby releases, remises, acquits and forever discharges any and all Claims, at law or in equity, based upon, related to, arising out of, or having any connection with, any matters relating to Site Designations and the calculation of TCF, Supplemental TCF, Closing Total Consideration, Subsequent Closing Total CA/NV Consideration, and Final Total Consideration (including any payments that might otherwise be due and payable as a result of those determinations and calculations) that it may have had or claimed to have had, or now has or claims to have, or hereafter may have or claim to have, whether known or unknown, against the other Parties to this Amendment and their Affiliates, attorneys, agents, assigns, insurers, and any other Person that they represent in their capacity as such. For clarification, this release does not apply to (a) any obligations created or preserved by this Amendment, including the obligations described in Section 4 of this Amendment; or (b) any other payments or obligations required to be paid or performed by the Parties set forth in the Master Agreement or any other Collateral Agreement that are unrelated to Site Designations and the calculation of TCF, Supplemental TCF, Closing Total Consideration, Subsequent Closing Total CA/NV Consideration, and Final Total Consideration.
8. Covenant Not to Sue. Each Party covenants that it will not assert any Claim in any forum (including the Settlement Firm as set forth in Sections 3.3(c) or 4.4 of the Master Agreement) against the released Persons based upon, related to, arising out of, or having any connection with the matters released in Section 7 of this Amendment. For clarification, this covenant does not apply to breaches of this Amendment.
9. Covenant to Provide Consents. The T-Mobile Parties hereby covenant and agree to timely provide Crown with copies of any Ground Lessor consent that cures an Exception for a Portfolio Site that is received by the T-Mobile Parties after the Final Closing Date, notwithstanding that any such consent will not result in the payment of the Deferred Managed Site Consideration for any Portfolio Site converted after the Final Closing Date.
10. Warranty. Each Party warrants that the matters being released pursuant to this Amendment have not been assigned or otherwise transferred to any other person or entity.
11. Certain Sites.
 - (a) *Certain STC One LLC Site*. The T-Mobile Parties acknowledge and agree that the Portfolio Site identified as T-Mobile Tower ID IE04346A and Crown Business Unit Number 823327 (“**STC One Site**”) is and has been owned by STC One LLC (“**STC One**”) and that STC One’s ownership of the STC One Site predates the date of the Master Agreement. The T-Mobile Parties hereby quitclaim any right, title, and interest in the STC Site to STC One. Accordingly, the STC One Site shall be an Excluded Site, but the transactions that were consummated at the Initial Closing with respect to such Site need not and will not be rescinded to return the STC One Site to the T-Mobile Parties, but rather, such Site shall remain owned (as it always has been) by STC One.

- (b) *Certain CA/NV Sites* . Notwithstanding that the Portfolio Sites identified as T-Mobile Tower IDs IE04198A, IE04344A, LA02148A, LA02205A, SD06250A, SV00413A, and SF03099A are referred to as Assigned Sites (as that term is defined in the CA/NV Consent and Acknowledgement) in, and made a part of Schedule 1 to, the CA/NV Consent and Acknowledgement, the Parties hereby acknowledge and agree that such Portfolio Sites are Excluded Sites and, as such, have been, and continue to be Retained Sites subject to the Retained Site Lease and Sublease (as those terms are defined in the CA/NV Consent and Acknowledgement). The Parties hereby acknowledge and agree that (i) the site identified as T-Mobile Tower ID LA02233A, which was never a Portfolio Site, was inadvertently referred to in the CA/NV Consent and Acknowledgement as an Assigned Site, (ii) the Site identified as T-Mobile Tower ID LA02323A, which is a Portfolio Site, is an Assigned Site as referred to in the CA/NV Consent and Acknowledgement despite the fact that it was inadvertently omitted from the list of Assigned Sites attached as Schedule 1 to the CA/NV Consent and Acknowledgement, and (iii) the Site identified as T-Mobile Tower ID LA64151A, which is a Portfolio Site, replaced the site identified as T-Mobile Tower ID LA02233A, but is not a CA/NV Site and is not subject to the CA/NV Consent and Acknowledgement, the CA/NV Site Agreements, or any other agreements governing the CA/NV Sites, including the CA/NV Master Lease.

12. Other Outstanding Matters. This Amendment and the Settlement Payment made herein only settle and resolve all disputed matters relating to the Final Site Designation and the Final Total TCF and the related matters described in this Amendment. Any other contractual matters, obligations, covenants, obligations to pay or perform, disputes, or issues (irrespective of whether such items are addressed in the Master Agreement or the Collateral Agreements) by and among the T-Mobile Parties (or any of their affiliates) and the Crown Parties (or any of their affiliates) remain unaffected by this Amendment.
13. Entire Agreement; Modifications Only in Writing. This Amendment, the Master Agreement (as amended by this Amendment), and the Collateral Agreements (as amended by this Amendment) constitute the entire agreement between the Parties with respect to the subject matter hereof and thereof and supersede all prior agreements, both written and oral, between the Parties with respect to the subject matter hereof and thereof. This Amendment shall be binding upon and inure solely to the benefit of each Party and its successors and permitted assigns.
14. Representation by Counsel. The Parties agree that they have entered into this Amendment after having received competent advice from counsel of their choice with respect to this Amendment and all other matters related thereto.
15. Severability. If any provision of this Amendment is determined to be invalid for any reason, then that provision shall be severed from the Amendment, but the remainder of the Amendment shall be fully enforceable.
16. Counterparts. This Amendment may be executed in counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same agreement.

[*Remainder of page left blank. Signature pages follow.*]

SIGNATURE PAGE

IN WITNESS WHEREOF, this Amendment has been signed by or on behalf of each of the Parties as of the day first above written.

T-MOBILE :

T-MOBILE USA, INC.

By: /s/ Dirk Mosa_____

Name: Dirk Mosa

Title: SVP, Corporate Development and Roaming

T-MOBILE CONTRIBUTORS :

SUNCOM WIRELESS OPERATING COMPANY, L.L.C

**T-MOBILE CENTRAL LLC (SUCCESSOR IN INTEREST TO WIRELESS ALLIANCE, LLC
AND COOK INLET/V5 GSM IV PCS HOLDINGS, LLC)**

T-MOBILE SOUTH LLC

POWERTEL/MEMPHIS, INC.

VOICESTREAM PITTSBURGH, L.P.

T-MOBILE WEST LLC

T-MOBILE NORTHEAST LLC

SUNCOM WIRELESS PROPERTY COMPANY, L.L.C.

By: /s/ Dirk Mosa_____

Name: Dirk Mosa

Title: SVP, Corporate Development and Roaming

CROWN :

CROWN CASTLE INTERNATIONAL CORP.

By: /s/ E. Blake Hawk_____

Name: E. Blake Hawk

Title: Executive Vice President & General Counsel

TOWER OPERATOR :

CCTMO LLC

By: /s/ E. Blake Hawk_____

Name: E. Blake Hawk

[Signature Page to Settlement Agreement and Amendment No. 2 to Master Agreement]

Title: Executive Vice President & General Counsel

T-MOBILE SPEs

T-MOBILE USA TOWER LLC

By: /s/ Dirk Mosa
Name: Dirk Mosa
Title: SVP, Corporate Development and Roaming

T-MOBILE WEST TOWER LLC

By: /s/ Dirk Mosa
Name: Dirk Mosa
Title: SVP, Corporate Development and Roaming

SALE SITE SUBSIDIARIES:

CCTM1 LLC

CCTM2 LLC

By: /s/ E. Blake Hawk
Name: E. Blake Hawk
Title: Executive Vice President & General Counsel

[Signature Page to Settlement Agreement and Amendment No. 2 to Master Agreement]

Exhibit A

Final Site Designations and Final Total TCF

Attached

Exhibit B

Certain Portfolio Sites

Attached

SECOND AMENDMENT TO MPL SITE MASTER LEASE AGREEMENT

THIS SECOND AMENDMENT to MPL SITE MASTER LEASE AGREEMENT (this “**Second Amendment**”) is entered into effective as of October 31, 2014 (the “**Effective Date**”) by and among CCTMO LLC, a Delaware limited liability company (“**CCTMO**”), T-Mobile USA, Inc., a Delaware corporation (“**T-Mobile Parent**”), and each T-Mobile Collocator entity named on the signature pages below (“**T-Mobile Collocators**”). Each T-Mobile Collocator, T-Mobile Parent and CCTMO may hereinafter be referred to individually as the “**Party**” or collectively as the “**Parties**”. T-Mobile West Tower LLC and T-Mobile USA Tower LLC, the “**T-Mobile SPEs**” in the certain Management Agreement between and among the T-Mobile SPEs, the T-Mobile Contributors, the Tower Operator and the Sale Site Subsidiaries named therein, dated as of November 30, 2012, hereby join in this Second Amendment for the sole purpose of consenting to the form of T-Mobile Tower Equipment Approval and the process for its use as described herein with respect to Managed Sites that are subject to the Management Agreement.

RECITALS:

WHEREAS, the T-Mobile Collocators (including Wireless Alliance, LLC which subsequently merged into T-Mobile Central LLC), the T-Mobile Parent and CCTMO entered into a certain MPL Site Master Lease Agreement dated as of November 30, 2012, which was amended by a certain First Amendment to MPL Site Master Lease Agreement dated effective as of November 30, 2012 (as amended, the “**MLA**”); and

WHEREAS, the Parties intend to agree upon a form of amendment to be used to amend Site Lease Agreements executed pursuant to the MLA (the “**SLA**” or “**SLAs**”) only when CCTMO has approved a T-Mobile Collocator application to install and operate Communications Equipment at a Site that meets the definition of “T-Mobile Reserved Amount of Tower Equipment” as set forth in Section 9(c) of the MLA, without any increase in the T-Mobile Total Rent Amount (or “**Use Fees**” if the Site is a Managed Site).

AGREEMENT:

NOW THEREFORE, in consideration of the foregoing and the representations, warranties and agreements contained in this Second Amendment, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

- 1) **Recitals and Defined Terms**. The foregoing recitals are incorporated herein. Capitalized terms shall have the same meanings set forth in the MLA, unless otherwise defined herein.
- 2) **Form of T-Mobile Reserved Amount of Tower Equipment Approval**. The parties hereto agree that in the event that CCTMO approves the application of a T-Mobile Collocator to install and operate at a Site, additional T-Mobile Communications Equipment that meets the definition of and conforms to the parameters of “T-Mobile Reserved Amount of Tower Equipment” as set forth in Section 9(c) of the MLA and which therefore may be installed (provided all other requirements of the MLA are satisfied), without any increase in the T-Mobile Total Rent Amount (or “**Use Fees**” if the Site is a Managed Site) then the form of T-Mobile Tower Equipment Approval, attached hereto as Exhibit A shall be used to amend the subject SLA.

3) **Deemed Approval of T-Mobile Tower Equipment Approval, Enforceability** . If the subject T-Mobile Collocator or its designated contractor does not deliver written objection to the terms of a T-Mobile Tower Equipment Approval, that was properly prepared by CCTMO and delivered to said T-Mobile Collocator in accordance with this Second Amendment, within sixty (60) days of the date of its delivery to T-Mobile Collocator or its designated contractor, then the subject T-Mobile Tower Equipment Approval shall be deemed to have been approved by T-Mobile and it shall be fully enforceable and legally binding on CCTMO and the T-Mobile Collocator that is party to the subject SLA, to the same extent as if it had been manually executed by both parties.

4) **Effect of Amendment; Conflicts.** Except as previously amended and as amended by this Second Amendment, the MLA shall remain in full force and effect. In the event of a conflict between the terms of the MLA and this Second Amendment, the terms of this Second Amendment shall govern and control the obligations and liabilities of the Parties.

5) **Counterparts; Scanned.** This Second Amendment may be executed by original, facsimile, or electronic signatures (complying with the U.S. Federal ESIGN Act of 2000, 15 U.S.C. 96) and in any number of counterparts which will be considered one instrument. Counterparts, signed facsimile and electronic copies of this Agreement will legally bind the Parties to the same extent as original documents.

IN WITNESS WHEREOF , the parties have executed this Second Amendment as of the Effective Date.

T-Mobile Collocators:

Suncom Wireless Operating Company, L.L.C.

Cook Inlet/VS GSM IV PCS Holdings, LLC

T-Mobile Central LLC

T-Mobile South LLC

Powertel/Memphis, Inc.

Voicestream Pittsburgh, L.P.

T-Mobile West LLC

T-Mobile Northeast LLC

Suncom Wireless Property Company, L.C.C.

By: /s/ Allan Tantillo

Name: Allan Tantillo

Title: Director

T-Mobile Parent:

T-Mobile USA, Inc.

By: /s/ Dave Mayo
Name: Dave Mayo
Title: SVP

CCTMO LLC

By: CCTM Holdings LLC, Sole Member

By: /s/ Patrick Slowey
Name: Patrick Slowey
Title: Senior Vice President

T-Mobile West Tower LLC (joining solely for the purposes described in the first paragraph above)

By: /s/ Allan Tantillo
Name: Allan Tantillo
Title: Director

T-Mobile USA Tower LLC (joining solely for the purposes described in the first paragraph above)

By: /s/ Allan Tantillo
Name: Allan Tantillo
Title: Director

EXHIBIT A

**T-MOBILE TOWER EQUIPMENT APPROVAL
For Equipment within the T-Mobile Reserved Amount of Tower Equipment**

This T-Mobile Tower Equipment Approval (" **Approval** ") is sent and agreed upon pursuant and subject to that certain [INSERT either "Second Amendment to MPL Site Master Lease Agreement" or "Second Amendment to Sale Site Master Lease Agreement", as applicable] _____, dated _____, 2014 (the " **Second Amendment** ") and subject to the certain [INSERT either "MPL Site Master Lease Agreement" or "Sale Site Master Lease Agreement", as applicable] _____, dated November 30, 2012, entered into by and among [INSERT either "CCTMO LLC ("Crown")" if the site is subject to the MPL Site MLA, or "CCTM1 LLC and CCTM2 LLC (collectively, and each individually, "Crown")" if the site is subject to the Sale Site MLA] _____, T-Mobile USA, Inc. and the T-Mobile Collocator entities identified therein, as amended (the " **MLA** "). The T-Mobile Collocator entity that is party to the Site Location Agreement identified below (the " **SLA** ") is referred to herein as " **T-Mobile** ". This Approval amends the SLA to permit the installation and operation of certain Communications Equipment that meets the definition of " **T-Mobile Reserved Amount of Tower Equipment** " as set forth in Section 9(c) of the MLA, without any increase in the T-Mobile Total Rent Amount (or " **Use Fees** " if the Site is a Managed Site) at the Site identified below (the " **Site** ").

AMENDMENT OF SLA TO PERMIT NEW EQUIPMENT: The new T-Mobile Communications Equipment described in ATTACHMENT A hereto (the " **New Equipment** ") and modifications to the existing T-Mobile Communications Equipment, if any, described in ATTACHMENT A hereto (the " **Modifications** ") have been determined to be within the parameters of the T-Mobile Reserved Amount of Tower Equipment, and the SLA is hereby amended to permit the New Equipment to be installed and operated on the Site and the performance of the other Modifications, if any, as described in ATTACHMENT A . This Approval has no effect on T-Mobile's existing rights to use ground space at the Site.

Pursuant and subject to the Second Amendment and the MLA, if T-Mobile or its designated contractor does not deliver written objection to the terms of this Approval to Crown within sixty (60) days of the date of its delivery to T-Mobile or its designated contractor, this Approval shall be deemed to have been approved by T-Mobile.

Crown Identifiers:

BU#:	Existing Agreement#:
Site Name:	Application #:
	Application Revision #:

T-Mobile Identifier:

Site ID:

ATTACHMENT A

[INSERT COPY OF APPROVED SITE ENGINEERING APPLICATION]

SECOND AMENDMENT TO SALE SITE MASTER LEASE AGREEMENT

THIS SECOND AMENDMENT to SALESITE MASTER LEASE AGREEMENT (this “**Second Amendment**”) is entered into effective as of October 31, 2014 (the “**Effective Date**”) by and among CCTM1 LLC, a Delaware limited liability company, formerly T3 Tower 1 LLC (“**CCTM1**”), CCTM2 LLC, a Delaware limited liability company, formerly T3 Tower 2 LLC (“**CCTM2**”), T-Mobile USA, Inc., a Delaware corporation (“**T-Mobile Parent**”), and each T-Mobile Collocator entity named on the signature pages below (“**T-Mobile Collocators**”). Each T-Mobile Collocator, T-Mobile Parent, CCTM1 and CCTM2 may hereinafter be referred to individually as the “**Party**” or collectively as the “**Parties**”. T-Mobile West Tower LLC and T-Mobile USA Tower LLC, the “**T-Mobile SPEs**” in the certain Management Agreement between and among the T-Mobile SPEs, the T-Mobile Contributors, the Tower Operator and the Sale Site Subsidiaries named therein, dated as of November 30, 2012, hereby join in this Second Amendment for the sole purpose of consenting to the form of T-Mobile Tower Equipment Approval and the process for its use as described herein with respect to Managed Sites that are subject to the Management Agreement.

RECITALS:

WHEREAS, the T-Mobile Collocators (including Wireless Alliance, LLC which subsequently merged into T-Mobile Central LLC), the T-Mobile Parent, T3 Tower 1 LLC and T3 Tower 2 LLC entered into a certain Sale Site Master Lease Agreement dated as of November 30, 2012, which was amended by a certain First Amendment to Sale Site Master Lease Agreement dated effective as of November 30, 2012 (as amended, the “**MLA**”); and

WHEREAS, the Parties intend to agree upon a form of amendment to be used to amend Site Lease Agreements executed pursuant to the MLA (the “**SLA**” or “**SLAs**”) only when CCTM1 or CCTM2, as the case may be, has approved a T-Mobile Collocator application to install and operate Communications Equipment at a Site that meets the definition of “**T-Mobile Reserved Amount of Tower Equipment**” as set forth in Section 9(c) of the MLA, without any increase in the T-Mobile Total Rent Amount (or “**Use Fees**” if the Site is a Managed Site).

AGREEMENT:

NOW THEREFORE, in consideration of the foregoing and the representations, warranties and agreements contained in this Second Amendment, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

- 1) **Recitals and Defined Terms**. The foregoing recitals are incorporated herein. Capitalized terms shall have the same meanings set forth in the MLA, unless otherwise defined herein.
- 2) **Form of T-Mobile Reserved Amount of Tower Equipment Approval**. The parties hereto agree that in the event that CCTM1 or CCTM2, as the case may be, approves the application of a T-Mobile Collocator to install and operate at a Site, additional T-Mobile Communications Equipment that meets the definition of and conforms to the parameters of “**T-Mobile Reserved Amount of Tower Equipment**” as set forth in Section 9(c) of the MLA and which therefore may be installed (provided all other requirements of the MLA

are satisfied), without any increase in the T-Mobile Total Rent Amount (or “ **Use Fees** ” if the Site is a Managed Site) then the form of T-Mobile Tower Equipment Approval, attached hereto as Exhibit A shall be used to amend the subject SLA.

3) Deemed Approval of T-Mobile Tower Equipment Approval, Enforceability . If the subject T-Mobile Collocator or its designated contractor does not deliver written objection to the terms of a T-Mobile Tower Equipment Approval, that was properly prepared by CCTM1 or CCTM2, as the case may be and delivered to said T-Mobile Collocator in accordance with this Second Amendment, within thirty (30) days of the date of its delivery to T-Mobile Collocator or its designated contractor, then the subject T-Mobile Tower Equipment Approval shall be deemed to have been approved by T-Mobile and it shall be fully enforceable and legally binding on CCTM1, or CCTM2 as the case may be and the T-Mobile Collocator that is party to the subject SLA, to the same extent as if it had been manually executed by both parties.

4) Effect of Amendment; Conflicts. Except as previously amended and as amended by this Second Amendment, the MLA shall remain in full force and effect. In the event of a conflict between the terms of the MLA and this Second Amendment, the terms of this Second Amendment shall govern and control the obligations and liabilities of the Parties.

5) Execution; Duplicate Counterparts. This Second Amendment may be executed by original, facsimile, or electronic signatures (complying with the U.S. Federal ESIGN Act of 2000, 15 U.S.C. 96) and in any number of counterparts which will be considered one instrument. Counterparts, signed facsimile and electronic copies of this Agreement will legally bind the Parties to the same extent as original documents.

IN WITNESS WHEREOF , the parties have executed this Second Amendment as of the Effective Date.

T-Mobile Collocators:

Suncom Wireless Operating Company, L.L.C.

Cook Inlet/VS GSM IV PCS Holdings, LLC

T-Mobile Central LLC

T-Mobile South LLC

Powertel/Memphis, Inc.

Voicestream Pittsburgh, L.P.

T-Mobile West LLC

T-Mobile Northeast LLC

(continued on next page)

T-Mobile Collocators (continued):

Suncom Wireless Property Company, L.C.C.

By: /s/ Allan Tantillo
Name: Allan Tantillo
Title: Director

T-Mobile Parent:

T-Mobile USA, Inc.

By: /s/ Dave Mayo
Name: Dave Mayo
Title: SVP

CCTM1 LLC

CCTM2 LLC

By: /s/ Patrick Slowey
Name: Patrick Slowey
Title: Senior Vice President

By: CCTM Holdings LLC, their Sole Member

By: /s/ Patrick Slowey
Name: Patrick Slowey
Title: Senior Vice President

T-Mobile West Tower LLC (joining solely for the purposes described in the first paragraph above)

By: /s/ Allan Tantillo
Name: Allan Tantillo
Title: Director

T-Mobile USA Tower LLC (joining solely for the purposes described in the first paragraph above)

By: /s/ Allan Tantillo
Name: Allan Tantillo
Title: Director

EXHIBIT A

**T-MOBILE TOWER EQUIPMENT APPROVAL
For Equipment within the T-Mobile Reserved Amount of Tower Equipment**

This T-Mobile Tower Equipment Approval (" **Approval** ") is sent and agreed upon pursuant and subject to that certain [INSERT either "Second Amendment to MPL Site Master Lease Agreement" or "Second Amendment to Sale Site Master Lease Agreement", as applicable] _____, dated _____, 2014 (the " **Second Amendment** ") and subject to the certain [INSERT either "MPL Site Master Lease Agreement" or "Sale Site Master Lease Agreement", as applicable] _____, dated November 30, 2012, entered into by and among [INSERT either "CCTMO LLC ("Crown")" if the site is subject to the MPL Site MLA, or "CCTM1 LLC and CCTM2 LLC (collectively, and each individually, "Crown")" if the site is subject to the Sale Site MLA] _____, T-Mobile USA, Inc. and the T-Mobile Collocator entities identified therein, as amended (the " **MLA** "). The T-Mobile Collocator entity that is party to the Site Location Agreement identified below (the " **SLA** ") is referred to herein as " **T-Mobile** ". This Approval amends the SLA to permit the installation and operation of certain Communications Equipment that meets the definition of " **T-Mobile Reserved Amount of Tower Equipment** " as set forth in Section 9(c) of the MLA, without any increase in the T-Mobile Total Rent Amount (or " **Use Fees** " if the Site is a Managed Site) at the Site identified below (the " **Site** ").

AMENDMENT OF SLA TO PERMIT NEW EQUIPMENT: The new T-Mobile Communications Equipment described in ATTACHMENT A hereto (the " **New Equipment** ") and modifications to the existing T-Mobile Communications Equipment, if any, described in ATTACHMENT A hereto (the " **Modifications** ") have been determined to be within the parameters of the T-Mobile Reserved Amount of Tower Equipment, and the SLA is hereby amended to permit the New Equipment to be installed and operated on the Site and the performance of the other Modifications, if any, as described in ATTACHMENT A . This Approval has no effect on T-Mobile's existing rights to use ground space at the Site.

Pursuant and subject to the Second Amendment and the MLA, if T-Mobile or its designated contractor does not deliver written objection to the terms of this Approval to Crown within sixty (60) days of the date of its delivery to T-Mobile or its designated contractor, this Approval shall be deemed to have been approved by T-Mobile.

Crown Identifiers:

BU#:	Existing Agreement#:
Site Name:	Application #:
	Application Revision #:

T-Mobile Identifier:

Site ID:

ATTACHMENT A

[INSERT COPY OF APPROVED SITE ENGINEERING APPLICATION]

SETTLEMENT TECHNICAL CLOSING AGREEMENT

This **SETTLEMENT TECHNICAL CLOSING AGREEMENT** (this “*Agreement*”), dated as of October 1, 2014 (the “*Settlement Technical Closing Date*”), is by and among the Persons identified on the signature page to this Agreement as T-Mobile Contributors (collectively, the “*T-Mobile Contributors*” and each, a “*T-Mobile Contributor*”), the Persons identified on the signature page to this Agreement as T-Mobile SPEs (collectively, the “*T-Mobile SPEs*” and each, a “*T-Mobile SPE*”), T-Mobile USA, Inc., a Delaware corporation (“*T-Mobile Parent*” and, together with the T-Mobile Contributors and the T-Mobile SPEs, the “*T-Mobile Parties*”), CCTMO LLC, a Delaware limited liability company (“*CCTMO*”), CCTM1 LLC (formerly known as T3 Tower 1 LLC) and CCTM2 LLC (formerly known as T3 Tower 2 LLC), each a Delaware limited liability company (together, the “*Sale Site Subsidiaries*” and each, a “*Sale Site Subsidiary*”), and Crown Castle International Corp., a Delaware corporation (“*Crown*” and, collectively with CCTMO and the Sale Site Subsidiaries, the “*Crown Parties*”). Each of the Crown Parties and the T-Mobile Parties may hereafter be referred to as a “*Party*” and, collectively, as the “*Parties*”.

RECITALS:

- A. The Parties (or their predecessors in interest) are parties to that certain Master Agreement, dated as of September 28, 2012 (as amended by: (i) Amendment No. 1 to Master Agreement, dated as of November 30, 2012; and (ii) that certain Settlement Agreement and Amendment No. 2 to Master Agreement, dated as of May 8, 2014 (the “*Settlement Agreement*”)) (as so amended the “*Master Agreement*”).
- B. At or in connection with the Initial Closing:
- (i) the T-Mobile SPEs, T-Mobile Parent, and CCTMO entered into that certain Master Prepaid Lease, dated as of November 30, 2012 (as amended, modified, and supplemented from time to time, the “*MPL*”);
 - (ii) CCTMO, T-Mobile Parent, and the T-Mobile Contributors entered into that certain MPL Site Master Lease Agreement, dated as of November 30, 2012 (as amended, modified, and supplemented from time to time, the “*MPL Site MLA*”);
 - (iii) the Sale Site Subsidiaries, the T-Mobile Contributors, and T-Mobile Parent entered into that certain Sale Site Master Lease Agreement, dated as of November 30, 2012 (as amended, modified, and supplemented from time to time, the “*Sale Site MLA*”);
 - (iv) the T-Mobile Contributors, the T-Mobile SPEs, CCTMO, and the Sale Site Subsidiaries entered into that certain Management Agreement, dated as of November 30, 2012 (as amended, modified, and supplemented from time to time, the “*Management Agreement*”);
 - (v) the T-Mobile SPEs and CCTMO entered into that certain General Assignment and Assumption Agreement, dated as of November 30, 2012 (the “*General Assignment*”); and
-

(vi) the Parties and/or their Affiliates executed and delivered certain other Collateral Agreements.

C. Pursuant to the Settlement Agreement, the Parties agreed to conduct a Settlement Technical Closing (as defined in the Settlement Agreement) with respect to each Settlement Technical Closing Site (as defined below) on or before May 28, 2014, but subsequently agreed to delay such Settlement Technical Closing.

D. The Parties now desire to: (i) conduct the Settlement Technical Closing with respect to each Settlement Technical Closing Site in accordance with Section 4 of the Settlement Agreement and the other applicable provisions of the Settlement Agreement and the Master Agreement (including Section 2.6(c) and Section 2.7 of the Master Agreement); and (ii) amend the applicable Collateral Agreements (including certain Exhibits and Schedules thereto) and take certain other actions to consummate the Settlement Technical Closing.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, the Parties agree as follows:

1. Definitions. Initially capitalized terms used and not defined herein have the meanings set forth in the Master Agreement. In addition, the following terms will have the meanings set forth below:
 - (a) “**Effective Date**” means, for each Natural Conversion Site, Reversion Site, and Rescission Site, the applicable “Effective Date” set forth on Schedule A hereto.
 - (b) “**Final Site Designation**” means, for each Portfolio Site, the applicable “Final Site Designation” set forth on Exhibit A to the Settlement Agreement, as more particularly set forth on Schedule A hereto.
 - (c) “**Initial Closing Site Designation**” means, for each Portfolio Site, the Site Designation used for such Portfolio Site at the Initial Closing, as more particularly set forth on Schedule A hereto.
 - (d) “**Natural Conversion Site**” means each Portfolio Site for which: (i) its Initial Closing Site Designation is either “Non-Contributable Site”, “Pre-Lease Site”, or “Non-Assignable Site”; and (ii) its Settlement Technical Closing Site Designation is either “Lease Site”, “Pre-Lease Site”, or “Assignable Site”; provided, however, that, notwithstanding the foregoing, Natural Conversion Sites do not include any Portfolio Site for which its Initial Closing Site Designation and Settlement Technical Closing Site Designation are each “Pre-Lease Site”.
 - (e) “**Rescission Site**” means each Portfolio Site for which: (i) its Initial Closing Site Designation is not “Excluded Site”; and (ii) its Settlement Technical Closing Site Designation is “Excluded Site”. For the avoidance of doubt, Rescission Sites are subject to Section 4(b) of the Settlement Agreement.

- (f) **“Reversion Site”** means each Portfolio Site for which: (i) its Initial Closing Site Designation is either “Lease Site”, “Pre-Lease Site”, or “Assignable Site”; and (ii) its Settlement Technical Closing Site Designation is either “Non-Contributable Site”, “Pre-Lease Site”, or “Non-Assignable Site”; provided, however, that, notwithstanding the foregoing, Reversion Sites do not include any Portfolio Site for which its Initial Closing Site Designation and Settlement Technical Closing Site Designation are each “Pre-Lease Site”. For the avoidance of doubt, Reversion Sites are subject to Section 4(c) of the Settlement Agreement.
 - (g) **“Settlement Agreement Date”** means May 8, 2014, which is the effective date of the Settlement Agreement.
 - (h) **“Settlement Technical Closing Site”** means each Portfolio Site for which its Settlement Technical Closing Site Designation changed either from the Initial Closing Site Designation or the Final Site Designation.
 - (i) **“Settlement Technical Closing Site Designation”** means, for each Portfolio Site, the applicable “Settlement Technical Closing Site Designation” as of the Settlement Technical Closing Site Designation Date, as more particularly set forth on Schedule A hereto.
 - (j) **“Settlement Technical Closing Site Designation Date”** means May 16, 2014.
 - (k) **“Transfer Site”** means each Natural Conversion Site and each Reversion Site.
2. Settlement Technical Closing Payment. On the Settlement Technical Closing Date, the Crown Parties will pay to the T-Mobile Parties \$5,478,448 (the **“Settlement Technical Closing Payment”**) in immediately available funds by wire transfer to an account designated in writing by the T-Mobile Parties. The Settlement Technical Closing Payment is the aggregate payment contemplated by Section 4(a)(1) of the Settlement Agreement, which aggregate payment is equal to the sum of all “Settlement Technical Closing Payments” listed on Schedule A hereto for those Settlement Technical Closing Sites for which such payment is due.
3. Master Portfolio Site List; Amendment of Collateral Agreements.
- (a) *Master Portfolio Site List*. The Parties acknowledge and agree that: (i) the Site Designation for each Portfolio Site as of the Settlement Technical Closing Site Designation Date was its Settlement Technical Closing Site Designation; and (ii) each Portfolio Site shall continue to be treated as a Portfolio Site with such a Site Designation (to the extent applicable, subject to any future Conversion Closing of such Portfolio Site), subject to the provisions of the Master Agreement and the Collateral Agreements.

- (b) *Amendment of Collateral Agreements* . The Parties agree that, from and after the applicable Effective Date (which may be earlier than the Settlement Technical Closing Site Designation Date) for each Settlement Technical Closing Site: (i) if and to the extent applicable, Exhibit A and Exhibit B of the MPL, Exhibit A and Exhibit B of the MPL Site MLA, Exhibit A and Exhibit B of the Sale Site MLA, and Exhibit A-1 , Exhibit A-2 , and Exhibit A-3 of the Management Agreement shall be deemed to have been amended to be consistent with the Settlement Technical Closing Site Designation and other information for such Settlement Technical Closing Site set forth on Schedule A hereto; and (ii) to the extent that any other Exhibits or Schedules in the Collateral Agreements are inconsistent with the Settlement Technical Closing Site Designation or other information for such Settlement Technical Closing Site set forth on Schedule A hereto, the Settlement Technical Closing Site Designation and other information on Schedule A hereto for such Settlement Technical Closing Site will control. For the avoidance of doubt, the Parties acknowledge and agree that the intent and effect of the amendments in this Section 3(b) is, among others, that, subject to the other terms and conditions of this Agreement, the applicable Transfer Sites and the related Included Property becoming: (A) subject to the MPL will be deemed to have been leased to CCTMO by the applicable T-Mobile SPE as if originally subject to the MPL as of the applicable Effective Date; (B) subject to the MPL Site MLA as Leased Sites will be deemed to have been leased to the applicable T-Mobile Contributor by CCTMO to the same extent as if originally subject to the MPL Site MLA as Leased Sites as of the applicable Effective Date; (C) subject to the Sale Site MLA as Assignable Sites will be deemed to have been leased to the applicable T-Mobile Contributor by the applicable Sale Site Subsidiary to the same extent as if originally subject to the Sale Site MLA as Assignable Sites as of the applicable Effective Date; and (D) subject to the Management Agreement will be deemed to have been managed by CCTMO or the applicable Sale Site Subsidiary, as applicable, for the benefit of the applicable T-Mobile Contributor or T-Mobile SPE as if originally subject to the Management Agreement as of the applicable Effective Date.
- (c) *One-Time Change of Site Designation* . The Parties agree that the Settlement Technical Closing Site Designation for Site ID# SC54512A / BU 828131 is “Pre-Lease Site”, notwithstanding that the Final Site Designation for such Portfolio Site is “Lease Site” in the Settlement Agreement; provided, however, the Parties acknowledge and agree that nothing in this Section 3(c) constitutes a course of dealing, commitment, or obligation to make any other changes to such Final Site Designations for any other Portfolio Sites, unless otherwise required by the Master Agreement and the Collateral Agreements.

4. Transfer of Transfer Sites and Other Settlement Technical Closing Transactions .

- (a) *Transfer and Assumption - General*. Subject to Section 4(d) below and the applicable provisions of the Settlement Agreement, the Master Agreement, and the other Collateral Agreements, for each Transfer Site, effective as of the applicable Effective Date:
- (i) the Site Designation for such Transfer Site changed to its Settlement Technical Closing Site Designation;

- (ii) except for Transfer Sites where the Transferor is listed as “no entity change” on Schedule A hereto, the applicable “Transferor” identified on Schedule A hereto (each, a “**Transferor**”) shall be deemed to have sold, assigned, conveyed, transferred, and delivered, free and clear of all Liens (except for Permitted Encumbrances), to the applicable “Transferee” identified on Schedule A hereto (each, a “**Transferee**”), and such Transferee shall be deemed to have accepted all of such Transferor’s right, title, and interest in, to, and under the following items, excluding any Excluded Assets if the applicable Transferor is a T-Mobile Party:
- (A) such Transfer Site;
 - (B) the related Included Property;
 - (C) any Ground Leases (including any applicable New Agreements as defined in Section 4(d)) relating to such Transfer Site; and
 - (D) any Collocation Agreements (including any applicable New Agreements as defined in Section 4(d)) relating to such Transfer Site, if its Settlement Technical Closing Site Designation is either: (1) “Pre-Lease Site” and its Initial Closing Site Designation is “Non-Contributable Site”, (2) “Assignable Site”, (3) “Non-Contributable Site” and its Initial Closing Site Designation is “Pre-Lease Site”, or (4) “Non-Assignable Site”;
- (iii) if the Settlement Technical Closing Site Designation for such Transfer Site is “Non-Assignable Site”, then, without limiting any provision of the Management Agreement, the Master Agreement, or the other Collateral Agreements, the applicable Transferor shall be deemed to have delegated to the applicable Transferee, and the applicable Transferee shall be deemed to have assumed, the portion of the Post-Closing Liabilities of the Crown Parties, if any, relating to, arising out of or that are in connection with the operation, use, or occupancy of such Transfer Site after the applicable Effective Date;
- (iv) if the Settlement Technical Closing Site Designation for such Transfer Site is either: (1) “Pre-Lease Site” and its Initial Closing Site Designation is “Non-Contributable Site”, or (2) “Assignable Site”, then, without limiting any provision of the Master Agreement or any Collateral Agreement or Section 4(a)(v) below, the applicable Transferor shall be deemed to have delegated to the applicable

Transferee, and the applicable Transferee shall be deemed to have assumed, the portion of the Post-Closing Liabilities of the T-Mobile Parties, if any, relating to, arising out of or that are in connection with the operation, use, or occupancy of such Transfer Site after the applicable Effective Date;

- (v) if the Settlement Technical Closing Site Designation for such Transfer Site is “Lease Site”, then:
 - (A) subject to Section 6(e) of the MPL, the applicable Transferor (or, if the Transferor is listed as “no entity change” on Schedule A hereto, the applicable T-Mobile SPE) sold, assigned, conveyed, transferred and delivered to CCTMO, and CCTMO accepted, all of such Transferor’s (or, as applicable, the T-Mobile SPE’s) right, title, and interest in, to, and under any Collocation Agreements (including any applicable New Agreements as defined in Section 4(d)) relating to such Transfer Site; and
 - (B) the applicable Transferor (or, if the Transferor is listed as “no entity change” on Schedule A hereto, the applicable T-Mobile SPE) delegated to CCTMO, and CCTMO assumed, the portion of the Post-Closing Liabilities of the T-Mobile Parties, if any, relating to, arising out of or that are in connection with the operation, use, or occupancy of such Transfer Site after the applicable Effective Date;
- (vi) if the Settlement Technical Closing Site Designation for such Transfer Site is “Pre-Lease Site” and its Initial Closing Site Designation is “Lease Site”, then CCTMO sold, assigned, conveyed, transferred, and delivered to the applicable T-Mobile SPE, and such T-Mobile SPE accepted, all of CCTMO’s right, title, and interest in, to, and under any Collocation Agreements (including any applicable New Agreements as defined in Section 4(d)) relating to such Transfer Site; and
- (vii) if the Settlement Technical Closing Site Designation for such Transfer Site is “Non-Contributable Site” and its Initial Closing Site Designation is “Lease Site”, then CCTMO sold, assigned, conveyed, transferred, and delivered to the applicable Transferee, and such Transferee accepted, all of CCTMO’s right, title, and interest in, to, and under any Collocation Agreements (including any applicable New Agreements as defined in Section 4(d)) relating to such Transfer Site.

The Parties intend that certain of the transactions contemplated by this Section 4(a) memorialize and further evidence the Conversion Closings that automatically occurred with respect to the Natural Conversion Sites in accordance with Section 2.6(c) of the Master Agreement.

- (b) *Rescission Sites in General* . Subject to Section 4(c) and Section 4(d) below and in accordance with and subject to the Settlement Agreement (including Section 4(b) thereof), for each Rescission Site: (i) effective as of the Initial Closing Date, the Parties shall be deemed to have rescinded the transactions that occurred with respect to such Rescission Site at or in connection with the Initial Closing under the Master Agreement and the Collateral Agreements; and (ii) such Initial Closing transactions with respect to such Rescission Site are hereby declared and acknowledged to be void *ab initio* . Without limiting the generality of the foregoing: (A) effective as of the Initial Closing Date, the Site Location Agreement for each Rescission Site shall be deemed to have been rescinded and is hereby declared and acknowledged to be void *ab initio* ; and (B) the Parties acknowledge that, on the Settlement Agreement Date, CCTMO, CCTM1, and CCTM2 (each, a “ **Crown Party Transferor** ”) delivered possession and operational control of the Rescission Sites to the applicable T-Mobile Party.
- (c) *Collocation Agreements and Post-Closing Liabilities Relating to Rescission Sites*. Without limiting the generality of Section 4(b) above or Section 4(d) below, and subject to the Settlement Agreement, for each Rescission Site, effective as of the Settlement Agreement Date, to the extent applicable: (i) the applicable Crown Party Transferor shall be deemed to have sold, assigned, conveyed, transferred and delivered to the applicable Transferee for such Rescission Site, and such Transferee shall be deemed to have accepted, all of such Crown Party Transferor’s right, title, and interest in, to, and under the Collocation Agreements relating to such Rescission Site (including any applicable New Agreements as defined in Section 4(d)), free and clear of all Liens, except Permitted Encumbrances; and (ii) the applicable Crown Party Transferor shall be deemed to have delegated to the applicable Transferee, and such Transferee shall be deemed to have assumed, the portion of the Post-Closing Liabilities of the applicable Crown Party Transferor with respect to such Collocation Agreements relating to, arising out of or that are in connection with the operation, use, or occupancy of such Rescission Site on or after the Settlement Agreement Date (including any applicable New Agreements as defined in Section 4(d)).
- (d) *Collocation Agreements, Ground Leases and Amendments to Collocation Agreements and Ground Leases Relating to Transfer Sites and Rescission Sites* . The Parties acknowledge that certain Crown Parties (either on their own behalf or as attorney-in-fact on behalf of the applicable T-Mobile Party) entered into certain new Collocation Agreements and Ground Leases and amendments to existing Collocation Agreements and Ground Leases with respect to the Transfer Sites and Rescission Sites (each such instrument, a “ **New Agreement** ”). Within 45 days after the Settlement Technical Closing Date, the Crown Parties will provide to the T-Mobile Parties true, correct, and complete copies of each New Agreement that relates to either a Rescission Site or a Reversion Site; provided, however, that such foregoing obligation to provide copies of certain New Agreements is not intended to limit or expand any of the rights or obligations of the Parties that otherwise exist under the Master Agreement and the Collateral Agreements. The Parties agree that the Transfer Sites and Rescission Sites, and the transactions contemplated by Section 4(a), Section 4(b),

and Section 4(c) above, are subject to such New Agreements and, for purposes of this Agreement, the Collocation Agreements and Ground Leases relating to the Transfer Sites and Rescission Sites include such New Agreements, as applicable; provided, however, that, for the avoidance of doubt, and notwithstanding anything in this Agreement to the contrary, the T-Mobile Parties reserve and retain any and all rights and remedies arising under the Master Agreement and the Collateral Agreements to the extent that, prior to giving effect to the transactions contemplated by Section 3, Section 4(a), Section 4(b), and Section 4(c) above, the execution, delivery, or performance by the Crown Parties of any of the New Agreements constituted a breach of the Master Agreement or any of the Collateral Agreements.

5. Amendment of the General Assignment . The Parties acknowledge that, after the Initial Closing, the Verizon Master Lease Agreements (as defined in the General Assignment) were bifurcated in accordance with that certain Consent and Bifurcation, dated as of October 5, 2012, by and among Celco Partnership (d/b/a Verizon Wireless) and T-Mobile Parent. Accordingly, effective as of October 5, 2012, clause (iii) of Section 1 of the General Assignment is amended and restated in its entirety as follows:
sell, convey, assign, transfer, and deliver to Assignee all of Assignors' right, title, and interest in, to, and under the master lease agreements set forth on Schedule 2 with respect to the Lease Sites identified on Schedule 1 (the “ Verizon Master Lease Agreements ”), in each case free and clear of all Liens except for Permitted Encumbrances.
6. Amendments to UCC Financing Statements . On or after the Settlement Technical Closing Date, the Crown Parties hereby authorize the T-Mobile Parties, at their own cost and expense, to file amendments to the UCC financing statements listed on Schedule B hereto to amend and restated the collateral description to read as set forth on Schedule B hereto.
7. Certification Regarding Conditions Precedent to Settlement Closing .
 - (a) *Certification by the Crown Parties* . The Crown Parties hereby certify that, with respect to the Natural Conversion Sites, each of the conditions precedent applicable to the Settlement Technical Closing that are set forth in Article 11 of the Master Agreement have been satisfied or waived (to the extent permitted under applicable Law).
 - (b) *Certification by the T-Mobile Parties* . The T-Mobile Parties hereby certify that, with respect to the Natural Conversion Sites, each of the conditions precedent applicable to the Settlement Technical Closing that are set forth in Article 10 of the Master Agreement have been satisfied or waived (to the extent permitted under applicable Law).
8. Fees and Expenses . Except as otherwise expressly set forth in this Agreement, all legal and other costs and expenses incurred in connection with this Agreement and the transactions contemplated by this Agreement shall be paid by the Party incurring such costs and expenses.

9. Full Force and Effect. Except as expressly set forth in this Agreement, the Master Agreement and other Collateral Agreements (including the Exhibits and Schedules thereto) are otherwise unmodified and remain in full force and effect in accordance with their respective terms.
10. Entire Agreement; Modifications Only in Writing; Collateral Agreement. This Agreement constitutes the entire agreement among the Parties with respect to the subject matter hereof and supersedes all prior agreements, both written and oral, among the Parties with respect to the subject matter hereof. This Agreement shall be binding upon and inure solely to the benefit of each Party and its successors and permitted assigns. This Agreement may be amended, modified or supplemented only by written agreement of the Parties. The Parties acknowledge and agree that this Agreement constitutes a Collateral Agreement.
11. Severability. If any provision of this Agreement is determined to be invalid for any reason, then that provision shall be severed from the Agreement, but the remainder of the Agreement shall be fully enforceable.
12. Time of Essence. Time is of the essence in this Agreement, and whenever a date or time is set forth in this Agreement, the same has entered into and formed a part of the consideration for this Agreement.
13. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York (regardless of the laws that might otherwise govern under applicable principles of conflict of laws thereof) as to all matters, including matters of validity, construction, effect, performance and remedies.
14. Counterparts. This Agreement may be executed in separate counterparts, each of which shall be deemed to be an original, but all of which shall constitute one and the same agreement. Delivery of an executed counterpart to this Agreement by facsimile or other electronic transmission (including documents in PDF format) shall be effective as delivery of a manually executed counterpart to this Agreement.

[Remainder of page intentionally left blank. Signature page follows.]

SIGNATURE PAGE

IN WITNESS WHEREOF , this Agreement has been signed by or on behalf of each of the Parties as of the Settlement Technical Closing Date.

T-MOBILE CONTRIBUTORS : **CROWN:**

SUNCOM WIRELESS OPERATING COMPANY, L.L.C **CROWN CASTLE INTERNATIONAL CORP.**

T-MOBILE CENTRAL LLC (SUCCESSOR IN INTEREST TO WIRELESS ALLIANCE, LLC AND COOK INLET/V5 GSM IV PCS HOLDINGS, LLC) By: /s/ E. Blake Hawk
Name: E. Blake Hawk
Title: Executive Vice President and General Counsel

T-MOBILE SOUTH LLC **POWERTEL/MEMPHIS, INC.** **VOICESTREAM PITTSBURGH, L.P.** **CCTMO:**

T-MOBILE WEST LLC **T-MOBILE NORTHEAST LLC** **CCTMO LLC**
SUNCOM WIRELESS PROPERTY COMPANY, L.L.C. By: /s/ E. Blake Hawk
Name: E. Blake Hawk

By: /s/ Dirk Mosa Title: Executive Vice President and General Counsel
Name: Dirk Mosa
Title: SVP, Corporate Development and Roaming

SALE SITE SUBSIDIARIES:

T-MOBILE SPEs : **CCTM1 LLC** **CCTM2 LLC**

T-MOBILE USA TOWER LLC **T-MOBILE WEST TOWER LLC** By: /s/ E. Blake Hawk
Name: E. Blake Hawk
Title: Executive Vice President and General Counsel

By: /s/ Dirk Mosa
Name: Dirk Mosa
Title: SVP, Corporate Development and Roaming

T-MOBILE PARENT :

T-MOBILE USA, INC.

By: /s/ Dirk Mosa
Name: Dirk Mosa
Title: SVP, Corporate Development and Roaming

SECOND AMENDMENT TO THE THIRD AMENDED AND RESTATED
MASTER RECEIVABLES PURCHASE AGREEMENT

THIS SECOND AMENDMENT TO THE THIRD AMENDED AND RESTATED MASTER RECEIVABLES PURCHASE AGREEMENT, dated November 21, 2018 (this “ **Amendment** ”), is by and among T-MOBILE AIRTIME FUNDING LLC (“ **T-Mobile Funding** ” or the “ **Funding Seller** ”); BILLING GATE ONE LLC (the “ **Purchaser** ”); LANDESBANK HESSEN-THÜRINGEN GIROZENTRALE (“ **Helaba** ” or, in its capacity as Bank Purchasing Agent on behalf of the Bank Purchasers, the “ **Bank Purchasing Agent** ” and a “ **Co-Agent** ”); MUFG BANK (EUROPE) N.V. GERMANY BRANCH, (“ **MUFG** ” or, in its capacity as Bank Collections Agent on behalf of the Bank Purchasers, the “ **Bank Collections Agent** ” and a “ **Co-Agent** ”); T-MOBILE PCS HOLDINGS LLC, as Servicer (“ **T-Mobile PCS Holdings** ” or the “ **Servicer** ”); and T-MOBILE US, INC., a Delaware corporation (“ **TMUS** ”) and T-MOBILE USA, INC. , a Delaware corporation (“ **TMUSA** ”) (collectively, the “ **Performance Guarantor** ”).

RECITALS:

WHEREAS, the parties hereto have entered into the Third Amended and Restated Master Receivables Purchase Agreement, dated as of February 5, 2018, (as amended, supplemented or otherwise modified from time to time, the “ **Agreement** ”), as amended by the First Amendment thereto, dated April 3, 2018; and

WHEREAS, the parties hereto wish to amend the Agreement as set forth in this Amendment.

NOW, THEREFORE, the parties hereto, in consideration of their mutual covenants hereinafter set forth and intending to be legally bound hereby, agree as follows:

ARTICLE 1

DEFINITIONS

Section 1.01 Capitalized Terms. Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed thereto in the Agreement.

ARTICLE 2

AMENDMENTS

Section 2.01 Amendments to the Agreement.

(a) Section 1.1 of the Agreement is hereby amended by amending and restating the following definition to read as follows:

“ **KfW Termination Date** ” means, subject to the provisions of Section 20.4, March 3, 2019.

(b) Section 20.1 of the Agreement is hereby amended by adding the following two sentences at the end of the Section:

“Each of the Purchasing Entities acknowledges that, on November 9, 2018, the Bank Purchasing Agent (acting on behalf of the Purchasing Entities) delivered to KfW a notice revoking the release of the KfW Guarantees delivered on February 5, 2018. Each of the Purchasing Entities irrevocably confirms its consent to the taking of such action by the Bank Purchasing Agent.”

(c) Section 20.4 of the Agreement is hereby amended by deleting the current section in its entirety (and by deleting in its entirety Annex 2B referred to therein) and replacing such Section 20.4 with the following:

“If the KfW Guarantees are not extended at least to the March 2019 Settlement Date, the Funding Seller agrees that, on the Business Day prior to March 3, 2019, it will provide the Bank Purchasing Agent with a cash deposit, another guarantee or a letter of credit in form and substance satisfactory to the Bank Purchasing Agent, in an amount equal to the sum of the Level 3 Maximum Amount and the Level 3A Maximum Amount. Thereafter, the Bank Purchasing Agent may use such cash, guarantee or letter of credit to make payments required to have been made by the Funding Seller under Sections 5.3(b)(iii) and/or 5.3(b)(iv) in the event that the Funding Seller does not otherwise make such payments or to substitute for any draws that, on or prior to March 3, 2019, could have been made under the KfW Guarantees pursuant to Section 5.6(a). Upon delivery of such cash, guarantee or letter of credit, regardless of the expiration of the KfW Guarantees, the KfW Termination Date shall be deemed extended to the Final Termination Date. On the Final Termination Date, any unused amount of the cash deposit (to the extent made) shall be returned by the Bank Purchasing Agent to the Funding Seller.”

(d) Section 5.6 of the Agreement is hereby amended by replacing the references therein to “KfW First Amended and Restated Level 3A Guarantee” and “KfW Second Amended and Restated Level 3 Guarantee” with “KfW Level 3A Guarantee” and “KfW Level 3 Guarantee”, respectively.

ARTICLE 3

EFFECTIVENESS; RATIFICATION

Section 3.01 Effectiveness. This Amendment shall become effective upon delivery of executed counterparts to the Co-Agents, and this Amendment thereafter shall be binding on the parties hereto and their respective successors and assigns as of the date hereof.

Section 3.02 Incorporation; Ratification.

(a) On and after the execution and delivery hereof, this Amendment shall be a part of the Agreement and each reference in the Agreement to “this Agreement” or “hereof”,

“hereunder” or words of like import, and each reference in any other Related Document to the Agreement shall mean and be a reference to such Agreement as previously amended, and as amended, modified and consented to hereby.

(b) Except as expressly provided herein, the Agreement shall remain in full force and effect and is hereby ratified and confirmed by the parties hereto.

(c) After giving effect to this Amendment, the Performance Guarantee is and shall continue to be in full force and effect.

ARTICLE 4

MISCELLANEOUS

Section 4.01 Representations and Warranties.

(a) The Funding Seller hereby represents and warrants to the Purchaser and the Bank Purchasers that its representations and warranties set forth in Section 6.1 of the Agreement are true and correct in all material respects as of the date hereof.

(b) The Servicer hereby represents and warrants to the Purchaser and the Bank Purchasers that its representations and warranties set forth in Section 3.12 of the Agreement are true and correct in all material respects as of the date hereof.

(c) Each of TMUS and TMUSA hereby represents and warrants to the Purchaser and the Bank Purchasers that its representations and warranties set forth in Section 6.2 of the Agreement are true and correct in all material respects as of the date hereof.

Section 4.02 No Other Amendments; Status of Agreement and Related Documents. The amendments set forth herein are limited as specified and shall not be construed as an amendment to any other term or provision of the Agreement.

Section 4.03 Governing Law. THIS AMENDMENT SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICT OF LAWS PRINCIPLES, EXCEPT TO THE EXTENT THAT THE PERFECTION OF THE RESPECTIVE INTERESTS OF THE CO-AGENTS, THE PURCHASER AND THE BANK PURCHASERS IN THE PURCHASED RECEIVABLES AND THE RELATED RIGHTS ARE GOVERNED BY THE LAWS OF A JURISDICTION OTHER THAN THE STATE OF NEW YORK.

Section 4.04 Counterparts. This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one agreement, and any of the parties hereto may execute this Amendment by signing such counterpart.

[Signatures on following page]

IN WITNESS WHEREOF, each of the parties hereto has caused a counterpart of this Amendment to be duly executed as of the date first above written.

T-MOBILE AIRTIME FUNDING LLC,
as Funding Seller

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury & Treasurer

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

BILLING GATE ONE LLC,
as Purchaser

By: Billing Gate One Trust, as Manager
By: Wells Fargo Delaware Trust Company,
National Association, solely as Trustee and not in
its individual capacity

By: /s/ Sandra Battaglia
Name: Sandra Battaglia
Title: Vice President

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

LANDESBANK HESSEN-THÜRINGEN GIROZENTRALE,
as Bank Purchasing Agent

By: /s/ Bjoern Mollner
Name: Bjoern Mollner
Title: Senior Vice President

By: /s/ Daniel Geblitter
Name: Daniel Geblitter
Title: Associate

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

MUFG BANK (EUROPE) N.V. GERMANY BRANCH,
as Bank Collections Agent

By: /s/ Taketoshi Obata
Name: Taketoshi Obata
Title: Managing Director

By: /s/ Stephan Stamm
Name: Stephan Stamm
Title: Managing Director

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

AUTOBAHN FUNDING COMPANY LLC,
as the Conduit Purchaser and as a Bank Purchaser

By: /s/ Christian Haesslein
Name: Christian Haesslein
Title: Director

By: /s/ Alexander Ploch
Name: Alexander Ploch
Title: Senior Vice President

DZ BANK AG DEUTSCHE ZENTRAL-GENOSSENSCHAFTSBANK,
FRANKFURT AM MAIN, NEW YORK BRANCH,
as the Conduit Agent

By: /s/ Christian Haesslein
Name: Christian Haesslein
Title: Director

By: /s/ Alexander Ploch
Name: Alexander Ploch
Title: Senior Vice President

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

T-MOBILE PCS HOLDINGS LLC,
as Servicer

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury & Treasurer

T-MOBILE US, INC.,
as Performance Guarantor

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury & Treasurer

T-MOBILE USA, INC.,
as Performance Guarantor

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury & Treasurer

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

ACKNOWLEDGED AND AGREED:

KfW IPEX-BANK GmbH

By: /s/ Markus Mostert
Name: Markus Mostert
Title: Director

By: /s/ Franziska Wörner
Name: Franziska Wörner
Title: Assistant Vice President

[Signature Page to the 2nd Amendment to the 3rd A&R MRPA]

FIRST AMENDMENT TO THIRD AMENDED AND RESTATED RECEIVABLES PURCHASE AND ADMINISTRATION
AGREEMENT

THIS FIRST AMENDMENT TO THIRD AMENDED AND RESTATED RECEIVABLES PURCHASE AND ADMINISTRATION AGREEMENT (this “Amendment”), dated as of December 21, 2018 (the “First Amendment Closing Date”), is by and among T-MOBILE HANDSET FUNDING LLC (the “Transferor”), as transferor, T-MOBILE FINANCIAL LLC (“Finco”), individually and as servicer, T-MOBILE US, INC. and T-MOBILE USA, INC., jointly and severally as guarantors (collectively, the “Guarantor”), ROYAL BANK OF CANADA, as Administrative Agent (the “Administrative Agent”), and the various Funding Agents party to the RPAA referenced below.

RECITALS:

WHEREAS, the parties hereto have entered into the Third Amended and Restated Receivables Purchase and Administration Agreement, dated as of October 23, 2018 (as amended, supplemented or otherwise modified from time to time, the “RPAA”); and

WHEREAS, the parties hereto wish to amend the RPAA as set forth in this Amendment.

NOW, THEREFORE, the parties hereto, in consideration of their mutual covenants hereinafter set forth and intending to be legally bound hereby, agree as follows:

ARTICLE 1

DEFINITIONS

Section 1.01 Capitalized Terms. Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed thereto in the RPAA.

ARTICLE 2

AMENDMENTS

Section 2.01 Amendments to the RPAA.

(a) Section 1.1 of the RPAA is hereby amended by addition of the following definition in the correct alphabetical order:

“Thirty-Six Month Contract Receivable Transfer Date” shall mean the date on which the first Receivable related to a handset device with a contract term of more than 25 months (but not in excess of 37 months) is transferred from Finco to the Transferor pursuant to the Sale Agreement.

(b) The definition of “Eligible Receivable” in Section 1.1 of the RPAA is hereby amended by amending and restating clause (f) therein as follows:

(f) (i) has an original term of 25 months or less if it relates to an Accessory or Smart Watch; or (ii) has an original term of 37 months or less if it relates to a handset device;

(c) Exhibit D to the RPAA is hereby amended by amending and restating clause (i)(B) therein as follows:

(B) (1) for any Payment Date after the Scheduled Expiry Date prior to the Thirty-Six Month Contract Receivable Transfer Date, the notional amount as of the last Payment Date prior to the Scheduled Expiry Date reduced by one twenty-fourth of such notional amount per month and (2) for any Payment Date after the Scheduled Expiry Date on or after the Thirty-Six Month Contract Receivable Transfer Date, the notional amount as of the last Payment Date prior to the Scheduled Expiry Date reduced by one thirty-sixth of such notional amount per month (or such other amount as agreed, from time to time, between the Transferor and the Administrative Agent to reflect the percentage of Receivables with an outstanding term in excess of 24 months);

(d) The matrix set forth in the definition of “Advance Matrix I” in Annex A to the RPAA is hereby amended by replacing the existing matrix with the matrix attached hereto as Schedule I.

(e) The matrix in the definition of “Advance Matrix II” in Annex A to the RPAA is hereby amended by replacing the existing matrix with the matrix attached hereto as Schedule II.

ARTICLE 3

EFFECTIVENESS; RATIFICATION

Section 3.01 Effectiveness. This Amendment shall become effective, and this Amendment thereafter shall be binding on the parties hereto and their respective successors and assigns, as of the First Amendment Closing Date upon the execution and delivery of counterparts by the parties hereto.

Section 3.02 Incorporation; Ratification.

(a) On and after the execution and delivery hereof, this Amendment shall be a part of the RPAA and each reference in the RPAA to “this Agreement” or “hereof”, “hereunder” or words of like import, and each reference in any other Related Document to the RPAA shall mean and be a reference to such RPAA as previously amended, and as amended, modified and consented to hereby.

(b) Except as expressly provided herein, the RPAA shall remain in full force and effect and is hereby ratified and confirmed by the parties hereto.

(c) After giving effect to this Amendment, the Performance Guaranty shall remain in full force and effect.

ARTICLE 4

MISCELLANEOUS

Section 4.01 Representations and Warranties.

(a) The Transferor hereby represents and warrants to the Administrative Agent and the Owners that its representations and warranties set forth in Section 3.1 of the RPAA are true and correct in all material respects as of the date hereof.

(b) Finco hereby represents and warrants to the Administrative Agent and the Owners that its representations and warranties set forth in Section 3.1 and Section 3.3 of the RPAA are true and correct in all material respects as of the date hereof.

(c) Each of TMUS and TMUSA hereby represents and warrants to the Administrative Agent and the Owners that its representations and warranties set forth in Section 3.4 of the RPAA are true and correct in all material respects as of the date hereof.

Section 4.02 Consent. The Funding Agents party hereto hereby consent to the modification or amendment by Finco of the Credit and Collection Policies to allow for Receivables with a term of up to 37 months, and the Funding Agents hereby waive any notice period required pursuant to Section 3.7(t) of the RPAA relating thereto.

Section 4.03 No Other Amendments or Consents; Status of RPAA and Related Documents. The amendments and consent set forth herein are limited as specified and shall not be construed as an amendment or consent to any other term or provision of the RPAA. Nothing herein shall obligate the Administrative Agent, any Conduit Purchaser, Committed Purchaser or Funding Agent to grant (or consent to) any future amendment, consent or waiver of any kind under or in connection with the RPAA or entitle the Transferor to receive any such amendment, consent or waiver under the RPAA. Except as otherwise expressly provided herein, this Amendment shall not constitute a waiver of any right, power or remedy of the Owners, the Funding Agents or the Administrative Agent set forth in the RPAA and Related Documents, and except as expressly provided herein, this Amendment shall have no effect on any term or condition of the RPAA or Related Documents.

Section 4.04 Governing Law; Submission to Jurisdiction. THIS AMENDMENT SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF NEW YORK APPLICABLE TO AGREEMENTS MADE AND TO BE PERFORMED THEREIN, WITHOUT REFERENCE TO ITS CONFLICT OF LAW PROVISIONS OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW, AND OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS. EACH OF THE PARTIES TO THIS AMENDMENT HEREBY AGREES TO THE JURISDICTION OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK AND ANY APPELLATE COURT HAVING JURISDICTION TO REVIEW THE JUDGMENTS THEREOF. EACH OF THE PARTIES HEREBY WAIVES ANY OBJECTION BASED ON FORUM NON CONVENIENS

AND ANY OBJECTION TO VENUE OF ANY ACTION INSTITUTED HEREUNDER IN ANY OF THE AFOREMENTIONED COURTS.

Section 4.05 Counterparts. This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one agreement, and any of the parties hereto may execute this Amendment by signing such counterpart.

[signatures on following page]

IN WITNESS WHEREOF, each of the parties hereto have caused a counterpart of this Amendment to be duly executed as of the date first above written.

T-MOBILE HANDSET FUNDING LLC
as Transferor

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury &
Treasurer

T-MOBILE FINANCIAL LLC
In its individual capacity and as Servicer

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Assistant Treasurer

T-MOBILE US, INC.
as Guarantor

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury &
Treasurer

T-MOBILE USA, INC.
as Guarantor

By: /s/ Dirk Wehrse
Name: Dirk Wehrse
Title: Senior Vice President, Treasury &
Treasurer

ROYAL BANK OF CANADA
as Administrative Agent

By: /s/ Thomas C. Dean
Name: Thomas C. Dean
Title: Authorized Signatory

By: /s/ Lisa Wang
Name: Lisa Wang
Title: Authorized Signatory

ROYAL BANK OF CANADA
as Funding Agent

By: /s/ Thomas C. Dean
Name: Thomas C. Dean
Title: Authorized Signatory

By: /s/ Lisa Wang
Name: Lisa Wang
Title: Authorized Signatory

LANDESBANK HESSEN-THURINGEN
GIROZENTRALE,
as a Funding Agent

By: /s/ Bjoern Mollner
Name: Bjoern Mollner
Title: Senior Vice President

By: /s/ Daniel Geflitter
Name: Daniel Geflitter
Title: Associate

MUFG BANK, LTD. F/K/A THE BANK OF
TOKYO-MITSUBISHI UFJ, LTD.,
as a Funding Agent

By: /s/ Christopher Pohl

Name: Christopher Pohl

Title: Managing Director

BNP PARIBAS,
as a Funding Agent

By: /s/ Chris Fukuoka
Name: Chris Fukuoka
Title: Vice President

By: /s/ Advait Joshi
Name: Advait Joshi
Title: Director

Schedule I

Advance Matrix I

Schedule II

Advance Matrix II

T-MOBILE US, INC.
NONQUALIFIED DEFERRED COMPENSATION PLAN
(As Amended and Restated Effective January 1, 2014)

First Amendment

WHEREAS, T-Mobile US, Inc. (the “Company”) sponsors and maintains the T-Mobile US, Inc. Nonqualified Deferred Compensation Plan, as amended and restated effective as of January 1, 2014 (the “Plan”); and

WHEREAS, pursuant to Article VIII of the Plan, the Company has the authority to amend the Plan; and

WHEREAS, the Company desires to amend the Plan to (1) clarify that elections as to the timing and form of distributions do not carry over from year to year and must be affirmatively elected each year; (2) provide for timing of payments made under domestic relations orders; and (3) revise the claims procedure for claims involving a determination of disability that are filed on or after April 1, 2018, to comply with IRS regulations.

NOW, THEREFORE, effective as of January 1, 2018 unless otherwise indicated below, the Plan is hereby amended as follows:

1. Section 4.1(d) of the Plan, Timing and Manner of Election, is hereby amended in its entirety, to read as follows:

“(d) Timing and Manner of Election. Newly Eligible Employees may enroll in the Plan during their Election Period for their initial full or partial Plan Year of participation, as specified in the notification from the Administrator. Each Plan Year thereafter, Participants will be permitted to modify the Deferral Election during each subsequent Election Period. The Deferral Election becomes irrevocable on December 31 of the Plan Year preceding the Plan Year in which the amounts are deferred and may not change throughout such Plan Year. The amount of a Participant’s Deferral Election shall continue in effect for each subsequent Plan Year, unless modified by the Participant before the date the election becomes irrevocable under this subsection (d). However, a Participant’s Deferral Election as to timing and form of payment shall not continue in effect for subsequent Plan Years; in the absence of an affirmative election as to the timing and form of payment of a Participant’s Deferral Election for a given Plan Year, the amount deferred during that Plan Year shall be paid in a single distribution at termination of employment. A Participant whose Deferral Election is cancelled in accordance with Section 3.1 or 4.1(e) will be required to file a new Deferral Election under this Article IV in order to recommence deferrals under the Plan.”

2. Section 6.9 of the Plan, Alternate Payee, is hereby amended in its entirety, to read as follows:

“6.9 Alternate Payee. If the Plan receives a domestic relations order (within the meaning of Code Section 414(p)(1)(B)) directing that all or a portion

of a Participant's Accounts be paid to an "alternate payee," any amounts to be paid to the alternate payee(s) shall be paid in a single lump sum as soon as administratively practicable following a determination that the order is qualified, unless the order specifies different payment timing."

3. Effective April 1, 2018, Section 10.2 of the Plan, Denial of Claim, is hereby amended in its entirety to read as follows:

"10.2 Denial of Claim. If the claim or request is denied, the written notice of denial shall include:

- (a) the reasons for denial, with specific reference to the Plan provisions on which the denial is based;
- (b) a description of any additional material or information required and an explanation of why it is necessary;
- (c) an explanation of the Plan's claim review procedure; and
- (d) with respect only to a claim that involves a determination of Disability:
 - (i) a discussion of the decision, including an explanation of the basis for disagreeing with or not following (1) the views presented by the claimant to the Plan of health care professionals treating the claimant and vocational professionals who evaluated the claimant, (2) the views of medical or vocational experts whose advice was obtained on behalf of the Plan in connection with the claimant's adverse benefit determination, without regard to whether the advice was relied upon in making the benefit determination and (3) a disability determination regarding the claimant presented by the claimant to the Plan and made by the Social Security Administration;
 - (ii) either the specific internal rules, guidelines, protocols, standards or other similar criteria of the Plan relied upon in making the adverse determination or, alternatively, a statement that such rules, guidelines, protocols, standards or other similar criteria of the Plan do not exist; and
 - (iii) a statement that the claimant is entitled to receive, upon request and free of charge, reasonable access to, and copies of, all documents, records and other information relevant to the claimant's claim for benefits.
 - (iv) a statement that the claimant is entitled to receive, upon request and free of charge, reasonable access to, and copies of, all documents, records and other information relevant to the claimant's claim for benefits.

In addition, any such notice of an adverse benefit determination with respect to a claim that involves a determination of Disability will be provided in a culturally and linguistically appropriate manner.”

4. Effective April 1, 2018, Section 10.3 of the Plan, Review of Claim, is hereby amended in its entirety to read as follows:

“10.3 Review of Claim. Any person whose claim or request is denied may request review by notice given in writing to the Administrator within 60 days of such denial. In case of a claim involving a determination that the Participant is disabled, a request for review may be made within 180 days of the denial. The claim or request shall be reviewed by the Administrator, who may, but shall not be required to, grant the claimant a hearing. On review, the claimant may have representation, examine pertinent documents and submit issues and comments in writing.

Additionally, in the case of a claim involving a determination of Disability, the Administrator will provide the claimant, free of charge, with any new or additional evidence considered, relied upon or generated by the Plan, the Administrator or other person making the benefit determination (or at the direction of the Plan, the Administrator or such other person) in connection with the claimant’s appeal as soon as possible and sufficiently in advance of the date on which it provides the claimant with notice of its determination on appeal, so that the claimant will have a reasonable opportunity to respond prior to that date. If the denial of the claimant’s appeal is based on a new or additional rationale, the Administrator will provide the claimant, free of charge, with the new or additional rationale as soon as possible and sufficiently in advance of the date on which it provides the claimant with notice of its determination on appeal, so that the claimant will have a reasonable opportunity to respond prior to that date.”

5. Effective April 1, 2018, Section 10.4 of the Plan, Final Decision, is hereby amended in its entirety to read as follows:

“10.4 Final Decision. The decision on review shall normally be made within 60 days. If an extension of time is required for a hearing or other special circumstance, the claimant shall be notified and the total time limit shall be 120 days. The decision shall be in writing and shall state the reasons and the relevant Plan provisions. All decisions on review shall be final and bind all parties concerned. Benefits under the Plan shall be paid only if the Administrator decides in its discretion that the applicant is entitled to them.

With respect to a claim that involves a determination of Disability, the claimant shall receive, in a manner reasonably calculated to be understood by the claimant, a written notice from the Administrator which shall set forth:

(a) a statement describing any applicable contractual limitations period that applies to the claimant’s right to bring a civil action under Section 502(a)

of ERISA, including the calendar date on which the contractual limitations period expires;

(b) a discussion of the decision, including an explanation of the basis for disagreeing with or not following (1) the views presented by the claimant to the Plan of health care professionals treating the claimant and vocational professionals who evaluated the claimant, (2) the views of medical or vocational experts whose advice was obtained on behalf of the Plan in connection with the claimant's adverse benefit determination, without regard to whether the advice was relied upon in making the benefit determination and (3) a disability determination regarding the claimant presented by the claimant to the Plan and made by the Social Security Administration;

(c) either the specific internal rules, guidelines, protocols, standards or other similar criteria of the Plan relied upon in making the adverse determination or, alternatively, a statement that such rules, guidelines, protocols, standards or other similar criteria of the Plan do not exist.

Any such notice of an adverse benefit determination with respect to a claim that involves a determination of Disability will be provided in a culturally and linguistically appropriate manner. In addition, upon request, the Administrator will provide the claimant with a statement identifying those medical or vocational experts whose advice was obtained in connection with the appeal."

IN WITNESS WHEREOF, the Company has caused this First Amendment to be adopted and executed on this 18th day of December, 2018.

T-MOBILE US, INC.

By: /s/ Elizabeth A. McAuliffe
Elizabeth A. McAuliffe
EVP, Human Resources

Subsidiaries of Registrant

The following is a list of subsidiaries of T-Mobile US, Inc. as of December 31, 2018 . Certain subsidiaries were omitted which, considered in the aggregate, would not constitute a significant subsidiary.

Name	State of Incorporation
IBSV LLC	Delaware
Iowa Wireless Services Holding Corporation	Delaware
L3TV DC Cable System, LLC	Delaware
L3TV Chicagoland Cable System, LLC	Delaware
L3TV Colorado Cable System, LLC	Delaware
L3TV Dallas Cable System, LLC	Delaware
L3TV Detroit Cable System, LLC	Delaware
L3TV Los Angeles Cable System, LLC	Delaware
L3TV New York Cable System, LLC	Delaware
L3TV Philadelphia Cable System, LLC	Delaware
L3TV San Francisco Cable System, LLC	Delaware
Layer3 TV, Inc.	Delaware
LayerG, LLC	Delaware
MetroPCS California, LLC	Delaware
MetroPCS Florida, LLC	Delaware
MetroPCS Georgia, LLC	Delaware
MetroPCS Massachusetts, LLC	Delaware
MetroPCS Michigan, LLC	Delaware
MetroPCS Networks California, LLC	Delaware
MetroPCS Networks Florida, LLC	Delaware
MetroPCS Nevada, LLC	Delaware
MetroPCS New York, LLC	Delaware
MetroPCS Pennsylvania, LLC	Delaware
MetroPCS Texas, LLC	Delaware
MFP LeaseCo, LLC	Delaware
Powertel Memphis Licenses, Inc.	Delaware
Powertel/Memphis, Inc.	Delaware
SunCom Wireless Holdings, Inc.	Delaware
SunCom Wireless License Company, LLC	Delaware
SunCom Wireless Operating Company, L.L.C.	Delaware
SunCom Wireless Property Company, L.L.C.	Delaware
SunCom Wireless, Inc.	Delaware
T-Mobile Airtime Funding LLC	Delaware
T-Mobile Central LLC	Delaware
T-Mobile Financial LLC	Delaware
T-Mobile Handset Funding LLC	Delaware
T-Mobile Leasing LLC	Delaware
T-Mobile License LLC	Delaware
T-Mobile Northeast LLC	Delaware
T-Mobile PCS Holdings LLC	Delaware
T-Mobile Puerto Rico Holdings LLC	Delaware
T-Mobile Puerto Rico LLC	Delaware
T-Mobile Resources Corporation	Delaware
T-Mobile South LLC	Delaware
T-Mobile Subsidiary IV Corporation	Delaware
T-Mobile USA Tower LLC	Delaware
T-Mobile USA, Inc.	Delaware
T-Mobile West LLC	Delaware
T-Mobile West Tower LLC	Delaware
TMUS Assurance Corporation	Hawaii
Triton PCS Finance Company, Inc.	Delaware
Triton PCS Holdings Company L.L.C.	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-189095, 333-202176, 333-225699, 333-142007 and 333-168946) and Form S-3 (Nos. 333-210920 and 333-210918) of T-Mobile US, Inc. of our report dated February 6, 2019 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Seattle, Washington
February 6, 2019

Certifications of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, John J. Legere, certify that:

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

February 6, 2019

/s/ John J. Legere

John J. Legere
Chief Executive Officer

Certifications of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, J. Braxton Carter, certify that:

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

February 6, 2019

/s/ J. Braxton Carter

J. Braxton Carter
Executive Vice President and Chief Financial Officer

Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of T-Mobile US, Inc. (the "Company"), on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission (the "Report"), John J. Legere, Chief Executive Officer of the Company, does hereby certify, pursuant to § 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350), that to his knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 6, 2019

/s/ John J. Legere

John J. Legere
Chief Executive Officer

Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of T-Mobile US, Inc. (the "Company"), on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission (the "Report"), J. Braxton Carter, Executive Vice President and Chief Financial Officer of the Company, does hereby certify, pursuant to § 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350), that to his knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 6, 2019

/s/ J. Braxton Carter

J. Braxton Carter
Executive Vice President and Chief Financial Officer