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

(Mark one)

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

OR

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

Commission file number: 1-8606

Verizon Communications Inc.
(Exact name of registrant as specified in its charter)

Delaware	**23-2259884**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1095 Avenue of the Americas New York, New York	**10036**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (212) 395-1000

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

Title of each class	Name of each exchange on which registered
Common Stock, $.10 par value	New York Stock Exchange The NASDAQ Global Select Market

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 Item 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. (Check one):

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 Act). ☐ Yes ☒ No

At June 30, 2018, the aggregate market value of the registrant's voting stock held by non-affiliates was approximately $207,844,016,206.

At January 31, 2019, 4,132,045,883 shares of the registrant's common stock were outstanding, after deducting 159,387,763 shares held in treasury.

Documents Incorporated By Reference:

Portions of the registrant's Annual Report to Shareholders for the year ended December 31, 2018 (Parts I and II).

Portions of the registrant's definitive Proxy Statement to be delivered to shareholders in connection with the registrant's 2019 Annual Meeting of Shareholders (Part III).

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PART I

Item 1. Business

General

Verizon Communications Inc. (Verizon or the Company) is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, information and entertainment products and services to consumers, businesses and governmental agencies. With a presence around the world, we offer voice, data and video services and solutions on our networks that are designed to meet customers' demand for mobility, reliable network connectivity, security and control. Formerly known as Bell Atlantic Corporation (Bell Atlantic), we were incorporated in 1983 under the laws of the State of Delaware. We began doing business as Verizon on June 30, 2000 following our merger with GTE Corporation. We have a highly diverse workforce of approximately 144,500 employees.

Our principal executive offices are located at 1095 Avenue of the Americas, New York, New York 10036 (telephone number 212-395-1000).

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services, and customer groups, respectively.

Wireless	Wireless' communications products and services include wireless voice and data services and equipment sales, which are provided to consumer, business and government customers across the United States (U.S.).
Wireline	Wireline's communications products and enhanced services include video and data services, corporate networking solutions, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the U.S., as well as to carriers, businesses and government customers both in the U.S. and around the world.

In November 2018, we announced a strategic reorganization of our business. We are modifying our internal and external reporting processes, systems and internal controls to accommodate the new structure and expect to transition to the new segment reporting structure during the second quarter of 2019. We continue to report operating results to our chief operating decision maker under our current operating segments.

Additional discussion of our reportable segments is included in the 2018 Verizon Annual Report to Shareholders under the headings "Management's Discussion and Analysis of Financial Condition and Results of Operations - Overview and - Segment Results of Operations" and in Note 13 to the consolidated financial statements of Verizon Communications Inc. and subsidiaries, which are incorporated by reference into this report.

Wireless

Background

Our Wireless segment, doing business as Verizon Wireless, provides wireless communications products and services across one of the most extensive wireless networks in the U.S. Verizon Wireless is the largest wireless service provider in the U.S. as measured by retail connections and revenue. At December 31, 2018, Verizon Wireless had 118.0 million retail connections and 2018 revenues of approximately $91.7 billion, representing approximately 70% of Verizon's aggregate revenues.

Cellco Partnership (Cellco), which originally held the wireless assets of Bell Atlantic, began operating as "Verizon Wireless" in April 2000 with both Vodafone Group Plc (Vodafone) and Bell Atlantic as partners, following Vodafone's contribution of its U.S. wireless assets into Cellco. We acquired all of Vodafone's indirect 45% interest in Verizon Wireless in 2014, which resulted in full ownership of Verizon Wireless.

Wireless Service and Product Offerings

Our wireless services are available to our customers receiving service under the Verizon Wireless brand, customers that obtain wireless products and services that operate on our network from resellers that purchase network access from us on a wholesale basis and customers that utilize Internet of Things (IoT) services via our network.

Wireless Services

We offer our customers a wide variety of wireless services accessible on a broad range of devices. Customers can obtain our wireless services on a postpaid or prepaid basis. Retail (non-wholesale) postpaid accounts primarily represent retail customers with Verizon Wireless that are directly served and managed by Verizon Wireless and use its branded services. A single account may include monthly wireless services for a variety of connected devices. A retail postpaid connection represents an individual line of service for a wireless device for which a customer is generally billed one month in advance for a monthly access charge in return for access to and usage of network services. Approximately 96% of our total retail connections were postpaid connections as of December 31, 2018. Our prepaid service enables individuals to obtain wireless services without credit verification by paying for all services in advance.

We offer various postpaid account service plans, including unlimited plans, shared data plans, single connection plans and other plans tailored to the needs of our customers. Our unlimited plans, available to our consumer and business customers, offer, among other things, unlimited domestic voice, data and texting. Our unlimited plans allow customers to mix and match plans by line, with different benefits and inclusions beyond just traditional data access, voice and text. Our shared data plans typically feature unlimited domestic voice, unlimited domestic and international text, video and picture messaging, and a single data allowance that can be shared among the wireless devices on a customer's account. This allowance will vary from time to time as part of promotional offers or in response to market circumstances. Customers on certain fixed-data plans may carry over unused data allowances to the next billing period, or stay online at a reduced data speed after using all of a data allowance for a billing period. Our unlimited and shared data plans include High Definition (HD) Voice and Video Calling on compatible devices, and certain plans offer additional services, such as Mobile Hotspot services and free roaming in Canada and Mexico on compatible devices. Our HD Voice services, enabled by Voice over LTE (VoLTE), deliver calls over our fourth-generation (4G) Long-Term Evolution (LTE) network, and our Video Calling service combines an HD Voice call with real-time video. Our Mobile Hotspot service enables a customer to activate a personal Wi-Fi hotspot that can provide Internet access to multiple Wi-Fi enabled devices. Our unlimited plans provide customers the ability to stream DVD or HD quality videos, based on the service plan. We also offer various voice and shared data plans for business customers.

As of January 2017, we no longer offer consumers new fixed-term subsidized service plans for phones; however, we continue to offer subsidized plans to our business customers, and we also continue to service existing fixed-term subsidized plans for consumers who have not yet purchased and activated devices under the Verizon device payment program.

We also offer prepaid connection service plans that feature domestic unlimited voice and unlimited domestic and international text. We have both single line and multi-line family options, with individual line data plan selections ranging from 500 megabytes per month to unlimited data. Family prepaid accounts include a line discount based on the number of total lines. On compatible devices, our prepaid plans also feature video and picture messaging, HD Voice and Video Calling. Our metered prepaid plans include Mobile Hotspot services and allow customers to continue to access our data services at reduced data speeds after using their monthly allowance for 4G LTE high speed data. None of our prepaid plans require an annual contract or credit check.

Our international travel wireless services allow our customers to access voice, text and data services on many of our "World" smartphones, tablets or basic phones from various international destinations, dependent upon the customer's wireless plan. With TravelPass, customers are able to use their domestic talk, text and data allowances while traveling in Mexico, Canada and other countries where TravelPass is available for a flat rate per day.

Access to the Internet is available on all smartphones and nearly all basic phones. In addition, our customers can access the Internet at broadband speeds on notebook computers and tablets that are either wireless enabled or that are used in conjunction with separate dedicated devices that provide a mobile Wi-Fi connection.

We also provide network access needed to deliver various IoT products and services. We work with various companies that purchase network access from us to connect their Open Development certified devices, bundled together with their own solutions, which they sell to end-users.

Wireless Equipment

We offer several categories of wireless equipment, including a variety of smartphone and other handsets, wireless-enabled Internet devices, such as tablets, laptop computers and netbooks and other wireless enabled connected devices, such as smart watches and other wearables, and our Hum product.

Distribution

We use a combination of direct, indirect and alternative distribution channels to market and distribute our products and services.

Our direct channel includes our business-to-business sales operations and systems organization and is focused on supporting the wireless communications needs of consumers and local, regional and national business customers. Company-operated stores are a core component of our distribution strategy. Our "Next Gen Design" retail stores focus on our customer's evolving digital lifestyle.

Our indirect channel includes agents that sell our postpaid and prepaid wireless products and services at retail locations throughout the U.S., as well as through the Internet. The majority of these agents sell both our postpaid and prepaid products and services and do so under exclusive selling arrangements with us. We also have relationships with high-profile national retailers, which sell our postpaid and prepaid wireless products and services, and with various convenience store chains, which sell our prepaid products and services.

Competition

We operate in a highly competitive industry. We compete against other national wireless service providers, including AT&T Inc., Sprint Corporation and T-Mobile USA, Inc., as well as various regional wireless service providers. We also compete for retail activations with resellers that buy bulk wholesale service from wireless service providers for resale, including resellers that buy from us. Competition remains intense as a result of high rates of smartphone penetration in the wireless market, increased network investment by our competitors, the development and deployment of new technologies, the introduction of new products and services, offerings that include additional premium content, new market entrants, the availability of additional spectrum, both licensed and unlicensed and regulatory changes. Competition may also increase as smaller, stand-alone wireless service providers merge or transfer licenses to larger, better capitalized wireless service providers and as mobile virtual network operators resell wireless communication services.

The wireless industry also faces competition from other communications and technology companies seeking to increase their brand recognition and capture customer revenue with respect to the provision of wireless products and services, in addition to non-traditional offerings in mobile data. For example, Microsoft Corporation, Google Inc., Apple Inc. and others are offering alternative means for making wireless voice calls that, in certain cases, can be used in lieu of the wireless provider's voice service, as well as alternative means of accessing video content.

We believe that the following are the most important competitive factors in our industry:

- *Network reliability, capacity and coverage.* We consider a wireless network that consistently provides high-quality and reliable service to be a key differentiator in the U.S. market and driver of customer satisfaction. Lower prices, improved service quality and new wireless service offerings, which in many cases include video content, have led to increased customer usage of wireless services, which, in turn, puts pressure on network capacity. In order to compete effectively, wireless service providers must keep pace with network capacity needs and offer highly reliable national coverage through their networks. We believe that the depth and breadth of our network provides our fundamental strength and is the basis for our competitive advantage in the wireless marketplace.

- *Pricing.* Service and equipment pricing play an important role in the wireless competitive landscape, with plans that address both the postpaid and prepaid customer. As the demand for wireless services continues to grow, we and other wireless service providers are offering service plans at competitive prices that include voice services, data access and text messaging, in some cases on an unlimited basis. Many other wireless service providers have also bundled wireless service offerings with other products while others offer promotional pricing and incentives targeted specifically to customers of Verizon Wireless. We and other wireless service providers, as well as equipment manufacturers, also offer device payment options, which provide consumers with the ability to pay for their device over a period of time, and device leasing arrangements. In addition, aggressive device promotions have also become more common in a highly penetrated market in order to gain share of subscribers interested in changing carriers.

- *Customer service.* We believe that high-quality customer service is a key factor in retaining customers and attracting new customers, including those of other wireless providers. Our customer service, retention and satisfaction programs are based on providing customers with convenient and easy-to-use products and services and focusing on their needs in order to promote long-term relationships and minimize churn. To promote long-term relationships with our customers, we launched the Verizon Up program, which offers a variety of rewards to customers in exchange for points they earn in connection with their account-related transactions with Verizon Wireless. The program offers customers discounts on products, services and access to experiences, such as sporting events, shows and concerts.

- *Product and service development.* As wireless technologies develop and wireless broadband networks proliferate, continued customer and revenue growth will be increasingly dependent on the development of new and enhanced data products and services. We continue to pursue the development and rapid deployment of new and innovative wireless products and services both independently and in collaboration with application and content providers. We also collaborate with various device manufacturers in the development of distinctive smartphones and other wireless devices that can access the growing array of data applications and content available over the Internet. We continue to focus on increasing the penetration of smartphones, tablets and other connected devices throughout our customer base. In addition, as the price for smartphones has continued to increase in the market, our device protection services have grown in importance for consumers.

- *Sales and distribution.* A key to achieving sales success in the wireless industry is the reach and quality of sales channels and distribution points. We believe that attaining the optimal combination of varying distribution channels is important to achieving industry-leading profitability, as measured by operating income. We strive to increase sales through our company-operated stores, outside sales teams and telemarketing, web-based sales and fulfillment capabilities, our extensive indirect distribution network of retail outlets and prepaid replenishment locations, and through manufacturers of laptops and netbooks that can access the Internet on our network at broadband speeds. In addition, we sell network access to both traditional resellers, which resell network services to their end-users, and to various companies to enable wireless communications for their IoT devices or services.

- *Capital resources.* In order to expand the capacity and coverage of their networks and introduce new products and services, wireless service providers require significant capital resources. We generate significant cash flow from operations to enable continued investment.

Our success will depend on our ability to anticipate and respond to various factors affecting the wireless industry. These include the factors described above, as well as new technologies, new business models, changes in customer preferences, regulatory changes, demographic trends, economic conditions and pricing strategies that bundle the services of wireless and cable competitors.

Strategic Transaction

During March 2015, we completed a transaction with American Tower Corporation (American Tower) pursuant to which American Tower acquired the exclusive rights to lease and operate approximately 11,300 of our wireless towers and corresponding ground leases for an upfront payment of $5.0 billion. We have subleased capacity on the towers from American Tower for a minimum of 10 years at current market rates, with options to renew. Under the terms of the lease agreements, American Tower has exclusive rights to lease and operate towers over an average term of approximately 28 years. As the leases expire, American Tower has fixed-price purchase options to acquire these towers based on their anticipated fair market values at the end of the lease terms. As part of this transaction, we also sold 162 towers for $0.1 billion.

See "Network and Technology - Spectrum" for additional information regarding the NextLink Wireless LLC (NextLink) and Straight Path Communications Inc. (Straight Path) strategic transactions related to the Wireless segment.

Wireline

Background

Our Wireline segment provides communications products and enhanced services, including video and data services, corporate networking solutions, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the U.S., as well as to carriers, businesses and government customers both in the U.S. and around the world. In 2018, Wireline revenues were $29.8 billion, representing approximately 23% of Verizon's aggregate revenues.

To compensate for the shrinking market for traditional copper-based products (such as voice services), we continue to build our Wireline business around a fiber-based network supporting data, video and advanced business services - areas where demand for reliable high-speed connections is growing. We continue to seek ways to increase revenue, further realize operating and capital efficiencies and maximize profitability across the segment. We are reinventing our network architecture around a common fiber platform that will support both our wireless and wireline businesses. We expect our "multi-use fiber" Intelligent Edge Network initiative will create opportunities to generate revenue from fiber-based services in our Wireline business.

Wireline Service and Product Offerings

We organize our service and product offerings by the primary customer groups targeted by these offerings - Consumer Markets, Enterprise Solutions, Partner Solutions and Business Markets.

Consumer Markets

Consumer Markets provides residential fixed connectivity solutions, including Internet, TV and voice services. We provide these services over our 100% fiber-optic network under the brand "Fios" and over a traditional copper-based network to customers who are not served by Fios. In 2018, Consumer Markets revenues were $12.6 billion, representing approximately 42% of Wireline's aggregate revenues.

*Internet serv*ices. We offer our Fios customers fast and reliable 100% fiber-optic Internet connectivity. As customers connect more devices in their home and stream more high definition video, the need for a fast and reliable Internet connection is growing. In 2017, we introduced our Gigabit Connection in the marketplace, offering speeds of up to 940 Mbps on download and 880 Mbps on upload. As additional cloud-based applications are introduced, we believe that customers will place an increasing value on upstream bandwidth performance that matches what they already receive for download. In other areas of our footprint where Fios service is not available, we offer high speed Internet (HSI) using Digital Subscriber Line technology.

Video services. We offer video service over our fiber-optic network. As of December 31, 2018, Fios video services were available to homes across 9 states, as well as the District of Columbia. We have several offerings available to our Fios TV customers, including

- *Fios Custom TV,* which provides customers with seven distinct package offerings. Each package includes the local versions of the major broadcast stations and other similar local content and then adds on more than 45 specialty channels driven by popular viewership choices;

- *Fios Traditional TV,* which provides customers with a variety of package offerings. The most basic package offering includes more than 15 channels including core networks while the other packages all include access to more than 280 channels.

- *Fios on Demand,* which gives Fios customers the ability to watch content virtually anytime and anywhere, on any compatible device. Customers who subscribe to Fios Internet and video services also have the ability to upload their photos, music and videos to their personal Fios on Demand Library, which gives them access to this content via various data-capable devices.

- *Fios Multi-Room DVR,* which provides customers the ability to record up to 12 shows at once and control live TV from any room in their home.

We continue to develop and enhance our video platform to maintain driving engagement and improving the customer experience.

Voice services. We offer voice services on our fiber and copper networks, providing local, long distance, and calling features.

Enterprise Solutions

Enterprise Solutions helps customers transform their businesses to compete in the digital economy, with solutions that adapt to increasingly dynamic needs for connectivity, security and collaboration. With the accelerating pace of digital transformation, mitigating risk, maintaining business continuity, and capitalizing on data to create personalized experiences are key priorities for global enterprise companies. Enterprise Solutions offers traditional circuit-based network products and services and advanced networking solutions, including Private Internet Protocol (IP), Ethernet, and Software-Defined Wide Area Network (SD-WAN), and cyber security services, along with our traditional voice services, and advanced workforce productivity and customer contact center solutions. In 2018, Enterprise Solutions revenues were $8.8 billion, representing approximately 30% of Wireline's aggregate revenues.

Networks. We offer a robust portfolio of network connectivity products to help our enterprise and business customers connect with their employees, partners, vendors, customers and, for our government customers, their constituents.

- *Internet.* We offer our enterprise and business customers the ability to connect to the Internet via our Fios Internet and our dedicated Internet access services, which provide extensive bandwidth, configuration and billing options designed to address specific business needs.

- *Private Networks.* Our private networking services connect multiple business locations securely through our Private IP and Ethernet services, generally via fiber-optic based connectivity. Point to point connectivity via Ethernet or Wavelength is also available.

- *Virtual and Software Defined Networks.* We provide our enterprise and business customers with the ability to leverage the power of Software Defined Networking technologies, such as SD-WAN or Virtual Network Services (VNS), with easily ordered and deployed "on demand" capabilities. These services can function "over the top" of our network or those of other carriers, enabling significant customer flexibility, advanced security options and digital/software enablement of their network.

Advanced Communications Services. We offer a suite of services to our enterprise and business customers to help them communicate with their employees, partners, vendors, constituents and customers.

- *Voice over IP (VoIP).* Our VoIP services enable communications via our managed IP based communications services for enterprise and business customers that seek a hosted IP communications/phone system or an IP based telephony service for on-premise phone systems or private branch exchanges (PBX).

- *Unified Communications & Collaboration (UC&C).* Our UC&C services, an expansion of our VoIP services, provide our business customers with unified tools for communications and collaboration, such as instant messaging and presence, and audio, video and web conferencing.

- *Customer Experience/Contact Center.* We offer our business customers the ability to deliver integrated support services to their own customers, employees or constituents. Hosted and on-premise versions are available, which include the ability to support remote agents and integration with our business customer’s back office systems and tools.

Security services. We offer a suite of management and data security services to help our enterprise, business and government customers protect, detect and respond to security threats to their networks, data, applications and infrastructure.

Core services. Core services include core voice and data services, which consist of a comprehensive portfolio of domestic and global solutions utilizing traditional telecommunications technology. Voice services include local exchange, regional, long distance and toll-free calling along with voice messaging services, conferencing and contact center solutions. Core data includes private line and data access networks. Core services also include the provision of customer premises equipment, and installation, maintenance and site services. We continue to transition customers out of copper-based legacy voice and data services to fiber services, including IP and Ethernet.

Partner Solutions

Partner Solutions provides communications services including data, voice, local dial tone and broadband services primarily to local, long distance, and wireless carriers that use our facilities to provide services to their customers. In 2018, Partner Solutions revenues were $4.7 billion, representing approximately 16% of Wireline’s aggregate revenues. A portion of Partner Solutions revenues are generated by a few large telecommunications companies, most of which compete directly with us.

Partner Solutions provides the following key services to both Wireless and Wireline carriers:

Data services. We offer a robust portfolio of data services with varying speeds and options to enhance our wholesale customers’ networks and provide connections to their end-users and subscribers. Our data services include high-speed digital data offerings, such as Ethernet and Wavelength services, as well as core time-division multiplexing (TDM) data circuits, such as DS1s and DS3s. In addition, we receive revenue from data services that is generated from carriers that buy dedicated local exchange capacity to support their private networks. We have also launched a dark fiber product for wireless carriers as demand for wireless data continues to grow and dark fiber plays a larger role in their network architecture.

Voice services. We provide switched access services that allow carriers to complete their end-user calls that originate or terminate within our territory. In addition, we provide originating and terminating voice services throughout the U.S. and globally utilizing our TDM and VoIP networks.

Local services. We offer an array of local dial tone and broadband services to competitive local exchange carriers, some of which are offered to comply with telecommunications regulations. In addition, we offer services such as colocation, resale and unbundled network elements in compliance with applicable regulations.

Business Markets

Business Markets offers tailored voice and networking products, Fios services, IP Networking, advanced voice solutions, security, and managed information technology (IT) services to U.S.-based small and medium businesses, state and local governments, and educational institutions. In 2018, Business Markets revenues were $3.4 billion, representing approximately 11% of Wireline’s aggregate revenues.

In addition to the traditional voice and networking products and Fios services noted in the Consumer Markets section above, Business Markets also offers traditional circuit-based network products and services, advanced networking solutions, advanced communications services, and security services, as noted in the Enterprise Solutions section above.

Competition

The wireline telecommunications industry is highly competitive. We expect competition to intensify further with traditional and non-traditional participants seeking increased market share. Current and potential competitors include cable companies, wireless service providers, domestic and foreign telecommunications providers, satellite television companies, Internet service providers, over-the-top providers and other companies that offer network services and managed enterprise solutions.

In addition, companies with a global presence increasingly compete with our wireline businesses. A relatively small number of telecommunications and integrated service providers with global operations serve customers in the global enterprise market and, to a lesser extent, the global wholesale market. We compete with these providers for large contracts to provide integrated services to global enterprises. Many of these companies have strong market presence, brand recognition and existing customer relationships, all of which contribute to intensifying competition that may affect our future revenue growth.

We believe the following are the most important competitive factors and trends in the wireline industry:

- *Bandwidth (speed) and network reliability.* Consumers and small business customers seek fast and reliable connections for entertainment, communications and productivity. As Internet use increases, so do bandwidth requirements, both downstream and upstream. We and other network-based providers must ensure that our networks can meet these increasing bandwidth requirements. In addition, network reliability and security are increasingly important competitive factors for our Enterprise Solutions and Business Markets customers, which include state and local government and education (SLED) customers and small and medium business (SMB) customers. We continue to invest in our network to be able to meet growing bandwidth demand and provide reliable and secure networks.

- *Pricing.* Cable operators, telecommunications companies and integrated service providers use pricing to capture market share from incumbents. Pricing is also a significant factor as non-traditional modes of providing communication services emerge and new entrants compete for customers. For example, VoIP and portal-based voice and video calling is free or nearly free to customers and is often supported by advertising revenues.

- *Customer service.* Customers expect industry-leading service from their service providers. As technologies and services evolve, the ability to excel in this area is important for customer acquisition and retention. For our Consumer Markets and Business Markets customers, we compete in this area through our service representatives and online support. We provide our Enterprise Solutions customers with ready access to their system and performance information and we conduct proactive testing of our network to identify issues before they affect their customers. In our Partner Solutions business, service improvement is achieved through continued system automation initiatives.

- *Product differentiation.* As a result of pricing pressures, providers need to differentiate their products and services. Customers are shifting their focus from access to applications and are seeking ways to leverage their broadband and video connections. Converged features, such as integrated wireless and wireline functionality, are becoming similarly important, driven by both customer demand and technological advancement.

- *Innovation.* The delivery of new and innovative products and services has been accelerating. To compete effectively, providers need to continuously review, improve and refine their product portfolio and customer service experience and develop and rapidly deploy new products and services tailored to the needs of customers.

In the Consumer Markets business, cable operators are significant competitors. Cable operators have increased the size and capacity of their networks in order to deliver digital products and services. We continue to market competitive bundled offerings that include Fios Internet, TV, and voice services and we have introduced market offers targeted to our Verizon Wireless customers. Several major cable operators also offer bundles with wireless services through strategic relationships.

Customers have more choices for obtaining video content from various online services and that content can be accessed on a TV, computer, tablet or mobile phone. We expect the market will continue to shift from traditional linear video to over-the-top offerings.

We expect customer migration from traditional voice services to wireless services to continue as a growing number of customers place greater value on mobility and wireless companies position their services as a landline alternative. We also face increasing competition from cable operators and other providers of VoIP services as well as Internet portal providers.

In the Enterprise Solutions market, competition remains high, primarily as a result of increased industry focus on technology convergence. We compete in this area with system integrators, carriers, and hardware and software providers. In addition, some of the largest IT services companies are making strategic acquisitions, divesting non-strategic assets or forging new alliances to improve cost structure and focus on solutions which are growth catalysts for technology spending. Many new alliances and acquisitions have focused on emerging fields, such as cloud computing, software delivery, communication applications and other computing tasks via the network, rather than by the use of in-house machines. Carriers have also utilized acquisitions to make significant inroads into enterprise outsourcing markets that have long been dominated by the major IT outsourcers.

Our Partner Solutions business competes with traditional carriers for long-haul, voice and IP services. In addition, mobile video and data needs are driving a greater need for wireless backhaul. Network providers, cable companies and niche players are competitors for this new revenue opportunity.

In Business Markets, customer purchasing behaviors and preferences continue to evolve. Solution speed and simplicity with a consumer-like "look and feel" are becoming key differentiators for both our SMB and SLED customers. SMB customers are seeking full life-cycle offers that simplify the process of starting, running and growing their businesses, while SLED customers want similar services that are high quality and secure, and that enable material improvement in citizen outreach, public safety and city infrastructure performance.

Strategic Transactions

In April 2016, we completed the sale (Access Line Sale) of our local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states to Frontier Communications Corporation (Frontier) for approximately $10.5 billion (approximately $7.3 billion net of income taxes), subject to certain adjustments and including the assumption of $0.6 billion of indebtedness from Verizon by Frontier. The transaction, which included the acquisition by Frontier of the equity interests of Verizon’s incumbent local exchange carriers (ILECs) in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless.

The transaction resulted in Frontier acquiring approximately 3.3 million voice connections, 1.6 million Fios Internet subscribers, 1.2 million Fios video subscribers and the related ILEC businesses from Verizon. Approximately 9,300 Verizon employees who served customers in California, Florida and Texas continued employment with Frontier.

In December 2016, we entered into a definitive agreement, which was subsequently amended in March 2017, with Equinix, Inc. (Equinix) pursuant to which we agreed to sell 23 customer-facing data center sites in the U.S. and Latin America for approximately $3.6 billion, subject to certain adjustments (Data Center Sale). The transaction closed in May 2017.

In February 2016, we entered into a purchase agreement to acquire XO Holdings' wireline business (XO), which owned and operated one of the largest fiber-based IP and Ethernet networks in the U.S. Concurrently, we entered into a separate agreement to utilize certain wireless spectrum from a wholly-owned subsidiary of XO Holdings, NextLink, that held its wireless spectrum. The agreement included an option, subject to certain conditions, to buy NextLink. In February 2017, we completed our acquisition of XO for total cash consideration of approximately $1.5 billion, of which $0.1 billion was paid in 2015.

In April 2017, we exercised our option to buy NextLink for approximately $0.5 billion, subject to certain adjustments, of which $0.3 billion was prepaid in the first quarter of 2017. The transaction closed in January 2018. The acquisition of NextLink was accounted for as an asset acquisition, as substantially all of the value related to the acquired spectrum. Upon closing, we recorded approximately $0.7 billion of wireless licenses, $0.1 billion of a deferred tax liability and $0.1 billion of other liabilities. The spectrum acquired as part of the transaction will be used for our 5G technology deployment.

In August 2017, we entered into a definitive agreement to purchase certain fiber-optic network assets in the Chicago market from WideOpenWest, Inc. (WOW!), a leading provider of communications services. The transaction closed in December 2017. In addition, the parties entered into a separate agreement pursuant to which WOW! will complete the build-out of the network assets in 2019. The total cash consideration for the transactions is approximately $0.3 billion, of which $0.2 billion was received in December 2017.

Additional information regarding these strategic transactions is included in the 2018 Verizon Annual Report to Shareholders in Note 3 to the consolidated financial statements of Verizon Communications Inc. and Subsidiaries, which is incorporated by reference into this report.

Network and Technology

Wireless

Our primary network technology platform is 4G LTE, which provides higher data throughput performance for data services at a lower cost compared to that offered by 3G technologies. In addition, over the past several years, we have been leading the development of 5G wireless technology industry standards and the ecosystems for fixed and mobile 5G wireless services.

Our 4G LTE network is available in approximately 500 markets covering approximately 331 million people, including those in areas served by our LTE in Rural America partners. Under this program, we have collaborated with wireless carriers in rural areas to build and operate a 4G LTE network using each carrier’s network assets and our core 4G LTE equipment and 700 megahertz (MHz) C Block and Advanced Wireless Services (AWS) spectrum. We currently have 21 LTE in Rural America partners that provide 4G LTE coverage to an area covering approximately three million people.

We use HD Calling, enabled by VoLTE, in addition to 3G Code Division Multiple Access (CDMA) technology, to provide voice calling services to our customers.

We consider the reliability, coverage and speed of our wireless network as key factors for our continued success and we strive to provide our customers with the highest network reliability for their wireless services. We believe that steady and consistent network and platform investments provide the foundation for innovative products and services that will fuel profitable growth.

We design and deploy our network in an efficient manner that we believe maximizes the number of successful data sessions, including video, permitting the completion of large file downloads and uploads while delivering on our advertised throughput speeds, and also maximizes the number of calls that are connected on the first attempt and completed without being dropped. We have been densifying our 4G LTE network by utilizing small cell technology, in-building solutions and distributed antenna systems. Network densification not only enables us to add capacity to address increasing mobile video consumption and the growing demand for IoT products and services, but also positions us for the deployment of 5G technology. We are also utilizing existing network capabilities to handle increased traffic without interrupting the quality of the customer experience. We have and will continue to deploy advanced technologies to increase both network capacity and data rates.

Our network includes various elements of redundancy designed to enhance the reliability of our service. To mitigate the impact of power disruptions on our operations, we have battery backup at every switch and every macrocell in our network. We also utilize backup generators at a majority of our macrocells and at every switch location. In addition, we have a fleet of portable backup generators that can be deployed, if needed. We further enhance reliability by using a fully redundant Multiprotocol Label Switching backbone network in critical locations.

In addition to our own network coverage, we have roaming agreements with a number of wireless service providers to enable our customers to receive wireless service in nearly all other areas in the U.S. where wireless service is available. We also offer a variety of international wireless voice and data services to our customers through roaming arrangements with wireless service providers outside of the U.S. Certain of our roaming agreements can be terminated at will by either party upon several months' notice; however, we do not believe that the termination of any of these at-will agreements would have a material adverse effect on our business.

Spectrum

The spectrum licenses we hold can be used for mobile wireless voice, video and data communications services. We are licensed by the Federal Communications Commission (FCC) to provide these wireless services on portions of the 800 MHz band, also known as cellular spectrum, the 1800-1900 MHz band, also known as Personal Communication Services (PCS) spectrum, portions of the 700 MHz upper C band and AWS 1 and 3 spectrum in the 1700 and 2100 MHz bands, in areas that, collectively, cover nearly all of the population of the U.S. This spectrum is collectively called low and mid-band spectrum.

In addition to our low and mid-band spectrum, we have spectrum licenses in the 28 and 39 Gigahertz (GHz) band, collectively called millimeter-wave spectrum. In 2017, we entered into transactions to acquire NextLink and Straight Path, each of which held millimeter-wave spectrum licenses. The NextLink acquisition closed in January 2018 and the Straight Path acquisition closed in February 2018. The spectrum acquired as part of these transactions is being used for our 5G technology deployment.

In January 2015, the FCC completed an auction of 65 MHz of spectrum in the AWS-3 band. We participated in that auction and were the high bidder on 181 spectrum licenses, for which we paid cash of approximately $10.4 billion. The FCC granted us these spectrum licenses in April 2015.

We are aggressively refarming 3G bands on 800 MHz and PCS bands for 4G LTE use. We anticipate that we will need additional spectrum to meet future demand. This increasing demand is driven by growth in customer connections and the increased usage of wireless broadband services that use more bandwidth and require faster rates of speed, as well as the wider deployment of 5G mobile and fixed services. We can meet our future 4G and 5G spectrum needs by acquiring licenses or leasing spectrum from other licensees, or by acquiring new spectrum licenses from the FCC, if and when future FCC spectrum auctions occur. On November 14, 2018, the FCC started two sequential millimeter wave auctions. Verizon is an applicant in the FCC's Auction 101 and Auction 102 relating to millimeter wave spectrum. On January 24, 2019, the FCC announced that Auction 101 had concluded with a total of approximately $702.6 million in bids received for the licenses that were won. The FCC has stated that it will not, and it will not permit any applicant to, disclose the winning bidders of any of the licenses in Auction 101 until Auction 102 concludes. In addition, the FCC has indicated that a third millimeter wave auction will begin in the second half of 2019, and the auction for Priority Access Licenses in the Citizens' Broadband Radio Service (CBRS) 3.5 GHz band may also begin in 2019. In addition to spectrum, we believe that future demand will also be met as we increase the density of our networks and deploy advanced technologies.

From time to time we have exchanged spectrum licenses with other wireless service providers through secondary market swap transactions. We expect to continue to pursue similar opportunities to trade spectrum licenses in order to meet capacity and expansion needs in the future. In certain cases, we have entered into intra market spectrum swaps designed to increase the amount of contiguous spectrum within frequency bands in a specific market. Contiguous spectrum improves network performance and efficiency. These swaps, as well as any spectrum purchases, require us to obtain governmental approvals.

Additional information regarding spectrum license transactions is included in the 2018 Verizon Annual Report to Shareholders in Note 3 to the consolidated financial statements of Verizon Communications Inc. and Subsidiaries, which is incorporated by reference into this report.

5G Deployment

We believe 5G technology can provide users with eight capabilities, or currencies. The eight currencies are peak data rates, mobile data volumes, mobility, connected devices, energy efficiency, service deployment, latency and reliability. In late 2015, we launched the Verizon 5G Technology Forum with key industry partners to develop 5G requirements and standards and conduct testing to accelerate the introduction of 5G technologies. We expect that 5G technology will provide higher throughput than the current 4G LTE technology, lower latency and enable our network to handle more traffic as the number of Internet-connected devices grows. During 2018, we commercially launched 5G Home, our alternative to wired home broadband, on proprietary standards in four U.S. markets; Sacramento, Los Angeles, Houston and Indianapolis. We are the first company to bring 5G broadband Internet service to consumers and we expect to expand coverage as we transition to global standards equipment in 2019. In addition, we expect to launch mobile 5G services in 2019 as compatible devices become available.

Network Equipment and Build-Out

As we continue to build and upgrade our existing 4G LTE network and deploy our 5G network, we must complete a variety of steps, including securing rights to a large number of sites as well as obtaining zoning and other governmental approvals and fiber facilities for both our macro and small cells. As we densify our network, we follow a similar process for small cells, in-building systems and antennas and related radio equipment that comprise distributed antenna systems. We have relationships with a wide variety of vendors that supply various products and services that support our network operations. We utilize tower site management firms as lessors or managers of a portion of our existing leased and owned tower sites.

Wireline

Fios

Residential broadband service has seen significant growth in bandwidth demand over the past several years, and we believe that demand will continue to grow. The continued emergence of new video services, new data applications and the proliferation of IP devices in the home will continue to drive new network requirements for increased data speeds and throughput. We believe that the Passive Optical Network (PON) technology underpinning Fios makes us well positioned to meet these demands in a cost-effective and efficient manner. Our PON technology provides the flexibility to adapt our network to deliver increased data speeds and new services without major overhauls or replacements to the fiber-optic infrastructure.

While deployed initially as a consumer broadband network, our PON infrastructure is also finding more widespread application in the enterprise sector, especially as businesses increasingly migrate to Ethernet-based access services.

Global IP

Verizon owns and operates one of the largest global fiber networks in the world, providing connectivity to business customers in more than 150 countries. Our global IP network includes long-haul, metro and submarine assets that span over 1 million route miles and enable and support international operations.

Global business is rapidly evolving to an "everything-as-a-service" model in which business customers seek cloud-based, converged enterprise solutions delivered securely via managed and professional services. With the continued deployment of packet optical transport strategy, Verizon is creating a single, high-capacity global network platform that combines optical transport with advanced packet switching technology. The result is a global IP network that can offer powerful solutions to these service demands.

We believe that our continued focus on enhancing our domestic and global fiber-based networks, and achieving cost efficient solutions through new technology deployments, will help Verizon advance its position as a provider of choice to residential, SMB, government and enterprise customers.

Intelligent Edge Network

We are evolving our network architecture to a next-generation multi-use platform, providing improved efficiency, increased automation and opportunities for edge computing services that will support both our fiber-based and radio access network technologies. We call this the Intelligent Edge Network. We expect that the new network architecture will simplify operations by eliminating legacy network elements, improve our 4G LTE coverage, speed the deployment of 5G technology, deliver high-speed Fios broadband to homes and businesses, and create new enterprise opportunities in the business market.

Media

Background

Verizon has been investing in emerging technology that taps into the market shift to digital content and advertising. Our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, includes diverse media and technology brands that serve the global community using powerful technology, trusted content and differentiated data. Our strategy is built on providing consumers with owned and operated search properties and finance, news, sports and entertainment offerings and providing other businesses and partners access to consumers through digital advertising platforms. We have been investing in video assets and capabilities with a goal of building a global platform and developing new business models for reaching the digital video customer. We believe the growth in video consumption using mobile devices provides us with an opportunity for revenue growth. Through various acquisitions and investments, we are expanding the ways in which we can deliver content to our customers.

Verizon Media Group Products and Solutions

Ad Platform

Our Verizon Media Ad Platform creates value for advertisers with a simplified suite of intelligent advertising, video and broadcast publishing solutions across all devices (desktop, mobile and television). Verizon Media's data content (i.e. finance, news, sports and entertainment), communication services and programmatic algorithms connect advertisers with their target audiences. Verizon Media’s business is comprised primarily of search advertising, display advertising and subscriptions.

- *Search Platforms.* Our search properties serve as a guide for users to discover the information on the Internet that matters to them the most. Verizon Media serves click-based search advertisements generated by proprietary algorithmic technology, as well as advertisements from partners. Verizon Media provides the underlying search products that facilitate user searches within Verizon Media and third party partner properties. In December 2018, we entered into an exclusive search advertising agreement with Microsoft whereby Verizon Media will exclusively send traffic to Microsoft in event of an ad call, commencing the first quarter of 2019.

- *Display Advertising.* Display advertising is made up of both graphical and performance-based advertising and takes the form of impression-based contracts, time-based contracts and performance-based contracts. Verizon Media display ads leverage a comprehensive set of proprietary data signals to identify and engage the right users on Verizon Media properties and across the web. Through Verizon Media platforms, we provide advertisers the ability to programmatically buy and measure advertising across all screens and advertising formats using self-serve technology or our managed services; and to buy advertising inventory using traditional advertising sales methods.

- *Subscription Memberships.* Our paid subscription offerings include services such as privacy and security solutions and computer protection.

Verizon Digital Media Services

As the digital platform reshapes the delivery of media and entertainment content, there is an increasing need for a stable, high-quality video delivery platform. Verizon Digital Media Services (VDMS) offers a scalable platform for delivering content, including live broadcasts, video on demand, games, software and websites, to our customers on their devices at any time. This platform is targeted at media and entertainment companies and other businesses focused on delivering their digital products and services through the Internet. We also expect, through the VDMS platform, to support video initiatives and offerings, such as Fios and wireless, across the business.

We have invested in converging technologies and services involving content delivery networks, video streaming and related consumer hardware to leverage new content models. Our wireless network enables us to move towards a unified video strategy that positions us to take advantage of this growth opportunity. We began using Multimedia Broadcast Multicast Service (MBMS) technology to develop our LTE Multicast service. MBMS has the potential to enhance our network efficiency and provide our customers with access to high-quality live streaming video content.

Internet of Things and Telematics

The adoption of IoT technology continues to grow as companies across a wide range of industries are leveraging IoT technologies to increase efficiency, gain better customer insights, facilitate compliance and build new business models. IoT growth is expanding broadly, and adoption is particularly strong in the telematics and transportation industries in addition to the fields of smart communities, healthcare, utilities and energy management. We are building IoT capabilities by leveraging business models that monetize usage on our network at the connectivity, platform and solution layers. We have developed IoT solutions that address key market needs for electric and other utilities and pharmaceutical companies and others with complex supply chains. In addition, our IoT customers can turn the data that our solutions provide into actionable opportunities to develop new services and create revenue growth and manage costs.

Our IoT services offer end-to-end solutions for various IoT vertical markets, such as:

- *Fleet management and telematics.* We provide in-vehicle solutions that enable vehicle navigation, GPS tracking, engine diagnostic monitoring and maintenance alerts, driver behavior analysis and safety solutions functionality such as crash notification and roadside assistance;

- *Energy.* We offer solutions targeted to providing the energy sector with greater visibility into energy usage and the ability to remotely monitor devices used to track energy usage; and

- *Smart Communities.* Our solutions enable localities to collect data from IoT and connected machine technologies with the goal of improving public safety, managing traffic, reducing pollution, identifying revenue generation opportunities, making efficient use of limited resources and attracting businesses, residents and workers.

Our telematics business, branded Verizon Connect, provides a full array of solutions to both businesses and consumers that combine location-based software, services and data intelligence. Our solutions enable our customers to track, safeguard and optimize vehicles, equipment and data. Verizon Connect’s commercial telematics business was formed by combining our Networkfleet business with the telematics companies acquired in 2016 - Fleetmatics Group PLC, a global provider of fleet and mobile workforce management solutions, and Telogis, Inc., a global, cloud-based mobile enterprise management software business.

Verizon Connect provides our enterprise and SMB customers with advanced solutions and scale in distribution, research and development, and customer support. Our software solutions support fleet tracking management, compliance management, field service management, asset tracking and other types of mobile resource management business needs.

Our Verizon Connect consumer offering is anchored by our Hum product. Hum is an aftermarket vehicle technology and subscription service that provides consumers with diagnostic technology in their vehicles, access to live assistance and roadside assistance with GPS accuracy. Our Hum service also offers the ability to connect with a certified mechanic to diagnose potential problems and offer solutions. We also offer end-to-end solutions to automotive OEMs in support of connected vehicle programs that provide value to consumers.

Strategic Transactions

In June 2015, we completed our acquisition of AOL Inc. (AOL), a leader in digital content and advertising. AOL's business model aligns with our approach, and we believe that its combination of owned and operated content properties plus a digital advertising platform enhances our ability to further develop future revenue streams.

In June 2017, we completed our acquisition of the operating business of Yahoo! Inc. (Yahoo), a leader in search, communications, digital content and advertising. Additional discussion of the transaction is included in the 2018 Verizon Annual Report to Shareholders in Note 3 to the consolidated financial statements of Verizon Communications Inc. and Subsidiaries, which is incorporated by reference into this report.

We have established relationships with leading sports leagues to bring compelling content to our customers across our digital platforms. In December 2017, we entered into a multi-year partnership with the National Football League (NFL) in which Verizon's portfolio of premium digital and mobile media properties, such as Yahoo Sports, stream in-market and national games, including national pre-season, regular season and playoff games, and the Super Bowl, to mobile phones. In January 2018, we entered into an innovative, multi-year partnership with the National Basketball Association (NBA) that will deliver one of the most comprehensive video streaming offerings of NBA content - from live out-of-market games via NBA League Pass to highlights, fantasy basketball, original programming and more via Yahoo Sports, Yahoo Fantasy and across Verizon's family of media brands. As part of the partnership, the NBA and Verizon will unveil a series of innovative collaborations leveraging Verizon's leading network and technology to deliver premium NBA content and unique fan experiences. Verizon also has rights to deliver leading soccer games, including La Liga and Liga MX, to its customers.

We have also entered into content partnerships to realize synergies available within the marketplace. In April 2018, we entered into an agreement with Samsung in which our Gemini advertising platform became the exclusive provider of native digital advertising on Samsung mobile products on the Verizon network. In May 2018, Verizon selected Amazon Web Services, Inc. as its preferred public cloud provider. Also, in January 2019, Verizon Media entered into a multi-year global native advertising deal with Microsoft to provide marketers access to 20 percent more native advertising inventory through our Ad Platforms; and an exclusive search advertising partnership in which all search advertising across Verizon Media properties will be served by Microsoft Bing.

Patents, Trademarks and Licenses

We own or have licenses to various patents, copyrights, trademarks, domain names and other intellectual property rights necessary to conduct our business. We actively pursue the filing and registration of patents, copyrights, domain names, trademarks and service marks to protect our intellectual property rights within the United States and abroad. We also actively grant licenses, in exchange for appropriate fees or other consideration and subject to appropriate safeguards and restrictions, to other companies that enable them to utilize certain of our intellectual property rights and proprietary technology as part of their products and services. Such licenses enable the licensees to take advantage of the results of Verizon's research and development efforts. While these licenses result in valuable consideration being paid to us, we do not believe that the loss of such consideration, or the expiration of any of our intellectual property rights, would have a material effect on our results of operations.

We periodically receive offers from third parties to purchase or obtain licenses for patents and other intellectual property rights in exchange for royalties or other payments. We also periodically receive notices alleging that our products or services infringe on third-party patents or other intellectual property rights. These claims, whether against us directly or against third-party suppliers of products or services that we, in turn, sell to our customers, if successful, could require us to pay damages or royalties, or cease offering the relevant products or services.

Acquisitions and Divestitures

Information about our acquisitions and divestitures is included in the 2018 Verizon Annual Report to Shareholders under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations - Acquisitions and Divestitures" and in Note 3 to the consolidated financial statements of Verizon Communications Inc. and subsidiaries, which is incorporated by reference into this report.

Regulatory and Competitive Trends

Regulatory and Competitive Landscape

Verizon operates in a regulated and highly competitive market. Current and potential competitors include other voice and data service providers such as other wireless companies, traditional telephone companies, cable companies, Internet service providers, software and application providers, and other non-traditional companies. Many of these companies have strong market presence, brand recognition and existing customer relationships, all of which contribute to intensifying competition that may affect our future revenue growth. Some of our competitors also are subject to fewer regulatory constraints than Verizon. For many services offered by Verizon, the FCC is our primary regulator. The FCC has jurisdiction over interstate telecommunications services and other matters under the Communications Act of 1934, as amended (Communications Act or Act). Other Verizon services are subject to state and local regulation.

Federal Regulation

Wireless Services

The FCC regulates several aspects of our wireless operations. Generally, the FCC has jurisdiction over the construction, operation, acquisition and transfer of wireless communications systems. All wireless services require use of radio frequency spectrum, the assignment and distribution of which is subject to FCC oversight. Verizon anticipates that it will need additional spectrum to meet future demand. We can meet our needs for licensed spectrum by purchasing licenses or leasing spectrum from others, or by participating in a competitive bidding process to acquire new spectrum from the FCC. Those processes are subject to certain reviews, approvals and potential conditions.

Today, Verizon holds FCC spectrum licenses that allow it to provide a wide range of mobile and fixed communications services, including both voice and data services. FCC spectrum licenses typically have a term of 10 years, at which time they are subject to renewal. While the FCC has routinely renewed all of Verizon’s wireless licenses, challenges could be raised in the future. If a wireless license was revoked or not renewed, Verizon would not be permitted to provide services on the spectrum covered by that license. Some of our licenses require us to comply with so-called "open access" FCC regulations, which generally require licensees of particular spectrum to allow customers to use devices and applications of their choice, subject to certain technical limitations. The FCC has also imposed certain specific mandates on wireless carriers, including construction and geographic coverage requirements, technical operating standards, provision of enhanced 911 services, roaming obligations and requirements for wireless tower and antenna facilities.

Broadband

Verizon offers many different broadband services. Traditionally, the FCC recognized broadband Internet access services as "information services" subject to a "light touch" regulatory approach rather than to the traditional, utilities-style regulations. In 2015, the FCC declared that broadband Internet access services are "telecommunications services" subject to common carriage regulation under Title II of the Communications Act. In December 2017, the FCC adopted an order reversing the 2015 Title II Order to return to "light touch" regulation of broadband Internet access services. This order is currently being challenged in the courts. Regardless of regulation, Verizon remains committed to the open Internet, which provides consumers with competitive choices and unblocked access to lawful websites and content when, where, and how they want, and our commitment to our customers can be found on our website at http://responsibility.verizon.com/broadband-commitment.

Wireline Voice

Verizon offers many different wireline voice services, including traditional telephone service and other services that rely on technologies such as VoIP. For regulatory purposes, legacy telephone services are generally considered to be "common carrier" services. Common carrier services are subject to heightened regulatory oversight with respect to rates, terms and conditions and other aspects of the services. The FCC has not decided the regulatory classification of VoIP but has said VoIP service providers must comply with certain rules, such as 911 capabilities and law enforcement assistance requirements.

Video

Verizon offers a multichannel video service that is regulated like traditional cable service. The FCC has a body of rules that apply to cable operators, and these rules also generally apply to Verizon. In areas where Verizon offers its facilities-based multichannel video services, Verizon has typically been required to obtain a franchise from local authorities.

Privacy and Data Security

We are subject to federal, state and international laws and regulations relating to privacy and data security that impact all parts of our business, including wireline, wireless, broadband and the development and roll out of new products, such as those in the media and IoT space. At the federal level, our voice business is subject to the FCC's privacy requirements. Oversight of broadband Internet access privacy and data security, which had shifted from the Federal Trade Commission (FTC) to the FCC following the FCC's adoption of its 2015 Title II Order, returned to the FTC as a result of the FCC's repeal of the 2015 Title II Order. Generally, attention to privacy and data security requirements is increasing at both the state and federal level, and several privacy-related bills have been introduced or are under considerations at each level. In addition, a new data protection regulation went into effect in Europe in May 2018 that includes significant penalties for non-compliance, and a new privacy law is scheduled to take effect in California in 2020. These laws could have a significant impact on certain of our businesses.

Public Safety and Cybersecurity

The FCC has played a role in addressing public safety concerns by regulating emergency communications services and mandating widespread availability of both media (broadcast/cable) and wireless emergency alerting services. In response to cyber attacks that have occurred or could occur in the future, however, the FCC or other regulators may attempt to increase regulation of the cybersecurity practices of providers.

Intercarrier Compensation and Network Access

The FCC regulates some of the rates that carriers pay each other for the exchange of voice traffic (particularly traditional wireline traffic) over different networks and other aspects of interconnection for some voice services. The FCC also regulates some of the rates and terms and conditions for certain wireline "business data services" and other services and network facilities. Verizon is both a seller and a buyer of these services, and both makes and receives interconnection payments. In April 2017, the FCC issued an order, which is currently under appeal, that revised the regulatory structure for business data services, eliminating tariffing obligations and ex ante price regulations in markets the FCC determined to be competitive. The FCC has focused in recent years on whether changes in the rates, terms and conditions for both the exchange of traffic and for business data services may be appropriate.

State Regulation and Local Regulation

Wireless Services

The Act generally preempts regulation by state and local governments of the entry of, or the rates charged by, wireless carriers. The Act does not prohibit states from regulating the other "terms and conditions" of wireless service. For example, some states attempt to regulate wireless customer billing matters and impose reporting requirements. Several states also have laws or regulations that address safety issues (e.g., use of wireless handsets while driving) and taxation matters. In addition, wireless tower and antenna facilities are often subject to state and local zoning and land use regulation, and securing approvals for new or modified facilities is often a lengthy and expensive process.

Wireline Services

State public utility commissions regulate Verizon’s telephone operations with respect to certain telecommunications intrastate matters. Verizon operates as an "incumbent local exchange carrier" in nine states and the District of Columbia. These incumbent operations are subject to various levels of pricing flexibility and other state oversight and requirements. Verizon also has other wireline operations that are more lightly regulated. In addition, as a video services operator in many states, Verizon has been required to obtain a cable franchise from local government entities, or in some cases a state-wide franchise, and comply with certain one-time and ongoing obligations, as a result.

Environmental Matters

Reserves have been established to cover environmental matters relating to discontinued businesses and past telecommunications activities. These reserves include funds to address contamination at the site of a former Sylvania facility in Hicksville, NY, which had processed nuclear fuel rods in the 1950s and 1960s. In September 2005, the Army Corps of Engineers (ACE) accepted the site into its Formerly Utilized Sites Remedial Action Program. As a result, the ACE has taken primary responsibility for addressing the contamination at the site. An adjustment to the reserves may be made after a cost allocation is conducted with respect to the past and future expenses of all of the parties. Adjustments to the environmental reserve may also be made based upon the actual conditions found at other sites requiring remediation.

Executive Officers

See Part III, Item 10. "Directors, Executive Officers and Corporate Governance" of this Annual Report on Form 10-K for information about our executive officers.

Employees

As of December 31, 2018, Verizon and its subsidiaries had approximately 144,500 employees. Labor unions represent approximately 23% of our employees.

Information on Our Internet Website

We make available, free of charge on our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports at http://www.verizon.com/about/investors as soon as reasonably practicable after such reports are electronically filed with the Securities and Exchange Commission (SEC).

Website references in this report are provided as a convenience and do not constitute, and should not be viewed as, incorporation by reference of the information contained on, or available through, the websites. Therefore, such information should not be considered part of this report.

Cautionary Statement Concerning Forward-Looking Statements

In this report we have made forward-looking statements. These statements are based on our estimates and assumptions and are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed future results of operations. Forward-looking statements also include those preceded or followed by the words "anticipates," "believes," "estimates," "expects," "hopes" or similar expressions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

The following important factors, along with those discussed elsewhere in this report and in other filings with the SEC, could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements:

- adverse conditions in the U.S. and international economies;
- the effects of competition in the markets in which we operate;
- material changes in technology or technology substitution;
- disruption of our key suppliers' provisioning of products or services;
- changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks;
- breaches of network or information technology security, natural disasters, terrorist attacks or acts of war or significant litigation and any resulting financial impact not covered by insurance;
- our high level of indebtedness;
- an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations or adverse conditions in the credit markets affecting the cost, including interest rates, and/or availability of further financing;
- material adverse changes in labor matters, including labor negotiations, and any resulting financial and/or operational impact;
- significant increases in benefit plan costs or lower investment returns on plan assets;
- changes in tax laws or treaties, or in their interpretation;
- changes in accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings;
- the inability to implement our business strategies; and
- the inability to realize the expected benefits of strategic transactions.

Item 1A. Risk Factors

The following discussion of "Risk Factors" identifies the most significant factors that may adversely affect our business, operations, financial condition or future performance. This information should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Result of Operations" and the consolidated financial statements and related notes. The following discussion of risks is not all-inclusive but is designed to highlight what we believe are important factors to consider when evaluating our business and expectations. These factors could cause our future results to differ materially from our historical results and from expectations reflected in forward-looking statements.

Operational Risks

Cyber attacks impacting our networks or systems could have an adverse effect on our business.

Cyber attacks, including through the use of malware, computer viruses, dedicated denial of services attacks, credential harvesting, social engineering and other means for obtaining unauthorized access to or disrupting the operation of our networks and systems and those of our suppliers, vendors and other service providers, could have an adverse effect on our business. Cyber attacks may cause equipment failures, loss of information, including sensitive personal information of customers or employees or valuable technical and marketing information, as well as disruptions to our or our customers' operations. Cyber attacks against companies, including Verizon, have increased in frequency, scope and potential harm in recent years. Further, the perpetrators of cyber attacks are not restricted to particular groups or persons. These attacks may be committed by company employees or external actors operating in any geography, including jurisdictions where law enforcement measures to address such attacks are unavailable or ineffective, and may even be launched by or at the behest of nation states. Cyber attacks may occur alone or in conjunction with physical attacks, especially where disruption of service is an objective of the attacker. While, to date, we have not been subject to cyber attacks which, individually or in the aggregate, have been material to Verizon's operations or financial condition, the preventive actions we take to reduce the risks associated with cyber attacks, including protection of our systems and networks, may be insufficient to repel or mitigate the effects of a major cyber attack in the future.

The inability to operate or use our networks and systems or those of our suppliers, vendors and other service providers as a result of cyber attacks, even for a limited period of time, may result in significant expenses to Verizon and/or a loss of market share to other communications providers. The costs associated with a major cyber attack on Verizon could include expensive incentives offered to existing customers and business partners to retain their business, increased expenditures on cybersecurity measures and the use of alternate resources, lost revenues from business interruption and litigation. The potential costs associated with these attacks could exceed the insurance coverage we maintain. Further, certain of Verizon's businesses, such as those offering security solutions and infrastructure and cloud services to business customers, could be negatively affected if our ability to protect our own networks and systems is called into question as a result of a cyber attack. Moreover, our increasing presence in the IoT industry with offerings of telematics products and services, including vehicle telematics, could also increase our exposure to potential costs and expenses and reputational harm in the event of cyber attacks impacting these products or services. In addition, a compromise of security or a theft or other compromise of valuable information, such as financial data and sensitive or private personal information, could result in lawsuits and government claims, investigations or proceedings. Any of these occurrences could damage our reputation, adversely impact customer and investor confidence, and could further result in a material adverse effect on Verizon's results of operation or financial condition.

Natural disasters, terrorist acts or acts of war could cause damage to our infrastructure and result in significant disruptions to our operations.

Our business operations are subject to interruption by natural disasters, power outages, terrorist attacks, other hostile acts and events beyond our control. Such events could cause significant damage to our infrastructure upon which our business operations rely, resulting in degradation or disruption of service to our customers. While we maintain insurance coverage for some of these events, the potential liabilities associated with these events could exceed the insurance coverage we maintain. Our system redundancy may be ineffective or inadequate, and our disaster recovery planning may not be sufficient for all eventualities. These events could also damage the infrastructure of the suppliers that provide us with the equipment and services that we need to operate our business and provide products to our customers. A natural disaster or other event causing significant physical damage could cause us to experience substantial losses resulting in significant recovery time and expenditures to resume operations. In addition, these occurrences could result in lost revenues from business interruption as well as damage to our reputation.

We depend on key suppliers and vendors to provide equipment that we need to operate our business.

We depend on various key suppliers and vendors to provide us, directly or through other suppliers, with equipment and services, such as fiber, switch and network equipment, smartphones and other wireless devices that we need in order to operate our business and provide products to our customers. For example, our smartphone and other device suppliers often rely on one vendor for the manufacture and supply of critical components, such as chipsets, used in their devices. If these suppliers or vendors fail to provide equipment or service on a timely basis or fail to meet our performance expectations, we may be unable to provide products and services as and when requested by our customers. We also may be unable to continue to maintain or upgrade our networks. Because of the cost and time lag that can be associated with transitioning from one supplier to another, our business could be substantially disrupted if we were required to, or chose to, replace the products or services of one or more major suppliers with products or services from another source, especially if the replacement became necessary on short notice. Any such disruption could increase our costs, decrease our operating efficiencies and have a material adverse effect on our business, results of operations and financial condition.

The suppliers and vendors on which we rely may also be subject to litigation with respect to technology on which we depend, including litigation involving claims of patent infringement. Such claims are frequently made in the communications industry. We are unable to predict whether our business will be affected by any such litigation. We expect our dependence on key suppliers to continue as we develop and introduce more advanced generations of technology.

A significant portion of our workforce is represented by labor unions, and we could incur additional costs or experience work stoppages as a result of the renegotiation of our labor contracts.

As of December 31, 2018, approximately 23% of our workforce was represented by labor unions. While we have labor contracts in place with these unions, with subsequent negotiations we could incur additional costs and/or experience work stoppages, which could adversely affect our business operations. In addition, while less than 1% of the workforce of our wireless and other businesses outside of wireline is represented by unions, we cannot predict what level of success unions may have in further organizing this workforce or the potentially negative impact it would have on our operations.

Economic and Strategic Risks

We face significant competition that may reduce our profits.

We face significant competition in our industries. The rapid development of new technologies, services and products has eliminated many of the traditional distinctions among wireless, cable, Internet, local and long distance communication services and brought new competitors to our markets, including other telephone companies, cable companies, wireless service providers, satellite providers, application and device providers and providers of VoIP services. While these changes have enabled us to offer new types of products and services, they have also allowed other providers to broaden the scope of their own competitive offerings. If we are unable to compete effectively, we could experience lower than expected revenues and earnings. A projected sustained decline in any of our reporting units' revenues and earnings could have a significant impact on its fair value and cause us to record goodwill impairment charges in the future. For example, in the fourth quarter of 2018, we recognized a $4.6 billion ($4.5 billion after-tax) goodwill impairment charge on our Media reporting unit. The amount of any impairment charge could be significant and could have a material adverse impact on our financial condition and results of operations for the period in which the charge is taken. In addition, wireless service providers are significantly altering the financial relationships with their customers through commercial offers that vary service and device pricing, promotions, incentives and levels of service provided – in some cases specifically targeting Verizon Wireless customers. Our ability to compete effectively will depend on, among other things, our network quality, capacity and coverage, the pricing of our products and services, the quality of our customer service, our development of new and enhanced products and services, the reach and quality of our sales and distribution channels and our capital resources. It will also depend on how successfully we anticipate and respond to various factors affecting our industries, including new technologies and business models, changes in consumer preferences and demand for existing services, demographic trends and economic conditions. If we are not able to respond successfully to these competitive challenges, we could experience reduced profits.

If we are not able to adapt to changes and disruptions in technology and address changing consumer demand on a timely basis, we may experience a decline in the demand for our services, be unable to implement our business strategy and experience reduced profits.

Our industries are rapidly changing as new technologies are developed that offer consumers an array of choices for their communications needs and allow new entrants into the markets we serve. In order to grow and remain competitive, we will need to adapt to future changes in technology, enhance our existing offerings and introduce new offerings to address our customers' changing demands. If we are unable to meet future challenges from competing technologies on a timely basis or at an acceptable cost, we could lose customers to our competitors. We may not be able to accurately predict technological trends or the success of new services in the market. In addition, there could be legal or regulatory restraints on our introduction of new services. If our services fail to gain acceptance in the marketplace, or if costs associated with the implementation and introduction of these services materially increase, our ability to retain and attract customers could be adversely affected.

In addition to introducing new offerings and technologies, such as 5G technology, we must phase out outdated and unprofitable technologies and services. If we are unable to do so on a cost-effective basis, we could experience reduced profits. In addition, there could be legal or regulatory restraints on our ability to phase out current services.

Adverse conditions in the U.S. and international economies could impact our results of operations.

Unfavorable economic conditions, such as a recession or economic slowdown in the U.S. or elsewhere, could negatively affect the affordability of and demand for some of our products and services. In difficult economic conditions, consumers may seek to reduce discretionary spending by forgoing purchases of our products, electing to use fewer higher margin services, dropping down in price plans or obtaining lower-cost products and services offered by other companies. Similarly, under these conditions, the business customers that we serve may delay purchasing decisions, delay full implementation of service offerings or reduce their use of services. In addition, adverse economic conditions may lead to an increased number of our consumer and business customers that are unable to pay for services. If these events were to occur, it could have a material adverse effect on our results of operations.

Legal and Regulatory Risks

Changes in the regulatory framework under which we operate could adversely affect our business prospects or results of operations.

Our domestic operations are subject to regulation by the FCC and other federal, state and local agencies, and our international operations are regulated by various foreign governments and international bodies. These regulatory regimes frequently restrict or impose conditions on our ability to operate in designated areas and provide specified products or services. We are frequently required to maintain licenses for our operations and conduct our operations in accordance with prescribed standards. We are often involved in regulatory and other governmental proceedings or inquiries related to the application of these requirements. It is impossible to predict with any certainty the outcome of pending federal and state regulatory proceedings relating to our operations, or the reviews by federal or state courts of regulatory rulings. Without relief, existing laws and regulations may inhibit our ability to expand our business and introduce new products and services. Similarly, we cannot guarantee that we will be successful in obtaining the licenses needed to carry out our business plan or in maintaining our existing licenses. For example, the FCC grants wireless licenses for terms generally lasting 10 years, subject to renewal. The loss of, or a material limitation on, certain of our licenses could have a material adverse effect on our business, results of operations and financial condition.

New laws or regulations or changes to the existing regulatory framework at the federal, state and local, or international level, such as those described below, could restrict the ways in which we manage our wireline and wireless networks and operate our Media and Telematics businesses, impose additional costs, impair revenue opportunities and potentially impede our ability to provide services in a manner that would be attractive to us and our customers.

- *Privacy and data protection* - we are subject to federal, state and international laws related to privacy and data protection. A new data protection regulation, which went into effect in Europe in May 2018, includes significant penalties for non-compliance. A new privacy law scheduled to take effect in California in 2020, also could have a significant impact on certain of our businesses.

- *Regulation of broadband Internet access services* - In its 2015 Title II Order, the FCC nullified its longstanding "light touch" approach to regulating broadband Internet access services and "reclassified" these services as telecommunications services subject to utilities-style common carriage regulation. The FCC repealed the 2015 Title II Order in December 2017, and returned to its traditional light-touch approach for these services. The 2017 order has been appealed to the D.C. Circuit; the outcome and timing of this appeal or any other challenge remains uncertain. Several states have also adopted or are considering adopting laws or executive orders that would impose net neutrality and other requirements on some of our services (in some cases different from the FCC's 2015 rules). The enforceability and effect of these state rules is uncertain.

- *"Open Access"* - we hold certain wireless licenses that require us to comply with so-called "open access" FCC regulations, which generally require licensees of particular spectrum to allow customers to use devices and applications of their choice. Moreover, certain services could be subject to conflicting regulation by the FCC and/or various state and local authorities, which could significantly increase the cost of implementing and introducing new services.

The further regulation of broadband, wireless and our other activities and any related court decisions could restrict our ability to compete in the marketplace and limit the return we can expect to achieve on past and future investments in our networks.

We are subject to a significant amount of litigation, which could require us to pay significant damages or settlements.

We are subject to a substantial amount of litigation, including, from time to time, shareholder derivative suits, patent infringement lawsuits, antitrust class actions, wage and hour class actions, personal injury claims, property claims, and lawsuits relating to our advertising, sales, billing and collection practices. In addition, our wireless business also faces personal injury and wrongful death lawsuits relating to alleged health effects of wireless phones or radio frequency transmitters. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay significant awards or settlements.

Financial Risks

Verizon has significant debt, which could increase further if Verizon incurs additional debt in the future and does not retire existing debt.

As of December 31, 2018, Verizon had approximately $103.0 billion of outstanding unsecured indebtedness, as well as approximately $9.4 billion of unused borrowing capacity under its existing credit facility. Verizon's debt level and related debt service obligations could have negative consequences, including:

- requiring Verizon to dedicate significant cash flow from operations to the payment of principal, interest and other amounts payable on its debt, which would reduce the funds Verizon has available for other purposes, such as working capital, capital expenditures and acquisitions;

- making it more difficult or expensive for Verizon to obtain any necessary future financing for working capital, capital expenditures, debt service requirements, debt refinancing, acquisitions or other purposes;

- reducing Verizon's flexibility in planning for or reacting to changes in its industries and market conditions;

- making Verizon more vulnerable in the event of a downturn in its business; and

- exposing Verizon to increased interest rate risk to the extent that its debt obligations are at variable interest rates.

Adverse changes in the credit markets could increase our borrowing costs and the availability of financing.

We require a significant amount of capital to operate and grow our business. We fund our capital needs in part through borrowings in the public and private credit markets. Adverse changes in the credit markets, including increases in interest rates, could increase our cost of borrowing and/or make it more difficult for us to obtain financing for our operations or refinance existing indebtedness. In addition, our borrowing costs can be affected by short- and long-term debt ratings assigned by independent rating agencies, which are based, in significant part, on our performance as measured by customary credit metrics. A decrease in these ratings would likely increase our cost of borrowing and/or make it more difficult for us to obtain financing. A severe disruption in the global financial markets could impact some of the financial institutions with which we do business, and such instability could also affect our access to financing.

Increases in costs for pension benefits and active and retiree healthcare benefits may reduce our profitability and increase our funding commitments.

With approximately 144,500 employees and approximately 195,000 retirees as of December 31, 2018 eligible to participate in Verizon's benefit plans, the costs of pension benefits and active and retiree healthcare benefits have a significant impact on our profitability. Our costs of maintaining these plans, and the future funding requirements for these plans, are affected by several factors, including the legislative and regulatory uncertainty regarding the potential modification of the Patient Protection and Affordable Care Act, increases in healthcare costs, decreases in investment returns on funds held by our pension and other benefit plan trusts and changes in the discount rate and mortality assumptions used to calculate pension and other postretirement expenses. If we are unable to limit future increases in the costs of our benefit plans, those costs could reduce our profitability and increase our funding commitments.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal properties do not lend themselves to simple description by character and location. Our total gross investment in property, plant and equipment was approximately $253 billion at December 31, 2018 and $246 billion at December 31, 2017, including the effect of retirements, but before deducting accumulated depreciation. Our gross investment in property, plant and equipment consisted of the following:

At December 31,	**2018**	2017
Network equipment	**78.0%**	78.3%
Land, buildings and building equipment	**12.4%**	12.1%
Furniture and other	**9.6%**	9.6%
	100.0%	100.0%

Our properties as a percentage of total properties are as follows:

At December 31,	**2018**	2017
Wireline	**51.2%**	50.7%
Wireless	**46.5%**	47.1%
Other	**2.3%**	2.2%
	100.0%	100.0%

Network equipment consists primarily of cable (aerial, buried, underground or undersea) and the related support structures of poles and conduit, wireless plant, switching equipment, network software, transmission equipment and related facilities. Land, buildings and building equipment consists of land and land improvements, central office buildings or any other buildings that house network equipment, and buildings that are used for administrative and other purposes. Substantially all the switching centers are located on land and in buildings we own due to their critical role in the network and high set-up relocation costs. We also maintain facilities throughout the U.S. comprised of administrative and sales offices, customer care centers, retail sales locations, garage work centers, switching centers, cell sites and data centers. Furniture and other consists of telephone equipment, furniture, data processing equipment, office equipment, motor vehicles, plant under construction and leasehold improvements.

Item 3. Legal Proceedings

In October 2013, the California Attorney General's Office notified certain Verizon companies of potential violations of California state hazardous waste statutes primarily arising from the disposal of electronic components, batteries and aerosol cans at certain California facilities. We are cooperating with this investigation and continue to review our operations relating to the management of hazardous waste. While penalties relating to the alleged violations could exceed $100,000, we do not expect that any penalties ultimately incurred will be material.

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

The principal market for trading in the common stock of Verizon is the New York Stock Exchange under the symbol "VZ". As of December 31, 2018, there were 630,756 shareholders of record.

Stock Repurchases

In March 2017, the Verizon Board of Directors authorized a share buyback program to repurchase up to 100 million shares of the Company's common stock. The program will terminate when the aggregate number of shares purchased reaches 100 million, or at the close of business on February 28, 2020, whichever is sooner. Under the program, shares may be repurchased in privately negotiated transactions and on the open market, including through plans complying with Rule 10b5-1(c) under the Exchange Act. The timing and number of shares purchased under the program, if any, will depend on market conditions and the Company's capital allocation priorities.

During the years ended December 31, 2018 and 2017, Verizon did not repurchase any shares of Verizon's common stock under our authorized share buyback programs. At December 31, 2018, the maximum number of shares that could be purchased by or on behalf of Verizon under our share buyback program was 100 million.

For other information required by this item, see the section entitled "Stock Performance Graph" in the 2018 Verizon Annual Report to Shareholders, which is incorporated herein by reference.

Item 6. Selected Financial Data

Information required by this item is included in the 2018 Verizon Annual Report to Shareholders under the heading "Selected Financial Data," which is incorporated herein by reference.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Information required by this item is included in the 2018 Verizon Annual Report to Shareholders under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations," which is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Information required by this item is included in the 2018 Verizon Annual Report to Shareholders under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations - Market Risk," which is incorporated herein by reference.

Item 8. Financial Statements and Supplementary Data

Information required by this item is included in the consolidated financial statements and related notes of Verizon Communications Inc. and Subsidiaries in the 2018 Verizon Annual Report to Shareholders, which is incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Our chief executive officer and chief financial officer have evaluated the effectiveness of the registrant's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934), as of the end of the period covered by this Annual Report, that ensure that information relating to the registrant which is required to be disclosed in this report is recorded, processed, summarized and reported within required time periods using the criteria for effective internal control established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Based on this evaluation, our chief executive officer and chief financial officer have concluded that the registrant's disclosure controls and procedures were effective as of December 31, 2018.

In the ordinary course of business, we routinely review our system of internal control over financial reporting and make changes to our systems and processes that are intended to ensure an effective internal control environment. During the fourth quarter of 2018, we implemented certain internal controls in connection with the new lease accounting standard, which we adopted effective January 1, 2019. Other than the above-noted change, there were no changes in the Company's internal control over financial reporting during the fourth quarter of 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's report on internal control over financial reporting and the attestation report of Verizon's independent registered public accounting firm are included in the 2018 Verizon Annual Report to Shareholders and are incorporated herein by reference.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Set forth below is information with respect to our executive officers.

Name	Age	Office	Held Since
Hans Vestberg	53	Chief Executive Officer (1)	2018
Ronan Dunne	55	Executive Vice President and President - Verizon Consumer Group (2)	2019
Matthew D. Ellis	47	Executive Vice President and Chief Financial Officer	2016
Tami A. Erwin	54	Executive Vice President and President - Verizon Business Group (3)	2019
K. Guru Gowrappan	38	Executive Vice President and CEO - Verizon Media Group	2018
Kyle Malady	51	Executive Vice President and Chief Technology Officer	2019
Rima Qureshi	54	Executive Vice President and Chief Strategy Officer	2017
Marc C. Reed	60	Executive Vice President and Chief Administrative Officer	2012
Craig L. Silliman	51	Executive Vice President of Public Policy and General Counsel	2015
Anthony T. Skiadas	50	Senior Vice President and Controller	2013

(1) Effective March 8, 2019, Hans Vestberg will be the Chairman and Chief Executive Officer.

(2) Until April 1, 2019, Ronan Dunne leads the Wireless segment.

(3) Until April 1, 2019, Tami A. Erwin leads the Wireline segment.

Prior to serving as an executive officer, each of the above officers has held high-level managerial positions with the Company or one of its subsidiaries for at least five years, with the exception of Hans Vestberg, who has been with the Company since 2017, Ronan Dunne, who has been with the Company since 2016, K. Guru Gowrappan, who has been with the Company since 2018 and Rima Qureshi, who has been with the Company since 2017. Officers are not elected for a fixed term of office and may be removed from office at any time at the discretion of the Board of Directors.

Hans Vestberg is the Chief Executive Officer of Verizon. Mr. Vestberg joined the Company in April 2017 as Executive Vice President and President - Global Networks and Technology. He began serving in his current role in August 2018. Prior to joining Verizon, Mr. Vestberg served for six years as President and Chief Executive Officer of Ericsson, a multinational networking and telecommunications equipment and services company headquartered in Sweden that provides 35 percent of the world's 2G, 3G and 4G mobile network infrastructures.

Ronan Dunne is the Executive Vice President and President - Verizon Consumer Group. Mr. Dunne joined the Company in September 2016 as Executive Vice President and President of Verizon Wireless. Prior to joining Verizon, Mr. Dunne served for eight years as Chief Executive Officer of Telefónica UK Limited (O2), the second largest wireless operator in the United Kingdom.

K. Guru Gowrappan is the Executive Vice President and CEO - Verizon Media Group. Mr. Gowrappan joined the Company in April 2018 as the President and Chief Operating Officer of Oath. He began serving in his current role in October 2018. Prior to joining Verizon, Mr. Gowrappan served as the Global Managing Director of Alibaba Inc. from 2015 to 2018 and as the Chief Operating Officer for Quixey, a mobile search engine, from 2012 to 2015.

Rima Qureshi is Executive Vice President and Chief Strategy Officer of Verizon. Ms. Qureshi joined the Company in November 2017. Prior to joining Verizon, Ms. Qureshi served as President and Chief Executive Officer of Ericsson North America from 2016 to 2017 and as Senior Vice President and Chief Strategy Officer and head of mergers and acquisitions of Ericsson from 2014 to 2016. Ms. Qureshi also served as Vice President of Ericsson's CDMA Mobile Systems Group, Senior Vice President of Strategic Projects, Chairman of Ericsson's Northern Europe, Russia and Central Asia Group and Chairman of Ericsson's Modem division before becoming Chief Strategy Officer.

For other information required by this item, see the sections entitled "Governance — Where to find more information on governance at Verizon and — Business conduct and ethics," "Item 1: Election of Directors — Nominees for election," "Board and Committees — Board committees — Audit Committee " and "Stock Ownership — Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2019 Annual Meeting of Shareholders, which are incorporated herein by reference.

Item 11. Executive Compensation

For information with respect to executive compensation, see the sections entitled "Director Compensation" and "Executive Compensation — Compensation Discussion and Analysis, — Compensation Committee Report and — Compensation Tables" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2019 Annual Meeting of Shareholders, which are incorporated by reference herein. There were no relationships to be disclosed under paragraph (e)(4) of Item 407 of Regulation S-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

For information with respect to the security ownership of the Directors and Executive Officers, see the section entitled "Security Ownership of Certain Beneficial Owners and Management" in our definitive Proxy Statement to be filed with the SEC and delivered to shareholders in connection with our 2019 Annual Meeting of Shareholders, which is incorporated herein by reference. In addition, the following table provides other equity compensation plan information:

The following table provides information as of December 31, 2018 for (i) all equity compensation plans previously approved by the Company's shareholders, and (ii) all equity compensation plans not previously approved by the Company's shareholders. From May 9, 2009 until May 4, 2017, the Company only issued awards under the 2009 Verizon Communications Inc. Long-Term Incentive Plan and, after May 4, 2017, the Company only issued awards under the 2017 Verizon Communications. Inc. Long-Term Incentive Plan (2017 LTIP). Each of these plans provides for awards of stock options, restricted stock, restricted stock units, performance stock units and other equity-based hypothetical stock units to employees of Verizon and its subsidiaries. No new awards are permitted to be issued under any equity compensation plan other than the 2017 LTIP. In accordance with SEC rules, the table does not include outstanding awards that are payable solely in cash by the terms of the award, and such awards do not reduce the number of shares remaining for issuance under the 2017 LTIP.

Plan Category	**Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)**	**Weighted-average exercise price of outstanding options, warrants and rights (b)**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)**
Equity compensation plans approved by security holders	10,570,146 [(1)]	$ — [(2)]	89,179,103 [(3)]
Equity compensation plans not approved by security holders	158,284 [(4)]	—	—
Total	**10,728,430**	**$ —**	**89,179,103**

(1) This amount includes: 10,568,119 shares of common stock subject to outstanding restricted stock units and performance stock units, and 2,027 shares subject to outstanding deferred stock units, in each case including dividend equivalents accrued on such awards through December 31, 2018. This does not include performance stock units, deferred stock units and deferred share equivalents payable solely in cash.

(2) Verizon's outstanding restricted stock units, performance stock units and deferred stock units do not have exercise prices associated with the settlement of these awards.

(3) This number reflects the number of shares of common stock that remained available for future issuance under the 2017 LTIP.

(4) This number reflects shares subject to deferred stock units credited to the Verizon Income Deferral Plan, which were awarded in 2002 under the Verizon Communications Broad-Based Incentive Plan. No new awards are permitted to be issued under this plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence

For information with respect to certain relationships and related transactions and Director independence, see the sections entitled "Governance — Related person transactions" and "Item 1: Election of Directors — Independence" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2019 Annual Meeting of Shareholders, which are incorporated by reference.

Item 14. Principal Accounting Fees and Services

For information with respect to principal accounting fees and services, see the section entitled "Audit Matters — Item 2: Ratification of Appointment of Independent Registered Public Accounting Firm" in our definitive Proxy Statement to be filed with the Securities and Exchange Commission and delivered to shareholders in connection with our 2019 Annual Meeting of Shareholders, which are incorporated by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report:

* Incorporated herein by reference to the appropriate portions of the registrant’s Annual Report to Shareholders for the fiscal year ended December 31, 2018. (See Part II.)

(5) Exhibits

Exhibits identified in parentheses below, on file with the SEC, are incorporated herein by reference as exhibits hereto. Unless otherwise indicated, all exhibits so incorporated are from File No. 1-8606.

Exhibit Number	Description
3a	Restated Certificate of Incorporation of Verizon Communications Inc. (Verizon) (filed as Exhibit 3a to Form 10-Q for the period ended June 30, 2014 and incorporated herein by reference).
3b	Bylaws of Verizon, as amended and restated, effective as of November 1, 2018 (filed as Exhibit 3b to Form 8-K filed on November 2, 2018 and incorporated herein by reference).
4a	Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of December 1, 2000 (incorporated by reference to Verizon Global Funding Corp.'s Registration Statement on Form S-4, Registration No. 333-64792, Exhibit 4.1).
4b	First Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of May 15, 2001 (incorporated by reference to Verizon Global Funding Corp.'s Registration Statement on Form S-3, Registration No. 333-67412, Exhibit 4.2).
4c	Second Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of September 29, 2004 (incorporated by reference to Form 8-K filed on February 9, 2006, Exhibit 4.1).
4d	Third Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of February 1, 2006 (incorporated by reference to Form 8-K filed on February 9, 2006, Exhibit 4.2).
4e	Fourth Supplemental Indenture between Verizon, both individually and as successor in interest to Verizon Global Funding Corp., and U.S. Bank National Association, as successor trustee to Wachovia Bank, National Association, formerly known as First Union National Bank, as Trustee, dated as of April 4, 2016 (incorporated by reference to Verizon Communications Inc.'s Registration Statement on Form S-4, Registration No. 333-212307, Exhibit 4.5).
	Except for Exhibits 4a – 4e above, no other instrument which defines the rights of holders of long-term debt of Verizon and its consolidated subsidiaries is filed herewith pursuant to Regulation S-K, Item 601(b)(4)(iii)(A). Pursuant to this regulation, Verizon hereby agrees to furnish a copy of any such instrument to the SEC upon request.
10a	NYNEX Directors' Charitable Award Program (filed as Exhibit 10i to Form 10-K for the year ended December 31, 2000 and incorporated herein by reference).**
10b	2009 Verizon Long-Term Incentive Plan, As Amended and Restated (incorporated by reference to Appendix D of the Registrant's Proxy Statement included in Schedule 14A filed on March 18, 2013).**
10b(i)	Form of Performance Stock Unit Agreement 2016-2018 Award Cycle (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2016 and incorporated herein by reference).**
10b(ii)	Form of Restricted Stock Unit Agreement 2016-2018 Award Cycle (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2016 and incorporated herein by reference).**
10b(iii)	Form of 2017 Performance Stock Unit Agreement pursuant to the 2009 Verizon Communications Inc. Long-Term Incentive Plan. (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2017 and incorporated herein by reference).**
10b(iv)	Form of 2017 Restricted Stock Unit Agreement pursuant to the 2009 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2017 and incorporated herein by reference).**
10b(v)	2017 Special Performance Stock Unit Agreement pursuant to the 2009 Verizon Communications Inc. Long-Term Incentive Plan for J. Stratton (filed as Exhibit 10c to Form 10-Q for the period ended March 31, 2017 and incorporated herein by reference).**
10c	2017 Verizon Communications Inc. Long-Term Incentive Plan (incorporated by reference to Appendix B of the Registrant's Proxy Statement included in Schedule 14A filed on March 20, 2017).**
10c(i)	Form of 2017 Performance Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan. (filed as Exhibit 10a to Form 10-Q for the period ended June 30, 2017 and incorporated herein by reference).**
10c(ii)	Form of 2017 Restricted Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10b to Form 10-Q for the period ended June 30, 2017 and incorporated herein by reference).**
10c(iii)	2017 Special Restricted Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10c to Form 10-Q for the period ended June 30, 2017 and incorporated herein by reference).**

	10c(iv)	Form of 2017 Restricted Stock Unit Agreement (cash-settled) pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10c(iv) to form 10-K for period ended December 31,2017 and incorporated herein by reference).**
	10c(v)	Form of 2018 Performance Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (filed as Exhibit 10a to Form 10-Q for the period ended March 31, 2018 and incorporated herein by reference)**
	10c(vi)	Form of 2018 Restricted Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan. (filed as Exhibit 10b to Form 10-Q for the period ended March 31, 2018 and incorporated herein by reference)**
	10c(vii)	2018 Special Performance Stock Unit Agreement pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan for H. Vestberg (filed as Exhibit 10 to Form 10-Q for the period ended September 30, 2018 and incorporated herein by reference)**
	10c(viii)	2018 Restricted Stock Unit Agreement for G. Gowrappan pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan, filed herewith.
	10c(ix)	Special Performance Restricted Stock Unit Agreement for R. Dunne pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan, filed herewith.
	10c(x)	Special Performance Restricted Stock Unit Agreement for G. Gowrappan pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan, filed herewith.
	10c(x)(i)	Amendment to Special Performance Restricted Stock Unit Agreement for G. Gowrappan pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan, filed herewith.
10d	Verizon Short-Term Incentive Plan, As Amended and Restated (incorporated by reference to Appendix C of the Registrant’s Proxy Statement included in Schedule 14A filed on March 23, 2009).**	
10e	Verizon Executive Deferral Plan (filed as Exhibit 10e to Form 10-K for period ended December 31, 2017 and incorporated herein by reference).**	
10f	Verizon Income Deferral Plan (filed as Exhibit 10f to Form 10-Q for the period ended June 30, 2002 and incorporated herein by reference).**	
	10f(i)	Description of Amendment to Plan (filed as Exhibit 10o(i) to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**
10g	Verizon Excess Pension Plan (filed as Exhibit 10p to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**	
	10g(i)	Description of Amendment to Plan (filed as Exhibit 10p(i) to Form 10-K for the year ended December 31, 2004 and incorporated herein by reference).**
10h	GTE’s Executive Salary Deferral Plan, as amended (filed as Exhibit 10.10 to GTE’s Form 10-K for the year ended December 31, 1998, File No. 1-2755 and incorporated herein by reference).**	
10i	Bell Atlantic Senior Management Long-Term Disability and Survivor Protection Plan, as amended (filed as Exhibit 10h to Form SE filed on March 27, 1986 and Exhibit 10b(ii) to Form 10-K for the year ended December 31, 1997 and incorporated herein by reference).**	
10j	GTE Executive Retiree Life Insurance Plan (filed as Exhibit 10q to Form 10-K for the year ended December 31, 2010 and incorporated herein by reference).**	
10k	Verizon Executive Life Insurance Plan, As Amended and Restated September 2009 (filed as Exhibit 10s to Form 10-K for the year ended December 31, 2010 and incorporated herein by reference).**	
10l	Form of Aircraft Time Sharing Agreement (filed as Exhibit 10l to Form 10-K for year ended December 31,2017 and incorporated herein by reference).**	
10m	NYNEX Deferred Compensation Plan for Non-Employee Directors (filed as Exhibit 10iii 5a to NYNEX’s Quarterly Report on Form 10-Q for the period ended June 30, 1996, File No. 1-8608 and incorporated herein by reference).**	
10n	Verizon Senior Manager Severance Plan (filed as Exhibit 10d to Form 10-Q for the period ended March 31, 2010 and incorporated herein by reference).**	
10o	AOL Inc. Long-Term Incentive Plan, filed herewith.	
	10o(i)	Founders’ Grant Unit Agreement for T. Armstrong pursuant to the AOL Inc. Long-Term Incentive Plan, filed herewith.
13	Portions of Verizon’s Annual Report to Shareholders for the fiscal year ended December 31, 2018 filed herewith. Only the information incorporated by reference into this Form 10-K is included in the exhibit.	
21	List of principal subsidiaries of Verizon, filed herewith.	

23	Consent of Ernst & Young LLP, filed herewith.
24	Powers of Attorney, filed herewith.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Label Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
**	Indicates management contract or compensatory plan or arrangement.

Schedule II - Valuation and Qualifying Accounts

Verizon Communications Inc. and Subsidiaries

For the Years Ended December 31, 2018, 2017 and 2016

(dollars in millions)

Description	Balance at Beginning of Period	Additions: Charged to Expenses	Additions: Charged to Other Accounts[a]	Deductions[b]	Balance at End of Period[c]
Allowance for Uncollectible Accounts Receivable:					
Year 2018	**$ 1,199**	**$ 776**	**$ 216**	**$ 1,261**	**$ 930**
Year 2017	1,146	1,167	205	1,319	1,199
Year 2016	1,037	1,420	150	1,461	1,146

Description	Balance at Beginning of Period	Additions: Charged to Expenses	Additions: Charged to Other Accounts[d]	Deductions[e]	Balance at End of Period
Valuation Allowance for Deferred Tax Assets:					
Year 2018	**$ 3,293**	**$ 251**	**$ 112**	**$ 915**	**$ 2,741**
Year 2017	2,473	765	273	218	3,293
Year 2016	3,414	146	47	1,134	2,473

(a) Charged to Other Accounts primarily includes amounts previously written off which were credited directly to this account when recovered.
(b) Deductions primarily include amounts written off as uncollectible or transferred to other accounts or utilized.
(c) Allowance for Uncollectible Accounts Receivable includes approximately $165 million, $260 million and $301 million at December 31, 2018, 2017, and 2016, respectively, related to long-term device payment plan receivables.
(d) Valuation Allowance for Deferred Tax Assets includes current year increase to valuation allowance charged to equity and reclassifications from other balance sheet accounts.
(e) Reductions to valuation allowances related to deferred tax assets.

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.

VERIZON COMMUNICATIONS INC.

By:	/s/ Anthony T. Skiadas Anthony T. Skiadas Senior Vice President and Controller	Date: February 15, 2019

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 and on the dates indicated.

Principal Executive Officer:

/s/ Hans E. Vestberg Hans E. Vestberg	Chief Executive Officer	February 15, 2019

Principal Financial Officer:

/s/ Matthew D. Ellis Matthew D. Ellis	Executive Vice President and Chief Financial Officer	February 15, 2019

Principal Accounting Officer:

/s/ Anthony T. Skiadas Anthony T. Skiadas	Senior Vice President and Controller	February 15, 2019

* Lowell C. McAdam	Director	February 15, 2019
* Hans E. Vestberg	Director	February 15, 2019
* Shellye L. Archambeau	Director	February 15, 2019
* Mark T. Bertolini	Director	February 15, 2019
* Richard L. Carrión	Director	February 15, 2019
* Melanie L. Healey	Director	February 15, 2019
* M. Frances Keeth	Director	February 15, 2019
* Clarence Otis, Jr.	Director	February 15, 2019
* Daniel H. Schulman	Director	February 15, 2019
* Rodney E. Slater	Director	February 15, 2019
* Kathryn A. Tesija	Director	February 15, 2019
* Gregory G. Weaver	Director	February 15, 2019

* By: /s/ Anthony T. Skiadas
Anthony T. Skiadas
(as attorney-in-fact)

EXHIBIT 10c(ix)

VERIZON COMMUNICATIONS INC. LONG-TERM INCENTIVE PLAN
SPECIAL PERFORMANCE RESTRICTED STOCK UNIT AGREEMENT

AGREEMENT between Verizon Communications Inc. (“Verizon” or the “Company”) and you (the “Participant”) and your heirs and beneficiaries.

1. Purpose of Agreement. The purpose of this Agreement is to provide a grant of restricted stock units (“RSUs”) to the Participant.

2. Agreement. This Agreement is entered into pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (the “Plan”), and evidences the grant of a restricted stock unit award in the form of RSUs pursuant to the Plan. In consideration of the benefits described in this Agreement, which Participant acknowledges are good, valuable and sufficient consideration, the Participant agrees to comply with the terms and conditions of this Agreement, including the Participant’s obligations and restrictions set forth in Exhibit A to this Agreement and the Participant’s non-competition, non-solicitation, confidentiality and other obligations and restrictions set forth in Exhibit B to this Agreement, both of which are incorporated into and are a part of the Agreement. The RSUs and this Agreement are subject to the terms and provisions of the Plan. By executing this Agreement, the Participant agrees to be bound by the terms and provisions of the Plan and this Agreement, including but not limited to the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement. In addition, the Participant agrees to be bound by the actions of the Human Resources Committee of Verizon Communication’s Board of Directors or any successor thereto (the “Committee”), and any designee of the Committee (to the extent that such actions are exercised in accordance with the terms of the Plan and this Agreement). If there is a conflict between the terms of the Plan and the terms of this Agreement, the terms of this Agreement shall control.

3. Contingency. The grant of RSUs is contingent on the Participant’s timely acceptance of this Agreement and satisfaction of the other conditions contained in it. Acceptance shall be through execution of the Agreement as set forth in paragraph 21. If the Participant does not accept this Agreement by the close of business on February 12, 2018, the Participant shall not be entitled to this grant of RSUs regardless of the extent to which the requirements in paragraph 5 (“Vesting”) are satisfied. In addition, to the extent a Participant is on a Company approved leave of absence, including but not limited to short-term disability leave, he or she will not be entitled to this grant of RSUs until such time as he or she returns to active employment with Verizon or a Related Company (as defined in paragraph 13) and accepts this Agreement within the time period established by the Company.

4. Number of Units. The Participant is granted the number of RSUs as specified in the Participant’s account under the Special Performance RSU grant, administered by Fidelity Investments or any successor thereto (“Fidelity”). A RSU is a hypothetical share of Verizon’s common stock. The value of a RSU on any given date shall be equal to the closing price of Verizon’s common stock on the New York Stock Exchange (“NYSE”) as of such date. A Dividend Equivalent Unit (“DEU”) or fraction thereof shall be added to each RSU each time that a dividend is paid on Verizon’s common stock. The amount of each DEU shall be equal to the corresponding dividend paid on a share of Verizon’s common stock. The DEU shall be converted into RSUs or fractions thereof based upon the closing price of Verizon’s common stock traded on the NYSE on the dividend payment date of each declared dividend on Verizon’s common stock, and such RSUs or fractions thereof shall be added to the Participant’s RSU balance. To the extent that Fidelity or the Company makes an error, including but not limited to an administrative error with respect to the number or value of the RSUs granted to the Participant under this Agreement, the DEUs credited to the Participant’s account or the amount of the final award payment, the Company or Fidelity specifically reserves the right to correct such error at any time and the Participant agrees that he or she shall be legally bound by any corrective action taken by the Company or Fidelity.

5. Vesting.

(a) Time-Based Vesting. The Participant shall vest in one hundred percent (100%) of the total number of RSUs subject to this grant, including DEUs credited with respect to such RSUs pursuant to the terms hereof (the “Target Number of RSUs”), on December 31, 2020. The Participant must be continuously employed by the Company or a Related Company (as defined in paragraph 13) from the date the RSUs are granted through December 31, 2020 as a condition to vesting of any RSUs hereunder, except as otherwise provided in paragraph 7 (“Early Cancellation/Accelerated Vesting of RSUs”) or as otherwise provided by the Committee.

(b) Additional Performance-Based Vesting.

(1) ***General.*** If both (x) the Target Number of RSUs vest pursuant to paragraph 5(a) or Section 7(c)(1) and (y) Verizon’s Wireless Service Revenue (as defined below) during the three-year period beginning January 1, 2018 and ending at the close of business on December 31, 2020 meets or exceeds xxx Dollars ($xxx), then an additional number of RSUs shall vest as of December 31, 2020 equal to fifty percent (50%) of the Target Number of RSUs.

(2) ***Definition of Wireless Service Revenue.*** As used in this Agreement, the term “Wireless Service Revenue” means revenue generated from access to and usage of the wireless network, as such terms are used in Verizon’s consolidated financial statements. The Committee will (to the extent necessary and without duplication) adjust such revenue to eliminate the financial impact of (i) acquisitions, divestitures or changes in business structure; (ii) changes in legal, tax, accounting or regulatory policy; and (iii) other

items that are extraordinary in nature or not deemed to be in the ordinary course of business. The Committee’s determination of whether, and the extent to which, any such adjustment is necessary shall be final and binding.

(c) Transfer. Transfer of employment from Verizon to a Related Company, from a Related Company to Verizon, or from one Related Company to another Related Company shall not constitute a separation from employment hereunder, and service with a Related Company shall be treated as service with the Company for purposes of the continuous employment requirement in paragraph 5(a).

6. Payment. All payments under this Agreement shall be made in shares of Verizon common stock. Subject to paragraph 7(a), as soon as practicable after December 31, 2020 (but in no event later than March 15, 2021), the number of shares that vested (minus any withholding for taxes) shall be paid to the Participant. The number of shares that shall be paid (plus withholding for taxes) shall equal the number of RSUs that vested pursuant to the terms hereof. If the Participant dies before any payment due hereunder is made, such payment shall be made to the Participant’s beneficiary, as designated under paragraph 11. Once a payment has been made with respect to a RSU, the RSU shall be canceled; however, all other terms of the Agreement, including but not limited to the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement, shall remain in effect.

7. Early Cancellation/Accelerated Vesting of RSUs. Notwithstanding the provisions of paragraph 5, RSUs may vest or be forfeited before the vesting and payment dates set forth above as follows:

(a) Termination for Cause. If the Participant’s employment by the Company or a Related Company is terminated by the Company or a Related Company for Cause (as defined below) at any time prior to the date that the RSUs are paid pursuant to paragraph 6, the RSUs (whether vested or not) shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(b) Voluntary Separation On or Before December 31, 2020, or Other Separation Not Described in Paragraph 7(c). If the Participant (i) voluntarily separates from employment on or before December 31, 2020 for any reason, or (ii) otherwise separates from employment on or before December 31, 2020 under circumstances not described in paragraph 7(c), all then-unvested RSUs shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(c) Involuntary Termination Without Cause On or Before December 31, 2020, Termination Due to Death or Disability On or Before December 31, 2020.

(1) This paragraph 7(c) shall apply if the Participant separates from employment by reason of an involuntary termination without Cause (as determined by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee)), death, or Disability (as defined below) on or before December 31, 2020.

(2) If the Participant separates from employment on or before December 31, 2020 under circumstances described in paragraph 7(c)(1), (x) the Participant’s Target Number of RSUs shall vest (without prorating the award), and (y) the Participant shall remain eligible to vest in additional RSUs in accordance with paragraph 5(b) (subject to the performance requirement set forth therein being met), provided in each case that the Participant has not and does not commit a breach of any of the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement and provided that the Participant executes, within the time prescribed by Verizon, a release satisfactory to Verizon waiving any claims he or she may have against Verizon and any Related Company (otherwise, paragraph 7(b) shall apply).

(3) Any RSUs that vest pursuant to paragraph 7(c)(2) shall be payable as provided in paragraph 6.

(4) Defined Terms. For purposes of this Agreement, the following definitions shall apply:

(i) “Cause” means (i) incompetence or negligence in the discharge of, or inattention to or neglect of or failure to perform, the duties and responsibilities assigned to the Participant; fraud, misappropriation or embezzlement; or a material breach of the Verizon Code of Conduct (as in effect at the relevant time) or any of the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement, all as determined by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) in his or her discretion, or (ii) commission of any felony of which the Participant is finally adjudged guilty by a court of competent jurisdiction.

(ii) “Disability” shall mean the total and permanent disability of the Participant as defined by, or determined under, the Company’s long-term disability benefit plan.

(d) Change in Control. If a Participant is involuntarily terminated without Cause within twelve (12) months following the occurrence of a Change in Control of Verizon (as defined in the Plan) and before December 31, 2020, the RSUs shall vest (without prorating the award) by deeming the performance goal in paragraph 5(b) and the continuous employment requirement in paragraph 5(a) to be satisfied in full; however, all other terms of the Agreement, including but not limited to the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement, shall remain in effect. A Change in Control or an involuntary termination without Cause that occurs after December 31, 2020 shall have no effect on whether any RSUs vest or become payable under this paragraph 7(d). If both paragraph 7(c) and this paragraph 7(d) would otherwise apply in the circumstances, this paragraph 7(d) shall control. All payments provided in this paragraph 7(d) shall be made at their regularly scheduled time as specified in paragraph 6.

(e) Vesting Schedule. Except and to the extent provided in paragraphs 7(c) and (d), nothing in this paragraph 7 shall alter the vesting schedule prescribed by paragraph 5.

8. Shareholder Rights. The Participant shall have no rights as a shareholder with respect to the RSUs until the date on which the Participant becomes the holder of record with respect to any shares of Verizon common stock to which this grant relates. Except as provided in the Plan or in this Agreement, no adjustment shall be made for dividends or other rights for which the record date occurs while the RSUs are outstanding.

9. Amendment of Agreement. Except to the extent required by law or specifically contemplated under this Agreement, neither the Committee nor the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) may, without the written consent of the Participant, change any term, condition or provision affecting the RSUs if the change would have a material adverse effect upon the RSUs or the Participant’s rights thereto. Nothing in the preceding sentence shall preclude the Committee or the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) from exercising administrative discretion with respect to the Plan or this Agreement, and the exercise of such discretion shall be final, conclusive and binding. This discretion includes, but is not limited to, corrections of any errors, including but not limited to any administrative errors, determining the total percentage of RSUs that become payable, and determining whether the Participant has been discharged for Cause, has a Disability, has breached any of the Participant’s obligations or restrictions set forth in Exhibits A and B to this Agreement or has satisfied the requirements for vesting and payment under paragraphs 5 and 7 of this Agreement.

10. Assignment. The RSUs shall not be assigned, pledged or transferred except by will or by the laws of descent and distribution.

11. Beneficiary. The Participant shall designate a beneficiary in writing and in such manner as is acceptable to the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee). Each such designation shall revoke all prior designations by the Participant with respect to the Participant’s benefits under the Plan and shall be effective only when filed by the Participant with the Company during the Participant’s lifetime. If the Participant fails to so designate a beneficiary, or if no such designated beneficiary survives the Participant, the Participant’s beneficiary shall be the Participant’s estate.

12. Other Plans and Agreements. Any payment received by the Participant pursuant to this Agreement shall not be taken into account as compensation in the determination of the Participant’s benefits under any pension, savings, life insurance, severance or other benefit plan maintained by Verizon or a Related Company. The Participant acknowledges that this Agreement or any prior RSU agreement shall not entitle the Participant to any other benefits under the Plan or any other plans maintained by the Company or a Related Company.

13. Company and Related Company. For purposes of this Agreement, “Company” means Verizon Communications Inc. “Related Company” means (a) any corporation, partnership, joint venture, or other entity in which Verizon Communications Inc. holds a direct or indirect ownership or proprietary interest of 50 percent or more at any time during the term of this Agreement, or (b) any corporation, partnership, joint venture, or other entity in which Verizon Communications Inc. holds a direct or indirect ownership or other proprietary interest of less than 50 percent at any time during the term of this Agreement but which, in the discretion of the Committee, is treated as a Related Company for purposes of this Agreement.

14. Employment Status. The grant of the RSUs shall not be deemed to constitute a contract of employment for a particular term between the Company or a Related Company and the Participant, nor shall it constitute a right to remain in the employ of any such Company or Related Company.

15. Withholding. The Participant acknowledges that he or she shall be responsible for any taxes that arise in connection with this grant of RSUs, and the Company shall make such arrangements as it deems necessary for withholding of any taxes it determines are required to be withheld pursuant to any applicable law or regulation.

16. Securities Laws. The Company shall not be required to make payment with respect to any shares of common stock prior to the admission of such shares to listing on any stock exchange on which the stock may then be listed and the completion of any registration or qualification of such shares under any federal or state law or rulings or regulations of any government body that the Company, in its discretion, determines to be necessary or advisable.

17. Committee Authority. The Committee shall have complete discretion in the exercise of its rights, powers, and duties under this Agreement. Any interpretation or construction of any provision of, and the determination of any question arising under, this Agreement shall be made by the Committee in its discretion, as described in paragraph 9. The Committee and the Audit Committee may designate any individual or individuals to perform any of its functions hereunder and utilize experts to assist in carrying out their duties hereunder.

18. Successors. This Agreement shall be binding upon, and inure to the benefit of, any successor or successors of the Company and the person or entity to whom the RSUs may have been transferred by will, the laws of descent and distribution, or beneficiary designation. All terms and conditions of this Agreement imposed upon the Participant shall, unless the context clearly indicates otherwise, be deemed, in the event of the Participant's death, to refer to and be binding upon the Participant's heirs and beneficiaries.

19. Construction. In the event that any provision of this Agreement is held invalid or unenforceable, such provision shall be considered separate and apart from the remainder of this Agreement, which shall remain in full force and effect. In the event that any provision, including any of the Participant's obligations or restrictions set forth in Exhibits A and B to this Agreement, is held to be unenforceable for being unduly broad as written, such provision shall be deemed amended to narrow its application to the extent necessary to make the provision enforceable according to applicable law and shall be enforced as amended. The RSUs are intended not to be subject to any tax, interest or penalty under Section 409A of the Code, and this Agreement shall be construed and interpreted consistent with such intent.

20. Defined Terms. Except where the context clearly indicates otherwise, all capitalized terms used herein shall have the definitions ascribed to them by the Plan, and the terms of the Plan shall apply where appropriate.

21. Execution of Agreement. The Participant shall indicate his or her consent and acknowledgment to the terms of this Agreement (including the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement) and the Plan by executing this Agreement pursuant to the instructions provided and otherwise shall comply with the requirements of paragraph 3. In addition, by consenting to the terms of this Agreement and the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, the Participant expressly agrees and acknowledges that Fidelity may deliver all documents, statements and notices associated with the Plan and this Agreement to the Participant in electronic form. The Participant and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if the Participant and Verizon executed this Agreement (including the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement) in paper form.

22. Confidentiality. Except to the extent otherwise required by law, the Participant shall not disclose, in whole or in part, any of the terms of this Agreement. This paragraph 22 does not prevent the Participant from disclosing the terms of this Agreement to the Participant's spouse or beneficiary or to the Participant's legal, tax, or financial adviser, provided that the Participant take all reasonable measures to assure that the individual to whom disclosure is made does not disclose the terms of this Agreement to a third party except as otherwise required by law.

23. Applicable Law. Except as expressly provided in Exhibit B, the validity, construction, interpretation and effect of this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the conflicts of laws provisions thereof.

24. Notice. Any notice to the Company provided for in this Agreement shall be addressed to the Company in care of the Executive Vice President and Chief Administrative Officer of Verizon at 1095 Avenue of the Americas, New York, New York 10036 and any notice to the Participant shall be addressed to the Participant at the current address shown on the payroll of the Company, or to such other address as the Participant may designate to the Company in writing. Any notice shall be delivered by hand, sent by telecopy, sent by overnight carrier, or enclosed in a properly sealed envelope as stated above, registered and deposited, postage prepaid, in a post office regularly maintained by the United States Postal Service.

25. Dispute Resolution.

(a) General. Except as otherwise provided in paragraph 26 below, all disputes arising under or related to the Plan or this Agreement and all claims in which a Participant seeks damages or other relief that relate in any way to RSUs or other benefits of the Plan are subject to the dispute resolution procedure described below in this paragraph 25.

(i) For purposes of this Agreement, the term "Units Award Dispute" shall mean any claim against the Company or a Related Company, other than Units Damages Disputes described in paragraph (a)(ii) below, regarding (A) the interpretation of the Plan or this Agreement, (B) any of the terms or conditions of the RSUs issued under this Agreement, or (C) allegations of entitlement to RSUs or additional RSUs, or any other benefits, under the Plan or this Agreement; provided, however, that any dispute relating to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement or to the forfeiture of an award as a result of a breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement shall not be subject to the dispute resolution procedures provided for in this paragraph 25.

(ii) For purposes of this Agreement, the term "Units Damages Dispute" shall mean any claims between the Participant and the Company or a Related Company (or against the past or present directors, officers, employees, representatives, or agents of the Company or a Related Company, whether acting in their capacity as such or otherwise), that are related in any way to the Participant's employment or former employment, including claims of alleged employment discrimination, wrongful termination, or violations of Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, the Age Discrimination in Employment Act, 42 U.S.C. § 1981, the Fair Labor Standards Act, the Family Medical Leave Act, the Sarbanes-Oxley Act, or any other U.S. federal, state or local law, statute, regulation, or ordinance relating to employment or any common law theories of recovery relating to employment, such as breach of contract, tort, or public policy claims, in which the damages or other relief sought relate in any way to RSUs or other benefits of the Plan or this Agreement.

(b) Internal Dispute Resolution Procedure. All Units Award Disputes, and all Units Damages Dispute alleging breach of contract, tort, or public policy claims with respect to the Plan or this Agreement (collectively, "Plan Disputes"), shall be referred in the first instance to the Verizon Employee Benefits Committee ("EB Committee") for resolution internally within Verizon. Except where otherwise prohibited by law, all Plan Disputes must be filed in writing with the EB Committee no later than one year from the date that the dispute accrues. Consistent with paragraph 25(c)(i) of this Agreement, all decisions relating to the enforceability of the limitations period contained herein shall be made by the arbitrator. To the fullest extent permitted by law, the EB Committee shall have full power, discretion, and authority to interpret the Plan and this Agreement and to decide all Plan Disputes brought under this Plan and Agreement. Determinations made by the EB Committee shall be final, conclusive and binding, subject only to review by arbitration pursuant to paragraph (c) below under the arbitrary and capricious standard of review. A Participant's failure to refer a Plan Dispute to the EB Committee for resolution will in no way impair the Company's right to compel arbitration or the enforceability of the waiver in paragraph 25(c)(ii).

(c) Arbitration. All appeals from determinations by the EB Committee as described in paragraph (b) above, and any Units Damages Dispute, shall be fully and finally settled by arbitration administered by the American Arbitration Association ("AAA") on an individual basis (and not on a collective or class action basis) before a single arbitrator pursuant to the AAA's Commercial Arbitration Rules in effect at the time any such arbitration is initiated. Any such arbitration must be initiated in writing pursuant to the aforesaid rules of the AAA no later than one year from the date that the claim accrues, except where a longer limitations period is required by applicable law. However, a Participant's failure to initiate arbitration within one year will in no way impair the Company's right, exercised at its discretion, to compel arbitration or the enforceability of the waiver in paragraph 25(c)(ii). Decisions about the applicability of the limitations period contained herein shall be made by the arbitrator. A copy of the AAA's Commercial Arbitration Rules may be obtained from Human Resources. The Participant agrees that the arbitration shall be held at the office of the AAA nearest the place of the Participant's most recent employment by the Company or a Related Company, unless the parties agree in writing to a different location. All claims by the Company or a Related Company against the Participant, except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, may also be raised in such arbitration proceedings.

(i) The arbitrator shall have the authority to determine whether any dispute submitted for arbitration hereunder is arbitrable. The arbitrator shall decide all issues submitted for arbitration according to the terms of the Plan, this Agreement (except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement), existing Company policy, and applicable substantive Delaware State and U.S. federal law and shall have the authority to award any remedy or relief permitted by such laws. The final decision of the EB Committee with respect to a Plan Dispute shall be upheld unless such decision was arbitrary or capricious. The decision of the arbitrator shall be final, conclusive, not subject to appeal, and binding and enforceable in any applicable court.

(ii) **The Participant understands and agrees that, pursuant to this Agreement, both the Participant and the Company or a Related Company waive any right to sue each other in a court of law or equity, to have a trial by jury, or to resolve disputes on a collective, or class, basis (except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement), and that the sole forum available for the resolution of Units Award Disputes and Units Damages Disputes is arbitration as provided in this paragraph 25. If an arbitrator or court finds that the arbitration provisions of this Agreement are not enforceable, both Participant and the Company or a Related Company understand and agree to waive their right to trial by jury of any Units Award Dispute or Units Damages Dispute. This dispute resolution procedure shall not prevent either the Participant or the Company or a Related Company from commencing an action in any court of competent jurisdiction for the purpose of obtaining injunctive relief to prevent irreparable harm pending and in aid of arbitration hereunder; in such event, both the Participant and the Company or a Related Company agree that the party who commences the action may proceed without necessity of posting a bond.**

(iii) In consideration of the Participant's agreement in paragraph (ii) above, the Company or a Related Company will pay all filing, administrative and arbitrator's fees incurred in connection with the arbitration proceedings. If the AAA requires the Participant to pay the initial filing fee, the Company or a Related Company will reimburse the Participant for that fee. All other fees incurred in connection with the arbitration proceedings, including but not limited to each party's attorney's fees, will be the responsibility of such party.

(iv) The parties intend that the arbitration procedure to which they hereby agree shall be the exclusive means for resolving all Units Award Disputes and Units Damages Disputes (subject to the mandatory EB Committee procedure provided for in paragraph 25(b) above). Their agreement in this regard shall be interpreted as broadly and inclusively as reason permits to realize that intent.

(v) The Federal Arbitration Act ("FAA") shall govern the enforceability of this paragraph 25. If for any reason the FAA is held not to apply, or if application of the FAA requires consideration of state law in any dispute arising under this Agreement or subject to this dispute resolution provision, the laws of the State of Delaware shall apply without giving effect to the conflicts of laws provisions thereof.

(vi) To the extent an arbitrator determines that the Participant was not terminated for Cause and is entitled to the RSUs or any other benefits under the Plan pursuant to the provisions applicable to an involuntary termination without Cause, the

Participant’s obligation to execute a release satisfactory to Verizon as provided under paragraph 7(c)(2) shall remain applicable in order to receive the benefit of any RSUs pursuant to this Agreement.

26. Additional Remedies. Notwithstanding the dispute resolution procedures, including arbitration, of paragraph 25 of this Agreement, and in addition to any other rights or remedies, whether legal, equitable, or otherwise, that each of the parties to this Agreement may have (including the right of the Company to terminate the Participant for Cause or to involuntarily terminate the Participant without Cause), the Participant acknowledges that—

(a) The Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement are essential to the continued goodwill and profitability of the Company and any Related Company;

(b) The Participant has broad-based skills that will serve as the basis for other employment opportunities that are not prohibited by the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement;

(c) When the Participant’s employment with the Company or any Related Company terminates, the Participant shall be able to earn a livelihood without violating any of the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement;

(d) Irreparable damage to the Company or any Related Company shall result in the event that the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement are not specifically enforced and that monetary damages will not adequately protect the Company and any Related Company from a breach of such Participant obligations and restrictions;

(e) If any dispute arises concerning the violation or anticipated or threatened violation by the Participant of any of the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement, an injunction may be issued restraining such violation pending the determination of such controversy, and no bond or other security shall be required in connection therewith;

(f) The Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement shall continue to apply after any expiration, termination, or cancellation of this Agreement;

(g) The Participant’s breach of any of the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement, including, for example, any breach of the Participant’s non-competition, non-solicitation or confidentiality restrictions, shall result in the Participant’s immediate forfeiture of all rights and benefits, including all RSUs and DEUs, under this Agreement; and

(h) All disputes relating to the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement, including their interpretation and enforceability and any damages (including but not limited to damages resulting in the forfeiture of an award or benefits under this Agreement) that may result from the breach of such Participant obligations and restrictions shall not be subject to the dispute resolution procedures, including arbitration, of paragraph 25 of this Agreement, but shall instead be determined in a court of competent jurisdiction.

Exhibit A - Participant’s Obligations

As part of the Agreement to which this Exhibit A is attached, you, the Participant, agree to the following obligations:

1. Effect of a Material Restatement of Financial Results; Recoupment; Company Policies Regarding Securities Transactions.

(a) **General.** Notwithstanding anything in this Agreement to the contrary, you agree that, with respect to all RSUs granted to you on or after January 1, 2007 and all short-term incentive awards made to you on or after January 1, 2007, to the extent the Company or any Related Company is required to materially restate any financial results based upon your willful misconduct or gross negligence while employed by the Company or any Related Company (and where such restatement would have resulted in a lower payment being made to you), you will be required to repay all previously paid or deferred (i) RSUs and (ii) short-term incentive awards that were provided to you during the performance periods that are the subject of the restated financial results, plus a reasonable rate of interest. For purposes of this paragraph, “willful misconduct” and “gross negligence” shall be as determined by the Committee. The Audit Committee of the Verizon Board of Directors shall determine whether a material restatement of financial results has occurred. If you do not repay the entire amount required under this paragraph, the Company may, to the extent permitted by applicable law, offset your obligation to repay against any source of income available to it, including but not limited to any money you may have in your nonqualified deferral accounts.

(b) **Requirements of Recoupment Policy or Applicable Law.** The repayment rights contained in paragraph 1(a) of Exhibit A shall be in addition to, and shall not limit, any other rights or remedies that the Company may have under law or in equity, including, without limitation, (i) any right that the Company may have under any Company recoupment policy that may apply to you, or (ii) any right or obligation that the Company may have regarding the clawback of “incentive-based compensation” under Section 10D of the Securities Exchange Act of 1934, as amended (as determined by the applicable rules and regulations promulgated thereunder from time to time by the U.S. Securities and Exchange Commission) or under any other applicable law. By accepting this award of RSUs, you agree and consent to the Company’s application, implementation and enforcement of any such Company recoupment policy (as it may be in effect from time to time) that may apply to you and any provision of applicable law relating to cancellation, rescission, payback or recoupment of compensation and expressly agree that the Company may take such actions as are permitted under any such policy (as applicable to you) or applicable law, such as the cancellation of RSUs and repayment of amounts previously paid or deferred with respect to any previously granted RSUs or short-term incentive awards, without further consent or action being required by you.

(c) **Company Policies Regarding Securities Transactions.** By accepting this award of RSUs, you agree to comply with all Company policies regarding trading in securities or derivative securities (including, without limitation, the Company’s policies prohibiting trading on material inside information regarding the Company or any business with which the Company does business, the Company’s policies prohibiting engaging in financial transactions that would allow you to benefit from a devaluation of the Company’s securities, and any additional policy that the Company may adopt prohibiting you from hedging your economic exposure to the Company’s securities), as such policies are in effect from time to time and for as long as such policies are applicable to you.

2. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit A, all capitalized terms used in this Exhibit A shall have the definitions given to those terms in the Agreement to which this Exhibit A is attached.

3. Agreement to Participant’s Obligations. You shall indicate your agreement to the obligations and restrictions set forth in this Exhibit A in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of such obligations and restrictions. As stated in paragraph 21 of the Agreement, you and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and Verizon executed this Exhibit A in paper form.

Exhibit B – Non-Competition, Non-Solicitation, Confidentiality and Other Obligations

As part of the Agreement to which this Exhibit B is attached, you, the Participant, and the Company or any Related Company which employs or employed you, agree to the following obligations:

1. Non-competition.

(a) Prohibited Conduct. During the period of your employment with the Company or any Related Company, and for a period ending twelve (12) months following a termination of your employment for any reason with the Company or any Related Company, you shall not, without the prior written consent of the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee):

(1) personally engage in Competitive Activities (as defined below); or

(2) work for, own, manage, operate, control, or participate in the ownership, management, operation, or control of, or provide consulting or advisory services to, any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or any company or person affiliated with such person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities; provided that your purchase or holding, for investment purposes, of securities of a publicly traded company shall not constitute "ownership" or "participation in the ownership" for purposes of this paragraph so long as your equity interest in any such company is less than a controlling interest;

provided that this paragraph (a) shall not prohibit you from (i) being employed by, or providing services to, a consulting firm, provided that you do not personally engage in Competitive Activities or provide consulting or advisory services to any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or any person or entity affiliated with such person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or (ii) engaging in the practice of law as an in-house counsel, sole practitioner or as a partner in (or as an employee of or counsel to) a corporation or law firm in accordance with applicable legal and professional standards. Exception (ii), however, does not apply to any Participant that may be engaging in Competitive Activities or providing services to any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, wherein such engagement or services being provided are not primarily the practice of law.

(b) Competitive Activities. For purposes of the Agreement, to which this Exhibit B is attached, "Competitive Activities" means any activities relating to products or services of the same or similar type as the products or services (1) which were or are sold (or, pursuant to an existing business plan, will be sold) to paying customers of the Company or any Related Company, and (2) for which you have any direct or indirect responsibility or any involvement to plan, develop, manage, market, sell, oversee, support, implement or perform, or had any such responsibility or involvement within your most recent 24 months of employment with the Company or any Related Company. Notwithstanding the previous sentence, an activity shall not be treated as a Competitive Activity if the geographic marketing area of such same or similar products or services does not overlap with the geographic marketing area for the applicable products and services of the Company or any Related Company.

2. Interference With Business Relations. During the period of your employment with the Company or any Related Company, and for a period ending twelve (12) months following a termination of your employment for any reason with the Company or any Related Company, you shall not, without the prior written consent of the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee):

(a) recruit, induce or solicit, directly or indirectly, any employee of the Company or Related Company who was employed by the Company or any Related Company prior to or as of your termination date and whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company for employment or for retention as a consultant or service provider to any person or entity;

(b) hire or participate (with another person or entity) in the process of recruiting, soliciting or hiring, directly or indirectly, (other than for the Company or any Related Company) any person who is then an employee of the Company or any Related Company whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company, or provide, directly or indirectly, names or other information about any employees of the Company or Related Company whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company to any person or entity (other than to the Company or any Related Company) under circumstances that could lead to the use of any such information for purposes of recruiting, soliciting or hiring any such employee for any person or entity;

(c) interfere, or attempt to interfere, directly or indirectly, with any relationship of the Company or any Related Company with any of its employees, agents, or representatives;

(d) solicit or induce, or in any manner attempt to solicit or induce, directly or indirectly, any client, customer, or Prospect (defined below) of the Company or any Related Company (1) to cease being, or not to become, a customer of the Company or any Related Company, or (2) to divert any business of such customer or Prospect from the Company or any Related Company; or

(e) otherwise interfere with, disrupt, or attempt to interfere with or disrupt, directly or indirectly, the relationship, contractual or otherwise, between the Company or any Related Company and any of its customers, clients, Prospects, suppliers, vendors, service providers, developers, joint ventures, equity investments or partners, inventors, consultants, employees, agents, or representatives.

For purposes of this paragraph 2, “Prospect” shall mean any person or entity from whom or which any business was being solicited by Verizon or any Related Company within the most recent 12 month period of your employment.

3. Proprietary and Confidential Information. You shall at all times, including after any termination of your employment with the Company or any Related Company, preserve the confidentiality of all Proprietary Information (defined below) and trade secrets of the Company or any Related Company, and you shall not use for the benefit of yourself or any person, other than the Company or a Related Company, or disclose to any person, except and to the extent that disclosure of such information is authorized under applicable laws or regulations (e.g., “whistleblower” laws such as 18 USC 1833(b) described below), any Proprietary Information or trade secrets of the Company or any Related Company. “Proprietary Information” means any information or data related to the Company or any Related Company, including information entrusted to the Company or a Related Company by others, which has not been fully disclosed to the public by the Company or a Related Company, which is treated as confidential or otherwise protected within the Company or any Related Company or is of value to competitors, such as strategic or tactical business plans; undisclosed business, operational or financial data; ideas, processes, methods, techniques, systems, models, devices, programs, computer software, or related information; documents relating to regulatory matters or correspondence with governmental entities; information concerning any past, pending, or threatened legal dispute; pricing or cost data; the identity, reports or analyses of business prospects; business transactions (including those that are contemplated or planned); research data; personnel information or data; identities of suppliers to the Company or any Related Company or users or purchasers of the Company’s or Related Company’s products or services; the Agreement to which this Exhibit B is attached; and any other non-public information pertaining to or known by the Company or a Related Company, including confidential or non-public information of a third party that you know or should know the Company or a Related Company is obligated to protect. Section 18 USC 1833(b) provides that “An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that—(A) is made—(i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.” Nothing in this Agreement is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. § 1833(b).

4. Return of Company Property; Ownership of Intellectual Property Rights. You agree that on or before termination of your employment for any reason with the Company or any Related Company, you shall return to the Company all property owned by the Company or any Related Company or in which the Company or any Related Company has an interest or to which the Company or any Related Company has any obligation, including any and all files, documents, data, records and any other non-public information (whether on paper or in tapes, disks, memory devices, or other machine-readable form), office equipment, credit cards, and employee identification cards. You acknowledge that the Company (or, as applicable, a Related Company) is the rightful owner of, and you hereby do grant and assign, all right, title and interest in and to any programs; ideas, inventions and discoveries (patentable or unpatentable); works of authorship, data, information, and other copyrightable material; and trademarks that you may have originated, created or developed, or assisted or participated in originating, creating or developing, during your period of employment with the Company or a Related Company, including all intellectual property rights in or based on the foregoing, where any such origination, creation or development (a) involved any use of Company or Related Company time, information or resources, (b) was made in the exercise of any of your duties or responsibilities for or on behalf of the Company or a Related Company, or (c) was related to (i) the Company’s or a Related Company’s past, present or future business, or (ii) the Company’s or a Related Company’s actual or demonstrably anticipated research, development or procurement activities. You shall at all times, both before and after termination of your employment, cooperate with the Company (or, as applicable, any Related Company) and its representatives in executing and delivering documents requested by the Company or a Related Company, and taking any other actions, that are necessary or requested by the Company or a Related Company to assist the Company or any Related Company in patenting, copyrighting, protecting, registering, or enforcing any programs; ideas, inventions and discoveries (patentable or unpatentable); works of authorship, data, information, and other copyrightable material; trademarks; or other intellectual property rights, and to vest title thereto solely in the Company (or, as applicable, a Related Company).

5. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit B, all capitalized terms used in this Exhibit B shall have the definitions given to those terms in the Agreement to which this Exhibit B is attached.

6. Agreement to Non-Competition, Non-Solicitation, Confidentiality and Other Obligations.

(a) You acknowledge that the geographic boundaries, scope of prohibited activities, and time duration of the restrictions set forth in paragraphs 1 and 2 above are reasonable in nature and are no broader than are necessary to maintain the confidential information, trade secrets and the goodwill of the Company and its Related Companies and to protect the other legitimate business interests of the Company and its Related Companies and are not unduly restrictive on you. In addition, you and the Company agree and intend that the covenants contained in paragraphs 1 and 2 shall be deemed to be a series of separate covenants and agreements, one for each and every county or political subdivision of each applicable state of the United States and each country of the world. It is the desire and intent of the parties hereto that the provisions of this Exhibit B be enforced to the fullest extent permissible under the governing laws and public policies of the State of New Jersey, and to the extent applicable, each jurisdiction in which enforcement is sought. Accordingly, if any provision in this Exhibit A or deemed to be included in this Exhibit A shall be adjudicated to be invalid or unenforceable, such provision, without any action on the part of the parties hereto, shall be deemed amended to delete or to modify (including, without limitation, a reduction in duration, geographical area or prohibited business activities) the portion adjudicated to be invalid or unenforceable, such deletion or modification to apply only with respect to the operation of such provision in the particular jurisdiction in which such adjudication is made, and such deletion or modification to be made only to the extent necessary to cause the provision as amended to be valid and enforceable.

(b) You shall indicate your agreement to the obligations and restrictions set forth in this Exhibit B in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of such obligations and restrictions. As stated in paragraph 21 of the Agreement, you and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and Verizon executed this Exhibit B in paper form.

7. Governing Law and Non-exclusive Forum. The parties expressly agree: (a) that, because the Plan is centrally administered in the State of New Jersey by employees of a Verizon Communications Inc. affiliate, the subject matter of this Exhibit B bears a reasonable relationship to the State of New Jersey; (b) that this Exhibit B is made under, shall be construed in accordance with, and governed in all respects by the laws of the State of New Jersey without giving effect to that jurisdiction's choice of law rules; and (c) the parties consent to the non-exclusive jurisdiction and venue of the courts of the State of New Jersey, and the federal courts of the United States of America located in the State of New Jersey, over any action, claim, controversy or proceeding arising under this Exhibit B, and irrevocably waive any objection they may now or hereafter have to the non-exclusive jurisdiction and venue of such courts.

EXHIBIT 10c(viii)

VERIZON COMMUNICATIONS INC. LONG-TERM INCENTIVE PLAN
2018 RESTRICTED STOCK UNIT AGREEMENT

AGREEMENT between Verizon Communications Inc. (“Verizon” or the “Company”) and you (the “Participant”) and your heirs and beneficiaries.

1. Purpose of Agreement. The purpose of this Agreement is to provide a grant of restricted stock units (“RSUs”) to the Participant.

2. Agreement. This Agreement is entered into pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (the “Plan”), and evidences the grant of a restricted stock unit award in the form of RSUs pursuant to the Plan. In consideration of the benefits described in this Agreement, which Participant acknowledges are good, valuable and sufficient consideration, the Participant agrees to comply with the terms and conditions of this Agreement, including the Participant’s obligations and restrictions set forth in Exhibit A to this Agreement and the Participant’s non-competition, non-solicitation, confidentiality and other obligations and restrictions set forth in Exhibit B to this Agreement, both of which are incorporated into and are a part of the Agreement. The RSUs and this Agreement are subject to the terms and provisions of the Plan. By executing this Agreement, the Participant agrees to be bound by the terms and provisions of the Plan and this Agreement, including but not limited to the Participant’s obligations and restrictions set forth in Exhibits A and B to this Agreement. In addition, the Participant agrees to be bound by the actions of the Human Resources Committee of Verizon’s Board of Directors or any successor thereto (the “Committee”), and any designee of the Committee (to the extent that such actions are exercised in accordance with the terms of the Plan and this Agreement). If there is a conflict between the terms of the Plan and the terms of this Agreement, the terms of this Agreement shall control.

3. Contingency. The grant of RSUs is contingent on the Participant’s timely acceptance of this Agreement and satisfaction of the other conditions contained in it. Acceptance shall be through execution of the Agreement as set forth in paragraph 21. If the Participant does not accept this Agreement by the close of business on June 29, 2018, the Participant shall not be entitled to this grant of RSUs regardless of the extent to which the requirements in paragraph 5 (“Vesting”) are satisfied. In addition, to the extent a Participant is on a Company approved leave of absence, including but not limited to short-term disability leave, he or she will not be entitled to this grant of RSUs until such time as he or she returns to work with Verizon or a Related Company (as defined in paragraph 13) and accepts this Agreement within the time period established by the Company.

4. Number of Units. The Participant is granted the number of RSUs as specified in the Participant’s account under the 2018 RSU grant, administered by Fidelity Investments or any successor thereto (“Fidelity”). A RSU is a hypothetical share of Verizon’s common stock. The value of a RSU on any given date shall be equal to the closing price of Verizon’s common stock on the New York Stock Exchange (“NYSE”) as of such date. A Dividend Equivalent Unit (“DEU”) or fraction thereof shall be added to each RSU each time that a dividend is paid on Verizon’s common stock with respect to each dividend record date that occurs after the date of grant and prior to the payment of an RSU. The amount of each DEU shall be equal to the corresponding dividend paid on a share of Verizon’s common stock. The DEU shall be converted into RSUs or fractions thereof based upon the closing price of Verizon’s common stock traded on the NYSE on the dividend payment date of each declared dividend on Verizon’s common stock, and such RSUs or fractions thereof shall be added to the Participant’s RSU balance. DEUs that are credited will be subject to the same vesting, termination and other terms as the RSUs to which they relate. To the extent that Fidelity or the Company makes an error, including but not limited to an administrative error with respect to the number or value of the RSUs granted to the Participant under this Agreement, the DEUs credited to the Participant’s account or the amount of the final award payment, the Company or Fidelity specifically reserves the right to correct such error at any time and the Participant agrees that he or she shall be legally bound by any corrective action taken by the Company or Fidelity.

5. Vesting.

(a) General. The Participant shall vest in the RSUs as follows: one-third of the total number of RSUs subject to this grant (including DEUs credited with respect to such RSUs) shall vest on April 9, 2019, one-third of the total number of RSUs subject to this grant (including DEUs credited with respect to such RSUs) shall vest on April 9, 2020, and the remaining number of RSUs subject to this grant (including DEUs credited with respect to such RSUs) shall vest on April 9, 2021. The Participant must be continuously employed by the Company or a Related Company (as defined in paragraph 13) from the date the RSUs are granted through each of the applicable vesting dates specified in this paragraph 5(a) as a condition to the vesting of the applicable installment of the RSUs, except as otherwise provided in paragraph 7 (“Early Cancellation/Accelerated Vesting of RSUs”) or as otherwise provided by the Committee.

(b) Transfer. Transfer of employment from Verizon to a Related Company, from a Related Company to Verizon, or from one Related Company to another Related Company shall not constitute a separation from employment hereunder, and service with a Related Company shall be treated as service with the Company for purposes of the continuous employment requirement in paragraph 5(a). If the Participant transfers employment pursuant to this paragraph 5(b), the Participant will still be required to satisfy the definition of “Retire” under paragraph 7 of this Agreement in order to be eligible for the accelerated vesting provisions in connection with a retirement.

6. Payment. All payments under this Agreement shall be made in cash. Subject to paragraph 7(a), as soon as practicable after the vesting date of the applicable installment of the RSUs specified in Section 5(a) (but in no event later than two and one-half months after the applicable vesting date), the value of shares that vested on the applicable vesting date (minus any withholding for taxes) shall be paid to the

Participant. The amount of cash that shall be paid (plus withholding for taxes) shall equal the number of RSUs that vested on the applicable vesting date times the closing price of Verizon's common stock on the NYSE as of the applicable vesting date (or if the common stock is not traded on such vesting date, last trading date that immediately precedes the applicable vesting date). If the Participant dies before any payment due hereunder is made, such payment shall be made to the Participant's beneficiary, as designated under paragraph 11. Once a payment has been made with respect to a RSU, the RSU shall be cancelled; however, all other terms of the Agreement, including but not limited to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, shall remain in effect.

7. Early Cancellation/Accelerated Vesting of RSUs. Notwithstanding the provisions of paragraph 5, RSUs may vest or be forfeited before the applicable vesting and payment dates set forth above as follows:

(a) Termination for Cause. If the Participant's employment by the Company or a Related Company is terminated by the Company or a Related Company for Cause (as defined below) at any time prior to the date that the RSUs are paid pursuant to paragraph 6, the RSUs (whether vested or not) shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(b) Retirement Before July 1, 2018, Voluntary Separation On or Before April 9, 2021, or Other Separation Not Described in Paragraph 7(c). If the Participant (i) Retires (as defined below) before July 1, 2018, (ii) voluntarily separates from employment on or before April 9, 2021 for any reason other than Retirement, or (iii) otherwise separates from employment on or before April 9, 2021 under circumstances not described in paragraph 7(c), all then-unvested RSUs shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(c) Retirement After June 30, 2018, Involuntary Termination Without Cause On or Before April 9, 2021, Termination Due to Death or Disability On or Before April 9, 2021.

(1) This paragraph 7(c) shall apply if the Participant:

(i) Retires (as defined below) after June 30, 2018, or

(ii) Separates from employment by reason of an involuntary termination without Cause (as determined by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee)), death, or Disability (as defined below) on or before April 9, 2021.

(2) If the Participant separates from employment on or before April 9, 2021 under circumstances described in paragraph 7(c)(1), the Participant's then-unvested RSUs shall vest (without prorating the award) without regard to the continuous employment requirement set forth in paragraph 5(a), provided that the Participant has not and does not commit a breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement and provided that the Participant executes, within the time prescribed by Verizon, a release satisfactory to Verizon waiving any claims he or she may have against Verizon and any Related Company (otherwise, paragraph 7(b) shall apply).

(3) Any RSUs that vest pursuant to paragraph 7(c)(2) shall be payable as soon as practicable after the vesting date of the applicable installment of the RSUs specified in Section 5(a) that would have applied had such RSUs not vested earlier under paragraph 7(c)(2) (but in no event later than two and one-half months after the applicable vesting date).

(4) Defined Terms. For purposes of this Agreement, the following definitions shall apply:

(i) "Cause" means (i) incompetence or negligence in the discharge of, or inattention to or neglect of or failure to perform, the duties and responsibilities assigned to the Participant; fraud, misappropriation or embezzlement; or a material breach of the Verizon Code of Conduct (as in effect at the relevant time) or any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, all as determined by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) in his or her discretion, or (ii) commission of any felony of which the Participant is finally adjudged guilty by a court of competent jurisdiction.

(ii) "Disability" shall mean the total and permanent disability of the Participant as defined by, or determined under, the Company's long-term disability benefit plan.

(iii) "Retire" and "Retirement" means: (i) to retire after having attained at least 15 years of vesting service (as defined under the applicable Verizon tax-qualified 401(k) savings plan) and a combination of age and years of vesting service that equals or exceeds 75 points, or (ii) retirement under any other circumstances determined in writing by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee), provided that, in the case of either (i) or (ii) in this paragraph, the retirement was not occasioned by a discharge for Cause. Notwithstanding the preceding sentence, if the Participant is employed in the United Kingdom, "Retire" or "Retirement" shall mean: (A) subject to applicable law, a termination of employment on the grounds of age, provided that the Participant has attained at least age 65; or (B) retirement under any other circumstances determined in writing by the Executive Vice President and Chief

Administrative Officer of Verizon (or his or her designee), provided that, in the case of either (A) or (B) in this paragraph, the retirement was not occasioned by a discharge for Cause.

(d) Change in Control. If a Participant is involuntarily terminated without Cause within twelve (12) months following the occurrence of a Change in Control of Verizon (as defined in the Plan), all then-unvested RSUs shall vest and become payable (without prorating the award) and the continuous employment requirement in paragraph 5(a) shall be deemed satisfied in full as if the Participant's employment with the Company or a Related Company had continued through the applicable vesting date; provided, however, that all other terms of the Agreement, including but not limited to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, shall remain in effect. A Change in Control or an involuntary termination without Cause that occurs after the applicable vesting date of the RSUs set forth in paragraph 5(a) shall have no effect on whether any RSUs vest or become payable under this paragraph 7(d). If both paragraph 7(c) and this paragraph 7(d) would otherwise apply in the circumstances, this paragraph 7(d) shall control. All payments provided in this paragraph 7(d) shall be made at their regularly scheduled time as specified in paragraph 6.

(e) Vesting Schedule. Except and to the extent provided in paragraphs 7(c) and (d), nothing in this paragraph 7 shall alter the vesting schedule prescribed by paragraph 5.

8. Shareholder Rights. The Participant shall have no rights as a shareholder with respect to the RSUs. Except as provided in the Plan or in this Agreement, no adjustment shall be made for dividends or other rights for which the record date occurs while the RSUs are outstanding.

9. Amendment of Agreement. Except to the extent required by law or specifically contemplated under this Agreement, neither the Committee nor the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) may, without the written consent of the Participant, change any term, condition or provision affecting the RSUs if the change would have a material adverse effect upon the RSUs or the Participant's rights thereto. Nothing in the preceding sentence shall preclude the Committee or the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) from exercising administrative discretion with respect to the Plan or this Agreement, and the exercise of such discretion shall be final, conclusive and binding. This discretion includes, but is not limited to, corrections of any errors, including but not limited to any administrative errors, and determining whether the Participant has been discharged for Cause, has a Disability, has Retired, has breached any of the Participant's obligations or restrictions set forth in Exhibits A and B to this Agreement or has satisfied the requirements for vesting and payment under paragraphs 5 and 7 of this Agreement.

10. Assignment. The RSUs shall not be assigned, pledged or transferred except by will or by the laws of descent and distribution.

11. Beneficiary. The Participant shall designate a beneficiary in writing and in such manner as is acceptable to the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee). Each such designation shall revoke all prior designations by the Participant with respect to the Participant's benefits under the Plan and shall be effective only when filed by the Participant with the Company during the Participant's lifetime. If the Participant fails to so designate a beneficiary, or if no such designated beneficiary survives the Participant, the Participant's beneficiary shall be the Participant's estate.

12. Other Plans and Agreements. Any payment received by the Participant pursuant to this Agreement shall not be taken into account as compensation in the determination of the Participant's benefits under any pension, savings, life insurance, severance or other benefit plan maintained by Verizon or a Related Company. The Participant acknowledges that this Agreement or any prior RSU agreement shall not entitle the Participant to any other benefits under the Plan or any other plans maintained by the Company or a Related Company.

13. Company and Related Company. For purposes of this Agreement, "Company" means Verizon Communications Inc. "Related Company" means (a) any corporation, partnership, joint venture, or other entity in which Verizon Communications Inc. holds a direct or indirect ownership or proprietary interest of 50 percent or more at any time during the term of this Agreement, or (b) any corporation, partnership, joint venture, or other entity in which Verizon Communications Inc. holds a direct or indirect ownership or other proprietary interest of less than 50 percent at any time during the term of this Agreement but which, in the discretion of the Committee, is treated as a Related Company for purposes of this Agreement.

14. Employment Status. The grant of the RSUs shall not be deemed to constitute a contract of employment for a particular term between the Company or a Related Company and the Participant, nor shall it constitute a right to remain in the employ of any such Company or Related Company.

15. Withholding. The Participant acknowledges that he or she shall be responsible for any taxes that arise in connection with this grant of RSUs, and the Company shall make such arrangements as it deems necessary for withholding of any taxes it determines are required to be withheld pursuant to any applicable law or regulation.

16. Securities Laws. The Company shall not be required to make payment with respect to any shares of common stock prior to the admission of such shares to listing on any stock exchange on which the stock may then be listed and the completion of any registration or qualification of such shares under any federal or state law or rulings or regulations of any government body that the Company, in its discretion, determines to be necessary or advisable.

17. Committee Authority. The Committee shall have complete discretion in the exercise of its rights, powers, and duties under this Agreement. Any interpretation or construction of any provision of, and the determination of any question arising under, this Agreement shall be made by the Committee in its discretion, as described in paragraph 9. The Committee and the Audit Committee may designate any individual or individuals to perform any of its functions hereunder and utilize experts to assist in carrying out their duties hereunder.

18. Successors. This Agreement shall be binding upon, and inure to the benefit of, any successor or successors of the Company and the person or entity to whom the RSUs may have been transferred by will, the laws of descent and distribution, or beneficiary designation. All terms and conditions of this Agreement imposed upon the Participant shall, unless the context clearly indicates otherwise, be deemed, in the event of the Participant's death, to refer to and be binding upon the Participant's heirs and beneficiaries.

19. Construction. In the event that any provision of this Agreement is held invalid or unenforceable, such provision shall be considered separate and apart from the remainder of this Agreement, which shall remain in full force and effect. In the event that any provision, including any of the Participant's obligations or restrictions set forth in Exhibits A and B to this Agreement, is held to be unenforceable for being unduly broad as written, such provision shall be deemed amended to narrow its application to the extent necessary to make the provision enforceable according to applicable law and shall be enforced as amended. The RSUs are intended not to be subject to any tax, interest or penalty under Section 409A of the Code, and this Agreement shall be construed and interpreted consistent with such intent.

20. Defined Terms. Except where the context clearly indicates otherwise, all capitalized terms used herein shall have the definitions ascribed to them by the Plan, and the terms of the Plan shall apply where appropriate.

21. Execution of Agreement. The Participant shall indicate his or her consent and acknowledgment to the terms of this Agreement (including the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement) and the Plan by executing this Agreement pursuant to the instructions provided and otherwise shall comply with the requirements of paragraph 3. In addition, by consenting to the terms of this Agreement and the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, the Participant expressly agrees and acknowledges that Fidelity may deliver all documents, statements and notices associated with the Plan and this Agreement to the Participant in electronic form. The Participant and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if the Participant and Verizon executed this Agreement (including the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement) in paper form.

22. Confidentiality. Except to the extent otherwise required by law, the Participant shall not disclose, in whole or in part, any of the terms of this Agreement. This paragraph 22 does not prevent the Participant from disclosing the terms of this Agreement to the Participant's spouse or beneficiary or to the Participant's legal, tax, or financial adviser, provided that the Participant take all reasonable measures to assure that the individual to whom disclosure is made does not disclose the terms of this Agreement to a third party except as otherwise required by law.

23. Applicable Law. Except as expressly provided in Exhibit B, the validity, construction, interpretation and effect of this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the conflicts of laws provisions thereof.

24. Notice. Any notice to the Company provided for in this Agreement shall be addressed to the Company in care of the Executive Vice President and Chief Administrative Officer of Verizon at 1095 Avenue of the Americas, New York, New York 10036 and any notice to the Participant shall be addressed to the Participant at the current address shown on the payroll of the Company, or to such other address as the Participant may designate to the Company in writing. Any notice shall be delivered by hand, sent by telecopy, sent by overnight carrier, or enclosed in a properly sealed envelope as stated above, registered and deposited, postage prepaid, in a post office regularly maintained by the United States Postal Service.

25. Dispute Resolution.

(a) General. Except as otherwise provided in paragraph 26 below, all disputes arising under or related to the Plan or this Agreement and all claims in which a Participant seeks damages or other relief that relate in any way to RSUs or other benefits of the Plan are subject to the dispute resolution procedure described below in this paragraph 25.

(i) For purposes of this Agreement, the term "Units Award Dispute" shall mean any claim against the Company or a Related Company, other than Units Damages Disputes described in paragraph (a)(ii) below, regarding (A) the interpretation of the Plan or this Agreement, (B) any of the terms or conditions of the RSUs issued under this Agreement, or (C) allegations of entitlement to RSUs or additional RSUs, or any other benefits, under the Plan or this Agreement; provided, however, that any dispute relating to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement or to the forfeiture of an award as a result of a breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement shall not be subject to the dispute resolution procedures provided for in this paragraph 25.

(ii) For purposes of this Agreement, the term "Units Damages Dispute" shall mean any claims between the Participant and the Company or a Related Company (or against the past or present directors, officers, employees, representatives, or agents of the Company or a Related Company, whether acting in their capacity as such or otherwise), that are related in any way to the Participant's employment or former employment, including claims of alleged employment discrimination, wrongful termination, or violations of Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, the Age Discrimination in Employment Act, 42 U.S.C. § 1981, the Fair Labor Standards Act, the Family Medical Leave Act, the Sarbanes-Oxley Act, or any other U.S. federal, state or local law, statute, regulation, or ordinance relating to employment or any common law theories of recovery relating to employment, such as breach of contract, tort, or public policy claims, in which the damages or other relief sought relate in any way to RSUs or other benefits of the Plan or this Agreement.

(b) Internal Dispute Resolution Procedure. All Units Award Disputes, and all Units Damages Dispute alleging breach of contract, tort, or public policy claims with respect to the Plan or this Agreement (collectively, "Plan Disputes"), shall be referred in the first instance to the Verizon Employee Benefits Committee ("EB Committee") for resolution internally within Verizon. Except where otherwise prohibited by law, all Plan Disputes must be filed in writing with the EB Committee no later than one year from the date that the dispute accrues. Consistent with paragraph 25(c)(i) of this Agreement, all decisions relating to the enforceability of the limitations period contained herein shall be made by the arbitrator. To the fullest extent permitted by law, the EB Committee shall have full power, discretion, and authority to interpret the Plan and this Agreement and to decide all Plan Disputes brought under this Plan and Agreement. Determinations made by the EB Committee shall be final, conclusive and binding, subject only to review by arbitration pursuant to paragraph (c) below under the arbitrary and capricious standard of review. A Participant's failure to refer a Plan Dispute to the EB Committee for resolution will in no way impair the Company's right to compel arbitration or the enforceability of the waiver in paragraph 25(c)(ii).

(c) Arbitration. All appeals from determinations by the EB Committee as described in paragraph (b) above, and any Units Damages Dispute, shall be fully and finally settled by arbitration administered by the American Arbitration Association ("AAA") on an individual basis (and not on a collective or class action basis) before a single arbitrator pursuant to the AAA's Commercial Arbitration Rules in effect at the time any such arbitration is initiated. Any such arbitration must be initiated in writing pursuant to the aforesaid rules of the AAA no later than one year from the date that the claim accrues, except where a longer limitations period is required by applicable law. However, a Participant's failure to initiate arbitration within one year will in no way impair the Company's right, exercised at its discretion, to compel arbitration or the enforceability of the waiver in paragraph 25(c)(ii). Decisions about the applicability of the limitations period contained herein shall be made by the arbitrator. A copy of the AAA's Commercial Arbitration Rules may be obtained from Human Resources. The Participant agrees that the arbitration shall be held at the office of the AAA nearest the place of the Participant's most recent employment by the Company or a Related Company, unless the parties agree in writing to a different location. All claims by the Company or a Related Company against the Participant, except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, may also be raised in such arbitration proceedings.

(i) The arbitrator shall have the authority to determine whether any dispute submitted for arbitration hereunder is arbitrable. The arbitrator shall decide all issues submitted for arbitration according to the terms of the Plan, this Agreement (except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement), existing Company policy, and applicable substantive Delaware State and U.S. federal law and shall have the authority to award any remedy or relief permitted by such laws. The final decision of the EB Committee with respect to a Plan Dispute shall be upheld unless such decision was arbitrary or capricious. The decision of the arbitrator shall be final, conclusive, not subject to appeal, and binding and enforceable in any applicable court.

(ii) **The Participant understands and agrees that, pursuant to this Agreement, both the Participant and the Company or a Related Company waive any right to sue each other in a court of law or equity, to have a trial by jury, or to resolve disputes on a collective, or class, basis (except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement), and that the sole forum available for the resolution of Units Award Disputes and Units Damages Disputes is arbitration as provided in this paragraph 25. If an arbitrator or court finds that the arbitration provisions of this Agreement are not enforceable, both Participant and the Company or a Related Company understand and agree to waive their right to trial by jury of any Units Award Dispute or Units Damages Dispute. This dispute resolution procedure shall not prevent either the Participant or the Company or a Related Company from commencing an action in any court of competent jurisdiction for the purpose of obtaining injunctive relief to prevent irreparable harm pending and in aid of arbitration hereunder; in such event, both the Participant and the Company or a Related Company agree that the party who commences the action may proceed without necessity of posting a bond.**

(iii) In consideration of the Participant's agreement in paragraph (ii) above, the Company or a Related Company will pay all filing, administrative and arbitrator's fees incurred in connection with the arbitration proceedings. If the AAA requires the Participant to pay the initial filing fee, the Company or a Related Company will reimburse the Participant for that fee. All other fees incurred in connection with the arbitration proceedings, including but not limited to each party's attorney's fees, will be the responsibility of such party.

(iv) The parties intend that the arbitration procedure to which they hereby agree shall be the exclusive means for resolving all Units Award Disputes and Units Damages Disputes (subject to the mandatory EB Committee procedure provided for in paragraph 25(b) above). Their agreement in this regard shall be interpreted as broadly and inclusively as reason permits to realize that intent.

(v) The Federal Arbitration Act ("FAA") shall govern the enforceability of this paragraph 25. If for any reason the FAA is held not to apply, or if application of the FAA requires consideration of state law in any dispute arising under this Agreement or subject to this dispute resolution provision, the laws of the State of Delaware shall apply without giving effect to the conflicts of laws provisions thereof.

(vi) To the extent an arbitrator determines that the Participant was not terminated for Cause and is entitled to the RSUs or any other benefits under the Plan pursuant to the provisions applicable to an involuntary termination without Cause, the Participant's obligation to execute a release satisfactory to Verizon as provided under paragraph 7(c)(2) shall remain applicable in order to receive the benefit of any RSUs pursuant to this Agreement.

26. Additional Remedies. Notwithstanding the dispute resolution procedures, including arbitration, of paragraph 25 of this Agreement, and in addition to any other rights or remedies, whether legal, equitable, or otherwise, that each of the parties to this Agreement may have (including the right of the Company to terminate the Participant for Cause or to involuntarily terminate the Participant without Cause), the Participant acknowledges that—

(a) The Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement are essential to the continued goodwill and profitability of the Company and any Related Company;

(b) The Participant has broad-based skills that will serve as the basis for other employment opportunities that are not prohibited by the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement;

(c) When the Participant's employment with the Company or any Related Company terminates, the Participant shall be able to earn a livelihood without violating any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement;

(d) Irreparable damage to the Company or any Related Company shall result in the event that the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement are not specifically enforced and that monetary damages will not adequately protect the Company and any Related Company from a breach of any of such Participant obligations and restrictions;

(e) If any dispute arises concerning the violation or anticipated or threatened violation by the Participant of any of the Participant's obligations and restrictions set forth in Exhibits A or B, an injunction may be issued restraining such violation pending the determination of such controversy, and no bond or other security shall be required in connection therewith;

(f) The Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement shall continue to apply after any expiration, termination, or cancellation of this Agreement;

(g) The Participant's breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, including, for example, any breach of the Participant's non-competition, non-solicitation or confidentiality restrictions, shall result in the Participant's immediate forfeiture of all rights and benefits, including all RSUs and DEUs, under this Agreement; and

(h) All disputes relating to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, including their interpretation and enforceability and any damages (including but not limited to damages resulting in the forfeiture of an award or benefits under this Agreement) that may result from the breach of such Participant obligations and restrictions shall not be subject to the dispute resolution procedures, including arbitration, of paragraph 25 of this Agreement, but shall instead be determined in a court of competent jurisdiction.

Exhibit A – Participant's Obligations

As part of the Agreement to which this Exhibit A is attached, you, the Participant, agree to the following obligations:

1. Effect of a Material Restatement of Financial Results; Recoupment; Company Policies Regarding Securities Transactions.

(a) General. Notwithstanding anything in this Agreement to the contrary, you agree that, with respect to all RSUs granted to you on or after April 9, 2018 and all short-term incentive awards made to you on or after April 9, 2018, to the extent the Company or any Related Company is required to materially restate any financial results based upon your willful misconduct or gross negligence while employed by the Company or any Related Company (and where such restatement would have resulted in a lower payment being made to you), you will be required to repay all previously paid or deferred (i) RSUs and (ii) short-term incentive awards that were provided to you during the performance periods that are the subject of the restated financial results, plus a reasonable rate of interest. For purposes of this paragraph, "willful misconduct" and "gross negligence" shall be as determined by the Committee. The Audit Committee of the Verizon Board of Directors shall determine whether a material restatement of financial results has occurred. If you do not repay the entire amount required under this paragraph, the Company may, to the extent permitted by applicable law, offset your obligation to repay against any source of income available to it, including but not limited to any money you may have in your nonqualified deferral accounts.

(b) Requirements of Recoupment Policy or Applicable Law. The repayment rights contained in paragraph 1(a) of Exhibit A shall be in addition to, and shall not limit, any other rights or remedies that the Company may have under law or in equity, including, without limitation, (i) any right that the Company may have under any Company recoupment policy that may apply to you, or (ii) any right or obligation that the Company may have regarding the clawback of "incentive-based compensation" under Section 10D of the Securities Exchange Act of 1934, as amended (as determined by the applicable rules and regulations promulgated thereunder from time to time by the U.S. Securities and Exchange Commission) or under any other applicable law. By accepting this award of RSUs, you agree and consent to the Company's application, implementation and enforcement of any such Company recoupment policy (as it may be in effect from time to time) that may apply to you and any provision of applicable law relating to cancellation, rescission, payback or recoupment of compensation and expressly agree that the Company may take such actions as are permitted under any such policy (as applicable to you) or applicable law, such as the cancellation of RSUs and repayment of amounts previously paid or deferred with respect to any previously granted RSUs or short-term incentive awards, without further consent or action being required by you.

(c) Company Policies Regarding Securities Transactions. By accepting this award of RSUs, you agree to comply with all Company policies regarding trading in securities or derivative securities (including, without limitation, the Company's policies prohibiting trading on material inside information regarding the Company or any business with which the Company does business, the Company's policies prohibiting engaging in financial transactions that would allow you to benefit from a devaluation of the Company's securities, and any additional policy that the Company may adopt prohibiting you from hedging your economic exposure to the Company's securities), as such policies are in effect from time to time and for as long as such policies are applicable to you.

2. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit A, all capitalized terms used in this Exhibit A shall have the definitions given to those terms in the Agreement to which this Exhibit A is attached.

3. Agreement to Participant's Obligations. You shall indicate your agreement to the obligations and restrictions set forth in this Exhibit A in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of such obligations and restrictions. As stated in paragraph 21 of the Agreement, you and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and Verizon executed this Exhibit A in paper form.

Exhibit B – Non-Competition, Non-Solicitation, Confidentiality and Other Obligations

As part of the Agreement to which this Exhibit B is attached, you (the Participant) and the Company or any Related Company which employs or employed you, agree to the following obligations:

1. Non-competition.

(a) Prohibited Conduct. During the period of your employment with the Company or any Related Company, and for a period ending twelve (12) months following a termination of your employment for any reason with the Company or any Related Company, you shall not, without the prior written consent of the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee):

(1) personally engage in Competitive Activities (as defined below); or

(2) work for, own, manage, operate, control, or participate in the ownership, management, operation, or control of, or provide consulting or advisory services to, any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or any company or person affiliated with such person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities; provided that your purchase or holding, for investment purposes, of securities of a publicly traded company shall not constitute "ownership" or "participation in the ownership" for purposes of this paragraph so long as your equity interest in any such company is less than a controlling interest;

provided that this paragraph (a) shall not prohibit you from (i) being employed by, or providing services to, a consulting firm, provided that you do not personally engage in Competitive Activities or provide consulting or advisory services to any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or any person or entity affiliated with such person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or (ii) engaging in the practice of law as an in-house counsel, sole practitioner or as a partner in (or as an employee of or counsel to) a corporation or law firm in accordance with applicable legal and professional standards. Exception (ii), however, does not apply to any Participant that may be engaging in Competitive Activities or providing services to any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, wherein such engagement or services being provided are not primarily the practice of law.

(b) Competitive Activities. For purposes of the Agreement, to which this Exhibit B is attached,
"Competitive Activities" means any activities relating to products or services of the same or similar type as the products or services (1) which were or are sold (or, pursuant to an existing business plan, will be sold) to paying customers of the Company or any Related Company, and (2) for which you have any direct or indirect responsibility or any involvement to plan, develop, manage, market, sell, oversee, support, implement or perform, or had any such responsibility or involvement within your most recent 24 months of employment with the Company or any Related Company. Notwithstanding the previous sentence, an activity shall not be treated as a Competitive Activity if the geographic marketing area of such same or similar products or services does not overlap with the geographic marketing area for the applicable products and services of the Company or any Related Company.

(c) Applicability to California. Notwithstanding the provisions of paragraph 1(a), the restrictions described in paragraph 1(a) shall not apply to participants whose principal work location for the Company or Related Company is in the State of California and: (i) whose employment has terminated for any reason; and (ii) who, within 12 months after termination of their employment, engage in any of the activities described in paragraphs 1(a)(1) or 1(a)(2) within the State of California. Nothing in this paragraph 1(c) shall be deemed to authorize or permit participants to engage in any competitive activities while using confidential or trade secret information of the Company or any Related Company.

2. Interference With Business Relations. During the period of your employment with the Company or any Related Company, and for a period ending twelve (12) months following a termination of your employment for any reason with the Company or any Related Company, you shall not, without the prior written consent of the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee):

(a)(i) recruit, induce or solicit, directly or indirectly, any employee of the Company or Related Company who was employed by the Company or any Related Company prior to or as of your termination date and whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company for employment or for retention as a consultant or service provider to any person or entity, or (ii) provide, directly or indirectly, names or other information about any employees of the Company or Related Company whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company to any person or entity (other than to the Company or any Related Company) under circumstances that could lead to the use of any such information for purposes of recruiting or soliciting any such employee for any person or entity;

(b) hire or participate (with another person or entity) in the process of recruiting, soliciting or hiring, directly or indirectly, (other than for the Company or any Related Company) any person who is then an employee of the Company or any Related Company whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company;

(c) interfere, or attempt to interfere, directly or indirectly, with any relationship of the Company or any Related Company with any of its employees, agents, or representatives;

(d) solicit or induce, or in any manner attempt to solicit or induce, directly or indirectly, any client, customer, or Prospect (defined below) of the Company or any Related Company (1) to cease being, or not to become, a customer of the Company or any Related Company, or (2) to divert any business of such customer or Prospect from the Company or any Related Company; or

(e) otherwise interfere with, disrupt, or attempt to interfere with or disrupt, directly or indirectly, the relationship, contractual or otherwise, between the Company or any Related Company and any of its customers, clients, Prospects, suppliers, vendors, service providers, developers, joint ventures, equity investments or partners, inventors, consultants, employees, agents, or representatives.

(f) Applicability to California. Notwithstanding the foregoing, if a participant whose principal work location for the Company or Related Company is in the State of California and: (i) whose employment has terminated for any reason; and (ii) who, within 12 months after termination of their employment, engages in any of the activities described in paragraph 2(b), 2(d) or 2(e), within the State of California, then (A) the prohibition on hiring in paragraph 2(b) shall not apply, and (B) the prohibitions in paragraph 2(d) and 2(e) shall apply but only to the extent that that the participant uses or discloses confidential or trade secret information of the Company or any Related Company to engage in such activities. Nothing in this paragraph 2(f) shall be deemed to authorize or permit participants to engage in any competitive activities while using confidential or trade secret information of the Company or any Related Company.

For purposes of this paragraph 2, “Prospect” shall mean any person or entity from whom or which any business was being solicited by Verizon or any Related Company within the most recent 12 month period of your employment.

3. Proprietary and Confidential Information. You shall at all times, including after any termination of your employment with the Company or any Related Company, preserve the confidentiality of all Proprietary Information (defined below) and trade secrets of the Company or any Related Company, and you shall not use for the benefit of yourself or any person, other than the Company or a Related Company, or disclose to any person, except and to the extent that disclosure of such information is authorized under applicable laws or regulations (e.g., “whistleblower” laws such as 18 USC 1833(b) described below), any Proprietary Information or trade secrets of the Company or any Related Company. “Proprietary Information” means any information or data related to the Company or any Related Company, including information entrusted to the Company or a Related Company by others, which has not been fully disclosed to the public by the Company or a Related Company, which is treated as confidential or otherwise protected within the Company or any Related Company or is of value to competitors, such as strategic or tactical business plans; undisclosed business, operational or financial data; ideas, processes, methods, techniques, systems, models, devices, programs, computer software, or related information; documents relating to regulatory matters or correspondence with governmental entities; information concerning any past, pending, or threatened legal dispute; pricing or cost data; the identity, reports or analyses of business prospects; business transactions (including those that are contemplated or planned); research data; personnel information or data; identities of suppliers to the Company or any Related Company or users or purchasers of the Company’s or Related Company’s products or services; the Agreement to which this Exhibit B is attached; and any other non-public information pertaining to or known by the Company or a Related Company, including confidential or non-public information of a third party that you know or should know the Company or a Related Company is obligated to protect. Section 18 USC 1833(b) provides that “An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that—(A) is made—(i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.” Nothing in this Agreement is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. § 1833(b).

4. Return of Company Property; Ownership of Intellectual Property Rights. You agree that on or before termination of your employment for any reason with the Company or any Related Company, you shall return to the Company all property owned by the Company or any Related Company or in which the Company or any Related Company has an interest or to which the Company or any Related Company has any obligation, including any and all files, documents, data, records and any other non-public information (whether on paper or in tapes, disks, memory devices, or other machine-readable form), office equipment, credit cards, and employee identification cards. You acknowledge that the Company (or, as applicable, a Related Company) is the rightful owner of, and you hereby do grant and assign, all right, title and interest in and to any programs; ideas, inventions and discoveries (patentable or unpatentable); works of authorship, data, information, and other copyrightable material; and trademarks that you may have originated, created or developed, or assisted or participated in originating, creating or developing, during your period of employment with the Company or a Related Company, including all intellectual property rights in or based on the foregoing, where any such origination, creation or development (a) involved any use of Company or Related Company time, information or resources, (b) was made in the exercise of any of your duties or responsibilities for or on behalf of the Company or a Related Company, or (c) was related to (i) the Company’s or a Related Company’s past, present or future business, or (ii) the Company’s or a Related Company’s actual or demonstrably anticipated research, development or procurement activities. You shall at all times, both before and after termination of your employment, cooperate with the Company (or, as applicable, any Related Company) and its representatives in executing and delivering documents requested by the Company or a Related Company, and taking any other actions, that are necessary or requested by the Company or a Related Company to assist the Company or any Related Company in patenting, copyrighting, protecting, registering, or enforcing any programs; ideas, inventions and discoveries (patentable or unpatentable); works of authorship, data, information, and other copyrightable material; trademarks; or other intellectual property rights, and to vest title thereto solely in the Company (or, as applicable, a Related Company).

Notwithstanding the provisions of paragraph 4, the restrictions described in paragraph 4 shall not apply to participants whose principal work location for the Company or Related Company is in the State of California and to any invention that qualifies fully under the provisions of California Labor Code § 2870, which provides as follows:

> "§2870. Invention on Own Time - Exemption from Agreement
> (a) Any provision in an employment agreement which provides that an Employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the Employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:
> (1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or
> (2) Result from any work performed by the Employee for the employer.
> (b) To the extent a provision in an employment agreement purports to require an Employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable."

5. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit B, all capitalized terms used in this Exhibit B shall have the definitions given to those terms in the Agreement to which this Exhibit B is attached.

6. Agreement to Non-Competition, Non-Solicitation, Confidentiality and Other Obligations.

(a) You acknowledge that the geographic boundaries, scope of prohibited activities, and time duration of the restrictions set forth in paragraphs 1 and 2 above are reasonable in nature and are no broader than are necessary to maintain the confidential information, trade secrets and the goodwill of the Company and its Related Companies and to protect the other legitimate business interests of the Company and its Related Companies and are not unduly restrictive on you. In addition, you and the Company agree and intend that the covenants contained in paragraphs 1 and 2 shall be deemed to be a series of separate covenants and agreements, one for each and every county or political subdivision of each applicable state of the United States and each country of the world. It is the desire and intent of the parties hereto that the provisions of this Exhibit B be enforced to the fullest extent permissible under the governing laws and public policies of the State of New Jersey, and to the extent applicable, each jurisdiction in which enforcement is sought. Accordingly, if any provision in this Exhibit B or deemed to be included in this Exhibit B shall be adjudicated to be invalid or unenforceable, such provision, without any action on the part of the parties hereto, shall be deemed amended to delete or to modify (including, without limitation, a reduction in duration, geographical area or prohibited business activities) the portion adjudicated to be invalid or unenforceable, such deletion or modification to apply only with respect to the operation of such provision in the particular jurisdiction in which such adjudication is made, and such deletion or modification to be made only to the extent necessary to cause the provision as amended to be valid and enforceable.

(b) You shall indicate your agreement to the obligations and restrictions set forth in this Exhibit B in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of such obligations and restrictions. As stated in paragraph 21 of the Agreement, you and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and Verizon executed this Exhibit B in paper form.

7. Governing Law and Non-exclusive Forum. The parties expressly agree: (a) that, because the Plan is centrally administered in the State of New Jersey by employees of a Verizon Communications Inc. affiliate, the subject matter of this Exhibit B bears a reasonable relationship to the State of New Jersey; (b) that this Exhibit B is made under, shall be construed in accordance with, and governed in all respects by the laws of the State of New Jersey without giving effect to that jurisdiction's choice of law rules; and (c) the parties consent to the non-exclusive jurisdiction and venue of the courts of the State of New Jersey, and the federal courts of the United States of America located in the State of New Jersey, over any action, claim, controversy or proceeding arising under this Exhibit B, and irrevocably waive any objection they may now or hereafter have to the non-exclusive jurisdiction and venue of such courts.

EXHIBIT 10c(x)

VERIZON COMMUNICATIONS INC. LONG-TERM INCENTIVE PLAN
SPECIAL PERFORMANCE RESTRICTED STOCK UNIT AGREEMENT

AGREEMENT between Verizon Communications Inc. ("Verizon" or the "Company") and you (the "Participant") and your heirs and beneficiaries.

1. Purpose of Agreement. The purpose of this Agreement is to provide a grant of restricted stock units ("RSUs") to the Participant.

2. Agreement. This Agreement is entered into pursuant to the 2017 Verizon Communications Inc. Long-Term Incentive Plan (the "Plan"), and evidences the grant of a restricted stock unit award in the form of RSUs pursuant to the Plan. In consideration of the benefits described in this Agreement, which Participant acknowledges are good, valuable and sufficient consideration, the Participant agrees to comply with the terms and conditions of this Agreement, including the Participant's obligations and restrictions set forth in Exhibit A to this Agreement and the Participant's non-competition, non-solicitation, confidentiality and other obligations and restrictions set forth in Exhibit B to this Agreement, both of which are incorporated into and are a part of the Agreement. The RSUs and this Agreement are subject to the terms and provisions of the Plan. By executing this Agreement, the Participant agrees to be bound by the terms and provisions of the Plan and this Agreement, including but not limited to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement. In addition, the Participant agrees to be bound by the actions of the Human Resources Committee of Verizon's Board of Directors or any successor thereto (the "Committee"), and any designee of the Committee (to the extent that such actions are exercised in accordance with the terms of the Plan and this Agreement). If there is a conflict between the terms of the Plan and the terms of this Agreement, the terms of this Agreement shall control.

3. Contingency. The grant of RSUs is contingent on the Participant's timely acceptance of this Agreement and satisfaction of the other conditions contained in it. Acceptance shall be through execution of the Agreement as set forth in paragraph 21. If the Participant does not accept this Agreement by the close of business on June 29, 2018, the Participant shall not be entitled to this grant of RSUs regardless of the extent to which the requirements in paragraph 5 ("Vesting") are satisfied. In addition, to the extent the Participant is on a Company approved leave of absence, including but not limited to short-term disability leave, he will not be entitled to this grant of RSUs until such time as he returns to work with Verizon or a Related Company (as defined in paragraph 13) and accepts this Agreement within the time period established by the Company.

4. Number of Units. The Participant is granted the number of RSUs as specified in the Participant's account under the Special Performance RSU grant, administered by Fidelity Investments or any successor thereto ("Fidelity"). A RSU is a hypothetical share of Verizon's common stock. The value of a RSU on any given date shall be equal to the closing price of Verizon's common stock on the New York Stock Exchange ("NYSE") as of such date. A Dividend Equivalent Unit ("DEU") or fraction thereof shall be added to each RSU each time that a dividend is paid on Verizon's common stock with respect to each dividend record date that occurs after the date of grant and prior to the payment of an RSU. The amount of each DEU shall be equal to the corresponding dividend paid on a share of Verizon's common stock. The DEU shall be converted into RSUs or fractions thereof based upon the closing price of Verizon's common stock traded on the NYSE on the dividend payment date of each declared dividend on Verizon's common stock, and such RSUs or fractions thereof shall be added to the Participant's RSU balance. DEUs that are credited will be subject to the same vesting, termination and other terms as the RSUs to which they relate. To the extent that Fidelity or the Company makes an error, including but not limited to an administrative error with respect to the number or value of the RSUs granted to the Participant under this Agreement, the DEUs credited to the Participant's account or the amount of the final award payment, the Company or Fidelity specifically reserves the right to correct such error at any time and the Participant agrees that he shall be legally bound by any corrective action taken by the Company or Fidelity.

5. Vesting.

(a) Time-Based Vesting. The Participant shall vest in one hundred percent (100%) of the total number of RSUs subject to this grant, including DEUs credited with respect to such RSUs pursuant to the terms hereof (the "Target Number of RSUs"), on April 9, 2021. The Participant must be continuously employed by the Company or a Related Company (as defined in paragraph 13) from the date the RSUs are granted through April 9, 2021 as a condition to vesting of any RSUs hereunder, except as otherwise provided in paragraph 7 ("Early Cancellation/Accelerated Vesting of RSUs") or as otherwise provided by the Committee.

(b) Additional Performance-Based Vesting.

(1) ***General.*** If both (x) the Target Number of RSUs vest pursuant to paragraph 5(a) or Section 7(c)(1) and (y) Oath Inc.'s Revenue (as defined below) during the three-year period beginning January 1, 2018 and ending at the close of business on December 31, 2020 meets or exceeds xxx Dollars ($xxx), then an additional number of RSUs shall vest as of April 9, 2021, equal to one hundred percent (100%) of the Target Number of RSUs.

(2) ***Definition of Revenue.*** As used in this Agreement, the term "Revenue" has the meaning given to such term under GAAP. The Committee will (to the extent necessary and without duplication) adjust such revenue to eliminate the financial impact of (i) acquisitions, divestitures or changes in business structure; (ii) changes in legal, tax, accounting or regulatory policy; and

(iii) other items that are extraordinary in nature or not deemed to be in the ordinary course of business. The Committee's determination of whether, and the extent to which, any such adjustment is necessary shall be final and binding.

(c) Transfer. Transfer of employment from Verizon to a Related Company, from a Related Company to Verizon, or from one Related Company to another Related Company shall not constitute a separation from employment hereunder, and service with a Related Company shall be treated as service with the Company for purposes of the continuous employment requirement in paragraph 5(a).

6. Payment. All payments under this Agreement shall be made in shares of Verizon common stock. Subject to paragraph 7(a), as soon as practicable after April 9, 2021 (but in no event later than 2 and one-half months after such date), the number of shares that vested (minus any withholding for taxes) shall be paid to the Participant. The number of shares that shall be paid (plus withholding for taxes) shall equal the number of RSUs that vested pursuant to the terms hereof. If the Participant dies before any payment due hereunder is made, such payment shall be made to the Participant's beneficiary, as designated under paragraph 11. Once a payment has been made with respect to a RSU, the RSU shall be canceled; however, all other terms of the Agreement, including but not limited to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, shall remain in effect.

7. Early Cancellation/Accelerated Vesting of RSUs. Notwithstanding the provisions of paragraph 5, RSUs may vest or be forfeited before the vesting and payment dates set forth above as follows:

(a) Termination for Cause. If the Participant's employment by the Company or a Related Company is terminated by the Company or a Related Company for Cause (as defined below) at any time prior to the date that the RSUs are paid pursuant to paragraph 6, the RSUs (whether vested or not) shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(b) Voluntary Separation On or Before April 9, 2021, or Other Separation Not Described in Paragraph 7(c). If the Participant (i) voluntarily separates from employment on or before April 9, 2021 for any reason, or (ii) otherwise separates from employment on or before April 9, 2021 under circumstances not described in paragraph 7(c), all then-unvested RSUs shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(c) Involuntary Termination Without Cause On or Before April 9, 2021, Termination Due to Death or Disability On or Before April 9, 2021.

(1) This paragraph 7(c) shall apply if the Participant separates from employment by reason of an involuntary termination without Cause (as determined by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee)), death, or Disability (as defined below) on or before April 9, 2021.

(2) If the Participant separates from employment on or before April 9, 2021 under circumstances described in paragraph 7(c)(1), (x) the Participant's Target Number of RSUs shall vest (without prorating the award), and (y) the Participant shall remain eligible to vest in additional RSUs in accordance with paragraph 5(b) (subject to the performance requirement set forth therein being met), provided in each case that the Participant has not and does not commit a breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement and provided that the Participant executes, within the time prescribed by Verizon, a release satisfactory to Verizon waiving any claims he or she may have against Verizon and any Related Company (otherwise, paragraph 7(b) shall apply).

(3) Any RSUs that vest pursuant to paragraph 7(c)(2) shall be payable as provided in paragraph 6.

(4) Defined Terms. For purposes of this Agreement, the following definitions shall apply:

(i) "Cause" means (i) incompetence or negligence in the discharge of, or inattention to or neglect of or failure to perform, the duties and responsibilities assigned to the Participant; fraud, misappropriation or embezzlement; or a material breach of the Verizon Code of Conduct (as in effect at the relevant time) or any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, all as determined by the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) in his or her discretion, or (ii) commission of any felony of which the Participant is finally adjudged guilty by a court of competent jurisdiction.

(ii) "Disability" shall mean the total and permanent disability of the Participant as defined by, or determined under, the Company's long-term disability benefit plan.

(d) Change in Control. If a Participant is involuntarily terminated without Cause within twelve (12) months following the occurrence of a Change in Control of Verizon (as defined in the Plan) and before April 9, 2021, the RSUs shall vest (without prorating the award) by deeming the performance goal in paragraph 5(b) and the continuous employment requirement in paragraph 5(a) to be satisfied in full; however, all other terms of the Agreement, including but not limited to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, shall remain in effect. A Change in Control or an involuntary termination without Cause that occurs after

April 9, 2021 shall have no effect on whether any RSUs vest or become payable under this paragraph 7(d). If both paragraph 7(c) and this paragraph 7(d) would otherwise apply in the circumstances, this paragraph 7(d) shall control. All payments provided in this paragraph 7(d) shall be made at their regularly scheduled time as specified in paragraph 6.

(e) Vesting Schedule. Except and to the extent provided in paragraphs 7(c) and (d), nothing in this paragraph 7 shall alter the vesting schedule prescribed by paragraph 5.

8. Shareholder Rights. The Participant shall have no rights as a shareholder with respect to the RSUs until the date on which the Participant becomes the holder of record with respect to any shares of Verizon common stock to which this grant relates. Except as provided in the Plan or in this Agreement, no adjustment shall be made for dividends or other rights for which the record date occurs while the RSUs are outstanding.

9. Amendment of Agreement. Except to the extent required by law or specifically contemplated under this Agreement, neither the Committee nor the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) may, without the written consent of the Participant, change any term, condition or provision affecting the RSUs if the change would have a material adverse effect upon the RSUs or the Participant's rights thereto. Nothing in the preceding sentence shall preclude the Committee or the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee) from exercising administrative discretion with respect to the Plan or this Agreement, and the exercise of such discretion shall be final, conclusive and binding. This discretion includes, but is not limited to, corrections of any errors, including but not limited to any administrative errors, determining the total percentage of RSUs that become payable, and determining whether the Participant has been discharged for Cause, has a Disability, has breached any of the Participant's obligations or restrictions set forth in Exhibits A and B to this Agreement or has satisfied the requirements for vesting and payment under paragraphs 5 and 7 of this Agreement.

10. Assignment. The RSUs shall not be assigned, pledged or transferred except by will or by the laws of descent and distribution.

11. Beneficiary. The Participant shall designate a beneficiary in writing and in such manner as is acceptable to the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee). Each such designation shall revoke all prior designations by the Participant with respect to the Participant's benefits under the Plan and shall be effective only when filed by the Participant with the Company during the Participant's lifetime. If the Participant fails to so designate a beneficiary, or if no such designated beneficiary survives the Participant, the Participant's beneficiary shall be the Participant's estate.

12. Other Plans and Agreements. Any payment received by the Participant pursuant to this Agreement shall not be taken into account as compensation in the determination of the Participant's benefits under any pension, savings, life insurance, severance or other benefit plan maintained by Verizon or a Related Company. The Participant acknowledges that this Agreement or any prior RSU agreement shall not entitle the Participant to any other benefits under the Plan or any other plans maintained by the Company or a Related Company.

13. Company and Related Company. For purposes of this Agreement, "Company" means Verizon Communications Inc. "Related Company" means (a) any corporation, partnership, joint venture, or other entity in which Verizon Communications Inc. holds a direct or indirect ownership or proprietary interest of 50 percent or more at any time during the term of this Agreement, or (b) any corporation, partnership, joint venture, or other entity in which Verizon Communications Inc. holds a direct or indirect ownership or other proprietary interest of less than 50 percent at any time during the term of this Agreement but which, in the discretion of the Committee, is treated as a Related Company for purposes of this Agreement.

14. Employment Status. The grant of the RSUs shall not be deemed to constitute a contract of employment for a particular term between the Company or a Related Company and the Participant, nor shall it constitute a right to remain in the employ of any such Company or Related Company.

15. Withholding. The Participant acknowledges that he or she shall be responsible for any taxes that arise in connection with this grant of RSUs, and the Company shall make such arrangements as it deems necessary for withholding of any taxes it determines are required to be withheld pursuant to any applicable law or regulation.

16. Securities Laws. The Company shall not be required to make payment with respect to any shares of common stock prior to the admission of such shares to listing on any stock exchange on which the stock may then be listed and the completion of any registration or qualification of such shares under any federal or state law or rulings or regulations of any government body that the Company, in its discretion, determines to be necessary or advisable.

17. Committee Authority. The Committee shall have complete discretion in the exercise of its rights, powers, and duties under this Agreement. Any interpretation or construction of any provision of, and the determination of any question arising under, this Agreement shall be made by the Committee in its discretion, as described in paragraph 9. The Committee and the Audit Committee may designate any individual or individuals to perform any of its functions hereunder and utilize experts to assist in carrying out their duties hereunder.

18. Successors. This Agreement shall be binding upon, and inure to the benefit of, any successor or successors of the Company and the person or entity to whom the RSUs may have been transferred by will, the laws of descent and distribution, or beneficiary designation. All terms and conditions of this Agreement imposed upon the Participant shall, unless the context clearly indicates otherwise, be deemed, in the event of the Participant's death, to refer to and be binding upon the Participant's heirs and beneficiaries.

19. Construction. In the event that any provision of this Agreement is held invalid or unenforceable, such provision shall be considered separate and apart from the remainder of this Agreement, which shall remain in full force and effect. In the event that any provision, including any of the Participant's obligations or restrictions set forth in Exhibits A and B to this Agreement, is held to be unenforceable for being unduly broad as written, such provision shall be deemed amended to narrow its application to the extent necessary to make the provision enforceable according to applicable law and shall be enforced as amended. The RSUs are intended not to be subject to any tax, interest or penalty under Section 409A of the Code, and this Agreement shall be construed and interpreted consistent with such intent.

20. Defined Terms. Except where the context clearly indicates otherwise, all capitalized terms used herein shall have the definitions ascribed to them by the Plan, and the terms of the Plan shall apply where appropriate.

21. Execution of Agreement. The Participant shall indicate his or her consent and acknowledgment to the terms of this Agreement (including the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement) and the Plan by executing this Agreement pursuant to the instructions provided and otherwise shall comply with the requirements of paragraph 3. In addition, by consenting to the terms of this Agreement and the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, the Participant expressly agrees and acknowledges that Fidelity may deliver all documents, statements and notices associated with the Plan and this Agreement to the Participant in electronic form. The Participant and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if the Participant and Verizon executed this Agreement (including the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement) in paper form.

22. Confidentiality. Except to the extent otherwise required by law, the Participant shall not disclose, in whole or in part, any of the terms of this Agreement. This paragraph 22 does not prevent the Participant from disclosing the terms of this Agreement to the Participant's spouse or beneficiary or to the Participant's legal, tax, or financial adviser, provided that the Participant take all reasonable measures to assure that the individual to whom disclosure is made does not disclose the terms of this Agreement to a third party except as otherwise required by law.

23. Applicable Law. Except as expressly provided in Exhibit B, the validity, construction, interpretation and effect of this Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the conflicts of laws provisions thereof.

24. Notice. Any notice to the Company provided for in this Agreement shall be addressed to the Company in care of the Executive Vice President and Chief Administrative Officer of Verizon at 1095 Avenue of the Americas, New York, New York 10036 and any notice to the Participant shall be addressed to the Participant at the current address shown on the payroll of the Company, or to such other address as the Participant may designate to the Company in writing. Any notice shall be delivered by hand, sent by telecopy, sent by overnight carrier, or enclosed in a properly sealed envelope as stated above, registered and deposited, postage prepaid, in a post office regularly maintained by the United States Postal Service.

25. Dispute Resolution.

(a) General. Except as otherwise provided in paragraph 26 below, all disputes arising under or related to the Plan or this Agreement and all claims in which a Participant seeks damages or other relief that relate in any way to RSUs or other benefits of the Plan are subject to the dispute resolution procedure described below in this paragraph 25.

(i) For purposes of this Agreement, the term "Units Award Dispute" shall mean any claim against the Company or a Related Company, other than Units Damages Disputes described in paragraph (a)(ii) below, regarding (A) the interpretation of the Plan or this Agreement, (B) any of the terms or conditions of the RSUs issued under this Agreement, or (C) allegations of entitlement to RSUs or additional RSUs, or any other benefits, under the Plan or this Agreement; provided, however, that any dispute relating to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement or to the forfeiture of an award as a result of a breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement shall not be subject to the dispute resolution procedures provided for in this paragraph 25.

(ii) For purposes of this Agreement, the term "Units Damages Dispute" shall mean any claims between the Participant and the Company or a Related Company (or against the past or present directors, officers, employees, representatives, or agents of the Company or a Related Company, whether acting in their capacity as such or otherwise), that are related in any way to the Participant's employment or former employment, including claims of alleged employment discrimination, wrongful termination, or violations of Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, the Age Discrimination in Employment Act, 42 U.S.C. § 1981, the Fair Labor Standards Act, the Family Medical Leave Act, the Sarbanes-Oxley Act, or any other U.S. federal, state or local law, statute, regulation, or ordinance relating to employment or any common law theories of recovery relating to employment, such as breach of contract, tort, or public policy claims, in which the damages or other relief sought relate in any way to RSUs or other benefits of the Plan or this Agreement.

(b) Internal Dispute Resolution Procedure. All Units Award Disputes, and all Units Damages Dispute alleging breach of contract, tort, or public policy claims with respect to the Plan or this Agreement (collectively, "Plan Disputes"), shall be referred in the first instance to the Verizon Employee Benefits Committee ("EB Committee") for resolution internally within Verizon. Except where otherwise prohibited by law, all Plan Disputes must be filed in writing with the EB Committee no later than one year from the date that the dispute accrues. Consistent with paragraph 25(c)(i) of this Agreement, all decisions relating to the enforceability of the limitations period contained herein shall be made by the arbitrator. To the fullest extent permitted by law, the EB Committee shall have full power, discretion, and authority to interpret the Plan and this Agreement and to decide all Plan Disputes brought under this Plan and Agreement. Determinations made by the EB Committee shall be final, conclusive and binding, subject only to review by arbitration pursuant to paragraph (c) below under the arbitrary and capricious standard of review. A Participant's failure to refer a Plan Dispute to the EB Committee for resolution will in no way impair the Company's right to compel arbitration or the enforceability of the waiver in paragraph 25(c)(ii).

(c) Arbitration. All appeals from determinations by the EB Committee as described in paragraph (b) above, and any Units Damages Dispute, shall be fully and finally settled by arbitration administered by the American Arbitration Association ("AAA") on an individual basis (and not on a collective or class action basis) before a single arbitrator pursuant to the AAA's Commercial Arbitration Rules in effect at the time any such arbitration is initiated. Any such arbitration must be initiated in writing pursuant to the aforesaid rules of the AAA no later than one year from the date that the claim accrues, except where a longer limitations period is required by applicable law. However, a Participant's failure to initiate arbitration within one year will in no way impair the Company's right, exercised at its discretion, to compel arbitration or the enforceability of the waiver in paragraph 25(c)(ii). Decisions about the applicability of the limitations period contained herein shall be made by the arbitrator. A copy of the AAA's Commercial Arbitration Rules may be obtained from Human Resources. The Participant agrees that the arbitration shall be held at the office of the AAA nearest the place of the Participant's most recent employment by the Company or a Related Company, unless the parties agree in writing to a different location. All claims by the Company or a Related Company against the Participant, except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, may also be raised in such arbitration proceedings.

(i) The arbitrator shall have the authority to determine whether any dispute submitted for arbitration hereunder is arbitrable. The arbitrator shall decide all issues submitted for arbitration according to the terms of the Plan, this Agreement (except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement), existing Company policy, and applicable substantive Delaware State and U.S. federal law and shall have the authority to award any remedy or relief permitted by such laws. The final decision of the EB Committee with respect to a Plan Dispute shall be upheld unless such decision was arbitrary or capricious. The decision of the arbitrator shall be final, conclusive, not subject to appeal, and binding and enforceable in any applicable court.

(ii) **The Participant understands and agrees that, pursuant to this Agreement, both the Participant and the Company or a Related Company waive any right to sue each other in a court of law or equity, to have a trial by jury, or to resolve disputes on a collective, or class, basis (except for breaches of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement), and that the sole forum available for the resolution of Units Award Disputes and Units Damages Disputes is arbitration as provided in this paragraph 25. If an arbitrator or court finds that the arbitration provisions of this Agreement are not enforceable, both Participant and the Company or a Related Company understand and agree to waive their right to trial by jury of any Units Award Dispute or Units Damages Dispute. This dispute resolution procedure shall not prevent either the Participant or the Company or a Related Company from commencing an action in any court of competent jurisdiction for the purpose of obtaining injunctive relief to prevent irreparable harm pending and in aid of arbitration hereunder; in such event, both the Participant and the Company or a Related Company agree that the party who commences the action may proceed without necessity of posting a bond.**

(iii) In consideration of the Participant's agreement in paragraph (ii) above, the Company or a Related Company will pay all filing, administrative and arbitrator's fees incurred in connection with the arbitration proceedings. If the AAA requires the Participant to pay the initial filing fee, the Company or a Related Company will reimburse the Participant for that fee. All other fees incurred in connection with the arbitration proceedings, including but not limited to each party's attorney's fees, will be the responsibility of such party.

(iv) The parties intend that the arbitration procedure to which they hereby agree shall be the exclusive means for resolving all Units Award Disputes and Units Damages Disputes (subject to the mandatory EB Committee procedure provided for in paragraph 25(b) above). Their agreement in this regard shall be interpreted as broadly and inclusively as reason permits to realize that intent.

(v) The Federal Arbitration Act ("FAA") shall govern the enforceability of this paragraph 25. If for any reason the FAA is held not to apply, or if application of the FAA requires consideration of state law in any dispute arising under this Agreement or subject to this dispute resolution provision, the laws of the State of Delaware shall apply without giving effect to the conflicts of laws provisions thereof.

(vi) To the extent an arbitrator determines that the Participant was not terminated for Cause and is entitled to the RSUs or any other benefits under the Plan pursuant to the provisions applicable to an involuntary termination without Cause, the Participant's obligation to execute a release satisfactory to Verizon as provided under paragraph 7(c)(2) shall remain applicable in order to receive the benefit of any RSUs pursuant to this Agreement.

26. Additional Remedies. Notwithstanding the dispute resolution procedures, including arbitration, of paragraph 25 of this Agreement, and in addition to any other rights or remedies, whether legal, equitable, or otherwise, that each of the parties to this Agreement may have (including the right of the Company to terminate the Participant for Cause or to involuntarily terminate the Participant without Cause), the Participant acknowledges that—

(a) The Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement are essential to the continued goodwill and profitability of the Company and any Related Company;

(b) The Participant has broad-based skills that will serve as the basis for other employment opportunities that are not prohibited by the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement;

(c) When the Participant's employment with the Company or any Related Company terminates, the Participant shall be able to earn a livelihood without violating any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement;

(d) Irreparable damage to the Company or any Related Company shall result in the event that the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement are not specifically enforced and that monetary damages will not adequately protect the Company and any Related Company from a breach of such Participant obligations and restrictions;

(e) If any dispute arises concerning the violation or anticipated or threatened violation by the Participant of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, an injunction may be issued restraining such violation pending the determination of such controversy, and no bond or other security shall be required in connection therewith;

(f) The Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement shall continue to apply after any expiration, termination, or cancellation of this Agreement;

(g) The Participant's breach of any of the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, including, for example, any breach of the Participant's non-competition, non-solicitation or confidentiality restrictions, shall result in the Participant's immediate forfeiture of all rights and benefits, including all RSUs and DEUs, under this Agreement; and

(h) All disputes relating to the Participant's obligations and restrictions set forth in Exhibits A and B to this Agreement, including their interpretation and enforceability and any damages (including but not limited to damages resulting in the forfeiture of an award or benefits under this Agreement) that may result from the breach of such Participant obligations and restrictions shall not be subject to the dispute resolution procedures, including arbitration, of paragraph 25 of this Agreement, but shall instead be determined in a court of competent jurisdiction.

Exhibit A - Participant's Obligations

As part of the Agreement to which this Exhibit A is attached, you, the Participant, agree to the following obligations:

1. Effect of a Material Restatement of Financial Results; Recoupment; Company Policies Regarding Securities Transactions.

(a) **General.** Notwithstanding anything in this Agreement to the contrary, you agree that, with respect to all RSUs granted to you on or after April 9, 2018 and all short-term incentive awards made to you on or after April 9, 2018, to the extent the Company or any Related Company is required to materially restate any financial results based upon your willful misconduct or gross negligence while employed by the Company or any Related Company (and where such restatement would have resulted in a lower payment being made to you), you will be required to repay all previously paid or deferred (i) RSUs and (ii) short-term incentive awards that were provided to you during the performance periods that are the subject of the restated financial results, plus a reasonable rate of interest. For purposes of this paragraph, "willful misconduct" and "gross negligence" shall be as determined by the Committee. The Audit Committee of the Verizon Board of Directors shall determine whether a material restatement of financial results has occurred. If you do not repay the entire amount required under this paragraph, the Company may, to the extent permitted by applicable law, offset your obligation to repay against any source of income available to it, including but not limited to any money you may have in your nonqualified deferral accounts.

(b) **Requirements of Recoupment Policy or Applicable Law.** The repayment rights contained in paragraph 1(a) of Exhibit A shall be in addition to, and shall not limit, any other rights or remedies that the Company may have under law or in equity, including, without limitation, (i) any right that the Company may have under any Company recoupment policy that may apply to you, or (ii) any right or obligation that the Company may have regarding the clawback of "incentive-based compensation" under Section 10D of the Securities Exchange Act of 1934, as amended (as determined by the applicable rules and regulations promulgated thereunder from time to time by the U.S. Securities and Exchange Commission) or under any other applicable law. By accepting this award of RSUs, you agree and consent to the Company's application, implementation and enforcement of any such Company recoupment policy (as it may be in effect from time to time) that may apply to you and any provision of applicable law relating to cancellation, rescission, payback or recoupment of compensation and expressly agree that the Company may take such actions as are permitted under any such policy (as applicable to you) or applicable law, such as the cancellation of RSUs and repayment of amounts previously paid or deferred with respect to any previously granted RSUs or short-term incentive awards, without further consent or action being required by you.

(c) **Company Policies Regarding Securities Transactions.** By accepting this award of RSUs, you agree to comply with all Company policies regarding trading in securities or derivative securities (including, without limitation, the Company's policies prohibiting trading on material inside information regarding the Company or any business with which the Company does business, the Company's policies prohibiting engaging in financial transactions that would allow you to benefit from a devaluation of the Company's securities, and any additional policy that the Company may adopt prohibiting you from hedging your economic exposure to the Company's securities), as such policies are in effect from time to time and for as long as such policies are applicable to you.

2. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit A, all capitalized terms used in this Exhibit A shall have the definitions given to those terms in the Agreement to which this Exhibit A is attached.

3. Agreement to Participant's Obligations. You shall indicate your agreement to the obligations and restrictions set forth in this Exhibit A in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of such obligations and restrictions. As stated in paragraph 21 of the Agreement, you and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and Verizon executed this Exhibit A in paper form.

Exhibit B – Non-Competition, Non-Solicitation, Confidentiality and Other Obligations

As part of the Agreement to which this Exhibit B is attached, you, the Participant, and the Company or any Related Company which employs or employed you, agree to the following obligations:

1. Non-competition.

(a) Prohibited Conduct. During the period of your employment with the Company or any Related Company, and for a period ending twelve (12) months following a termination of your employment for any reason with the Company or any Related Company, you shall not, without the prior written consent of the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee):

(1) personally engage in Competitive Activities (as defined below); or

(2) work for, own, manage, operate, control, or participate in the ownership, management, operation, or control of, or provide consulting or advisory services to, any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or any company or person affiliated with such person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities; provided that your purchase or holding, for investment purposes, of securities of a publicly traded company shall not constitute "ownership" or "participation in the ownership" for purposes of this paragraph so long as your equity interest in any such company is less than a controlling interest;

provided that this paragraph (a) shall not prohibit you from (i) being employed by, or providing services to, a consulting firm, provided that you do not personally engage in Competitive Activities or provide consulting or advisory services to any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or any person or entity affiliated with such person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, or (ii) engaging in the practice of law as an in-house counsel, sole practitioner or as a partner in (or as an employee of or counsel to) a corporation or law firm in accordance with applicable legal and professional standards. Exception (ii), however, does not apply to any Participant that may be engaging in Competitive Activities or providing services to any person, partnership, firm, corporation, institution or other entity engaged in Competitive Activities, wherein such engagement or services being provided are not primarily the practice of law.

(b) Competitive Activities. For purposes of the Agreement, to which this Exhibit B is attached, "Competitive Activities" means any activities relating to products or services of the same or similar type as the products or services (1) which were or are sold (or, pursuant to an existing business plan, will be sold) to paying customers of the Company or any Related Company, and (2) for which you have any direct or indirect responsibility or any involvement to plan, develop, manage, market, sell, oversee, support, implement or perform, or had any such responsibility or involvement within your most recent 24 months of employment with the Company or any Related Company. Notwithstanding the previous sentence, an activity shall not be treated as a Competitive Activity if the geographic marketing area of such same or similar products or services does not overlap with the geographic marketing area for the applicable products and services of the Company or any Related Company.

(c) Applicability to California. Notwithstanding the provisions of paragraph 1(a), the restrictions described in paragraph 1(a) shall not apply to participants whose principal work location for the Company or Related Company is in the State of California and: (i) whose employment has terminated for any reason; and (ii) who, within 12 months after termination of their employment, engage in any of the activities described in paragraphs 1(a)(1) or 1(a)(2) within the State of California. Nothing in this paragraph 1(c) shall be deemed to authorize or permit participants to engage in any competitive activities while using confidential or trade secret information of the Company or any Related Company.

2. Interference With Business Relations. During the period of your employment with the Company or any Related Company, and for a period ending twelve (12) months following a termination of your employment for any reason with the Company or any Related Company, you shall not, without the prior written consent of the Executive Vice President and Chief Administrative Officer of Verizon (or his or her designee):

(a)(i) recruit, induce or solicit, directly or indirectly, any employee of the Company or Related Company who was employed by the Company or any Related Company prior to or as of your termination date and whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company for employment or for retention as a consultant or service provider to any person or entity, or (ii) provide, directly or indirectly, names or other information about any employees of the Company or Related Company whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company to any person or entity (other than to the Company or any Related Company) under circumstances that could lead to the use of any such information for purposes of recruiting or soliciting any such employee for any person or entity;

(b) hire or participate (with another person or entity) in the process of recruiting, soliciting or hiring, directly or indirectly, (other than for the Company or any Related Company) any person who is then an employee of the Company or any Related Company whom you worked with or had contact with, or had confidential information about, while employed by the Company or any Related Company;

(c) interfere, or attempt to interfere, directly or indirectly, with any relationship of the Company or any Related Company with any of its employees, agents, or representatives;

(d) solicit or induce, or in any manner attempt to solicit or induce, directly or indirectly, any client, customer, or Prospect (defined below) of the Company or any Related Company (1) to cease being, or not to become, a customer of the Company or any Related Company, or (2) to divert any business of such customer or Prospect from the Company or any Related Company; or

(e) otherwise interfere with, disrupt, or attempt to interfere with or disrupt, directly or indirectly, the relationship, contractual or otherwise, between the Company or any Related Company and any of its customers, clients, Prospects, suppliers, vendors, service providers, developers, joint ventures, equity investments or partners, inventors, consultants, employees, agents, or representatives.

(f) Applicability to California. Notwithstanding the foregoing, if a participant whose principal work location for the Company or Related Company is in the State of California and: (i) whose employment has terminated for any reason; and (ii) who, within 12 months after termination of their employment, engages in any of the activities described in paragraph 2(b), 2(d) or 2(e), within the State of California, then (A) the prohibition on hiring in paragraph 2(b) shall not apply, and (B) the prohibitions in paragraph 2(d) and 2(e) shall apply but only to the extent that that the participant uses or discloses confidential or trade secret information of the Company or any Related Company to engage in such activities. Nothing in this paragraph 2(f) shall be deemed to authorize or permit participants to engage in any competitive activities while using confidential or trade secret information of the Company or any Related Company.

For purposes of this paragraph 2, “Prospect” shall mean any person or entity from whom or which any business was being solicited by Verizon or any Related Company within the most recent 12 month period of your employment.

3. Proprietary and Confidential Information. You shall at all times, including after any termination of your employment with the Company or any Related Company, preserve the confidentiality of all Proprietary Information (defined below) and trade secrets of the Company or any Related Company, and you shall not use for the benefit of yourself or any person, other than the Company or a Related Company, or disclose to any person, except and to the extent that disclosure of such information is authorized under applicable laws or regulations (e.g., “whistleblower” laws such as 18 USC 1833(b) described below), any Proprietary Information or trade secrets of the Company or any Related Company. “Proprietary Information” means any information or data related to the Company or any Related Company, including information entrusted to the Company or a Related Company by others, which has not been fully disclosed to the public by the Company or a Related Company, which is treated as confidential or otherwise protected within the Company or any Related Company or is of value to competitors, such as strategic or tactical business plans; undisclosed business, operational or financial data; ideas, processes, methods, techniques, systems, models, devices, programs, computer software, or related information; documents relating to regulatory matters or correspondence with governmental entities; information concerning any past, pending, or threatened legal dispute; pricing or cost data; the identity, reports or analyses of business prospects; business transactions (including those that are contemplated or planned); research data; personnel information or data; identities of suppliers to the Company or any Related Company or users or purchasers of the Company’s or Related Company’s products or services; the Agreement to which this Exhibit B is attached; and any other non-public information pertaining to or known by the Company or a Related Company, including confidential or non-public information of a third party that you know or should know the Company or a Related Company is obligated to protect. Section 18 USC 1833(b) provides that “An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that—(A) is made—(i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.” Nothing in this Agreement is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. § 1833(b).

4. Return of Company Property; Ownership of Intellectual Property Rights. You agree that on or before termination of your employment for any reason with the Company or any Related Company, you shall return to the Company all property owned by the Company or any Related Company or in which the Company or any Related Company has an interest or to which the Company or any Related Company has any obligation, including any and all files, documents, data, records and any other non-public information (whether on paper or in tapes, disks, memory devices, or other machine-readable form), office equipment, credit cards, and employee identification cards. You acknowledge that the Company (or, as applicable, a Related Company) is the rightful owner of, and you hereby do grant and assign, all right, title and interest in and to any programs; ideas, inventions and discoveries (patentable or unpatentable); works of authorship, data, information, and other copyrightable material; and trademarks that you may have originated, created or developed, or assisted or participated in originating, creating or developing, during your period of employment with the Company or a Related Company, including all intellectual property rights in or based on the foregoing, where any such origination, creation or development (a) involved any use of Company or Related Company time, information or resources, (b) was made in the exercise of any of your duties or responsibilities for or on behalf of the Company or a Related Company, or (c) was related to (i) the Company’s or a Related Company’s past, present or future business, or (ii) the Company’s or a Related Company’s actual or demonstrably anticipated research, development or procurement activities. You shall at all times, both before and after termination of your employment, cooperate with the Company (or, as applicable, any Related Company) and its representatives in executing and delivering documents requested by the Company or a Related Company, and taking any other actions, that are necessary or requested by the Company or a Related Company to assist the Company or any Related Company in patenting, copyrighting, protecting, registering, or enforcing any programs; ideas, inventions and discoveries (patentable or unpatentable); works of authorship, data, information, and other copyrightable material; trademarks; or other intellectual property rights, and to vest title thereto solely in the Company (or, as applicable, a Related Company).

Notwithstanding the provisions of paragraph 4, the restrictions described in paragraph 4 shall not apply to participants whose principal work location for the Company or Related Company is in the State of California and to any invention that qualifies fully under the provisions of California Labor Code § 2870, which provides as follows:

"§2870. Invention on Own Time - Exemption from Agreement
(a) Any provision in an employment agreement which provides that an Employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the Employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:
(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or
(2) Result from any work performed by the Employee for the employer.
(b) To the extent a provision in an employment agreement purports to require an Employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable."

5. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit B, all capitalized terms used in this Exhibit B shall have the definitions given to those terms in the Agreement to which this Exhibit B is attached.

6. Agreement to Non-Competition, Non-Solicitation, Confidentiality and Other Obligations.

(a) You acknowledge that the geographic boundaries, scope of prohibited activities, and time duration of the restrictions set forth in paragraphs 1 and 2 above are reasonable in nature and are no broader than are necessary to maintain the confidential information, trade secrets and the goodwill of the Company and its Related Companies and to protect the other legitimate business interests of the Company and its Related Companies and are not unduly restrictive on you. In addition, you and the Company agree and intend that the covenants contained in paragraphs 1 and 2 shall be deemed to be a series of separate covenants and agreements, one for each and every county or political subdivision of each applicable state of the United States and each country of the world. It is the desire and intent of the parties hereto that the provisions of this Exhibit B be enforced to the fullest extent permissible under the governing laws and public policies of the State of New Jersey, and to the extent applicable, each jurisdiction in which enforcement is sought. Accordingly, if any provision in this Exhibit A or deemed to be included in this Exhibit A shall be adjudicated to be invalid or unenforceable, such provision, without any action on the part of the parties hereto, shall be deemed amended to delete or to modify (including, without limitation, a reduction in duration, geographical area or prohibited business activities) the portion adjudicated to be invalid or unenforceable, such deletion or modification to apply only with respect to the operation of such provision in the particular jurisdiction in which such adjudication is made, and such deletion or modification to be made only to the extent necessary to cause the provision as amended to be valid and enforceable.

(b) You shall indicate your agreement to the obligations and restrictions set forth in this Exhibit B in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of such obligations and restrictions. As stated in paragraph 21 of the Agreement, you and Verizon hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and Verizon executed this Exhibit B in paper form.

7. Governing Law and Non-exclusive Forum. The parties expressly agree: (a) that, because the Plan is centrally administered in the State of New Jersey by employees of a Verizon Communications Inc. affiliate, the subject matter of this Exhibit B bears a reasonable relationship to the State of New Jersey; (b) that this Exhibit B is made under, shall be construed in accordance with, and governed in all respects by the laws of the State of New Jersey without giving effect to that jurisdiction's choice of law rules; and (c) the parties consent to the non-exclusive jurisdiction and venue of the courts of the State of New Jersey, and the federal courts of the United States of America located in the State of New Jersey, over any action, claim, controversy or proceeding arising under this Exhibit B, and irrevocably waive any objection they may now or hereafter have to the non-exclusive jurisdiction and venue of such courts.

EXHIBIT 10c(x)(i)

Todd Brooks
Senior Vice President – Compensation & Benefits

January 11, 2019

K. Guru Gowrappan

Re: Amendment of Special Performance Restricted Stock Unit Award

Dear Guru:

I write concerning an amendment to the special performance restricted stock unit award ("Award") previously granted to you on April 9, 2018 by Verizon Communications Inc. ("Verizon") pursuant to that certain Special Performance Restricted Stock Unit Agreement between you and Verizon, which you accepted and executed on June 12, 2018 (the "Award Agreement").

On October 5, 2018, the Human Resources Committee of Verizon's Board of Directors amended the Award to increase the performance multiplier for the achievement of the three-year cumulative Verizon Media Group/Oath revenue target from two times to three times the target number of restricted stock units subject to the Award and to modify the three-year cumulative Verizon Media Group/Oath revenue target to reflect the revised three-year cumulative Verizon Media Group/Oath strategic plan in effect when you became Executive Vice President and Chief Executive Officer of Verizon Media Group/Oath. As a result thereof, Section 5(b)(1) of the Award Agreement is hereby amended effective as of October 5, 2018 to read as follows:

> "(1) General. If both (x) the Target Number of RSUs vest pursuant to paragraph 5(a) or Section 7(c)(1) and (y) Verizon Media Group/Oath's Revenue (as defined below) during the three-year period beginning January 1, 2018 and ending at the close of business on December 31, 2020 meets or exceeds xxx Dollars ($xxx), then an additional number of RSUs shall vest as of April 9, 2021, equal to two hundred percent (200%) of the Target Number of RSUs."

This letter does not modify any other terms of the Award Agreement except as expressly set forth above.

To indicate your agreement with respect to the foregoing matters, please sign the enclosed copy of this letter and return it to me.

Sincerely,
/s/ Todd N. Brooks

Acknowledged and Agreed:

By: /s/ K. Guru Gowrappan
K. Guru Gowrappan

EXHIBIT 10o

AOL INC. LONG-TERM INCENTIVE PLAN

Contents

Article 1. Establishment, Objectives, and Duration

1.1 Establishment of the Plan. AOL Inc., a Delaware corporation (hereinafter referred to as the "Company") has adopted the "AOL Inc. Long-Term Incentive Plan" (hereinafter referred to as the "**Plan**"), as set forth in this document and as it may be amended from time to time. The Plan was effective on June 23, 2015 (the "**Effective Date**"), which was the date the Company's Board of Directors first approved the Plan, and shall remain in effect as provided in Section 1.3 hereof.

The Plan permits the grant of Units on the terms described below.

1.2 Objectives of the Plan. The objectives of the Plan are to optimize the profitability and growth of the Company through long-term incentives that are consistent with the Company's goals and that link the interests of Participants to those of the Company's shareholders; to provide Participants with incentives for excellence in individual performance; to provide flexibility to the Company in its ability to motivate, attract, and retain the services of Participants who make significant contributions to the Company's success; and to allow Participants to share in the success of the Company.

1.3 Duration of the Plan. The Plan shall commence on the Effective Date and shall remain in effect, subject to the right of the Administrator to amend or terminate the Plan at any time pursuant to Article 12 hereof, until all Awards shall have been paid or forfeited, pursuant to the Plan's provisions. In no event, however, may an Award be granted more than ten (10) years after the Effective Date.

Article 2. Definitions

Whenever the following terms are used in the Plan, with their initial letter(s) capitalized, they shall have the meanings set forth below:

2.1 "**Administrator**" shall have the meaning ascribed to such term in Section 3.1 hereof.

2.2 "**Award**" means, individually or collectively, a grant under the Plan of Units.

2.3 "**Award Agreement**" means an agreement entered into by the Company and a Participant, or another instrument prepared by the Company in lieu of such an agreement, setting forth the terms and conditions applicable to an Award pursuant to Article 7 hereof.

2.5 "**Board**" or **"Board of Directors"** means the Board of Directors of the Company, or a committee of the Board to the extent that the Board designates a committee to perform its functions under the Plan.

2.6 **"Change in Control"** means the occurrence of any of the following events at any time after the closing of the acquisition of the Company by Verizon effective June 23, 2015:

(a) any "Person" within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (other than the Company, Verizon or any company owned, directly or indirectly, by the stockholders of the Company or Verizon in substantially the same proportions as their ownership of stock of the Company or Verizon, as the case may be) becomes the "Beneficial Owner" within the meaning of Rule 13d-3 promulgated under the Exchange Act of 30% or more of the combined voting power of the then outstanding securities of the Company entitled to vote generally in the election of directors; excluding, however, any circumstance in which such beneficial ownership resulted from any acquisition by an employee benefit plan (or related trust) sponsored or maintained by the Company or by any corporation controlling, controlled by, or under common control with, the Company;

(b) a change in the composition of the Board after such time as Verizon is no longer a Parent (such time that Verizon is no longer a Parent, the "**Separation Time**"), such that the individuals who, as of the Separation Time, constituted the Board (the "**Incumbent Board**") cease for any reason to constitute at least a majority of such Board; provided that any individual who becomes a director of the Company subsequent to the Separation Time whose election, or nomination for election by the Company's stockholders, was approved by the vote of at least a majority of the directors then comprising the Incumbent Board shall be deemed a member of the Incumbent Board; and provided further, that any individual who was initially elected as a director of the Company after the Separation Time as a result of an actual or threatened election contest, as such terms are used in Rule 14a-12 of Regulation 14A promulgated under the Exchange Act, or any other actual or threatened solicitation of proxies or consents by or on behalf of any person or entity other than the Board shall not be deemed a member of the Incumbent Board;

(c) a reorganization, recapitalization, merger or consolidation (a "**Corporate Transaction**") involving the Company, unless securities representing 60% or more of the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors of the Company or the corporation resulting from such Corporate Transaction (or a parent of the Company or such corporation) are held subsequent to such transaction by the person or persons who were the beneficial holders of the outstanding voting securities entitled to vote generally in the election of directors of the

Company or a Parent immediately prior to such Corporate Transaction, in substantially the same proportions as their ownership in the Company or a Parent, as the case may be, immediately prior to such Corporate Transaction; or

(d) the sale, transfer or other disposition of all or substantially all of the assets of the Company.

Notwithstanding the foregoing, a Change in Control shall not occur if Verizon continues to be a Parent following the event or transaction in question, and a transaction shall not constitute a Change in Control if it is in connection with the underwritten public offering of the Company's or a Parent's securities.

2.7 "**Code**" means the Internal Revenue Code of 1986, as amended from time to time.

2.8 "**Company**" means AOL Inc., a Delaware corporation, and any successor thereto as provided in Article 14 hereof.

2.9 **"Company Value"** means the aggregate Fair Market Value of the Company's issued and outstanding Shares on the relevant date.

2.10 "**Director**" means any individual who is a member of the Board.

2.11 "**Effective Date**" shall have the meaning ascribed to such term in Section 1.1 hereof.

2.12 "**Employee**" means any employee of the Company, Verizon or any of their respective Subsidiaries. Directors who are employed by the Company or by a Subsidiary shall be considered Employees under the Plan.

2.13 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended from time to time, or any successor statute.

2.14 "**Fair Market Value**" means (a) if the Shares are not listed or admitted to trade on a national securities exchange on the relevant date, the Fair Market Value shall be the value of a Share as of the relevant date as reasonably determined by the Administrator for purposes of the Award, which determination may be based on a valuation report obtained from an independent appraisal firm, or (b) if the Shares are listed or admitted to trade on a national securities exchange on the relevant date, the closing price of a Share on that date on the principal securities exchange on which the Shares are then traded or, if there are no such sales on the relevant date, then the closing price of Shares on the date or dates that the Administrator determines, in its sole discretion, to be appropriate for purposes of valuation.

2.15 "**Non-Employee Director**" means a Director who is not an Employee.

2.16 "**Parent**" means any corporation, partnership, joint venture or other entity that has a direct or indirect ownership interest of at least fifty percent (50%) in the Company.

2.17 "**Participant**" means an Employee or Non-Employee Director who has been selected to receive an Award or who holds an outstanding Award.

2.18 "**Payment Date**" means, as to a particular Unit, the date on which such Unit is to be paid as set forth in the applicable Award Agreement (subject to any vesting requirements applicable to such Unit).

2.19 "**Plan**" means the AOL Inc. Long-Term Incentive Plan as set forth herein and as it may be amended from time to time.

2.20 **"Performance Share Unit"** means a Unit the vesting of which may be based in whole or in part on the attainment of performance criteria with respect to the Company.

2.10 **"Restricted Share Unit"** means a Unit the vesting of which may be based in whole or in part based on the passage of time.

2.21 **"Share**" means a share of common stock of the Company.

2.22 **"Subsidiary**" means (a) a corporation, partnership, joint venture, or other entity in which the Company (or Verizon, as the context may require) has a direct or indirect ownership interest of at least fifty percent (50%), and (b) any corporation, partnership, joint venture, or other entity in which the Company (or Verizon, as the context may require) holds a direct or indirect ownership interest of less than fifty percent (50%) but which, in the discretion of the Administrator, is treated as a Subsidiary for purposes of the Plan.

2.22 **"Total Indicative Units"** means the number of units of economic interest into which the Company Value is divided for purposes of determining the value of a Unit under the Plan. The Total Indicative Units shall be Two Hundred Seven Million Forty Thousand (207,040,000) at the Effective Date and shall be adjusted thereafter to the extent and as contemplated in Section 6.3.

2.23 **"Unit"** means a contingent right to receive a payment in an amount determined under Section 6 below and includes Performance Share Units and Restricted Share Units.

2.24 **"Unit Pool**" means the number of Units available for grant under the Plan under Section 4.1 hereof, as adjusted pursuant to Section 4.2 hereof.

2.25 **"Verizon**" means Verizon Communications, Inc.

2.26 **"Vesting Date"** shall have the meaning ascribed to such term in the applicable Award Agreement.

Article 3. Administration

3.1 **General**. The Plan shall be administered by and all Awards under this Plan shall be authorized by the Administrator. Unless otherwise expressly provided by the Board, the "Administrator" means the Executive Vice President and Chief Administrative Officer of Verizon.

3.2 **Authority of the Administrator.** Subject to the provisions hereof, the Administrator shall have full power in its discretion to select Employees who shall participate in the Plan; determine the sizes and types of Awards; determine the terms and conditions of Awards in a manner consistent with the Plan; construe and interpret the Plan and any Award Agreement or other agreement or instrument entered into or issued under the Plan; establish, amend, or waive rules and regulations for the Plan's administration; and (subject to the provisions of Article 12 hereof) amend the terms and conditions of any outstanding Award as provided in the Plan. Further, the Administrator shall make all other determinations that may be necessary or advisable for the administration of the Plan. With respect to the Non-Employee Directors, the authority conferred by this Section 3.2 shall rest with the Board. The Administrator may delegate ministerial, non-discretionary functions to individuals who are officers or employees of the Company or any of its affiliates or to third parties.

3.3 **Decisions Binding.** All determinations and decisions made by the Administrator pursuant to the provisions of the Plan and all related orders and resolutions of the Administrator shall be final, conclusive, and binding on all persons, including the Company, its shareholders, Directors, Non-Employee Directors, Employees, Participants, and their estates and beneficiaries.

Article 4. Units Subject to the Plan

4.1 **Number of Units Available for Grants.** Subject to Section 4.2, the maximum number of Units that may be granted under the Plan is Twenty Million Seven Hundred Four Thousand (20,704,000) Units. No Award may be granted if it would cause the Unit limit of this Section 4.1 to be exceeded.

4.2 **Unit Pool Adjustments.**

(a) Each Unit subject to the portion of an Award that is paid in the form Shares shall be charged against the Unit Pool.

(b) If all or any portion of an Award is paid in cash or expires or is cancelled, terminated or forfeited for any reason without payment in Shares, the Units subject to such portion of the Award shall restore, on a one-for-one basis, the number of Units available for grant under the Unit Pool.

Article 5. Eligibility and Participation

5.1 **Eligibility.** All Employees and Non-Employee Directors are eligible to participate in the Plan.

5.2 **Actual Participation.** Subject to the provisions of the Plan, the Administrator may, from time to time, select from all Employees those to whom Awards shall be granted and shall determine the nature and size of each Award. The Board shall determine the Awards to be granted to the Non-Employee Directors in accordance with the Company's compensation program for Non-Employee Directors.

Article 6. Grant and Payment of Units

6.1 **Grants.** Subject to the terms and conditions of the Plan, Awards of Units may be granted to Participants at any time and from time to time as shall be determined by the Administrator. The Administrator will determine the vesting of each such Award (which may be based on performance criteria, passage of time or other factors or any combination thereof) and the other terms and conditions of such Award, including designating such Award of Units as Restricted Share Units or Performance Share Units, which provisions will be set forth in the applicable Award Agreement.

6.2 **Amount of Payment**. Each Unit shall represent the right to receive, subject to any vesting requirements applicable to such Unit, an amount equal to (a) the Company Value as of the applicable Vesting Date, divided by (b) the Total Indicative Units as of the applicable Vesting Date.

6.3 Adjustments. In the event of (1) any contribution to the Company's capital by Verizon or any of its Subsidiaries (other than the Company); (2) any sale of additional equity interests by the Company; (3) any merger, combination, acquisition, consolidation, sale of a portion of the business or other reorganization of the Company; (4) any split-up, spin-off or dividend distribution in respect of the Company's securities in the form of property; or (5) any similar, unusual or extraordinary corporate transaction, the Administrator shall, to such extent (if any) and at such time as it reasonably deems appropriate and equitable in the circumstances, make such adjustments as may be necessary or appropriate to preserve (and not enlarge or dilute) the intended level of benefits under the Plan, including without limitation by adjusting the Total Indicative Units in connection with such event. For example, and without limitation, if Verizon contributed assets valued at $1 Billion to the Company at a time when the value of a Unit (as determined pursuant to Section 6.2 immediately before giving effect to such contribution) was $25, the Administrator could increase the Total Indicative Units by an additional Forty Million (e.g., if the then-existing amount was 207,040,000, the increase would be from 207,040,000 to247,040,000; $1 Billion divided by $25 is Forty Million) effective at the time and to account for such contribution. Any adjustment made pursuant to this Section 6.3 may apply as to any Unit (including Awards then outstanding) to the extent the Payment Date for such Unit had not occurred prior to the effective time of such adjustment.

6.4 Timing and Form of Payment. Any payment of a vested Unit as provided in this Article 6 shall be made on or following the applicable Payment Date of such Unit as provided in the Award Agreement. Such payment shall be made in cash; provided, however, that if the Shares are listed or admitted to trade on a national securities exchange as of the applicable payment date, such payment may be made in the sole discretion of the Administrator, by the Company delivering a number of Shares determined by dividing (a) the amount of such payment as determined under Section 6.2, by (b) the Fair Market Value of a Share at the time such payment is made.

Article 7. Award Agreements

7.1 In General. Each Award shall be evidenced by an Award Agreement that shall include such provisions as the Administrator shall determine and that shall specify the number of Restricted Stock Units granted and the applicable vesting and payment terms.

7.2 Severance from Service. Each Award Agreement shall set forth the extent to which the Participant shall have rights, if any, under the Award following the Participant's severance from service with the Company and its Subsidiaries. The Award Agreement may make distinctions based on the reason for the Participant's severance from service and may contain obligations that apply beyond the term of the Award Agreement.

7.3 Restrictions on Transferability. Unless otherwise expressly approved by the Administrator, a Participant's Award may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution, and shall be exercisable during the Participant's lifetime only by the Participant.

7.4 Uniformity Not Required. The provisions of the Award Agreements need not be uniform among all Awards, among all Awards of the same type, among all Awards granted to the same Participant, or among all Awards granted at the same time.

Article 8. Beneficiary Designation

Each Participant may, from time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom any benefit under the Plan is to be paid in case of the Participant's death before the Participant receives any or all of such benefit. Each such designation shall revoke all prior designations by the same Participant with respect to such benefit, shall be in a form prescribed by the Company, and shall be effective only when filed by the Participant in writing with the Company during the Participant's lifetime. In the absence of any such designation, any benefits remaining unpaid under the Plan at the Participant's death shall be paid to the Participant's estate unless otherwise provided in the Award Agreement.

Article 9. Deferrals

Pursuant to the applicable requirements of Section 409A of the Code, the Administrator may permit or require a Participant to defer receipt of the payment of cash or the delivery of Shares that would otherwise be due in connection with any Awards. If any such deferral is required or permitted, the Administrator shall establish rules and procedures for such deferrals in compliance with the requirements of Section 409A of the Code.

Article 10. No Right to Employment or Participation

10.1 Employment. The Plan shall not interfere with or limit in any way the right of the Company or Verizon or any Subsidiary of the Company or Verizon to terminate any Employee's employment at any time, and the Plan shall not confer upon any Employee the right to continue in the employ of the Company or Verizon or any of their respective Subsidiaries.

10.2 Participation. No Employee or Non-Employee Director shall have the right to be selected to receive an Award or, having been so selected, to be selected to receive a future Award.

Article 11. Change in Control.

No outstanding Awards shall vest or become immediately payable or exercisable merely upon the occurrence of a Change in Control. However, if within twelve (12) months following the occurrence of a Change in Control, a Participant is involuntarily terminated without "Cause" or is deemed to have separated from service as the result of a "Good Reason", then any restriction periods and other restrictions imposed on the Participant's then-outstanding Awards shall lapse. Notwithstanding the foregoing, such Awards shall not become payable until their regularly scheduled time as specified under the terms and conditions of the applicable Award Agreement, except that, to the extent an Award is exempt from Section 409A of the Code under the "short-term deferral rule," payment shall not be later than 2-1/2 months after the year in which it is no longer subject to a substantial risk of forfeiture. Both "Cause" and "Good Reason" shall be as defined in the applicable Award Agreement.

Article 12. Amendment, Modification, and Termination

12.1 Amendment, Modification, and Termination. Subject to the terms of the Plan, the Administrator may at any time and from time to time, alter, amend, suspend, or terminate the Plan in whole or in part; provided that unless the Administrator specifically provides otherwise, any revision or amendment that would cause the Plan to fail to comply with any requirement of applicable law, regulation, or rule if such amendment were not approved by the shareholders of the Company shall not be effective unless and until shareholder approval is obtained.

12.2 Awards Previously Granted. After the termination of the Plan, any previously granted Award shall remain in effect and shall continue to be governed by the terms of the Plan, the Award, and any applicable Award Agreement. All Awards previously granted under the Plan prior to the Effective Date specified herein shall be governed by the terms and conditions of the Plan as in effect at such time, provided that all Plan provisions referencing Section 409A of the Code shall apply to all Awards subject to 409A of the Code.

Article 13. Withholding

13.1 Tax Withholding. The Company and its Subsidiaries shall have the power and the right to deduct or withhold, or to require a Participant to remit to the Company or to Verizon, or any Subsidiary of the Company or Verizon, an amount that the Company or Verizon, or any Subsidiary of the Company or Verizon, reasonably determines to be required to comply with federal, state, local, or foreign tax withholding requirements.

13.2 Share Withholding. With respect to withholding required in connection with any issuance of Shares pursuant to an Award granted hereunder, the Administrator may elect to satisfy the withholding requirement, in whole or in part, by having the Company withhold Shares having a Fair Market Value on the date the tax is to be determined equal to the minimum statutory withholding tax that could be imposed on the transaction.

Article 14. Successors

All obligations of the Company under the Plan with respect to Awards granted hereunder shall be binding on any successor to the Company, whether or not the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

Article 15. Legal Construction

15.1 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; any feminine term used herein also shall include the masculine; and the plural shall include the singular and the singular shall include the plural.

15.2 Severability. If any provision of the Plan shall be held illegal or invalid for any reason, such illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

15.3 Requirements of Law. The granting and payment of Awards under the Plan (including the issuance of any Shares under the Plan) shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required. In addition, the Plan and all Awards will be interpreted and construed to avoid any tax, penalty or interest under Code Section 409A. The Administrator, in its reasonable discretion, may amend the Plan (including retroactively) in any manner to conform with Section 409A of the Code. Except for the Company's obligations to withhold taxes, the Company will have no obligation relating to any tax or penalty applicable to any person as a result of participation in the Plan.

15.4 Governing Law. The Plan shall be construed in accordance with and governed by the laws of the State of New York (without regard to the legislative or judicial conflict of laws rules of any state), except to the extent superseded by federal law.

AOL INC. LONG-TERM INCENTIVE PLAN
FOUNDERS' GRANT UNIT AGREEMENT

AGREEMENT between AOL Inc. (the "Company") and you (the "Participant") and your heirs and beneficiaries.

1. Purpose of Agreement. The purpose of this Agreement is to provide a grant of Restricted Share Units ("Units") to the Participant. This award satisfies in full the Participant's right to receive a "Founders Incentive Award" with respect to the Company pursuant to the Participant's offer letter with Verizon Communications Inc. dated May 12, 2015.

2. Agreement. This Agreement is entered into pursuant to the AOL Inc. Long-Term Incentive Plan (the "Plan"), and evidences the grant of Units pursuant to the Plan. In consideration of the benefits described in this Agreement, which Participant acknowledges are good, valuable and sufficient consideration, the Participant agrees to comply with the terms and conditions of this Agreement, including the Participant's obligations and restrictions set forth in Exhibit A to this Agreement (the "Participant's Obligations") which are incorporated into and are a part of the Agreement. The Units and this Agreement are subject to the terms and provisions of the Plan. By executing this Agreement, the Participant agrees to be bound by the terms and provisions of the Plan and this Agreement, including but not limited to the Participant's Obligations. In addition, the Participant agrees to be bound by the actions of the Administrator (to the extent that such actions are exercised in accordance with the terms of the Plan and this Agreement). If there is a conflict between the terms of the Plan and the terms of this Agreement, the terms of this Agreement shall control.

3. Contingency. The grant of Units is contingent on the Participant's timely acceptance of this Agreement and satisfaction of the other conditions contained in it. Acceptance shall be through execution of the Agreement as set forth in paragraph 21. If the Participant does not accept this Agreement by the close of business on September 30, 2015, the Participant shall not be entitled to this grant of Units regardless of the extent to which the requirements in paragraph 5 ("Vesting") are satisfied. In addition, to the extent a Participant is on a Company approved leave of absence, including but not limited to short-term disability leave, he or she will not be entitled to this grant of Units until such time as he or she returns to active employment with the Company or a Related Company (as defined in paragraph 13) and accepts this Agreement within the time period established by the Company.

4. Number of Units. Effective on the date the Units are granted (the "Grant Date"), the Participant is granted the number of Units as specified in the Participant's account under the "Founders' 15" grant administered by Fidelity Investments, or any other record keeper appointed by the Company with respect to the Plan or any successor to either of them ("Fidelity"). A "Unit" is a contingent right to receive a payment as determined under Section 6 of the Plan and the provisions of this Agreement. To the extent that Fidelity or the Company makes an error, including but not limited to an administrative error with respect to the number of Units granted to the Participant under this Agreement, the Company or Fidelity specifically reserves the right to correct such error at any time and the Participant agrees that he or she shall be legally bound by any corrective action taken by the Company or Fidelity.

5. Vesting.

(a) General. The Units shall vest as to one-half (1/2) of the Units on June 22, 2018, and as to one-half (1/2) of the Units on June 22, 2019 (each such anniversary date, a "Vesting Date"). Vesting of the Units is subject in each case to the Participant's continuous employment by the Company or a Related Company (as defined in paragraph 13) from the Grant Date through the applicable Vesting Date, except as otherwise provided in paragraph 7 ("Early Cancellation/Accelerated Vesting of Units") or as otherwise provided by the Administrator.

(b) Transfer. Transfer of employment from the Company to a Related Company, from a Related Company to the Company, or from one Related Company to another Related Company shall not constitute a separation from employment hereunder, and service with a Related Company shall be treated as service with the Company for purposes of the continuous employment requirement in paragraph 5(a). If the Participant transfers employment pursuant to this paragraph 5(b), the Participant will still be required to satisfy the definition of "Retire" under paragraph 7 of this Agreement in order to be eligible for the accelerated vesting provisions in connection with a retirement.

6. Payment. Any Units that vest pursuant to the terms hereof shall be paid in the amount and manner provided in Section 6 of the Plan. Such payment shall be made as soon as practicable after the Vesting Date for such Units (but in no event later than two and one-half months after the Vesting Date). Such payment shall be subject to all applicable tax withholding. If the Participant dies before any payment due hereunder is made, such payment shall be made to the Participant's beneficiary, as designated under paragraph 11. Once a payment has been made with respect to a Unit, the Unit shall be canceled; however, all other terms of the Agreement, including but not limited to the Participant's Obligations, shall remain in effect.

7. Early Cancellation/Accelerated Vesting of Units. Notwithstanding the provisions of paragraph 5, Units may vest or be forfeited before the Vesting Date as follows:

(a) Termination for Cause. If the Participant's employment by the Company or a Related Company is terminated by the Company or a Related Company for Cause at any time prior to the date that the Units are paid pursuant to paragraph 6, the Units (whether vested or not) shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(b) Retirement More Than Six Months After Grant Date, Termination Due to Death or Disability, Involuntary Termination without Cause or Termination for Good Reason On or Before Vesting Date.

(1) This paragraph 7(b) shall apply if the Participant:

(i) Retires (as defined below) on or after the date that is six months after the Grant Date and on or before a Vesting Date,

(ii) Separates from employment by reason of the Participant's death, or Disability (as defined below) on or before a Vesting Date, or

(iii) Separates from employment by reason of a termination by the Company or a Related Company without Cause (as defined below) or a termination by the Participant for Good Reason (as defined below), in each case on or before a Vesting Date.

(2) Subject to the conditions set forth in paragraph 7(g), if the Participant separates from employment on or before the Vesting Date under circumstances described in paragraph 7(b)(1), the continuous employment requirement set forth in paragraph 5(a) shall be deemed satisfied in full as if the Participant's employment with the Company had continued through the Vesting Date.

(3) Any Units that vest pursuant to paragraph 7(b)(2) shall be payable at their regularly scheduled time as specified in paragraph 6.

(c) Retirement Within Six Months of Grant Date, Voluntary Termination or Other Separation Not Described in Paragraph 7(a), 7(b) or 7(d). If the Participant (i) Retires (as defined in paragraph 7(e)(4)) before the date that is six months after the Grant Date, or (ii) otherwise separates from employment on or before a Vesting Date under any circumstances not described in paragraph 7(a), 7(b) or 7(d), all the Units shall automatically terminate and be cancelled as of the applicable termination date without payment of any consideration by the Company and without any other action by the Participant.

(d) Change in Control. If a Participant's employment with the Company or a Related Company is involuntarily terminated without Cause or the Participant voluntarily terminates employment for Good Reason within twelve (12) months following the occurrence of a Change in Control and before a Vesting Date, then, subject to the conditions set forth in paragraph 7(g), the Units shall vest and become payable (without prorating the award) and the continuous employment requirement set forth in paragraph 5(a) shall be deemed satisfied in full as if the Participant's employment with the Company had continued through the Vesting Date; provided, however, that all other terms of the Agreement, including but not limited to the Participant's Obligations, shall remain in effect. A Change in Control or an involuntary termination without Cause or a voluntary termination for Good Reason that occurs after a particular Vesting Date shall have no effect on whether any Units scheduled to vest on the Vesting Date vest or become payable under this paragraph 7. If both paragraph 7(b) and this paragraph 7(d) would otherwise apply in the circumstances, this paragraph 7(d) shall control. Any Units that vest pursuant to this paragraph 7(d) shall be payable at their regularly scheduled time as specified in paragraph 6.

(e) Defined Terms. For purposes of this Agreement, the following definitions shall apply:

(1) "Disability" has the meaning given to such term in an employment agreement between the Company or Related Company and the Participant or, if not defined therein or if there is no such agreement, "Disability" shall mean the total and permanent disability of the Participant as defined by, or determined under, the Company's long-term disability benefit plan.

(2) "Cause" has the meaning given to such term in an employment agreement between the Company or any Related Company and the Participant or, if not defined therein or if there is no such agreement, "Cause" means (i) incompetence or negligence in the discharge of, or inattention to or neglect of or failure to perform, the duties and responsibilities assigned to the Participant; fraud, misappropriation or embezzlement; or a material breach of the Company's Code of Conduct (as in effect at the relevant time) or any of the Participant's Obligations, all as determined by the Administrator (or his or her designee) in his or her discretion, or (ii) commission of any felony of which the Participant is finally adjudged guilty by a court of competent jurisdiction.

(3) "Good Reason" has the meaning given to such term in an employment agreement between the Company or Related Company and the Participant, if any. If there is no such agreement or if there is such an agreement but such term is not defined therein, the provisions of this Agreement that refer to "Good Reason" shall not apply, and the Participant shall not be entitled to any accelerated vesting hereunder in connection with any voluntary termination of the Participant's employment.

(4) "Retire" and "Retirement" means: (i) to retire after having attained at least 15 years of vesting service (as defined under the applicable Company or Related Company tax-qualified 401(k) savings plan) and a combination of age and years of vesting service that equals or exceeds 75 points, or (ii) retirement under any other circumstances determined in writing by the Administrator (or his

or her designee), provided that, in the case of either (i) or (ii) in this paragraph, the retirement was not occasioned by a discharge for Cause.

(f) Vesting Schedule. Except and to the extent provided in paragraphs 7(b), 7(c) and 7(d), nothing in this paragraph 7 shall alter the vesting schedule prescribed by paragraph 5.

(g) Conditions on Accelerated Vesting. Notwithstanding any other provision herein or in the Plan, the Participant's right to receive any accelerated vesting of the Units pursuant to paragraph 7(b) or paragraph 7(d) is subject to the conditions that (i) the Participant has not and does not commit a material breach of any of the Participant's Obligations, and (ii) the Participant executes, within the time prescribed by the Company, a release satisfactory to the Company waiving any claims he or she may have against the Company and any Related Company and does not revoke such release within any revocation period provided by applicable law. If such conditions are not met, paragraph 7(c) shall apply to the Units.

8. Shareholder Rights. The Participant shall have no rights as a shareholder with respect to the Units until the date (if any) on which the Participant becomes the holder of record with respect to any Shares that may be issued in payment of the Units as provided in Section 6 of the Plan. Except as provided in the Plan or in this Agreement, no adjustment shall be made for dividends or other rights for which the record date occurs while the Units are outstanding.

9. Amendment of Agreement. Except to the extent required by law or specifically contemplated under this Agreement, neither the Administrator (or his or her designee) may, without the written consent of the Participant, change any term, condition or provision affecting the Units if the change would have a material adverse effect upon the Units or the Participant's rights thereto. Nothing in the preceding sentence shall preclude the Administrator (or his or her designee) from exercising administrative discretion with respect to the Plan or this Agreement, and the exercise of such discretion shall be final, conclusive and binding. This discretion includes, but is not limited to, corrections of any errors, including but not limited to any administrative errors, and determining whether the Participant has been discharged for Cause, has a Disability, has Retired, has breached any of the Participant's Obligations or has satisfied the requirements for vesting and payment under paragraphs 5 and 7 of this Agreement.

10. Assignment. The Units shall not be assigned, pledged or transferred except by will or by the laws of descent and distribution.

11. Beneficiary. The Participant shall designate a beneficiary in writing and in such manner as is acceptable to the Administrator (or his or her designee). Each such designation shall revoke all prior designations by the Participant with respect to the Participant's benefits under the Plan and shall be effective only when filed by the Participant with the Company during the Participant's lifetime. If the Participant fails to so designate a beneficiary, or if no such designated beneficiary survives the Participant, the Participant's beneficiary shall be the Participant's estate.

12. Other Plans and Agreements. Any payment received by the Participant pursuant to this Agreement shall not be taken into account as compensation in the determination of the Participant's benefits under any pension, savings, life insurance, severance or other benefit plan maintained by the Company or a Related Company. The Participant acknowledges that this Agreement or any prior award agreement shall not entitle the Participant to any other benefits under the Plan or any other plans maintained by the Company or a Related Company.

13. Company and Related Company. For purposes of this Agreement, "Company" means AOL Inc. "Related Company" means (a) Verizon, (b) any Subsidiary of the Company or Verizon, or (c) any corporation, partnership, joint venture, or other entity in which the Company or Verizon holds a direct or indirect ownership or other proprietary interest of less than 50 percent at any time during the term of this Agreement but which, in the discretion of the Administrator, is treated as a Related Company for purposes of this Agreement.

14. Employment Status. The grant of the Units shall not be deemed to constitute a contract of employment for a particular term between the Company or a Related Company and the Participant, nor shall it constitute a right to remain in the employ of any such Company or Related Company.

15. Tax Matters.

(a) Tax Withholding. The Participant acknowledges that he shall be responsible for any taxes that arise in connection with this grant of Units, and the Company shall make such arrangements as it deems necessary for withholding of any taxes it determines are required to be withheld pursuant to any applicable law or regulation. In the event the Units are paid in Shares as provided in Section 6 of the Plan, the Administrator may elect to satisfy the withholding requirement, in whole or in part, by having the Company withhold Shares having a Fair Market Value on the date the tax is to be determined equal to the minimum statutory withholding tax that could be imposed on the transaction in accordance with Section 13.2 of the Plan.

(b) Limitation on Acceleration. Notwithstanding any provision to the contrary in the Plan or this Agreement, subject to the terms of any employment agreement between the Company or any Related Company and the Participant that provides for the treatment of Units that is more favorable to the Participant than this paragraph 15(b), if the Payment (as hereinafter defined) due to the Participant hereunder as a result of any acceleration of vesting of the Units pursuant to paragraph 7 of this Agreement, either alone or together with all other Payments received or to be received by the Participant from the Company or any Related Company (collectively, the

"Aggregate Payments"), or any portion thereof, would be subject to the excise tax imposed by Section 4999 of the Code (or any successor thereto), the following provisions shall apply:

(i) If the net amount that would be retained by the Participant after all taxes on the Aggregate Payments are paid would be greater than the net amount that would be retained by the Participant after all taxes are paid if the Aggregate Payments were limited to the largest amount that would result in no portion of the Aggregate Payments being subject to such excise tax, the Participant shall be entitled to receive the Aggregate Payments.

(ii) If, however, the net amount that would be retained by the Participant after all taxes were paid would be greater if the Aggregate Payments were limited to the largest amount that would result in no portion of the Aggregate Payments being subject to such excise tax, the Aggregate Payments to which the Participant is entitled shall be reduced to such largest amount.

As used herein, the term "Payment" shall mean any transfer of property within the meaning of Section 280G of the Code.

The determination of whether any reduction of Aggregate Payments is required and the timing and method of any such required reduction in Payments under this Agreement or in any such other Payments otherwise payable by the Company or any Related Company consistent with any such required reduction, shall be made by the Participant, including whether any portion of such reduction shall be applied against any cash or any shares of stock of the Company or any other securities or property to which the Participant would otherwise have been entitled under this Agreement or under any such other Payments, and whether to waive the right to the acceleration of the Payment due under this Agreement or any portion thereof or under any such other Payments or portions thereof, and all such determinations shall be conclusive and binding on the Company and the Related Companies. To the extent that Payments hereunder or any such other Payments are not paid as a consequence of the limitation contained in this paragraph 15(b), then the Units (to the extent not so accelerated) and such other Payments (to the extent not vested) shall be deemed to remain outstanding and shall be subject to the provisions hereof and of the Plan as if no acceleration or vesting had occurred.

The Company shall promptly pay, upon demand by the Participant, all legal fees, court costs, fees of experts and other costs and expenses which the Participant incurred in any actual, threatened or contemplated contest of the Participant's interpretation of, or determination under, the provisions of this paragraph 15(b).

16. Compliance with Laws. The granting and payment of the Units hereunder is subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

17. Administrator Authority. The Administrator shall have complete discretion in the exercise of its rights, powers, and duties under this Agreement. Any interpretation or construction of any provision of, and the determination of any question arising under, this Agreement shall be made by the Administrator in its discretion, as described in paragraph 9. The Administrator may delegate ministerial, non-discretionary functions to individuals who are officers or employees of the Company or a Related Company or to third parties.

18. Successors. This Agreement shall be binding upon, and inure to the benefit of, any successor or successors of the Company and the person or entity to whom the Units may have been transferred by will, the laws of descent and distribution, or beneficiary designation. All terms and conditions of this Agreement imposed upon the Participant shall, unless the context clearly indicates otherwise, be deemed, in the event of the Participant's death, to refer to and be binding upon the Participant's heirs and beneficiaries.

19. Construction. In the event that any provision of this Agreement is held invalid or unenforceable, such provision shall be considered separate and apart from the remainder of this Agreement, which shall remain in full force and effect. In the event that any provision, including any of the Participant's Obligations, is held to be unenforceable for being unduly broad as written, such provision shall be deemed amended to narrow its application to the extent necessary to make the provision enforceable according to applicable law and shall be enforced as amended. The Units are intended not to be subject to any tax, interest or penalty under Section 409A of the Code, and this Agreement shall be construed and interpreted consistent with such intent.

20. Defined Terms. Except where the context clearly indicates otherwise, all capitalized terms used herein shall have the definitions ascribed to them by the Plan, and the terms of the Plan shall apply where appropriate.

21. Execution of Agreement. The Participant shall indicate his consent and acknowledgment to the terms of this Agreement (including the Participant's Obligations) and the Plan by executing this Agreement pursuant to the instructions provided and otherwise shall comply with the requirements of paragraph 3. In addition, by consenting to the terms of this Agreement and the Participant's Obligations, the Participant expressly agrees and acknowledges that Fidelity or the Company may deliver all documents, statements and notices associated with the Plan and this Agreement to the Participant in electronic form. The Participant and the Company hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if the Participant and the Company executed this Agreement (including the Participant's Obligations) in paper form.

22. Applicable Law. The validity, construction, interpretation and effect of this Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to the conflicts of laws provisions thereof.

23. Waiver of Jury Trial. To the extent not prohibited by applicable law which cannot be waived, each party hereto hereby waives, and covenants that it will not assert (whether as plaintiff, defendant or otherwise), any right to trial by jury in any forum in respect of any suit, action, or other proceeding arising out of or based upon this Agreement.

24. Submission to Jurisdiction; Service of Process. Any and all disputes between a Participant and the Company or any Related Company relating to the award of Units granted hereunder or this Agreement (including any exhibits hereto) shall be brought only in a state or federal court of competent jurisdiction sitting in Manhattan, New York and each of the parties hereto hereby irrevocably submits to the jurisdiction of such courts for the purposes of any suit, action or other proceeding arising out of or based upon this Agreement. Each of the parties hereto to the extent permitted by applicable law hereby waives, and agrees not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding brought in such courts, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that such suit, action or proceeding in the above-referenced courts is brought in an inconvenient forum, that the venue of such suit, action or proceedings, is improper or that this Agreement may not be enforced in or by such court. Each of the parties hereto hereby consents to service of process by mail at its address to which notices are to be given pursuant to paragraph 25 hereof.

25. Notice. Any notice to the Company provided for in this Agreement shall be addressed to the Company in care of the Executive Vice President and Chief Administrative Officer of Verizon at 1095 Avenue of the Americas, New York, New York 10036, and any notice to the Participant shall be addressed to the Participant at the current address shown on the payroll of the Company, or to such other address as the Participant may designate to the Company in writing. Any notice shall be delivered by hand, sent by telecopy, sent by overnight carrier, or enclosed in a properly sealed envelope as stated above, registered and deposited, postage prepaid, in a post office regularly maintained by the United States Postal Service.

26. Additional Remedies. Notwithstanding the foregoing provisions of this Agreement, and in addition to any other rights or remedies, whether legal, equitable, or otherwise, that each of the parties to this Agreement may have (including the right of the Company to terminate the Participant for Cause or to involuntarily terminate the Participant without Cause), the Participant acknowledges that—

(a) The Participant's Obligations are essential to the continued goodwill and profitability of the Company and any Related Company;

(b) The Participant has broad-based skills that will serve as the basis for other employment opportunities that are not prohibited by the Participant's Obligations;

(c) When the Participant's employment with the Company or any Related Company terminates, the Participant shall be able to earn a livelihood without violating any of the Participant's Obligations;

(d) Irreparable damage to the Company or any Related Company shall result in the event that the Participant's Obligations are not specifically enforced and that monetary damages will not adequately protect the Company and any Related Company from a breach of these Participant's Obligations;

(e) If any dispute arises concerning the violation or anticipated or threatened violation by the Participant of any of the Participant's Obligations, an injunction may be issued restraining such violation pending the determination of such controversy, and no bond or other security shall be required in connection therewith;

(f) The Participant's Obligations shall continue to apply after any expiration, termination, or cancellation of this Agreement; and

(g) The Participant's breach of any of the Participant's Obligations shall result in the Participant's immediate forfeiture of all rights and benefits, including all Units, under this Agreement.

Exhibit A – Participant's Obligations

As part of the Agreement to which this Exhibit A is attached, you, the Participant, agree to the following obligations:

1. Effect of a Material Restatement of Financial Results; Recoupment; Company Policies Regarding Securities Transactions

(a) General. Notwithstanding anything in this Agreement to the contrary, you agree that, with respect to all Units granted to you on or after June 23, 2015 and all short-term incentive awards made to you on or after June 23, 2015, to the extent the Company or any Related Company is required to materially restate any financial results based upon your willful misconduct or gross negligence while employed by the Company or any Related Company (and where such restatement would have resulted in a lower payment being made to you), you will be required to repay all previously paid (i) Units and (ii) short-term incentive awards that were provided to you during the performance periods that are the subject of the restated financial results, plus a reasonable rate of interest. For purposes of this paragraph, "willful misconduct" and "gross negligence" shall be as determined by the Administrator. The Board (or, in the case of the financial results of Verizon, the Audit Committee of the Verizon Board of Directors) shall determine whether a material restatement of financial results has occurred. If you do not repay the entire amount required under this paragraph, the Company may, to the extent permitted by applicable law, offset your obligation to repay against any source of income available to it, including but not limited to any money you may have in your nonqualified deferral accounts (if any).

(b) **Requirements of Recoupment Policy or Applicable Law**. The repayment rights contained in paragraph 1(a) of Exhibit A shall be in addition to, and shall not limit, any other rights or remedies that the Company may have under law or in equity, including, without limitation, (i) any right that the Company or any Related Company may have under any Company or Related Company recoupment policy that may apply to you, or (ii) any right or obligation that the Company or any Related Company may have regarding the clawback of "incentive-based compensation" under Section 10D of the Securities Exchange Act of 1934, as amended (as determined by the applicable rules and regulations promulgated thereunder from time to time by the U.S. Securities and Exchange Commission) or under any other applicable law. By accepting this award of Units, you agree and consent to the application, implementation and enforcement by the Company or any Related Company of any such recoupment policy (as it may be in effect from time to time) that may apply to you and any provision of applicable law relating to cancellation, rescission, payback or recoupment of compensation and expressly agree that the Company and any Related Company may take such actions as are permitted under any such policy (as applicable to you) or applicable law, such as the cancellation of Units and repayment of amounts previously paid with respect to any previously granted Units or short-term incentive awards, without further consent or action being required by you.

(c) **Company Policies Regarding Securities Transactions**. By accepting this award of Units, you agree to comply with all Company and Related Company policies regarding trading in securities or derivative securities (including, without limitation, any such policies prohibiting trading on material inside information regarding the Company or a Related Company or any business with which the Company or a Related Company does business, any such policies prohibiting engaging in financial transactions that would allow you to benefit from a devaluation of the securities of the Company or a Related Company, and any additional policy that the Company or a Related Company may adopt prohibiting you from hedging your economic exposure to the securities of the Company or a Related Company), as such policies are in effect from time to time and for as long as such policies are applicable to you.

2. Noncompetition and Other Restrictive Covenants. You and the Company are parties to an Employment Agreement dated March 29, 2012 (the "Employment Agreement") that contains noncompetition and other restrictive covenants and a Confidentiality and Inventions Assignment Agreement dated March 29, 2012 (the "Confidentiality Agreement") that contains non-solicitation and other restrictive covenants. You hereby acknowledge and agree that the Employment Agreement and the Confidentiality Agreement and your obligations under each such agreement continue in effect and that such obligations constitute part of these Participant's Obligations for all purposes under the Agreement.

3. Definitions. Except where clearly provided to the contrary or as otherwise defined in this Exhibit A, all capitalized terms used in this Exhibit A shall have the definitions given to those terms in the Agreement to which this Exhibit A is attached.

4. Agreement to Participant's Obligations. You shall indicate your agreement to these Participant's Obligations in accordance with the instructions provided in the Agreement, and your acceptance of the Agreement shall include your acceptance of these Participant's Obligations. As stated in paragraph 21 of the Agreement, you and the Company hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement and delivery shall be legally valid and have the same legal force and effect as if you and the Company executed these Participant's Obligations in paper form.

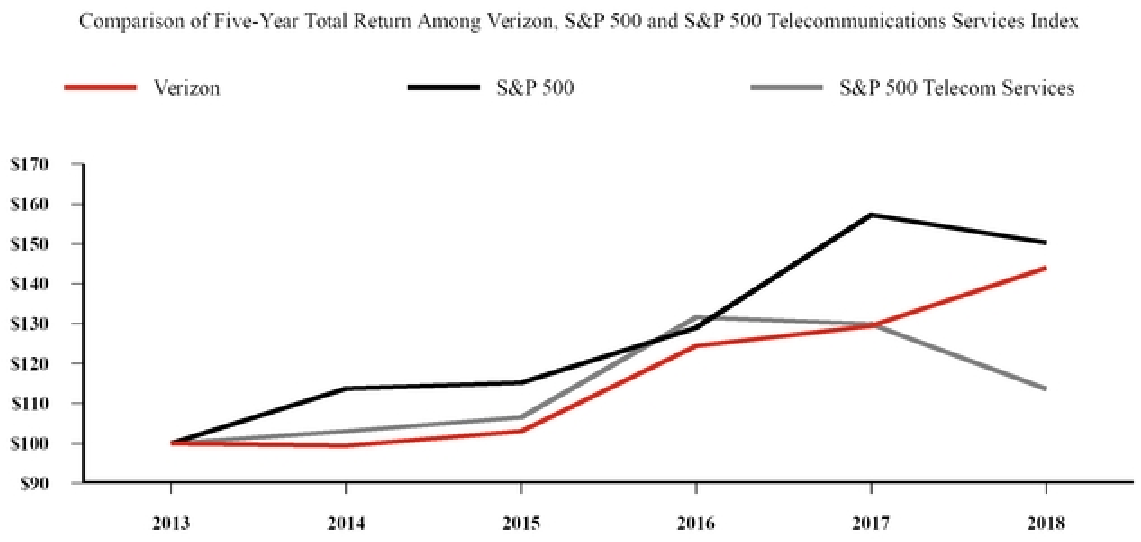
Selected Financial Data Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts)

	2018	2017	2016	2015	2014
Results of Operations					
Operating revenues	**$ 130,863**	$ 126,034	$ 125,980	$ 131,620	$ 127,079
Operating income	**22,278**	27,425	29,249	30,615	27,144
Net income attributable to Verizon	**15,528**	30,101	13,127	17,879	9,625
Per common share – basic	**3.76**	7.37	3.22	4.38	2.42
Per common share – diluted	**3.76**	7.36	3.21	4.37	2.42
Cash dividends declared per common share	**2.385**	2.335	2.285	2.230	2.160
Net income attributable to noncontrolling interests	**511**	449	481	496	2,331
Financial Position					
Total assets	**$ 264,829**	$ 257,143	$ 244,180	$ 244,175	$ 232,109
Debt maturing within one year	**7,190**	3,453	2,645	6,489	2,735
Long-term debt	**105,873**	113,642	105,433	103,240	110,029
Employee benefit obligations	**18,599**	22,112	26,166	29,957	33,280
Noncontrolling interests	**1,565**	1,591	1,508	1,414	1,378
Equity attributable to Verizon	**53,145**	43,096	22,524	16,428	12,298

- Significant events affecting our historical earnings trends in 2016 through 2018 are described in "Special Items" in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section.
- 2015 data includes severance, pension and benefit credits and gain on spectrum license transactions. 2014 data includes severance, pension and benefit charges, early debt redemption and other costs, gain on spectrum license transactions and wireless transaction costs.
- On January 1, 2018, we adopted several Accounting Standards Updates that were issued by the Financial Accounting Standards Board. These standards were adopted on different bases, including: (1) prospective; (2) full retrospective; and (3) modified retrospective. Based on the method of adoption, certain figures are not comparable, with full retrospective reflected in all periods. See Note 1 to the consolidated financial statements for additional information.

Stock Performance Graph



	2013	2014	2015	2016	2017	2018
Verizon	$ 100.0	$ 99.4	$ 103.0	$ 124.4	$ 129.4	**$ 143.9**
S&P 500	100.0	113.7	115.2	129.0	157.2	**150.3**
S&P 500 Telecom Services	100.0	103.0	106.5	131.5	129.9	**113.6**

The graph compares the cumulative total returns of Verizon, the S&P 500 Stock Index and the S&P 500 Telecommunications Services Index over a five-year period. It assumes $100 was invested on December 31, 2013 with dividends being reinvested.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

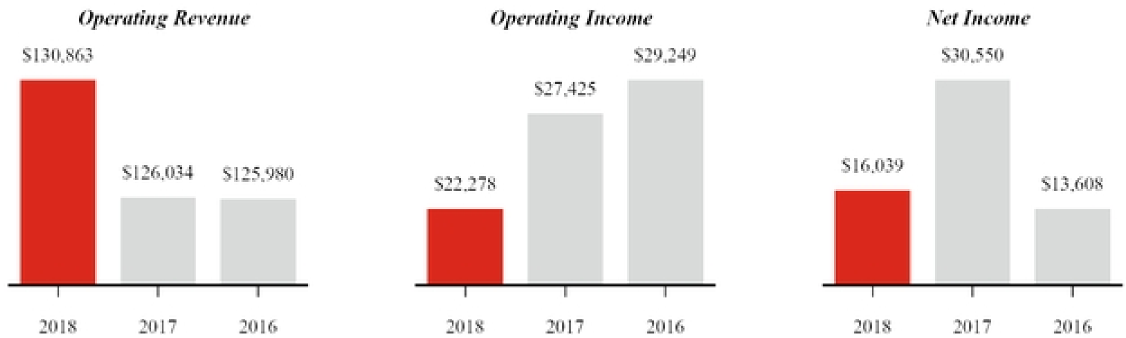
Verizon Communications Inc. (Verizon or the Company) is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, information and entertainment products and services to consumers, businesses and governmental agencies. With a presence around the world, we offer voice, data and video services and solutions on our networks that are designed to meet customers' demand for mobility, reliable network connectivity, security and control. We have a highly diverse workforce of approximately 144,500 employees as of December 31, 2018.

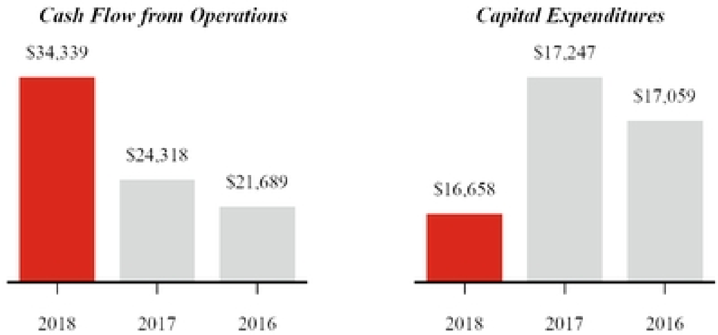
To compete effectively in today's dynamic marketplace, we are focused on transforming around the capabilities of our high-performing networks with a goal of future growth based on delivering what customers want and need in the new digital world. During 2018, we focused on leveraging our network leadership, retaining and growing our high-quality customer base while balancing profitability, enhancing ecosystems in growth businesses, and driving monetization of our networks and solutions. Our strategy requires significant capital investments primarily to acquire wireless spectrum, put the spectrum into service, provide additional capacity for growth in our networks, invest in the fiber-optic network that supports our businesses, evolve and maintain our networks and develop and maintain significant advanced information technology systems and data system capabilities. We believe that steady and consistent investments in our networks and platforms will drive innovative products and services and fuel our growth.

We are consistently deploying new network architecture and technologies to extend our leadership in both fourth-generation (4G) and fifth-generation (5G) wireless networks. Our Intelligent Edge Network design allows us to realize significant efficiencies by utilizing common infrastructure within the core and providing flexibility at the edge of the network to meet customer requirements. In addition, protecting the privacy of our customers' information and the security of our systems and networks will continue to be a priority at Verizon. Our network leadership will continue to be the hallmark of our brand and provide the fundamental strength at the connectivity, platform and solutions layers upon which we build our competitive advantage.

Highlights of Our 2018 Financial Results

(dollars in millions)

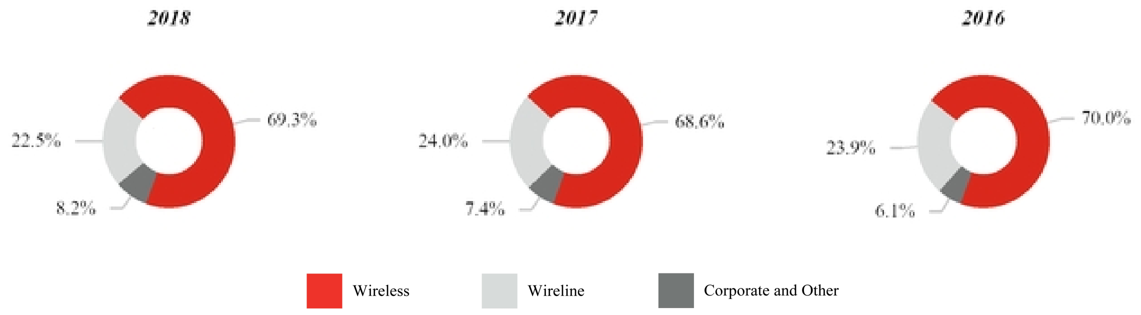




Business Overview

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services, and customer groups, respectively.

Revenue by Segment



Note: Excludes eliminations.

Wireless

Our Wireless segment, doing business as Verizon Wireless, provides wireless communications products and services across one of the most extensive wireless networks in the United States (U.S.). We provide these services and equipment sales to consumer, business and government customers across the U.S. on a postpaid and prepaid basis. A retail postpaid connection represents an individual line of service for a wireless device for which a customer is generally billed one month in advance for a monthly access charge in return for access to and usage of network services. Our prepaid service enables individuals to obtain wireless services without credit verification by paying for all services in advance. Our wireless customers also include other companies who resell network services to their end-users using our network. Our reseller customers are billed for services in arrears.

We are focusing our wireless capital spending on adding capacity and density to our 4G Long-Term Evolution (LTE) network. We are densifying our 4G LTE network by utilizing small cell technology, in-building solutions and distributed antenna systems. Network densification not only enables us to add capacity to address increasing mobile video consumption and the growing demand for Internet of Things (IoT) products and services, but also positions us for the deployment of 5G technology. Over the past several years, we have been leading the development of 5G wireless technology industry standards and the ecosystems for fixed and mobile 5G wireless services. We believe 5G technology can provide users with eight capabilities, or currencies. The eight currencies are peak data rates, mobile data volumes, mobility, connected devices, energy efficiency, service deployment, latency and reliability. We launched the Verizon 5G Technology Forum with key industry partners to develop 5G requirements and standards and conduct testing to accelerate the introduction of 5G technologies. We expect that 5G technology will provide higher throughput than the current 4G LTE technology, lower latency and enable our network to handle more traffic as the number of Internet-connected devices grows. During 2018, we commercially launched 5G Home, our alternative to wired home broadband, on proprietary standards in four U.S. markets; Sacramento, Los Angeles, Houston and Indianapolis. Total Wireless segment operating revenues for the year ended December 31, 2018 totaled $91.7 billion, an increase of $4.2 billion, or 4.8%, compared to the year ended December 31, 2017.

Wireline

Our Wireline segment provides communications products and enhanced services, including video and data services, corporate networking solutions, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the U.S., as well as to carriers, businesses and government customers both in the U.S. and around the world.

In our Wireline business, to compensate for the shrinking market for traditional copper-based products (such as voice services), we continue to build our Wireline business around a fiber-based network supporting data, video and advanced business services - areas where demand for reliable high-speed connections is growing. We continue to seek ways to increase revenue, further realize operating and capital efficiencies and maximize profitability across the segment. We are reinventing our network architecture around a common fiber platform that will support both our wireless and wireline businesses. We expect our "multi-use fiber" Intelligent Edge Network initiative will create opportunities to generate revenue from fiber-based services in our Wireline business. Total Wireline segment operating revenues for the year ended December 31, 2018 totaled $29.8 billion, a decrease of $0.9 billion, or 3.0%, compared to the year ended December 31, 2017.

Corporate and Other

Corporate and other includes the results of our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, our telematics business, branded Verizon Connect, and other businesses, investments in unconsolidated businesses, unallocated corporate expenses, pension and other employee benefit related costs and interest and financing expenses. Corporate and other also includes the historical results of divested businesses and other adjustments and gains and losses that are not allocated in assessing segment performance due to their nature. Although such transactions are excluded from the business segment results, they are included in reported consolidated earnings. Gains and losses from these transactions that are not individually significant are included in segment results as these items are included in the chief operating decision maker's assessment of segment performance.

Verizon Media, our organization that combined Yahoo! Inc.'s (Yahoo) operating business with our pre-existing Media business, includes diverse media and technology brands that engage users around the world. Our strategy is built on providing consumers with owned and operated search properties and finance, news, sports and entertainment offerings and providing other businesses and partners access to consumers through digital advertising platforms. Total operating revenues for our Media business, branded Oath and included in Corporate and other, were $7.7 billion for the year ended, December 31, 2018. This was an increase of 28.8% from the year ended December 31, 2017, primarily due to the acquisition of Yahoo's operating business in June of 2017.

We are also building our growth capabilities in the emerging IoT market by developing business models to monetize usage on our network at the connectivity and platform layers. During the years ended December 31, 2018 and 2017, we recognized IoT revenues (including Verizon Connect) of $1.6 billion and $1.5 billion, an 11% and 52% increase, respectively, compared to the prior year.

Capital Expenditures and Investments

We continue to invest in our wireless network, high-speed fiber and other advanced technologies to position ourselves at the center of growth trends for the future. During the year ended December 31, 2018, these investments included $16.7 billion for capital expenditures. See "Cash Flows Used in Investing Activities" and "Operating Environment and Trends" for additional information. We believe that our investments aimed at expanding our portfolio of products and services will provide our customers with an efficient, reliable infrastructure for competing in the information economy.

Recent Developments

In September 2018, Verizon announced a voluntary separation program for select U.S.-based management employees. Approximately 10,400 eligible employees will separate from the Company under this program by the end of June 2019, with nearly half of these employees having exited in December of 2018. Principally as a result of this program but also as a result of other headcount reduction initiatives, the Company recorded a severance charge of $1.8 billion ($1.4 billion after-tax) during the year ended December 31, 2018, which was recorded in Selling, general and administrative expense in our consolidated statement of income. During 2018, we also recorded $0.3 billion in severance costs under our other existing separation plan.

In November 2018, we announced a strategic reorganization of our business. We are modifying our internal and external reporting processes, systems and internal controls to accommodate the new structure and expect to transition to the new segment reporting structure during the second quarter of 2019. We continue to report operating results to our chief operating decision maker under our current operating segments.

Consolidated Results of Operations

In this section, we discuss our overall results of operations and highlight special items that are not included in our segment results. In "Segment Results of Operations," we review the performance of our two reportable segments in more detail.

Consolidated Revenues

(dollars in millions)

				Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Wireless	**$ 91,734**	$ 87,511	$ 89,186	**$ 4,223**	**4.8 %**	$ (1,675)	(1.9)%
Wireline	**29,760**	30,680	30,510	**(920)**	**(3.0)**	170	0.6
Corporate and other	**10,942**	9,387	7,778	**1,555**	**16.6**	1,609	20.7
Eliminations	**(1,573)**	(1,544)	(1,494)	**(29)**	**1.9**	(50)	3.3
Consolidated Revenues	**$ 130,863**	$ 126,034	$ 125,980	**$ 4,829**	**3.8**	$ 54	—

2018 Compared to 2017

Consolidated revenues increased $4.8 billion, or 3.8%, during 2018 compared to 2017 primarily due to an increase in revenues at our Wireless segment, partially offset by a decline in revenues at our Wireline segment. Also contributing to the increase in consolidated revenues during 2018 was an increase within Corporate and other. In addition, $0.4 billion of the increase in consolidated revenues was attributable to the adoption of Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606).

Revenues for our segments are discussed separately below under the heading "Segment Results of Operations."

Corporate and other revenues increased $1.6 billion, or 16.6%, during 2018 compared to 2017 primarily due to an increase of $1.7 billion in revenues within our Media business, branded Oath, as a result of the acquisition of Yahoo's operating business on June 13, 2017, partially offset by the sale of 23 customer-facing data center sites in the U.S. and Latin America in our Wireline segment (Data Center Sale) in May 2017 and other insignificant transactions (see "Operating Results From Divested Businesses" below).

2017 Compared to 2016

Consolidated revenues remained consistent during 2017 compared to 2016 primarily due to a decline in revenues at our Wireless segment, offset by an increase in revenues within Corporate and other.

Revenues for our segments are discussed separately below under the heading "Segment Results of Operations."

Corporate and other revenues increased $1.6 billion, or 20.7%, during 2017 compared to 2016 primarily due to an increase in revenue as a result of the acquisition of Yahoo's operating business on June 13, 2017, as well as fleet service revenue growth in our telematics business. These increases were partially offset by the sale (Access Line Sale) of our local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed internet (HSI) services and long distance voice accounts in these three states, to Frontier Communications Corporation (Frontier) on April 1, 2016 and the Data Center Sale on May 1, 2017, and other insignificant transactions (see "Operating Results From Divested Businesses" below). During 2017, Oath generated $6.0 billion in revenues which represented approximately 64% of revenues in Corporate and Other.

Consolidated Operating Expenses

(dollars in millions)

				Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Cost of services	**$ 32,185**	$ 30,916	$ 30,463	**$ 1,269**	**4.1%**	$ 453	1.5 %
Wireless cost of equipment	**23,323**	22,147	22,238	**1,176**	**5.3**	(91)	(0.4)
Selling, general and administrative expense	**31,083**	28,592	28,102	**2,491**	**8.7**	490	1.7
Depreciation and amortization expense	**17,403**	16,954	15,928	**449**	**2.6**	1,026	6.4
Oath goodwill impairment	**4,591**	—	—	**4,591**	**nm**	—	—
Consolidated Operating Expenses	**$ 108,585**	$ 98,609	$ 96,731	**$ 9,976**	**10.1**	$ 1,878	1.9

nm - not meaningful

Operating expenses for our segments are discussed separately below under the heading "Segment Results of Operations."

2018 Compared to 2017

Cost of Services

Cost of services includes the following costs directly attributable to a service: salaries and wages, benefits, materials and supplies, content costs, contracted services, network access and transport costs, customer provisioning costs, computer systems support, and costs to support our outsourcing contracts and technical facilities. Aggregate customer care costs, which include billing and service provisioning, are allocated between Cost of services and Selling, general and administrative expense.

Cost of services increased $1.3 billion, or 4.1%, during 2018 compared to 2017 primarily due to an increase in expenses as a result of the acquisition of Yahoo's operating business and an increase in rent expense at our Wireless segment and an increase in content costs associated with continued programming license fees and other direct costs at our Wireline segment.

Wireless Cost of Equipment

Wireless cost of equipment increased $1.2 billion, or 5.3%, during 2018 compared to 2017 primarily as a result of shifts to higher priced units in the mix of devices sold, partially offset by declines in the number of smartphones sold.

Selling, General and Administrative Expense

Selling, general and administrative expense includes: salaries and wages and benefits not directly attributable to a service or product, bad debt charges, taxes other than income taxes, advertising and sales commission costs, customer billing, call center and information technology costs, regulatory fees, professional service fees, and rent and utilities for administrative space. Also included is a portion of the aggregate customer care costs as discussed in "Cost of Services" above.

Selling, general and administrative expense increased $2.5 billion, or 8.7%, during 2018 primarily due to a net gain on the sale of divested businesses in 2017 (see "Special Items"), as well as an increase in severance expenses in 2018 primarily a result of the voluntary separation program for selected U.S.-based management employees (see "Severance, pension and benefit charges (credits)" under "Special Items"). These increases were partially offset by a decrease in acquisition and integration related charges primarily related to the acquisition of Yahoo's operating business (see "Special Items") and a decrease in commission expense at both our Wireless and Wireline segments following the adoption of Topic 606.

Depreciation and Amortization Expense

Depreciation and amortization expense increased $0.4 billion, or 2.6%, during 2018 primarily due to an increase in depreciable assets at our Wireless segment.

Oath Goodwill Impairment

The goodwill impairment charge recorded in 2018 related to our Media business, branded Oath, and was a result of the company's annual goodwill impairment test performed in the fourth quarter (see "Critical Accounting Estimates").

2017 Compared to 2016

Cost of Services

Cost of services increased $0.5 billion, or 1.5%, during 2017 primarily due to an increase in expenses as a result of the acquisition of Yahoo's operating business, an increase in content costs associated with continued programming license fee increases and an increase in access costs as a result of the acquisition of XO Holdings' wireline business (XO) at our Wireline segment. These increases were partially offset by the completion of the Access Line Sale on April 1, 2016, the Data Center Sale on May 1, 2017 and other insignificant transactions (see "Operating Results From Divested Businesses"), the fact that we did not incur incremental costs in 2017 as a result of the union work stoppage that commenced on April 13, 2016 and ended on June 1, 2016 (2016 Work Stoppage).

Wireless Cost of Equipment

Wireless cost of equipment decreased $0.1 billion, or 0.4%, during 2017, primarily as a result of a decline in the number of smartphone and Internet units sold, substantially offset by a shift to higher priced units in the mix of devices sold.

Selling, General and Administrative Expense

Selling, general and administrative expense increased $0.5 billion, or 1.7%, during 2017 primarily due to an increase in expenses as a result of the acquisition of Yahoo's operating business on June 13, 2017, acquisition and integration charges primarily in connection with the acquisition of Yahoo's operating business, product realignment charges (see "Special Items") and an increase in expenses as a result of the acquisition of XO. These increases were partially offset by an increase in the net gain on sale of divested businesses (see "Special Items"), a decline at our Wireless segment in sales commission expense, employee related costs, bad debt expense, non-income taxes and advertising expense, and a decrease due to the Access Line Sale on April 1, 2016 and the Data Center Sale on May 1, 2017, and other insignificant transactions (see "Operating Results From Divested Businesses").

Depreciation and Amortization Expense

Depreciation and amortization expense increased $1.0 billion, or 6.4%, during 2017 primarily due to the acquisitions of Yahoo's operating business and XO.

Operating Results From Divested Businesses

In April 2016, we completed the Access Line Sale. In May 2017, we completed the Data Center Sale. The results of operations related to these divestitures and other insignificant transactions are included within Corporate and other for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker. The results of operations related to these divestitures included within Corporate and other are as follows:

(dollars in millions)

Years Ended December 31,	**2018**	2017	2016
Operating Results From Divested Businesses			
Operating revenues	**$ —**	$ 368	$ 2,115
Cost of services	**—**	129	747
Selling, general and administrative expense	**—**	68	246
Depreciation and amortization expense	**—**	22	127

Other Consolidated Results

Other Income (Expense), Net

Additional information relating to Other income (expense), net is as follows:

(dollars in millions)

Years Ended December 31,	2018	2017	2016	Increase/(Decrease) 2018 vs. 2017		Increase/(Decrease) 2017 vs. 2016	
Interest income	$ 94	$ 82	$ 59	$ 12	14.6%	$ 23	39.0 %
Other components of net periodic benefit cost	3,068	(11)	(2,190)	3,079	nm	2,179	99.5
Other, net	(798)	(2,092)	(1,658)	1,294	61.9	(434)	(26.2)
Total	$ 2,364	$ (2,021)	$ (3,789)	$ 4,385	nm	$ 1,768	46.7

nm - not meaningful

The change in Other income (expense), net during the year ended December 31, 2018, compared to the similar period in 2017, was primarily driven by pension and benefits credits of $2.1 billion recorded during 2018, compared with pension and benefit charges of approximately $0.9 billion recorded in 2017 (see "Special Items") as well as early debt redemption costs of $0.7 billion recorded during 2018, compared to $2.0 billion recorded during 2017 (see "Special Items"). The change in Other income (expense), net during the year ended December 31, 2017, compared to the similar period in 2016, was primarily driven by a decrease in components of net periodic benefit cost. The change was partially offset by early debt redemption costs of $2.0 billion, compared to $1.8 billion recorded during 2016 (see "Special Items"), as well as a net loss on foreign currency translation adjustments compared to a net gain in the 2016 period.

Interest Expense

(dollars in millions)

Years Ended December 31,	2018	2017	2016	Increase/(Decrease) 2018 vs. 2017		Increase/(Decrease) 2017 vs. 2016	
Total interest costs on debt balances	$ 5,573	$ 5,411	$ 5,080	$ 162	3.0%	$ 331	6.5 %
Less capitalized interest costs	740	678	704	62	9.1	(26)	(3.7)
Total	$ 4,833	$ 4,733	$ 4,376	$ 100	2.1	$ 357	8.2
Average debt outstanding	$ 115,858	$ 115,693	$ 106,113				
Effective interest rate	4.8%	4.7%	4.8%				

Total interest costs on debt balances increased during 2018 primarily due to an increase in our effective interest rate. Total interest costs on debt balances increased during 2017 primarily due to higher average debt balances.

Provision (Benefit) for Income Taxes

(dollars in millions)

Years Ended December 31,	2018	2017	2016	Increase/(Decrease) 2018 vs. 2017		Increase/(Decrease) 2017 vs. 2016	
Provision (benefit) for income taxes	$ 3,584	$ (9,956)	$ 7,378	$ 13,540	nm	$ (17,334)	nm
Effective income tax rate	18.3%	(48.3)%	35.2%				

nm - not meaningful

The effective income tax rate is calculated by dividing the provision (benefit) for income taxes by income before income taxes. The effective income tax rate for 2018 was 18.3% compared to (48.3)% for 2017. The increase in the effective income tax rate and the provision for income taxes was primarily due to the non-recurring, non-cash income tax benefit of $16.8 billion recorded in 2017 for the re-measurement of U.S. deferred tax liabilities at the lower 21% U.S. federal corporate income tax rate as a result of the enactment of the Tax Cuts and Jobs Act (TCJA) on December 22, 2017. In addition, the current period provision for income taxes includes the tax impact of the Oath goodwill impairment charge not deductible for tax purposes, offset by the current year reduction in the statutory U.S. federal corporate income tax rate from 35% to 21%, effective January 1, 2018 under the TCJA and a non-recurring deferred tax benefit of approximately $2.1 billion as a result of an internal reorganization of legal entities within the Wireless business.

In December 2017, the Securities and Exchange Commission (SEC) staff issued Staff Accounting Bulletin (SAB) 118 to provide guidance for companies that had not completed their accounting for the income tax effects of the TCJA. Due to the complexities involved in accounting for the enactment of the TCJA, SAB 118 allowed for a provisional estimate of the impacts of the TCJA in our earnings for the year ended December 31, 2017, as well as up to a one year measurement period that ended on December 22, 2018, for any subsequent adjustments to such provisional estimate. Pursuant to SAB 118, Verizon recorded a provisional estimate of $16.8 billion for the impacts of the TCJA, primarily due to the remeasurement of its U.S. deferred income tax liabilities at the lower 21% U.S. federal corporate income tax rate, with no significant impact from the transition tax on repatriation, the implementation of the territorial tax system, or limitations on the deduction of interest expense. Verizon has completed its analysis of the impacts of the TCJA, including analyzing the effects of any Internal Revenue Service (IRS) and U.S. Treasury guidance issued, and state tax law changes enacted, within the maximum one year measurement period resulting in no significant adjustments to the $16.8 billion provisional amount previously recorded.

The effective income tax rate for 2017 was (48.3)% compared to 35.2% for 2016. The decrease in the effective income tax rate and the provision for income taxes was primarily due to a non-recurring, non-cash income tax benefit recorded in 2017 as a result of the enactment of the TCJA described above.

A reconciliation of the statutory federal income tax rate to the effective income tax rate for each period is included in Note 12 to the consolidated financial statements.

Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA

Consolidated earnings before interest, taxes, depreciation and amortization expenses (Consolidated EBITDA) and Consolidated Adjusted EBITDA, which are presented below, are non-GAAP measures that we believe are useful to management, investors and other users of our financial information in evaluating operating profitability on a more variable cost basis as they exclude the depreciation and amortization expense related primarily to capital expenditures and acquisitions that occurred in prior years, as well as in evaluating operating performance in relation to Verizon’s competitors. Consolidated EBITDA is calculated by adding back interest, taxes, and depreciation and amortization expenses to net income.

Consolidated Adjusted EBITDA is calculated by excluding from Consolidated EBITDA the effect of the following non-operational items: equity in losses of unconsolidated businesses and other income and expense, net, as well as the effect of special items. We believe that this measure is useful to management, investors and other users of our financial information in evaluating the effectiveness of our operations and underlying business trends in a manner that is consistent with management’s evaluation of business performance. We believe that Consolidated Adjusted EBITDA is widely used by investors to compare a company’s operating performance to its competitors by minimizing impacts caused by differences in capital structure, taxes and depreciation policies. Further, the exclusion of non-operational items and special items enables comparability to prior period performance and trend analysis. See "Special Items" for additional information.

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

(dollars in millions)

Years Ended December 31,	**2018**	2017	2016
Consolidated Net Income	**$ 16,039**	$ 30,550	$ 13,608
Add (Less):			
Provision (benefit) for income taxes	**3,584**	(9,956)	7,378
Interest expense	**4,833**	4,733	4,376
Depreciation and amortization expense	**17,403**	16,954	15,928
Consolidated EBITDA*	**41,859**	42,281	41,290
Add (Less):			
Other (income) expense, net†	**(2,364)**	2,021	3,789
Equity in losses of unconsolidated businesses‡	**186**	77	98
Severance charges	**2,157**	497	421
Gain on spectrum license transaction	**—**	(270)	(142)
Acquisition and integration related charges§	**531**	879	—
Product realignment charges§	**450**	463	—
Oath goodwill impairment	**4,591**	—	—
Net gain on sale of divested businesses	**—**	(1,774)	(1,007)
Consolidated Adjusted EBITDA	**$ 47,410**	$ 44,174	$ 44,449

* Prior period figures have been amended to conform to the current period's calculation of Consolidated EBITDA.
† Includes Pension and benefits mark-to-market adjustments and Early debt redemption costs, where applicable.
‡ Includes Product realignment charges, where applicable.
§ Excludes depreciation and amortization expense.

The changes in Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA in the table above were primarily a result of the factors described in connection with operating revenues and operating expenses.

Segment Results of Operations

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services, and customer groups, respectively. We measure and evaluate our reportable segments based on segment operating income. The use of segment operating income is consistent with the chief operating decision maker's assessment of segment performance.

Segment earnings before interest, taxes, depreciation and amortization (Segment EBITDA), which is presented below, is a non-GAAP measure and does not purport to be an alternative to operating income (loss) as a measure of operating performance. We believe this measure is useful to management, investors and other users of our financial information in evaluating operating profitability on a more variable cost basis as it excludes the depreciation and amortization expenses related primarily to capital expenditures and acquisitions that occurred in prior years, as well as in evaluating operating performance in relation to our competitors. Segment EBITDA is calculated by adding back depreciation and amortization expense to segment operating income (loss). Segment EBITDA margin is calculated by dividing Segment EBITDA by total segment operating revenues.

You can find additional information about our segments in Note 13 to the consolidated financial statements.

Wireless

Operating Revenues and Selected Operating Statistics

(dollars in millions, except ARPA and I-ARPA)

				Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Service	**$ 63,020**	$ 63,121	$ 66,580	**$ (101)**	**(0.2)%**	$ (3,459)	(5.2)%
Equipment	**22,258**	18,889	17,515	**3,369**	**17.8**	1,374	7.8
Other	**6,456**	5,501	5,091	**955**	**17.4**	410	8.1
Total Operating Revenues	**$ 91,734**	$ 87,511	$ 89,186	**$ 4,223**	**4.8**	$ (1,675)	(1.9)
Connections ('000):[1]							
Retail connections	**117,999**	116,257	114,243	**1,742**	**1.5**	2,014	1.8
Retail postpaid connections	**113,353**	110,854	108,796	**2,499**	**2.3**	2,058	1.9
Net additions in period ('000):[2]							
Retail connections	**1,769**	2,041	2,155	**(272)**	**(13.3)**	(114)	(5.3)
Retail postpaid connections	**2,526**	2,084	2,288	**442**	**21.2**	(204)	(8.9)
Churn Rate:							
Retail connections	**1.23%**	1.25%	1.26%				
Retail postpaid connections	**1.03%**	1.01%	1.01%				
Account Statistics:							
Retail postpaid ARPA[3]	**$ 134.49**	$ 135.99	$ 144.32	**$ (1.50)**	**(1.1)**	$ (8.33)	(5.8)
Retail postpaid I-ARPA[3]	**$ 168.61**	$ 166.28	$ 167.70	**$ 2.33**	**1.4**	$ (1.42)	(0.8)
Retail postpaid accounts ('000)[1]	**35,427**	35,404	35,410	**23**	**0.1**	(6)	—
Retail postpaid connections per account[1]	**3.20**	3.13	3.07	**0.07**	**2.2**	0.06	2.0

(1) As of end of period
(2) Excluding acquisitions and adjustments
(3) ARPA and I-ARPA for periods beginning after January 1, 2018 reflect the adoption of Topic 606. ARPA and I-ARPA for periods ending prior to January 1, 2018 were calculated based on the guidance per ASC Topic 605, "Revenue Recognition." Accordingly, amounts are not calculated on a comparative basis.

2018 Compared to 2017

Wireless' total operating revenues increased $4.2 billion, or 4.8%, during 2018 compared to 2017, primarily as a result of increases in equipment and other revenues, partially offset by a decrease in service revenues.

Accounts and Connections

Retail postpaid accounts primarily represent retail customers with Verizon Wireless that are directly served and managed by Verizon Wireless and use its branded services. Accounts include unlimited plans, shared data plans and corporate accounts, as well as legacy single connection plans and family plans. A single account may include monthly wireless services for a variety of connected devices.

Retail connections represent our retail customer device postpaid and prepaid connections. Churn is the rate at which service to connections is terminated on a monthly basis. Retail connections under an account may include those from smartphones and basic phones (collectively, phones) as well as tablets and other Internet devices, including wearables and retail IoT devices. The U.S. wireless market has achieved a high penetration of smartphones, which reduces the opportunity for new phone connection growth for the industry. Retail postpaid connection net additions increased during 2018 compared to 2017, primarily due to an increase in retail postpaid connection gross additions, including wearables.

Retail Postpaid Connections per Account

Retail postpaid connections per account is calculated by dividing the total number of retail postpaid connections by the number of retail postpaid accounts as of the end of the period. Retail postpaid connections per account increased 2.2% as of December 31, 2018 compared to December 31, 2017. The increase in retail postpaid connections per account is primarily due to an increase in Internet devices, including tablets and other connected devices, which represented 19.7% of our retail postpaid connection base as of December 31, 2018 compared to 19.0% as of December 31, 2017. The increase in Internet devices is primarily driven by other connected devices, primarily wearables, as of December 31, 2018 compared to December 31, 2017.

Service Revenue

Service revenue, which does not include recurring device payment plan billings related to the Verizon device payment program, decreased $0.1 billion, or 0.2%, during 2018 compared to 2017, primarily due to a lower amount of revenue allocated to service revenue following the adoption of Topic 606, as well as decreased overage revenue. This decrease was partially offset by an increase in access revenue. Overage revenue pressure began in 2017, following the introduction of unlimited pricing plans, and has subsided now that the pace of transition to consumer plans with features that limit overages has reduced.

Customer migration to unsubsidized service pricing was driven in part by an increase in the activation of devices purchased under the Verizon device payment program. Phone activations under the Verizon device payment program represented approximately 78% of retail postpaid phones activated for both 2018 and 2017. At December 31, 2018, approximately 85% of our retail postpaid phone connections were on unsubsidized service pricing compared to approximately 80% at December 31, 2017. At December 31, 2018, approximately 48% of our retail postpaid phone connections had a current participation in the Verizon device payment program compared to approximately 49% at December 31, 2017. The pace of migration to unsubsidized price plans is approaching steady state, as the majority of customers are on such plans at December 31, 2018.

Service revenue plus recurring device payment plan billings related to the Verizon device payment program, which represents the total value invoiced from our wireless connections, increased $1.5 billion, or 2.0%, during 2018 compared to 2017.

Retail postpaid ARPA (the average service revenue per account from retail postpaid accounts), which does not include recurring device payment plan billings related to the Verizon device payment program, decreased 1.1% during 2018 compared to 2017, as a result of a lower amount of revenue allocated to service revenue following the adoption of Topic 606, partially offset by an increase in service revenue driven by customers shifting to higher access plans. Retail postpaid I-ARPA (the average service revenue per account from retail postpaid accounts plus recurring device payment plan billings), which represents the monthly recurring value received on a per account basis from our retail postpaid accounts, increased 1.4% during 2018 compared to 2017. This increase was driven by an increase in recurring device payment plan billings, partially offset by a decline in service revenue, primarily as a result of a lower amount of revenue allocated to service revenue following the adoption of Topic 606.

Equipment Revenue

Equipment revenue increased $3.4 billion, or 17.8%, during 2018 compared to 2017, as a result of a shift to higher priced units in the mix of devices sold and a higher amount of revenue allocated to equipment revenue following the adoption of Topic 606. See Notes 1 and 2 to the consolidated financial statements for additional information. These increases were partially offset by overall declines in device sales.

Other Revenue

Other revenue includes non-service revenues such as regulatory fees, cost recovery surcharges, revenues associated with our device protection package, sublease rentals and financing revenue. Other revenue increased $1.0 billion, or 17.4%, during 2018 compared to 2017, primarily due to volume and rate-driven increases in revenues related to our device protection package.

2017 Compared to 2016

Wireless’ total operating revenues decreased $1.7 billion, or 1.9%, during 2017 compared to 2016, primarily as a result of a decline in service revenues, partially offset by an increase in equipment revenues.

Accounts and Connections

Retail postpaid connection net additions decreased 8.9% during 2017 compared to 2016, primarily due to an increase in disconnects of Internet devices, partially offset by a decline in phone disconnects.

Retail Postpaid Connections per Account

Retail postpaid connections per account increased 2.0% as of December 31, 2017 compared to December 31, 2016, primarily due to an increase in Internet devices, including tablets and other connected devices, which represented 19.0% of our retail postpaid connection base as of December 31, 2017 compared to 18.3% as of December 31, 2016.

Service Revenue

Service revenue, which does not include recurring device payment plan billings related to the Verizon device payment program, decreased $3.5 billion, or 5.2%, during 2017 compared to 2016, primarily due to lower postpaid service revenue, including decreased overage revenue and decreased access revenue. Overage revenue pressure was primarily related to the introduction of unlimited pricing plans in 2017 and the ongoing migration to the pricing plans introduced in 2016 that feature safety mode and carryover data. Service revenue was also negatively impacted as a result of the ongoing customer migration to plans with unsubsidized service pricing.

Customer migration to unsubsidized service pricing was driven in part by an increase in the activation of devices purchased under the Verizon device payment program. For 2017, phone activations under the Verizon device payment program represented approximately 78% of retail postpaid phones activated compared to approximately 77% during 2016. At December 31, 2017, approximately 80% of our retail postpaid phone connections were on unsubsidized service pricing compared to approximately 67% at December 31, 2016. At December 31, 2017, approximately 49% of our retail postpaid phone connections participated in the Verizon device payment program compared to approximately 46% at December 31, 2016.

Service revenue plus recurring device payment plan billings related to the Verizon device payment program, which represents the total value invoiced from our wireless connections, decreased $0.6 billion, or 0.8%, during 2017 compared to 2016.

Retail postpaid ARPA, which does not include recurring device payment plan billings related to the Verizon device payment program, decreased 5.8% during 2017 compared to 2016 as a result of customer migration to plans with unsubsidized service pricing, including our new price plans launched during 2016, which feature safety mode and carryover data, and the introduction of unlimited data plans in 2017. Retail postpaid I-ARPA, which represents the monthly recurring value received on a per account basis from our retail postpaid accounts, decreased 0.8% during 2017 compared to 2016. The decrease was driven by service revenue decline, partially offset by increasing recurring device payment plan billings.

Equipment Revenue

Equipment revenue increased $1.4 billion, or 7.8%, during 2017 compared to 2016, as a result of an increase in the Verizon device payment program take rate and an increase in the price of devices, partially offset by an overall decline in device sales.

Other Revenue

Other revenue increased $0.4 billion, or 8.1%, during 2017 compared to 2016, primarily due to a $0.3 billion increase in financing revenues from our device payment program and a $0.2 billion volume-driven increase in revenues related to our device protection package.

Operating Expenses

(dollars in millions)

				Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Cost of services	**$ 9,251**	$ 8,886	$ 9,031	**$ 365**	**4.1 %**	$ (145)	(1.6)%
Cost of equipment	**23,323**	22,147	22,238	**1,176**	**5.3**	(91)	(0.4)
Selling, general and administrative expense	**16,604**	17,876	18,881	**(1,272)**	**(7.1)**	(1,005)	(5.3)
Depreciation and amortization expense	**9,736**	9,395	9,183	**341**	**3.6**	212	2.3
Total Operating Expenses	**$ 58,914**	$ 58,304	$ 59,333	**$ 610**	**1.0**	$ (1,029)	(1.7)

Cost of Services

Cost of services increased $0.4 billion, or 4.1%, during 2018 compared to 2017, primarily due to higher rent expense as a result of adding capacity to the network to support demand, as well as new pricing and a volume-driven increase in costs related to the device protection package offered to our customers. Partially offsetting these increases were decreases in costs related to roaming and long distance.

Cost of services decreased $0.1 billion, or 1.6%, during 2017 compared to 2016, primarily due to decreases in costs related to roaming, long distance and cost of data. Partially offsetting these decreases were higher rent expense as a result of an increase in macro and small cell sites supporting network capacity expansion and densification, as well as a volume-driven increase in costs related to the device protection package offered to our customers.

Cost of Equipment

Cost of equipment increased $1.2 billion, or 5.3%, during 2018 compared to 2017, primarily as a result of shifts to higher priced units in the mix of devices sold, partially offset by declines in the number of smartphones sold.

Cost of equipment decreased $0.1 billion, or 0.4%, during 2017 compared to 2016, primarily as a result of a decline in the number of smartphone and Internet units sold, substantially offset by a shift to higher priced units in the mix of devices sold.

Selling, General and Administrative Expense

Selling, general and administrative expense decreased $1.3 billion, or 7.1%, during 2018 compared to 2017, primarily due to a $1.2 billion decline in sales commission expense, as well as a decline of approximately $0.1 billion in employee related costs, primarily due to lower headcount and a decrease in bad debt expense. The decline in sales commission expense during 2018 compared to 2017, was driven by decreased selling-related costs primarily arising from the deferral of commission costs following the adoption of Topic 606.

Selling, general and administrative expense decreased $1.0 billion, or 5.3%, during 2017 compared to 2016, primarily due to a $0.6 billion decline in sales commission expense as well as a decline of approximately $0.2 billion in employee related costs primarily due to lower headcount, as well as a decline in bad debt expense, non-income taxes and advertising expense. The decline in sales commission expense was driven by an increase in the proportion of activations under the Verizon device payment program, which has a lower commission per unit than activations under traditional fixed-term service plans, as well as an overall decline in activations.

Depreciation and Amortization Expense

Depreciation and amortization expense increased $0.3 billion, or 3.6%, during 2018 compared to 2017, and increased $0.2 billion, or 2.3%, during 2017 compared to 2016, primarily driven by an increase in depreciable assets.

Segment Operating Income and EBITDA

(dollars in millions)

					Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Segment Operating Income	**$ 32,820**	$ 29,207	$ 29,853	**$ 3,613**	**12.4%**	$ (646)	(2.2)%
Add Depreciation and amortization expense	**9,736**	9,395	9,183	**341**	**3.6**	212	2.3
Segment EBITDA	**$ 42,556**	$ 38,602	$ 39,036	**$ 3,954**	**10.2**	$ (434)	(1.1)
Segment operating income margin	**35.8%**	33.4%	33.5%				
Segment EBITDA margin	**46.4%**	44.1%	43.8%				

The changes in the table above during the periods presented were primarily a result of the factors described in connection with operating revenues and operating expenses.

Wireline

In 2017, Verizon reorganized the customer groups within its Wireline segment. Previously, the customer groups in the Wireline segment consisted of Mass Markets (which included Consumer Retail and Small Business subgroups), Global Enterprise and Global Wholesale. Pursuant to the reorganization, there are now four customer groups within the Wireline segment: Consumer Markets, which includes the customers previously included in Consumer Retail; Enterprise Solutions, which includes the large business customers, including multinational corporations, and federal government customers previously included in Global Enterprise; Partner Solutions, which includes the customers previously included in Global Wholesale; and Business Markets, a new customer group, which includes U.S.-based small business customers previously included in Mass Markets and U.S.-based medium business customers, state and local government customers, and educational institutions previously included in Global Enterprise.

The operating revenues from XO are included in the Wireline segment results beginning in February 2017, following the completion of the acquisition, and are included with the Enterprise Solutions, Partner Solutions and Business Markets customer groups.

The operating results and statistics for all periods presented below exclude the results of the Data Center Sale in 2017 and other insignificant transactions (see "Operating Results From Divested Businesses"). The results were adjusted to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

Operating Revenues and Selected Operating Statistics

(dollars in millions)

								Increase/(Decrease)			
Years Ended December 31,		**2018**		2017		2016		**2018 vs. 2017**		2017 vs. 2016	
Consumer Markets	**$**	**12,589**	$	12,777	$	12,751	**$**	**(188)**	**(1.5)%**	$ 26	0.2 %
Enterprise Solutions		**8,840**		9,167		9,164		**(327)**	**(3.6)**	3	—
Partner Solutions		**4,692**		4,917		4,927		**(225)**	**(4.6)**	(10)	(0.2)
Business Markets		**3,397**		3,585		3,356		**(188)**	**(5.2)**	229	6.8
Other		**242**		234		312		**8**	**3.4**	(78)	(25.0)
Total Operating Revenues	**$**	**29,760**	$	30,680	$	30,510	**$**	**(920)**	**(3.0)**	$ 170	0.6
Connections (‘000):[1]											
Total voice connections		**11,732**		12,821		13,939		**(1,089)**	**(8.5)**	(1,118)	(8.0)
Total Broadband connections		**6,961**		6,959		7,038		**2**	**—**	(79)	(1.1)
Fios Internet subscribers		**6,067**		5,850		5,653		**217**	**3.7**	197	3.5
Fios video subscribers		**4,451**		4,619		4,694		**(168)**	**(3.6)**	(75)	(1.6)

[1] As of end of period

Wireline’s revenues decreased $0.9 billion, or 3.0%, during 2018 compared to 2017, primarily due to decreases in traditional voice, network and HSI services as a result of technology substitution and competition as well as decreases in demand for traditional linear video within our customer groups. The year ended 2018 includes one additional month of operating revenues from XO compared to the similar period in 2017.

Fios revenues were $11.9 billion, during 2018 compared to $11.7 billion during 2017. During 2018, our Fios Internet subscriber base increased by 3.7% and our Fios Video subscriber base decreased by 3.6%, compared to 2017, reflecting increased demand in higher broadband speeds and the ongoing shift from traditional linear video to over-the-top offerings.

Service revenues attributable to voice, Fios Video and HSI services declined, during 2018 compared to 2017, related to declines of 8.5%, 3.6% and 19.4% in connections, respectively. The decline in voice connections is primarily a result of competition and technology substitution with wireless, competing voice over Internet Protocol (IP) and cable telephony service. The decline in video connections continues to result from the shift in traditional linear video to over-the-top offerings. The increase in Fios Internet connections was driven by the continuing demand for higher speed Internet connectivity which offset the decline in HSI connections.

Consumer Markets

Consumer Markets operations provide broadband Internet and video services (including Fios Internet, Fios Video and HSI services) and local and long distance voice services to residential subscribers.

2018 Compared to 2017

Consumer Markets revenues decreased $0.2 billion, or 1.5%, during 2018 compared to 2017, due to the continued decline of Fios Video, voice and HSI services, partially offset by increases in Fios Internet revenues due to subscriber growth and higher value customer mix.

Consumer Fios revenues increased $0.2 billion, or 1.5%, during 2018 compared to 2017. Fios represented approximately 88% of Consumer Markets revenue during 2018 compared to approximately 85% during 2017.

The decline in voice service revenues was primarily due to an 8.5% decline in voice connections resulting primarily from competition and technology substitution with wireless and competing voice over Internet Protocol (VoIP) and cable telephony services. Total voice connections include traditional switched access lines in service, as well as Fios digital voice connections.

2017 Compared to 2016

Consumer Markets revenues increased 0.2%, during 2017 compared to 2016, due to increases in Fios revenues as a result of subscriber growth for Fios Internet services fueled by the introduction of gigabit speed data services, as well as higher pay-per-view sales due to marquee events during the third quarter of 2017, partially offset by the continued decline of voice service and HSI revenues.

Consumer Fios revenues increased $0.4 billion, or 3.7%, during 2017 compared to 2016. Fios represented approximately 85% of Consumer Markets revenue during 2017 compared to approximately 82% during 2016.

The decline in voice service revenues was primarily due to an 8.0% decline in voice connections resulting primarily from competition and technology substitution with wireless and competing VoIP and cable telephony services. Total voice connections include traditional switched access lines in service, as well as Fios digital voice connections.

Enterprise Solutions

Enterprise Solutions provides professional and integrated managed services, delivering solutions for large businesses, including multinational corporations, and federal government customers. Enterprise Solutions offers traditional circuit-based network services, and advanced networking solutions including Private IP, Ethernet, and Software-Defined Wide Area Network, along with our traditional voice services and advanced workforce productivity and customer contact center solutions. Our Enterprise Solutions include security services to manage, monitor, and mitigate cyber-attacks.

2018 Compared to 2017

Enterprise Solutions revenues decreased $0.3 billion, or 3.6%, during 2018 compared to 2017, primarily due to declines in traditional data and voice communication services and equipment as a result of competitive price pressures.

2017 Compared to 2016

Enterprise Solutions revenues remained consistent, during 2017 compared to 2016. Increased revenues resulting from the acquisition of XO were fully offset by declines in traditional data and voice communications services as a result of competitive price pressures.

Partner Solutions

Partner Solutions provides communications services, including data, voice and local dial tone and broadband services primarily to local, long distance and other carriers that use our facilities to provide services to their customers.

2018 Compared to 2017

Partner Solutions revenues decreased $0.2 billion, or 4.6%, during 2018 compared to 2017, primarily due to declines in core data and traditional voice services, resulting from the effect of technology substitution and continuing contraction of market rates due to competition. Data declines were partially offset by growth in higher bandwidth services, including dark fiber transport.

2017 Compared to 2016

Partner Solutions revenues decreased 0.2%, during 2017 compared to 2016, primarily related to declines in traditional voice revenues due to the effect of technology substitution, as well as continuing contraction of market rates due to competition, offset by revenues resulting from the acquisition of XO.

Business Markets

Business Markets offers traditional voice and networking products, Fios services, IP Networking, advanced voice solutions, security, and managed IT services to U.S.-based small and medium businesses, state and local governments, and educational institutions.

2018 Compared to 2017

Business Markets revenues decreased $0.2 billion, or 5.2%, during 2018 compared to 2017, primarily due to revenue declines related to the loss of traditional voice services and HSI connections, as well as customer premise equipment as a result of competitive price pressures.

2017 Compared to 2016

Business Markets revenues increased $0.2 billion, or 6.8%, during 2017 compared to 2016, primarily due to the acquisition of XO, partially offset by revenue declines related to the loss of traditional voice and HSI connections as a result of competitive price pressures.

Operating Expenses

				(dollars in millions)			
				Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Cost of services	**$ 17,701**	$ 17,922	$ 18,353	**$ (221)**	**(1.2)%**	$ (431)	(2.3)%
Selling, general and administrative expense	**6,151**	6,274	6,476	**(123)**	**(2.0)**	(202)	(3.1)
Depreciation and amortization expense	**6,181**	6,104	5,975	**77**	**1.3**	129	2.2
Total Operating Expenses	**$ 30,033**	$ 30,300	$ 30,804	**$ (267)**	**(0.9)**	$ (504)	(1.6)

Cost of Services

Cost of services decreased $0.2 billion, or 1.2%, during 2018 compared to 2017, primarily due to decreases in personnel costs, cost of equipment and access costs, which were partially offset by increases in content costs associated with continued increases in the cost of programming license fees and other direct costs.

Cost of services decreased $0.4 billion, or 2.3%, during 2017 compared to 2016, primarily due to the fact that we did not incur incremental costs in 2017 that were incurred in 2016 as a result of the 2016 Work Stoppage, as well as a decline in net pension and postretirement benefit costs primarily driven by collective bargaining agreements ratified in June 2016. These decreases were partially offset by an increase in content costs associated with continued programming license fee increases as well as an increase in access costs as a result of the acquisition of XO.

Selling, General and Administrative Expense

Selling, general and administrative expense decreased $0.1 billion, or 2.0%, during 2018 compared to 2017, due to decreased selling-related costs primarily arising from the deferral of commission costs following adoption of Topic 606.

Selling, general and administrative expense decreased $0.2 billion, or 3.1%, during 2017 compared to 2016, due to a decline in net pension and postretirement benefit costs, primarily driven by collective bargaining agreements ratified in June 2016 and the fact that there were no 2016 Work Stoppage costs in 2017, partially offset by an 9.5% increase in expenses resulting from the acquisition of XO.

Depreciation and Amortization Expense

Depreciation and amortization expense increased $0.1 billion, or 1.3%, during 2018 compared to 2017, primarily due to increases in net depreciable assets.

Depreciation and amortization expense increased $0.1 billion, or 2.2%, during 2017 compared to 2016, primarily due to increases in net depreciable assets as a result of the acquisition of XO.

Segment Operating Income (Loss) and EBITDA

(dollars in millions)

				Increase/(Decrease)			
Years Ended December 31,	**2018**	2017	2016	**2018 vs. 2017**		2017 vs. 2016	
Segment Operating Income (Loss)	**$ (273)**	$ 380	$ (294)	**$ (653)**	**nm**	$ 674	nm
Add Depreciation and amortization expense	**6,181**	6,104	5,975	**77**	**1.3 %**	129	2.2%
Segment EBITDA	**$ 5,908**	$ 6,484	$ 5,681	**$ (576)**	**(8.9)**	$ 803	14.1
Segment operating income (loss) margin	**(0.9)%**	1.2%	(1.0)%				
Segment EBITDA margin	**19.9 %**	21.1%	18.6 %				

nm - not meaningful

The changes in the table above during the periods presented were primarily a result of the factors described in connection with operating revenues and operating expenses.

Special Items

Special items included in Income Before (Provision) Benefit For Income Taxes were as follows:

(dollars in millions)

Years Ended December 31,	**2018**	2017	2016
Severance, pension and benefits charges (credits)			
Selling, general and administrative expense	**$ 2,157**	$ 497	$ 421
Other income (expense), net	**(2,107)**	894	2,502
Gain on spectrum license transactions			
Selling, general and administrative expense	**—**	(270)	(142)
Acquisition and integration related charges			
Selling, general and administrative expense	**531**	879	—
Depreciation and amortization expense	**22**	5	—
Product realignment charges			
Cost of services	**303**	171	—
Selling, general and administrative expense	**147**	292	—
Equity in losses of unconsolidated businesses	**207**	(11)	—
Depreciation and amortization expense	**1**	219	—
Oath goodwill impairment			
Oath goodwill impairment	**4,591**	—	—
Net gain on sale of divested businesses			
Selling, general and administrative expense	**—**	(1,774)	(1,007)
Early debt redemption costs			
Other income (expense), net	**725**	1,983	1,822
Total	**$ 6,577**	$ 2,885	$ 3,596

The income and expenses related to special items included in our consolidated results of operations were as follows:

						(dollars in millions)
Years Ended December 31,		**2018**		2017		2016
Within Total Operating Expenses	**$**	**7,752**	$	19	$	(728)
Within Equity in losses of unconsolidated businesses		**207**		(11)		—
Within Other income (expense), net		**(1,382)**		2,877		4,324
Total	**$**	**6,577**	$	2,885	$	3,596

Severance, Pension and Benefits Charges (Credits)

During 2018, we recorded net pre-tax pension and benefits credits of $2.1 billion in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefits remeasurement credits of $2.3 billion, which were recorded in Other income (expense), net in our consolidated statements of income, were primarily driven by an increase in our discount rate assumption used to determine the current year liabilities of our pension plans and postretirement benefit plans from a weighted-average of 3.7% at December 31, 2017 to a weighted-average of 4.4% at December 31, 2018 ($2.6 billion), and mortality and other assumption adjustments of $1.7 billion, $1.6 billion of which related to healthcare claims and trend adjustments, offset by the difference between our estimated return on assets of 7.0% and our actual return on assets of (2.7)% ($1.9 billion). The credits were partially offset by $0.2 billion due to the effects of participants retiring under the voluntary separation program. During 2018, we also recorded net pre-tax severance charges of $2.2 billion in Selling, general and administrative expense, primarily driven by the voluntary separation program for select U.S.-based management employees and other headcount reduction initiatives, which resulted in a severance charge of $1.8 billion ($1.4 billion after-tax), and $0.3 billion in severance costs recorded under other existing separation plans.

During 2017, we recorded net pre-tax severance, pension and benefits charges of $1.4 billion, exclusive of acquisition related severance charges, in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefits remeasurement charges of approximately $0.9 billion, which were recorded in Other income (expense), net in our consolidated statements of income, were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities of our pension and postretirement benefit plans from a weighted-average of 4.2% at December 31, 2016 to a weighted-average of 3.7% at December 31, 2017 ($2.6 billion). The charges were partially offset by the difference between our estimated return on assets of 7.0% and our actual return on assets of 14.0% ($1.2 billion), a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2017) issued by the Society of Actuaries ($0.2 billion) and other assumption adjustments ($0.3 billion). As part of these charges, we also recorded severance costs of $0.5 billion under our existing separation plans, which were recorded in Selling, general and administrative expense in our consolidated statements of income.

During 2016, we recorded net pre-tax severance, pension and benefits charges of $2.9 billion in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefits remeasurement charges of $2.5 billion, which were recorded in Other income (expense), net, in our consolidated statements of income, were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities of our pension and other postretirement benefit plans from a weighted-average of 4.6% at December 31, 2015 to a weighted-average of 4.2% at December 31, 2016 ($2.1 billion), updated health care trend cost assumptions ($0.9 billion), the difference between our estimated return on assets of 7.0% and our actual return on assets of 6.0% ($0.2 billion) and other assumption adjustments ($0.3 billion). These charges were partially offset by a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2016) issued by the Society of Actuaries ($0.5 billion) and lower negotiated prescription drug pricing ($0.5 billion). As part of these charges, we also recorded severance costs of $0.4 billion under our existing separation plans, which were recorded in Selling, general and administrative expense in our consolidated statements of income.

The net pre-tax severance, pension and benefits charges during 2016 were comprised of a net pre-tax pension remeasurement charge of $0.2 billion measured as of March 31, 2016 related to settlements for employees who received lump-sum distributions in one of our defined benefit pension plans, a net pre-tax pension and benefits remeasurement charge of $0.8 billion measured as of April 1, 2016 related to curtailments in three of our defined benefit pension and one of our other postretirement plans, a net pre-tax pension and benefits remeasurement charge of $2.7 billion measured as of May 31, 2016 in two defined benefit pension plans and three other postretirement benefit plans as a result of our accounting for the contractual healthcare caps and bargained for changes, a net pre-tax pension remeasurement charge of $0.1 billion measured as of May 31, 2016 related to settlements for employees who received lump-sum distributions in three of our defined benefit pension plans, a net pre-tax pension remeasurement charge of $0.6 billion measured as of August 31, 2016 related to settlements for employees who received lump-sum distributions in five of our defined benefit pension plans, and a net pre-tax pension and benefits credit of $1.9 billion as a result of our fourth quarter remeasurement of our pension and other postretirement assets and liabilities based on updated actuarial assumptions.

Due to the presentation of the other components of net periodic benefit cost, we recognize a portion of the pension and benefits charges (credits) in Other income (expense), net, in our consolidated statements of income. The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA discussion (see "Consolidated Results of Operations") excludes the amount of the severance, pension and benefits charges (credits) recorded in Selling, general and administrative expense in our consolidated statements of income.

Gain on Spectrum License Transactions

During the fourth quarter of 2017, we completed a license exchange transaction with affiliates of T-Mobile USA Inc. (T-Mobile USA) to exchange certain Advanced Wireless Services (AWS) and Personal Communication Services (PCS) spectrum licenses. As a result of this agreement, we received $0.4 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of $0.1 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2017.

During the first quarter of 2017, we completed a license exchange transaction with affiliates of AT&T Inc. (AT&T) to exchange certain AWS and PCS spectrum licenses. As a result of this non-cash exchange, we received $1.0 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of $0.1 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2017.

During the first quarter of 2016, we completed a license exchange transaction with affiliates of AT&T to exchange certain AWS and PCS spectrum licenses. As a result of this non-cash exchange, we received $0.4 billion of AWS and PCS spectrum licenses at fair value and we recorded a pre-tax gain of approximately $0.1 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2016.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA discussion (see "Consolidated Results of Operations") excludes the gains on the spectrum license transactions described above.

Acquisition and Integration Related Charges

Acquisition and integration related charges of $0.6 billion and $0.9 billion recorded during the years ended December 31, 2018 and 2017 primarily related to the acquisition of Yahoo’s operating business in June 2017.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA discussion (see "Consolidated Results of Operations") excludes the acquisition and integration related charges described above.

Product Realignment Charges

Product realignment charges of $0.7 billion recorded during the year ended December 31, 2018 primarily related to the discontinuation of the go90 platform and associated content during the second quarter of 2018.

Product realignment charges of $0.7 billion recorded during the year ended December 31, 2017 primarily related to charges taken against certain early-stage developmental technologies during the fourth quarter of 2017.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA discussion (see "Consolidated Results of Operations") excludes the product realignment costs described above.

Oath Goodwill Impairment

The Oath goodwill impairment charge of $4.6 billion recorded during the year ended December 31, 2018 for our Media business, branded Oath, was a result of the company's annual goodwill impairment test performed in the fourth quarter (see "Critical Accounting Estimates").

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA discussion (see "Consolidated Results of Operations") excludes the goodwill impairment charge described above.

Net Gain on Sale of Divested Businesses

The net gain on the sale of divested businesses of $1.8 billion recorded during 2017 related to the Data Center Sale in May 2017 and other insignificant transactions.

The net gain on the sale of divested businesses of $1.0 billion recorded during 2016 related to the Access Line Sale. The gain recorded included a $0.5 billion pension and postretirement benefit curtailment gain due to the elimination of the accrual of pension and other postretirement benefits for some or all future services of a significant number of employees covered in three of our defined benefit pension plans and one of our other postretirement benefit plans.

The Consolidated Adjusted EBITDA non-GAAP measure presented in the Consolidated Net Income, Consolidated EBITDA and Consolidated Adjusted EBITDA discussion (see "Consolidated Results of Operations") excludes the gains on the Data Center Sale and other insignificant transactions and the Access Line Sale described above.

Early Debt Redemption Costs

During 2018, 2017, and 2016, we recorded losses on early debt redemptions of $0.7 billion, $2.0 billion, and $1.8 billion respectively.

We recognize losses on early debt redemptions in Other income (expense), net in our consolidated statements of income. See Note 7 to the consolidated financial statements for additional information related to our early debt redemptions.

Operating Environment and Trends

The industries that we operate in are highly competitive, which we expect to continue particularly as traditional and non-traditional service providers seek increased market share. We believe that our high-quality customer base and networks differentiate us from our competitors and give us the ability to plan and manage through changing economic and competitive conditions. We remain focused on executing on the fundamentals of the business: maintaining a high-quality customer base, delivering strong financial and operating results and strengthening our balance sheet. We will continue to invest for growth, which we believe is the key to creating value for our shareholders. We continue to lead in 4G LTE performance while building momentum for our 5G network. We believe that our strategy lays the foundation for the future through investments in our Intelligent Edge Network that enable efficiencies throughout our core infrastructure and deliver flexibility to meet customer requirements at the edge of the network.

The U.S. wireless market has achieved a high penetration of smartphones, which reduces the opportunity for new phone connection growth for the industry. We expect future revenue growth in the industry to be driven by expanding existing customer relationships, increasing the number of ways customers can connect with wireless networks and services and increasing the penetration of other connected devices including wearables, tablets and IoT devices. We expect 5G technology will provide a significant opportunity for growth in the industry in 2020 and beyond. Current and potential competitors in the U.S. wireless market include other national wireless service providers, various regional wireless service providers, wireless resellers and cable companies, as well as other communications and technology companies providing wireless products and services.

Service and equipment pricing play an important role in the wireless competitive landscape. We compete in this area by offering our customers services and devices that we believe they will regard as the best available value for the price. As the demand for wireless services continues to grow, we and other wireless service providers are offering service plans at competitive prices that include voice services, data access and text messaging, in some cases on an unlimited basis. These service offerings will vary from time to time as part of promotional offers or in response to market circumstances.

Many wireless service providers, as well as equipment manufacturers, also offer device payment options, which provide consumers with the ability to pay for their device over a period of time, and device leasing arrangements. We expect future service revenue growth opportunities to arise from increased access revenue as customers shift to higher access plans, as well as from increased connections per account. Future service revenue growth opportunities will be dependent on expanding the penetration of our services and increasing the number of ways that our customers can connect with our network and services and the development of new ecosystems.

Current and potential competitors to our Wireline businesses include cable companies, wireless service providers, domestic and foreign telecommunications providers, satellite television companies, Internet service providers, over-the-top providers and other companies that offer network services and managed enterprise solutions.

In addition, companies with a global presence increasingly compete with our wireline businesses. A relatively small number of telecommunications and integrated service providers with global operations serve customers in the global enterprise market and, to a lesser extent, the global wholesale market. We compete with these providers for large contracts to provide integrated services to global enterprises. Many of these companies have strong market presence, brand recognition and existing customer relationships, all of which contribute to intensifying competition that may affect our future revenue growth.

Despite this challenging environment, we expect that we will be able to grow key aspects of our Wireline segment by providing network reliability, offering consumers products, including broadband Internet access, digital television and voice services, offering business and government customers more robust IP products and services, and accelerating our IoT strategies.

The online advertising market continues to evolve as online users are migrating from traditional desktop to mobile and multiple-device usage. Also, there is a continued shift towards programmatic advertising which presents opportunities to connect online advertisers with the appropriate online users in a rapid environment. Our Media business competes with other online search engines, advertising platforms, digital video services and social networks. We are experiencing pressure from search and desktop usage and believe the pressure in these sectors will continue. We will implement initiatives to realize synergies across all of our media assets and build services around our core content pillars to diversify revenue and return to growth.

We will also continue to focus on cost efficiencies to attempt to offset adverse impacts from unfavorable economic conditions and competitive pressures.

2019 Connection Trends

In our Wireless segment, we expect to continue to attract and maintain the loyalty of high-quality retail postpaid customers, capitalizing on demand for data services and bringing our customers new ways of using wireless services in their daily lives. We expect that future connection growth will be driven by smartphones, tablets and other connected devices such as wearables. We believe the overall customer experience of matching the unlimited plan with our high-quality network continues to attract and retain higher value retail postpaid connections, contributes to continued increases in the penetration of data services and helps us remain competitive with other wireless carriers. We expect to manage churn by providing a consistent, reliable experience on our wireless network and focusing on improving the customer experience through simplified pricing and better execution in our distribution channels.

In our Wireline segment, we have experienced continuing access line losses as customers have disconnected both primary and secondary lines and switched to alternative technologies such as wireless, VoIP and cable for voice and data services. We expect to continue to experience access line losses as customers continue to switch to alternate technologies. We expect to continue to grow our Fios Internet connections as we seek to increase our penetration rates within our Fios service areas. In Fios video, the business continues to face ongoing pressure as observed throughout the linear television market. We expect to expand our existing business through our Intelligent Edge Network, our multi-use platform.

2019 Operating Revenue Trends

In our Wireless segment, we expect to see a continuation of the service revenue trends from 2018 as customers shift to higher access plans and increase the number of ways they connect with our network and services. Equipment revenues are largely dependent on wireless device sales volumes, the mix of devices, promotions and upgrade cycles, which are subject to device lifecycles, iconic device launches and competition within the wireless industry.

In our Wireline segment, we expect segment revenue pressures as growth in our high-quality fiber-based products continues to be offset by technology shifts and ongoing secular declines from legacy technologies and competition. We expect Consumer Markets revenue to experience near-term declines to be driven by legacy core declines and cord-cutting only partially offset by Fios broadband growth. We expect a continued decline in core revenues for our Business Markets, Enterprise Solutions and Partner Solutions customer offerings; however, we expect revenue growth from advanced business and fiber-based services, including the expansion of our fiber footprint, to partially, and in some cases fully, mitigate these declines for the customer groups.

Our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, is primarily made up of digital advertising products. We are experiencing revenue pressure from search and desktop usage and believe the pressure in those sectors will continue. We are focused on returning to revenue growth by implementing initiatives to realize synergies across all of our media assets and building services around our core content pillars. We are experiencing positive growth in mobile usage and video products.

2019 Operating Expense and Cash Flow from Operations Trends

We expect our consolidated operating income margin and adjusted consolidated EBITDA margin to remain strong as we continue to undertake initiatives to reduce our overall cost structure by improving productivity and gaining efficiency in our operations throughout the business in 2019 and beyond. Business Excellence initiatives include the adoption of the zero-based budgeting methodology, driving capital efficiencies from network restructuring, evolving our Information Technology strategy and offering the voluntary separation program. The goal of the Business Excellence initiative is to take $10 billion of cumulative cash outflows out of the business over four years, beginning with 2018. As part of this initiative, we are focusing on both operating expenses and capital expenditures. Our Business Excellence initiatives have produced cumulative cash savings of $2.3 billion in 2018 from a mix of capital and operational expenditure activities. The program remains on track to achieve our goal. Expenses related to newly acquired businesses and programs funded through the reinvestment of program savings are expected to apply offsetting pressures to our margins.

The implementation of Topic 606, resulted in the deferral of commission expense in both our Wireless and Wireline segments. In 2019 and 2020, we expect a smaller benefit from the adoption of the standard due to the deferral of commissions costs as compared to 2018.

Due to the implementation of Accounting Standard Codification Topic 842 related to leasing on January 1, 2019, we estimate the impact to operating expense for the full year 2019 will be an increase due to certain initial direct costs that can no longer be deferred under the new accounting guidance.

We create value for our shareholders by investing the cash flows generated by our business in opportunities and transactions that support continued profitable growth, thereby increasing customer satisfaction and usage of our products and services. In addition, we have used our cash flows to maintain and grow our dividend payout to shareholders. Verizon’s Board of Directors increased the Company’s quarterly dividend by 2.1% during 2018, making this the twelfth consecutive year in which we have raised our dividend.

Our goal is to use our cash to create long-term value for our shareholders. We will continue to look for investment opportunities that will help us to grow the business, strengthen our balance sheet, acquire spectrum licenses (see "Cash Flows from Investing Activities"), pay dividends to our shareholders and, when appropriate, buy back shares of our outstanding common stock (see "Cash Flows from Financing Activities").

Capital Expenditures

Our 2019 capital program includes capital to fund advanced networks and services, including expanding our core networks, adding capacity and density to our 4G LTE network in order to stay ahead of our customers' increasing data demands and deploying our 5G network, transforming our structure to deploy the Intelligent Edge Network while reducing the cost to deliver services to our customers and pursuing other opportunities to drive operating efficiencies. We expect that the new network architecture will simplify operations by eliminating legacy network elements, improve our 4G LTE coverage, speed the deployment of 5G technology, deliver high-speed Fios broadband to homes and businesses, and create new enterprise opportunities in the business market. The level and the timing of the Company's capital expenditures within these broad categories can vary significantly as a result of a variety of factors outside of our control, such as material weather events. Capital expenditures for 2019 are expected to be in the range of $17.0 billion to $18.0 billion, including the continued investment in our 5G network. Capital expenditures were $16.7 billion in 2018 and $17.2 billion in 2017. We believe that we have significant discretion over the amount and timing of our capital expenditures on a Company-wide basis as we are not subject to any agreement that would require significant capital expenditures on a designated schedule or upon the occurrence of designated events.

Consolidated Financial Condition

(dollars in millions)

Years Ended December 31,	**2018**	2017	2016
Cash flows provided by (used in)			
Operating activities	**$ 34,339**	$ 24,318	$ 21,689
Investing activities	**(17,934)**	(18,456)	(9,874)
Financing activities	**(15,377)**	(6,151)	(13,376)
Increase (decrease) in cash, cash equivalents and restricted cash	**$ 1,028**	$ (289)	$ (1,561)

We use the net cash generated from our operations to fund network expansion and modernization, service and repay external financing, pay dividends, invest in new businesses and, when appropriate, buy back shares of our outstanding common stock. Our sources of funds, primarily from operations and, to the extent necessary, from external financing arrangements, are sufficient to meet ongoing operating and investing requirements. We expect that our capital spending requirements will continue to be financed primarily through internally generated funds. Debt or equity financing may be needed to fund additional investments or development activities or to maintain an appropriate capital structure to ensure our financial flexibility. Our cash and cash equivalents are held both domestically and internationally, and are invested to maintain principal and provide liquidity. See "Market Risk" for additional information regarding our foreign currency risk management strategies.

Our available external financing arrangements include an active commercial paper program, credit available under credit facilities and other bank lines of credit, vendor financing arrangements, issuances of registered debt or equity securities, U.S. retail medium-term notes and other capital market securities that are privately-placed or offered overseas. In addition, we monetize our device payment plan agreement receivables through asset-backed debt transactions.

On January 1, 2018, we adopted ASU 2016-18 and ASU 2016-15. As required by ASU 2016-18, we included restricted cash in the statement of cash flows for all periods presented. In addition, as required by ASU 2016-15, we retrospectively reclassified approximately $0.6 billion of collections of deferred purchase price related to off-balance sheet securitization from Cash flows from operating activities to Cash flows from investing activities in our consolidated statement of cash flows for the year ended December 31, 2017, and $1.1 billion for the year ended December 31, 2016.

Cash Flows Provided By Operating Activities

Our primary source of funds continues to be cash generated from operations. Net cash provided by operating activities during 2018 increased by $10.0 billion primarily due to an improvement in working capital which includes a decrease in cash income taxes, an increase of $4.0 billion in earnings, and a lower amount of discretionary contributions to qualified employee benefit plans in 2018 compared to 2017. We made $1.7 billion and $3.4 billion in discretionary employee benefits contributions during 2018 and 2017, respectively, primarily to our defined benefit pension plan. As a result of the discretionary pension contributions in 2018 and a $0.3 billion discretionary contribution in January 2019, we expect that there will be no required pension funding until 2024, which will benefit future cash flows. Further, the funded status of our qualified pension plan improved as a result of the contributions.

Net cash provided by operating activities during 2017 increased by $2.6 billion primarily due to an increase in earnings and changes in working capital, partially offset by our discretionary contributions to qualified pension plans of $3.4 billion (approximately $2.1 billion, net of tax benefit) and the change in the method in which we monetize device payment plan receivables, as discussed below.

During 2016, we changed the strategic method by which we monetize device payment plan receivables from sales of device payment plan receivables, which were recorded within cash flows provided by operating activities, to asset-backed debt transactions that are recorded in cash flows from financing activities. During 2016, we received proceeds related to sales of wireless device payment plan agreement receivables of approximately $2.0 billion. See Note 8 to the consolidated financial statements for additional information. During 2018, 2017 and 2016, we received proceeds from asset-backed debt transactions of approximately $4.8 billion, $4.3 billion and $5.0 billion, respectively. See Note 7 to the consolidated financial statements and "Cash Flows Used in Financing Activities" for additional information.

Cash Flows Used In Investing Activities

Capital Expenditures

Capital expenditures continue to relate primarily to the use of capital resources to facilitate the introduction of new products and services, enhance responsiveness to competitive challenges, maintain the existing infrastructure and increase the operating efficiency and productivity of our networks.

Capital expenditures, including capitalized software, were as follows:

						(dollars in millions)
Years Ended December 31,		**2018**		2017		2016
Wireless	**$**	**8,486**	$	10,310	$	11,240
Wireline		**6,255**		5,339		4,504
Other		**1,917**		1,598		1,315
	$	**16,658**	$	17,247	$	17,059
Total as a percentage of revenue		**12.7%**		13.7%		13.5%

Capital expenditures decreased at Wireless in 2018 primarily due to capital efficiencies from our business excellence initiatives. Capital expenditures increased at Wireline in 2018, primarily due to an increase in investments to support multi-use fiber assets, which support the densification of our 4G LTE network and a continued focus on 5G technology deployment. Our investments primarily related to network equipment to support the business. Capital expenditures decreased at Wireless in 2017 primarily due to the shift in investments to fiber assets. Capital expenditures increased at Wireline in 2017 primarily as a result of an increase in investments to support our multi-use fiber deployment.

Acquisitions

During 2018, 2017 and 2016, we invested $1.4 billion, $0.6 billion and $0.5 billion, respectively, in acquisitions of wireless licenses. During 2018, 2017 and 2016, we also invested $0.2 billion, $5.9 billion and $3.8 billion, respectively, in acquisitions of businesses, net of cash acquired.

In January 2018, Verizon acquired NextLink Wireless LLC (NextLink) from a wholly-owned subsidiary of XO for approximately $0.5 billion, subject to certain adjustments, of which $0.3 billion, an option exercise price to acquire NextLink, was prepaid in the first quarter of 2017. The option exercise price represented the fair value of the option. The remaining cash consideration was paid at the closing of the transaction. The spectrum acquired as part of the transaction is being used for our 5G technology deployment.

In February 2018, Verizon acquired Straight Path Communications Inc. (Straight Path), a holder of millimeter wave spectrum configured for 5G wireless services for total consideration reflecting an enterprise value of approximately $3.1 billion, which was primarily settled with Verizon shares but also included transaction costs payable in cash of approximately $0.7 billion, consisting primarily of a fee paid to the Federal Communications Commission (FCC). The spectrum acquired as part of the transaction is being used for our 5G technology deployment.

In February 2017, Verizon acquired XO, which owned and operated one of the largest fiber-based IP and Ethernet networks, for total cash consideration of approximately $1.5 billion, of which $0.1 billion was paid in 2015.

In June 2017, Verizon acquired Yahoo's operating business for cash consideration of approximately $4.7 billion, including cash acquired of $0.2 billion.

In December 2017, Verizon purchased certain fiber-optic network assets in the Chicago market from WideOpenWest, Inc. (WOW!) for cash consideration of approximately $0.2 billion.

In July 2016, we acquired Telogis, Inc. (Telogis), a global cloud-based mobile enterprise management business, for $0.9 billion of cash consideration.

In November 2016, we acquired Fleetmatics Group PLC (Fleetmatics), a leading global provider of fleet and mobile workforce management solutions, for $60.00 per ordinary share in cash. The aggregate merger consideration was approximately $2.5 billion, including cash acquired of $0.1 billion.

During 2018, 2017 and 2016, we acquired various other businesses and investments for cash consideration that was not significant.

See "Acquisitions and Divestitures" for additional information on our acquisitions.

Dispositions

During 2017, we received net cash proceeds of $3.5 billion in connection with the Data Center Sale on May 1, 2017. We also completed other insignificant transactions during 2017.

During 2016, we received cash proceeds of $9.9 billion in connection with the completion of the Access Line Sale on April 1, 2016.

See "Acquisitions and Divestitures" for additional information on our dispositions.

Cash Flows Used In Financing Activities

We seek to maintain a mix of fixed and variable rate debt to lower borrowing costs within reasonable risk parameters and to protect against earnings and cash flow volatility resulting from changes in market conditions. During 2018, 2017 and 2016, net cash used in financing activities was $15.4 billion, $6.2 billion and $13.4 billion, respectively.

2018

During 2018, our net cash used in financing activities of $15.4 billion was primarily driven by:

- $14.6 billion used for repayments, redemptions and repurchases of long-term borrowings and capital lease obligations, which included $3.6 billion used for prepayments and repayments of asset-backed long-term borrowings; and
- $9.8 billion used for dividend payments.

These uses of cash were partially offset by proceeds from long-term borrowings of $10.8 billion, which included $4.8 billion of proceeds from our asset-backed debt transactions.

Proceeds from and Repayments, Redemptions, and Repurchases of Long-Term Borrowings

At December 31, 2018, our total debt decreased to $113.1 billion as compared to $117.1 billion at December 31, 2017. Our effective interest rate was 4.8% and 4.7% during the years ended December 31, 2018 and 2017, respectively. The substantial majority of our total debt portfolio consists of fixed rate indebtedness, therefore, changes in interest rates do not have a material effect on our interest payments. See also "Market Risk" and Note 7 to the consolidated financial statements for additional information.

At December 31, 2018, approximately $17.1 billion or 15.1% of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily the Euro and British Pound Sterling. We have entered into cross currency swaps on a majority of our foreign denominated debt in order to fix our future interest and principal payments in U.S. dollars and mitigate the impact of foreign currency transaction gains or losses. See "Market Risk" for additional information.

Verizon may continue to repurchase debt securities issued by Verizon and its affiliates in the future through open market purchases, privately negotiated transactions, tender offers, exchange offers, or otherwise, upon such terms and at such prices as Verizon may from time to time determine for cash or other consideration.

Other, net

Other, net financing activities during 2018 included early debt redemption costs, see "Special Items" for additional information, as well as cash paid on debt exchanges and derivative-related transactions.

Dividends

The Verizon Board of Directors assesses the level of our dividend payments on a periodic basis taking into account such factors as long-term growth opportunities, internal cash requirements and the expectations of our shareholders. During the third quarter of 2018, the Board increased our quarterly dividend payment 2.1% to $0.6025 from $0.5900 per share in the prior period. This is the twelfth consecutive year that Verizon's Board of Directors has approved a quarterly dividend increase.

As in prior periods, dividend payments were a significant use of capital resources. During 2018, we paid $9.8 billion in dividends.

2017

During 2017, our net cash used in financing activities of $6.2 billion was primarily driven by:

- $24.2 billion used for repayments, redemptions and repurchases of long-term borrowings and capital lease obligations, which included $0.4 billion used for prepayments of asset-backed long-term borrowings; and
- $9.5 billion used for dividend payments.

These uses of cash were partially offset by proceeds from long-term borrowings of $32.0 billion, which included $4.3 billion of proceeds from our asset-backed debt transactions.

Proceeds from and Repayments, Redemptions, and Repurchases of Long-Term Borrowings

At December 31, 2017, our total debt increased to $117.1 billion as compared to $108.1 billion at December 31, 2016. Our effective interest rate was 4.7% and 4.8% during the years ended December 31, 2017 and 2016, respectively. The substantial majority of our total debt portfolio consisted of fixed rate indebtedness, therefore, changes in interest rates did not have a material effect on our interest payments. See also "Market Risk" and Note 7 to the consolidated financial statements for additional information.

At December 31, 2017, approximately $18.0 billion or 15.3% of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily the Euro and British Pound Sterling. We have entered into cross currency swaps on a majority of our foreign denominated debt in order to fix our future interest and principal payments in U.S. dollars and mitigate the impact of foreign currency transaction gains or losses. See "Market Risk" for additional information.

Other, net

Other, net financing activities during 2017, included early debt redemption costs. See "Special Items" for additional information related to the early debt redemption costs incurred during the year ended December 31, 2017.

Dividends

During the third quarter of 2017, the Board increased our quarterly dividend payment 2.2% to $0.5900 from $0.5775 per share in the prior period.

As in prior periods, dividend payments were a significant use of capital resources. During 2017, we paid $9.5 billion in dividends.

2016

During 2016, our net cash used in financing activities of $13.4 billion was primarily driven by:

- $19.2 billion used for repayments, redemptions and repurchases of long-term borrowings and capital lease obligations; and
- $9.3 billion used for dividend payments.

These uses of cash were partially offset by proceeds from long-term borrowings of $18.0 billion, which included $5.0 billion of proceeds from our asset-backed debt transactions.

Proceeds from and Repayments, Redemptions, and Repurchases of Long-Term Borrowings

At December 31, 2016, our total debt decreased to $108.1 billion as compared to $109.7 billion at December 31, 2015. Our effective interest rate was 4.8% during the year ended December 31, 2016. The substantial majority of our total debt portfolio consisted of fixed rate indebtedness, therefore, changes in interest rates did not have a material effect on our interest payments. See also "Market Risk" for additional information.

At December 31, 2016, approximately $11.6 billion or 10.7% of the aggregate principal amount of our total debt portfolio consisted of foreign denominated debt, primarily the Euro and British Pound Sterling. We have entered into cross currency swaps on a majority of our foreign denominated debt in order to fix our future interest and principal payments in U.S. dollars and mitigate the impact of foreign currency transaction gains or losses. See "Market Risk" for additional information.

Other, net

Other, net financing activities during 2016, included early debt redemption costs of $1.8 billion. See "Special Items" for additional information related to the early debt redemption costs incurred during the year ended December 31, 2016.

Dividends

During the third quarter of 2016, the Board increased our quarterly dividend payment 2.2% to $0.5775 from $0.565 per share in the prior period.

As in prior periods, dividend payments were a significant use of capital resources. During 2016, we paid $9.3 billion in dividends.

Asset-Backed Debt

As of December 31, 2018, the carrying value of our asset-backed debt was $10.1 billion. Our asset-backed debt includes notes (the Asset-Backed Notes) issued to third-party investors (Investors) and loans (ABS Financing Facilities) received from banks and their conduit facilities (collectively, the Banks). Our consolidated asset-backed debt bankruptcy remote legal entities (each, an ABS Entity or collectively, the ABS Entities) issue the debt or are otherwise party to the transaction documentation in connection with our asset-backed debt transactions. Under the terms of our asset-backed debt, we transfer device payment plan agreement receivables from Cellco Partnership (Cellco) and certain other affiliates of Verizon (collectively, the Originators) to one of the ABS Entities, which in turn transfers such receivables to another ABS Entity that issues the debt. Verizon entities retain the equity interests in the ABS Entities, which represent the rights to all funds not needed to make required payments on the asset-backed debt and other related payments and expenses.

Our asset-backed debt is secured by the transferred device payment plan agreement receivables and future collections on such receivables. The device payment plan agreement receivables transferred to the ABS Entities and related assets, consisting primarily of restricted cash, will only be available for payment of asset-backed debt and expenses related thereto, payments to the Originators in respect of additional transfers of device payment plan agreement receivables, and other obligations arising from our asset-backed debt transactions, and will not be available to pay other obligations or claims of Verizon’s creditors until the associated asset-backed debt and other obligations are satisfied. The Investors or Banks, as applicable, which hold our asset-backed debt have legal recourse to the assets securing the debt, but do not have any recourse to Verizon with respect to the payment of principal and interest on the debt. Under a parent support agreement, Verizon has agreed to guarantee certain of the payment obligations of Cellco and the Originators to the ABS Entities.

Cash collections on the device payment plan agreement receivables collateralizing our asset-backed debt securities are required at certain specified times to be placed into segregated accounts. Deposits to the segregated accounts are considered restricted cash and are included in Prepaid expenses and other, and Other assets in our consolidated balance sheets.

Proceeds from our asset-backed debt transactions are reflected in Cash flows from financing activities in our condensed consolidated statements of cash flows. The asset-backed debt issued and the assets securing this debt are included in our consolidated balance sheets.

During September 2016 and May 2017, we entered into loan agreements through an ABS Entity with a number of financial institutions. Under these ABS loan agreements, we have the right to prepay all or a portion of the loans at any time without penalty, but in certain cases, with breakage costs. The two year revolving period of the two loan agreements ended in September 2018. In 2018, we made a $1.5 billion drawdown and an aggregate amount of $3.0 billion of prepayments and repayments. We made a $0.4 billion prepayment in December 2017.

In May 2018, we entered into a second device payment plan agreement financing facility with a number of financial institutions (2018 ABS Financing Facility). Under the terms of the 2018 ABS Financing Facility, the financial institutions made advances under asset-backed loans backed by device payment plan agreement receivables of business customers for proceeds of $0.5 billion.

Credit Facilities

In April 2018, we amended our $9.0 billion credit facility to increase the capacity to $9.5 billion and extend its maturity to April 4, 2022. As of December 31, 2018, the unused borrowing capacity under our $9.5 billion credit facility was approximately $9.4 billion. The credit facility does not require us to comply with financial covenants or maintain specified credit ratings, and it permits us to borrow even if our business has incurred a material adverse change. We use the credit facility for the issuance of letters of credit and for general corporate purposes.

In March 2016, we entered into a $1.0 billion credit facility insured by Eksportkreditnamnden Stockholm, Sweden, the Swedish export credit agency. As of December 31, 2018, the outstanding balance was $0.7 billion. We used this credit facility to finance network equipment-related purchases.

In July 2017, we entered into credit facilities insured by various export credit agencies providing us with the ability to borrow up to $4.0 billion to finance equipment-related purchases. The facilities have borrowings available, portions of which extend through October 2019, contingent upon the amount of eligible equipment-related purchases that we make. During 2018, we drew down $3.0 billion from these facilities, and $2.8 billion remained outstanding as of December 31, 2018. In January 2019, we drew down an additional $0.4 billion from these facilities.

Common Stock

Common stock has been used from time to time to satisfy some of the funding requirements of employee and shareholder plans. During the years ended December 31, 2018, 2017 and 2016, we issued 3.5 million, 2.8 million and 3.5 million common shares from Treasury stock, respectively, which had an insignificant aggregate value.

In March 2017, the Verizon Board of Directors authorized a share buyback program to repurchase up to 100 million shares of the Company's common stock. The program will terminate when the aggregate number of shares purchased reaches 100 million, or at the close of business on February 28, 2020, whichever is sooner. The program permits Verizon to repurchase shares over time, with the amount and timing of repurchases depending on market conditions and corporate needs. There were no repurchases of common stock during 2018, 2017 or 2016.

Credit Ratings

Verizon’s credit ratings did not change in 2018, 2017 or 2016.

Securities ratings assigned by rating organizations are expressions of opinion and are not recommendations to buy, sell or hold securities. A securities rating is subject to revision or withdrawal at any time by the assigning rating organization. Each rating should be evaluated independently of any other rating.

Covenants

Our credit agreements contain covenants that are typical for large, investment grade companies. These covenants include requirements to pay interest and principal in a timely fashion, pay taxes, maintain insurance with responsible and reputable insurance companies, preserve our corporate existence, keep appropriate books and records of financial transactions, maintain our properties, provide financial and other reports to our lenders, limit pledging and disposition of assets and mergers and consolidations, and other similar covenants.

We and our consolidated subsidiaries are in compliance with all of our restrictive covenants in our debt agreements.

Change In Cash, Cash Equivalents and Restricted Cash

Our Cash and cash equivalents at December 31, 2018 totaled $2.7 billion, a $0.7 billion increase compared to Cash and cash equivalents at December 31, 2017 primarily as a result of the factors discussed above. Our Cash and cash equivalents at December 31, 2017 totaled $2.1 billion, a $0.8 billion decrease compared to Cash and cash equivalents at December 31, 2016 primarily as a result of the factors discussed above.

Restricted cash at December 31, 2018 totaled $1.2 billion, a $0.4 billion increase compared to restricted cash at December 31, 2017 primarily due to cash collections on the device payment plan agreement receivables that are required at certain specified times to be placed into segregated accounts. Restricted cash at December 31, 2017 totaled $0.8 billion, a $0.5 billion increase compared to restricted cash at December 31, 2016 primarily related to cash collections on the device payment plan agreement receivables that are required at certain specified times to be placed into segregated accounts.

Free Cash Flow

Free cash flow is a non-GAAP financial measure that reflects an additional way of viewing our liquidity that, when viewed with our GAAP results, provides a more complete understanding of factors and trends affecting our cash flows. Free cash flow is calculated by subtracting capital expenditures from net cash provided by operating activities. We believe it is a more conservative measure of cash flow since purchases of fixed assets are necessary for ongoing operations. Free cash flow has limitations due to the fact that it does not represent the residual cash flow available for discretionary expenditures. For example, free cash flow does not incorporate payments made on capital lease obligations or cash payments for business acquisitions. Therefore, we believe it is important to view free cash flow as a complement to our entire consolidated statements of cash flows.

The following table reconciles net cash provided by operating activities to Free cash flow:

(dollars in millions)

Years Ended December 31,	**2018**	2017	2016
Net cash provided by operating activities	**$ 34,339**	$ 24,318	$ 21,689
Less Capital expenditures (including capitalized software)	**16,658**	17,247	17,059
Free cash flow	**$ 17,681**	$ 7,071	$ 4,630

The changes in free cash flow during 2018, 2017 and 2016 were a result of the factors described in connection with net cash provided by operating activities and capital expenditures. The change in free cash flow during 2018 was primarily due to an improvement in working capital which includes a decrease in cash income taxes, an increase of $4.0 billion in earnings, and a lower amount of discretionary contributions to qualified employee benefit plans in 2018 compared to 2017. We made $1.7 billion and $3.4 billion in discretionary employee benefits contributions during 2018 and 2017, respectively, primarily to our defined benefit pension plan. As a result of the discretionary pension contributions in 2018 and a $0.3 billion discretionary contribution in January 2019, we expect that there will be no required pension funding until 2024, which will benefit future cash flows. Further, the funded status of our qualified pension plan improved as a result of the contributions. Capital expenditures decreased during 2018 compared to 2017, primarily due to capital expenditure efficiencies from our Business Excellence initiatives.

The change in free cash flow during 2017 was primarily due to an increase in earnings and changes in working capital, partially offset by our discretionary contributions to qualified pension plans of $3.4 billion (approximately $2.1 billion, net of tax benefit) and the change in the method in which we monetize device payment plan receivables, as discussed below.

During 2016, we changed the strategic method by which we monetize device payment plan receivables from sales of device payment plan receivables, which were recorded within cash flows provided by operating activities, to asset-backed debt transactions that are recorded in cash flows from financing activities. During 2016, we received proceeds related to sales of wireless device payment plan agreement receivables of approximately $2.0 billion. See Note 8 to the consolidated financial statements for additional information. During 2018, 2017 and 2016, we received proceeds from asset-backed debt transactions of approximately $4.8 billion, $4.3 billion and $5.0 billion, respectively. See Note 7 to the consolidated financial statements and "Cash Flows Used in Financing Activities" for additional information.

Employee Benefit Plan Funded Status and Contributions

Employer Contributions

We operate numerous qualified and nonqualified pension plans and other postretirement benefit plans. These plans primarily relate to our domestic business units. During 2018, 2017 and 2016, contributions to our qualified pension plans were $1.0 billion, $4.0 billion and $0.8 billion, respectively. We made no contribution to our nonqualified pension plans in 2018, and contributed $0.1 billion in both 2017 and 2016. In January 2019, we made a $0.3 billion discretionary contribution to our qualified pension plans.

The company’s overall investment strategy is to achieve a mix of assets that allows us to meet projected benefit payments while taking into consideration risk and return. In an effort to reduce the risk of our portfolio strategy and better align assets with liabilities, we have adopted a liability driven pension strategy that seeks to better match cash flows from investments with projected benefit payments. We expect that the strategy will reduce the likelihood that assets will decline at a time when liabilities increase (referred to as liability hedging), with the goal to reduce the risk of underfunding to the plan and its participants and beneficiaries; however, we also expect the strategy to result in lower asset returns. Nonqualified pension contributions are estimated to be approximately $0.1 billion in 2019.

Contributions to our other postretirement benefit plans generally relate to payments for benefits on an as-incurred basis since these other postretirement benefit plans do not have funding requirements similar to the pension plans. We contributed $0.7 billion, $1.3 billion and $1.1 billion to our other postretirement benefit plans in 2018, 2017 and 2016, respectively. Contributions to our other postretirement benefit plans are estimated to be approximately $0.5 billion in 2019.

Leasing Arrangements

See Note 6 to the consolidated financial statements for a discussion of leasing arrangements.

Contractual Obligations

The following table provides a summary of our contractual obligations and commercial commitments at December 31, 2018. Additional detail about these items is included in the notes to the consolidated financial statements.

(dollars in millions)

	Payments Due By Period				
Contractual Obligations	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Long-term debt[1]	$ 112,548	$ 6,744	$ 14,019	$ 13,441	$ 78,344
Capital lease obligations[2]	905	314	360	136	95
Total long-term debt, including current maturities	113,453	7,058	14,379	13,577	78,439
Interest on long-term debt[1]	82,117	5,048	9,364	8,474	59,231
Operating leases[2]	26,593	4,043	6,950	5,393	10,207
Purchase obligations[3]	22,179	8,764	9,098	2,137	2,180
Other long-term liabilities[4]	4,405	474	1,872	2,059	—
Finance obligations[5]	1,819	276	569	592	382
Total contractual obligations	$ 250,566	$ 25,663	$ 42,232	$ 32,232	$ 150,439

(1) Items included in long-term debt with variable coupon rates exclude unamortized debt issuance costs, and are described in Note 7 to the consolidated financial statements.

(2) See Note 6 to the consolidated financial statements for additional information.

(3) Items included in purchase obligations are primarily commitments to purchase content and network services, equipment, software and marketing services, 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 that are the subject of contractual obligations. We also purchase products and services as needed with no firm commitment. For this reason, the amounts presented in this table alone do not provide a reliable indicator of our expected future cash outflows or changes in our expected cash position. See Note 16 to the consolidated financial statements for additional information.

(4) Other long-term liabilities represent estimated postretirement benefit and qualified pension plan contributions. Estimated qualified pension plan contributions include expected minimum funding contributions, which commence in 2024 based on the plan's current funded status. Estimated postretirement benefit payments include expected future postretirement benefit payments. These estimated amounts: (1) are subject to change based on changes to assumptions and future plan performance, which could impact the timing or amounts of these payments; and (2) exclude expectations beyond 5 years due to uncertainty of the timing and amounts. See Note 11 to the consolidated financial statements for additional information.

(5) Represents future minimum payments under the sublease arrangement for our tower transaction. See Note 6 to the consolidated financial statements for additional information.

We are not able to make a reasonable estimate of when the unrecognized tax benefits balance of $2.9 billion and related interest and penalties will be settled with the respective taxing authorities until issues or examinations are further developed. See Note 12 to the consolidated financial statements for additional information.

Guarantees

We guarantee the debentures of our operating telephone company subsidiaries as well as the debt obligations of GTE LLC, as successor in interest to GTE Corporation, that were issued and outstanding prior to July 1, 2003. See Note 7 to the consolidated financial statements for additional information.

As a result of the closing of the Access Line Sale on April 1, 2016, GTE Southwest Inc., Verizon California Inc. and Verizon Florida LLC are no longer wholly-owned subsidiaries of Verizon, and the guarantees of $0.6 billion aggregate principal amount of debentures and first mortgage bonds of those entities have terminated pursuant to their terms.

In connection with the execution of agreements for the sale of businesses and investments, Verizon ordinarily provides representations and warranties to the purchasers pertaining to a variety of nonfinancial matters, such as ownership of the securities being sold, as well as financial losses. See Note 16 to the consolidated financial statements for additional information.

As of December 31, 2018, letters of credit totaling approximately $0.6 billion, which were executed in the normal course of business and support several financing arrangements and payment obligations to third parties, were outstanding. See Note 16 to the consolidated financial statements for additional information.

Market Risk

We are exposed to various types of market risk in the normal course of business, including the impact of interest rate changes, foreign currency exchange rate fluctuations, changes in investment, equity and commodity prices and changes in corporate tax rates. We employ risk management strategies, which may include the use of a variety of derivatives including cross currency swaps, forward starting interest rate swaps, interest rate swaps, interest rate caps and foreign exchange forwards. We do not hold derivatives for trading purposes.

It is our general policy to enter into interest rate, foreign currency and other derivative transactions only to the extent necessary to achieve our desired objectives in optimizing exposure to various market risks. Our objectives include maintaining a mix of fixed and variable rate debt to lower borrowing costs within reasonable risk parameters and to protect against earnings and cash flow volatility resulting from changes in market conditions. We do not hedge our market risk exposure in a manner that would completely eliminate the effect of changes in interest rates and foreign exchange rates on our earnings.

Counterparties to our derivative contracts are major financial institutions with whom we have negotiated derivatives agreements (ISDA master agreements) and credit support annex (CSA) agreements which provide rules for collateral exchange. Our CSA agreements entered into prior to the fourth quarter of 2017 generally require collateralized arrangements with our counterparties in connection with uncleared derivatives. During 2017, we paid an insignificant amount of cash to extend amendments to certain of our collateral exchange arrangements, which eliminated the requirement to post collateral for a specified period of time. Additionally, during the fourth quarter of 2017, we began negotiating and executing new ISDA master agreements and CSA agreements with our counterparties. The negotiations and executions of new agreements continued in 2018. The newly executed CSA agreements contain rating based thresholds such that we or our counterparties may be required to hold or post collateral based upon changes in outstanding positions as compared to established thresholds and changes in credit ratings. At December 31, 2018, we posted collateral of approximately $0.1 billion related to derivative contracts under collateral exchange arrangements, which were recorded as Prepaid expenses and other in our consolidated balance sheet. We did not post any collateral at December 31, 2017. While we may be exposed to credit losses due to the nonperformance of our counterparties, we consider the risk remote and do not expect that any such nonperformance would result in a significant effect on our results of operations or financial condition due to our diversified pool of counterparties. See Note 9 to the consolidated financial statements for additional information regarding the derivative portfolio.

Interest Rate Risk

We are exposed to changes in interest rates, primarily on our short-term debt and the portion of long-term debt that carries floating interest rates. As of December 31, 2018, approximately 78% of the aggregate principal amount of our total debt portfolio consisted of fixed rate indebtedness, including the effect of interest rate swap agreements designated as hedges. The impact of a 100-basis-point change in interest rates affecting our floating rate debt would result in a change in annual interest expense, including our interest rate swap agreements that are designated as hedges, of approximately $0.3 billion. The interest rates on our existing long-term debt obligations are unaffected by changes to our credit ratings.

The table that follows summarizes the fair values of our long-term debt, including current maturities, and interest rate swap derivatives as of December 31, 2018 and 2017. The table also provides a sensitivity analysis of the estimated fair values of these financial instruments assuming 100-basis-point upward and downward shifts in the yield curve. Our sensitivity analysis does not include the fair values of our commercial paper and bank loans, if any, because they are not significantly affected by changes in market interest rates.

(dollars in millions)

Long-term debt and related derivatives	Fair Value	Fair Value assuming + 100 basis point shift	Fair Value assuming - 100 basis point shift
At December 31, 2018	**$ 119,195**	**$ 111,250**	**$ 128,957**
At December 31, 2017	128,867	119,235	140,216

Interest Rate Swaps

We enter into interest rate swaps to achieve a targeted mix of fixed and variable rate debt. We principally receive fixed rates and pay variable rates based on the London Interbank Offered Rate, resulting in a net increase or decrease to Interest expense. These swaps are designated as fair value hedges and hedge against interest rate risk exposure of designated debt issuances. At December 31, 2018, the fair value of the asset and liability of these contracts was insignificant and $0.8 billion, respectively. At December 31, 2017, the fair value of the asset and liability of these contracts were $0.1 billion and $0.4 billion, respectively. At December 31, 2018 and 2017, the total notional amount of the interest rate swaps was $19.8 billion and $20.2 billion, respectively.

Forward Starting Interest Rate Swaps

We have entered into forward starting interest rate swaps designated as cash flow hedges in order to manage our exposure to interest rate changes on future forecasted transactions. At December 31, 2018, the fair value of the liability of these contracts was $0.1 billion. At December 31, 2018, the total notional amount of the forward starting interest rate swaps was $4.0 billion.

Interest Rate Caps

We also have interest rate caps which we use as an economic hedge but for which we have elected not to apply hedge accounting. We enter into interest rate caps to mitigate our interest exposure to interest rate increases on our ABS Financing Facility and Asset-Backed Notes. The fair value of the asset and liability of these contracts were insignificant at both December 31, 2018 and 2017. At December 31, 2018 and 2017, the total notional value of these contracts was $2.2 billion and $2.8 billion, respectively.

Foreign Currency Translation

The functional currency for our foreign operations is primarily the local currency. The translation of income statement and balance sheet amounts of our foreign operations into U.S. dollars is recorded as cumulative translation adjustments, which are included in Accumulated other comprehensive income in our consolidated balance sheets. Gains and losses on foreign currency transactions are recorded in the consolidated statements of income in Other income (expense), net. At December 31, 2018, our primary translation exposure was to the British Pound Sterling, Euro, Australian Dollar and Japanese Yen.

Cross Currency Swaps

We have entered into cross currency swaps designated as cash flow hedges to exchange our British Pound Sterling, Euro, Swiss Franc and Australian Dollar-denominated cash flows into U.S. dollars and to fix our cash payments in U.S. dollars, as well as to mitigate the impact of foreign currency transaction gains or losses. The fair value of the asset of these contracts was $0.2 billion and $0.5 billion at December 31, 2018 and 2017, respectively. At December 31, 2018 and 2017, the fair value of the liability of these contracts was $0.5 billion and insignificant respectively. At both December 31, 2018 and 2017, the total notional amount of the cross currency swaps was $16.6 billion.

Foreign Exchange Forwards

We also have foreign exchange forwards which we use as an economic hedge but for which we have elected not to apply hedge accounting. We enter into British Pound Sterling and Euro foreign exchange forwards to mitigate our foreign exchange rate risk related to non-functional currency denominated monetary assets and liabilities of international subsidiaries. At December 31, 2018, the total notional amount of the foreign exchange forwards was $0.6 billion.

Critical Accounting Estimates and Recently Issued Accounting Standards

Critical Accounting Estimates

A summary of the critical accounting estimates used in preparing our financial statements is as follows:

- Wireless licenses and Goodwill are a significant component of our consolidated assets. Both our wireless licenses and goodwill are treated as indefinite-lived intangible assets and, therefore are not amortized, but rather are tested for impairment annually in the fourth fiscal quarter, unless there are events requiring an earlier assessment or changes in circumstances during an interim period providing impairment indicators are present. We believe our estimates and assumptions are reasonable and represent appropriate marketplace considerations as of the valuation date. Although we use consistent methodologies in developing the assumptions and estimates underlying the fair value calculations used in our impairment tests, these estimates and assumptions are uncertain by nature, may change over time and can vary from actual results. It is possible that in the future there may be changes in our estimates and assumptions, including the timing and amount of future cash flows, margins, growth rates, market participant assumptions, comparable benchmark companies and related multiples and discount rates, which could result in different fair value estimates. Significant and adverse changes to any one or more of the above-noted estimates and assumptions could result in a goodwill impairment for one or more of our reporting units.

  Wireless Licenses

  The carrying value of our wireless licenses was approximately $94.1 billion as of December 31, 2018. We aggregate our wireless licenses into one single unit of accounting, as we utilize our wireless licenses on an integrated basis as part of our nationwide wireless network. Our wireless licenses provide us with the exclusive right to utilize certain radio frequency spectrum to provide wireless communication services. There are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful life of our wireless licenses.

  In 2018, our quantitative impairment test consisted of comparing the estimated fair value of our aggregate wireless licenses to the aggregated carrying amount as of the test date.

  In 2017 and 2016, we performed a qualitative impairment assessment to determine whether it is more likely than not that the fair value of our wireless licenses was less than the carrying amount. As part of our assessment we considered several qualitative factors including the business enterprise value of Wireless, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA margin projections), the projected financial performance of Wireless, as well as other factors.

  Our impairment tests in 2018, 2017 and 2016 indicated that the fair value of our wireless licenses significantly exceeded their carrying value and, therefore, did not result in an impairment.

  Under our quantitative assessment, we estimated the fair value of our wireless licenses using the Greenfield approach. The Greenfield approach is an income based valuation approach that values the wireless licenses by calculating the cash flow generating potential of a hypothetical start-up company that goes into business with no assets except the wireless licenses to be valued. A discounted cash flow analysis is used to estimate what a marketplace participant would be willing to pay to purchase the aggregated wireless licenses as of the valuation date. As a result, we were required to make significant estimates about future cash flows specifically associated with our wireless licenses, an appropriate discount rate based on the risk associated with those estimated cash flows and assumed terminal value and growth rates. We considered current and expected future economic conditions, current and expected availability of wireless network technology and infrastructure and related equipment and the costs thereof as well as other relevant factors in estimating future cash flows. The discount rate represented our estimate of the weighted-average cost of capital (WACC), or expected return, that a marketplace participant would have required as of the valuation date. We developed the discount rate based on our consideration of the cost of debt and equity of a group of guideline companies as of the valuation date. Accordingly, our discount rate incorporated our estimate of the expected return a marketplace participant would have required as of the valuation date, including the risk premium associated with the current and expected economic conditions as of the valuation date. The terminal value growth rate represented our estimate of the marketplace's long-term growth rate.

Goodwill

At December 31, 2018, the balance of our goodwill was approximately $24.6 billion, of which $18.4 billion was in our Wireless reporting unit, $3.9 billion was in our Wireline reporting unit, $0.2 billion was in our Media reporting unit and $2.1 billion was in our Connect reporting unit. To determine if goodwill is potentially impaired, we have the option to perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If we elect to bypass the qualitative assessment or if indications of a potential impairment exist, the determination of whether an impairment has occurred requires the determination of the fair value of each respective reporting unit.

We performed a quantitative impairment assessment for all of our reporting units in 2018 and for all of our reporting units, except for our Wireless reporting unit, in 2017 and 2016 for which a qualitative assessment was completed. For 2018, 2017 and 2016, our impairment tests indicated that the fair value for each of our Wireless, Wireline and Connect reporting units exceeded their respective carrying value and, therefore, did not result in an impairment. For details on our Media reporting unit, refer to the discussion below.

Under our quantitative assessment, the fair value of the reporting unit is calculated using a market approach and a discounted cash flow method. The market approach includes the use of comparative multiples to corroborate discounted cash flow results. The discounted cash flow method is based on the present value of two components-projected cash flows and a terminal value. The terminal value represents the expected normalized future cash flows of the reporting unit beyond the cash flows from the discrete projection period. The fair value of the reporting unit is calculated based on the sum of the present value of the cash flows from the discrete period and the present value of the terminal value. The discount rate represented our estimate of the WACC, or expected return, that a marketplace participant would have required as of the valuation date. The application of our goodwill impairment test required key assumptions underlying our valuation model. The discounted cash flow analysis factored in assumptions on discount rates and terminal growth rates to reflect risk profiles of key strategic revenue and cost initiatives, as well as revenue and EBITDA growth relative to history and market trends and expectations. The market multiples approach incorporated significant judgment involved in the selection comparable public company multiples and benchmarks. The selection of companies was influenced by differences in growth and profitability, and volatility in market prices of peer companies. Similar assumptions were made by management for all of our reporting units. These valuation inputs are inherently uncertain, and an adverse change in one or a combination of these inputs could trigger a goodwill impairment loss in the future.

The fair value of our Wireless and Connect reporting units significantly exceeded their respective carrying value for the impairment tests performed for 2018, 2017 and 2016.

Our Wireline reporting unit has experienced increasing market pressures that have resulted in lower than expected revenues and earnings and these pressures may persist over the near term. A projected sustained decline in a reporting unit's revenues and earnings could have a significant negative impact on its fair value and may result in impairment charges in the future. Such a decline could be driven by, among other things: (1) further anticipated decreases in service pricing, sales volumes and long-term growth rate as a result of competitive pressures or other factors; or (2) the inability to achieve or delays in achieving the goals in strategic initiatives. Also, adverse changes to macroeconomic factors, such as increases to long-term interest rates, would also negatively impact the fair value of the reporting unit.

At the goodwill impairment measurement date of October 31, 2018, 2017 and 2016, our Wireline reporting unit had fair value that exceeded its carrying amount by 5%, 14% and 20%, respectively. See Note 4 to the consolidated financial statements for additional information. As a result of our goodwill assessment, management believes there is an increasing risk that our Wireline reporting unit may be required to recognize an impairment charge in the future.

Our Media business, which operated under the "Oath" brand during 2018 and is now referred to as Verizon Media, experienced increased competitive and market pressures throughout 2018 that resulted in lower than expected revenues and earnings. These pressures are expected to continue and have resulted in a loss of market positioning to our competitors in the digital advertising business. Oath also achieved lower than expected benefits from the integration of the Yahoo Inc. and AOL Inc. (AOL) businesses.

As of August 2018, Hans Vestberg became Chief Executive Officer of Verizon, and as of October 2018, K. Guru Gowrappan was appointed Chief Executive Officer of our Media business. In connection with Verizon's annual budget process in the fourth quarter of 2018, the new leadership at both Oath and Verizon completed a comprehensive five-year strategic planning review of Oath's business prospects resulting in unfavorable adjustments to Oath's financial projections. These revised projections were used as a key input into Oath's annual goodwill impairment test performed in the fourth quarter.

Consistent with our accounting policy, we applied a combination of a market approach and a discounted cash flow method reflecting current assumptions and inputs, including our revised projections, discount rate and expected growth rates, which resulted determination that the fair value of the Media reporting unit was less than its carrying amount. As a result, we recorded a non-cash goodwill impairment charge of approximately $4.6 billion ($4.5 billion after-tax) in the fourth quarter of 2018 in our consolidated statement of income. The goodwill balance of the Media reporting unit was approximately $4.8 billion prior to the incurrence of this impairment charge. For 2017 and 2016, our impairment test indicated that the fair value of our Media reporting unit exceeded its carrying value and, therefore, did not result in an impairment.

Pension and Other Postretirement Benefit Plans

- We maintain benefit plans for most of our employees, including, for certain employees, pension and other postretirement benefit plans. At December 31, 2018, in the aggregate, pension plan benefit obligations exceeded the fair value of pension plan assets, which will result in future pension plan expense. Other postretirement benefit plans have larger benefit obligations than plan assets, resulting in expense. Significant benefit plan assumptions, including the discount rate used, the long-term rate of return on plan assets, the determination of the substantive plan and health care trend rates are periodically updated and impact the amount of benefit plan income, expense, assets and obligations. Changes to one or more of these assumptions could significantly impact our accounting for pension and other postretirement benefits. A sensitivity analysis of the impact of changes in these assumptions on the benefit obligations and expense (income) recorded, as well as on the funded status due to an increase or a decrease in the actual versus expected return on plan assets as of December 31, 2018 and for the year then ended pertaining to Verizon's pension and postretirement benefit plans, is provided in the table below.

(dollars in millions)	Percentage point change	Increase/(decrease) at December 31, 2018*
Pension plans discount rate	+0.50	$ (926)
	-0.50	1,025
Rate of return on pension plan assets	+1.00	(185)
	-1.00	185
Postretirement plans discount rate	+0.50	(798)
	-0.50	893
Rate of return on postretirement plan assets	+1.00	(9)
	-1.00	9
Health care trend rates	+1.00	462
	-1.00	(485)

* In determining its pension and other postretirement obligation, the Company used a weighted-average discount rate of 4.4%. The rate was selected to approximate the composite interest rates available on a selection of high-quality bonds available in the market at December 31, 2018. The bonds selected had maturities that coincided with the time periods during which benefits payments are expected to occur, were non-callable and available in sufficient quantities to ensure marketability (at least $0.3 billion par outstanding).

The annual measurement date for both our pension and other postretirement benefits is December 31. Effective January 1, 2016, we adopted the full yield curve approach to estimate the interest cost component of net periodic benefit cost for pension and other postretirement benefits. We accounted for this change as a change in accounting estimate and, accordingly, accounted for it prospectively beginning in the first quarter of 2016. Prior to this change, we estimated the interest cost component utilizing a single weighted-average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the period.

The full yield curve approach refines our estimate of interest cost by applying the individual spot rates from a yield curve composed of the rates of return on several hundred high-quality fixed income corporate bonds available at the measurement date. These individual spot rates align with the timing of each future cash outflow for benefit payments and therefore provide a more precise estimate of interest cost.

Income Taxes

- Our current and deferred income taxes and associated valuation allowances are impacted by events and transactions arising in the normal course of business as well as in connection with the adoption of new accounting standards, changes in tax laws and rates, acquisitions and dispositions of businesses and non-recurring items. As a global commercial enterprise, our income tax rate and the classification of income taxes can be affected by many factors, including estimates of the timing and realization of deferred income tax assets and the timing and amount of income tax payments. We account for tax benefits taken or expected to be taken in our tax returns in accordance with the accounting standard relating to the uncertainty in income taxes, which requires the use of a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in a tax return. We review and adjust our liability for unrecognized tax benefits based on our best judgment given the facts, circumstances and information available at each reporting date. To the extent that the final outcome of these tax positions is different than the amounts recorded, such differences may impact income tax expense and actual tax payments. We recognize any interest and penalties accrued related to unrecognized tax benefits in income tax expense. Actual tax payments may materially differ from estimated liabilities as a result of changes in tax laws as well as unanticipated transactions impacting related income tax balances. See Note 12 to the consolidated financial statements for additional information.

Property, Plant and Equipment

- Our Property, plant and equipment balance represents a significant component of our consolidated assets. We record Property, plant and equipment at cost. We depreciate Property, plant and equipment on a straight-line basis over the estimated useful life of the assets. We expect that a one-year increase in estimated useful lives of our Property, plant and equipment would result in a decrease to our 2018 depreciation expense of $2.9 billion and that a one-year decrease would result in an increase of approximately $4.9 billion in our 2018 depreciation expense.

Accounts Receivable

- We maintain allowances for uncollectible accounts receivable, including our direct-channel device payment plan agreement receivables, for estimated losses resulting from the failure or inability of our customers to make required payments. Indirect-channel device payment loans are considered financial instruments and are initially recorded at fair value net of imputed interest, and credit losses are recorded as incurred. However, loan balances are assessed quarterly for impairment and an allowance is recorded if the loan is considered impaired. Our allowance for uncollectible accounts receivable is based on management's assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those customers. We record an allowance to reduce the receivables to the amount that is reasonably believed to be collectible. We also record an allowance for all other receivables based on multiple factors including historical experience with bad debts, the general economic environment and the aging of such receivables. Similar to traditional service revenue, we record direct device payment plan agreement bad debt expense based on an estimate of the percentage of equipment revenue that will not be collected. This estimate is based on a number of factors including historical write-off experience, credit quality of the customer base and other factors such as macroeconomic conditions. If there is a deterioration of our customers' financial condition or if future actual default rates on receivables in general differ from those currently anticipated, we may have to adjust our allowance for doubtful accounts, which would affect earnings in the period the adjustments are made.

Recently Issued Accounting Standards

See Note 1 to the consolidated financial statements for a discussion of recently issued accounting standard updates not yet adopted as of December 31, 2018.

Acquisitions and Divestitures

Wireless

Spectrum License Transactions

From time to time, we enter into agreements to buy, sell or exchange spectrum licenses. We believe these spectrum license transactions have allowed us to continue to enhance the reliability of our network while also resulting in a more efficient use of spectrum. See Note 3 to the consolidated financial statements for additional information regarding our spectrum license transactions.

Straight Path

In May 2017, we entered into a purchase agreement to acquire Straight Path, a holder of millimeter wave spectrum configured for 5G wireless services, for total consideration reflecting an enterprise value of approximately $3.1 billion. Under the terms of the purchase agreement, we agreed to pay: (1) Straight Path shareholders $184.00 per share, payable in Verizon shares; and (2) certain transaction costs payable in cash of approximately $0.7 billion, consisting primarily of a fee to be paid to the FCC. The transaction closed in February 2018 at which time we issued approximately 49 million shares of Verizon common stock, valued at approximately $2.4 billion, and paid the associated cash consideration. See Note 3 to the consolidated financial statements for additional information.

Wireline

Access Line Sale

In February 2015, we entered into a definitive agreement with Frontier pursuant to which Verizon sold its local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states, for approximately $10.5 billion (approximately $7.3 billion net of income taxes), subject to certain adjustments and including the assumption of $0.6 billion of indebtedness from Verizon by Frontier. The transaction, which included the acquisition by Frontier of the equity interests of Verizon's incumbent local exchange carriers in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless. The transaction closed on April 1, 2016. See Note 3 to the consolidated financial statements for additional information.

XO Holdings

In February 2016, we entered into a purchase agreement to acquire XO, which owned and operated one of the largest fiber-based IP and Ethernet networks in the U.S. Concurrently, we entered into a separate agreement to utilize certain wireless spectrum from a wholly-owned subsidiary of XO Holdings, NextLink, that held its wireless spectrum. The agreement included an option, subject to certain conditions, to buy NextLink. In February 2017, we completed our acquisition of XO for total cash consideration of approximately $1.5 billion, of which $0.1 billion was paid in 2015, and we prepaid $0.3 billion in connection with the NextLink option which represented the fair value of the option.

In April 2017, we exercised our option to buy NextLink for approximately $0.5 billion, subject to certain adjustments, of which $0.3 billion was prepaid in the first quarter of 2017. The transaction closed in January 2018. The acquisition of NextLink was accounted for as an asset acquisition, as substantially all of the value related to the acquired spectrum. Upon closing, we recorded approximately $0.7 billion of wireless licenses, $0.1 billion of a deferred tax liability and $0.1 billion of other liabilities. The spectrum acquired as part of the transaction will be used for our 5G technology deployment. See Note 3 to the consolidated financial statements for additional information.

Data Center Sale

In December 2016, we entered into a definitive agreement, which was subsequently amended in March 2017, with Equinix Inc. pursuant to which we agreed to sell 23 customer-facing data center sites in the U.S. and Latin America for approximately $3.6 billion, subject to certain adjustments. The transaction closed in May 2017.

WideOpenWest, Inc.

In August 2017, we entered into a definitive agreement to purchase certain fiber-optic network assets in the Chicago market from WOW!, a leading provider of communications services. The transaction closed in December 2017. In addition, the parties entered into a separate agreement pursuant to which WOW! will complete the build-out of the network assets in 2019. The total cash consideration for the transactions is approximately $0.3 billion, of which $0.2 billion was received in December 2017.

Other

Acquisition of AOL Inc.

In May 2015, we entered into an Agreement and Plan of Merger with AOL Inc. pursuant to which we commenced a tender offer to acquire all of the outstanding shares of common stock of AOL at a price of $50.00 per share, net to the seller in cash, without interest and less any applicable withholding taxes.

On June 23, 2015, we completed the tender offer and merger, and AOL became a wholly-owned subsidiary of Verizon. The aggregate cash consideration paid by Verizon at the closing of these transactions was approximately $3.8 billion. Holders of approximately 6.6 million shares exercised appraisal rights under Delaware law. In September 2018, we obtained court approval to settle this matter for total cash consideration of $0.2 billion, of which an insignificant amount relates to interest, resulting in an insignificant gain. We paid the cash consideration in October 2018.

Acquisition of Yahoo! Inc.’s Operating Business

In July 2016, Verizon entered into a stock purchase agreement (the Purchase Agreement) with Yahoo. Pursuant to the Purchase Agreement, upon the terms and subject to the conditions thereof, we agreed to acquire the stock of one or more subsidiaries of Yahoo holding all of Yahoo’s operating business for approximately $4.83 billion in cash, subject to certain adjustments (the Transaction).

In February 2017, Verizon and Yahoo entered into an amendment to the Purchase Agreement, pursuant to which the Transaction purchase price was reduced by $350 million to approximately $4.48 billion in cash, subject to certain adjustments. Subject to certain exceptions, the parties also agreed that certain user security and data breaches incurred by Yahoo (and the losses arising therefrom) were to be disregarded: (1) for purposes of specified conditions to Verizon’s obligations to close the Transaction; and (2) in determining whether a "Business Material Adverse Effect" under the Purchase Agreement had occurred.

In June 2017, we completed the Transaction. The aggregate purchase consideration at the closing of the Transaction was approximately $4.7 billion, including cash acquired of $0.2 billion.

Concurrently with the amendment of the Purchase Agreement, Yahoo and Yahoo Holdings, Inc., a wholly-owned subsidiary of Yahoo that Verizon agreed to purchase pursuant to the Transaction, also entered into an amendment to the related reorganization agreement, pursuant to which Yahoo (which has changed its name to Altaba Inc. following the closing of the Transaction) retains 50% of certain post-closing liabilities arising out of governmental or third-party investigations, litigations or other claims related to certain user security and data breaches incurred by Yahoo prior to its acquisition by Verizon, including an August 2013 data breach disclosed by Yahoo on December 14, 2016. At that time, Yahoo disclosed that more than one billion of the approximately three billion accounts existing in 2013 had likely been affected. In accordance with the original Transaction agreements, Yahoo will continue to retain 100% of any liabilities arising out of any shareholder lawsuits (including derivative claims) and investigations and actions by the SEC.

Prior to the closing of the Transaction, pursuant to a related reorganization agreement, Yahoo transferred all of the assets and liabilities constituting Yahoo’s operating business to the subsidiaries that we acquired in the Transaction. The assets that we acquired did not include Yahoo’s ownership interests in Alibaba, Yahoo! Japan and certain other investments, certain undeveloped land recently divested by Yahoo, certain non-core intellectual property or its cash, other than the cash from its operating business we acquired. We received for our benefit and that of our current and certain future affiliates a non-exclusive, worldwide, perpetual, royalty-free license to all of Yahoo’s intellectual property that was not conveyed with the business.

In October 2017, based upon information that we received in connection with our integration of Yahoo's operating business, we disclosed that we believe that the August 2013 data breach previously disclosed by Yahoo affected all of its accounts.

Fleetmatics Group PLC

In July 2016, we entered into an agreement to acquire Fleetmatics. Fleetmatics was a leading global provider of fleet and mobile workforce management solutions. Pursuant to the terms of the agreement, we acquired Fleetmatics for $60.00 per ordinary share in cash. The aggregate merger consideration was approximately $2.5 billion, including cash acquired of $0.1 billion. We completed the acquisition on November 7, 2016.

Other

In July 2016, we acquired Telogis, a global cloud-based mobile enterprise management software business, for $0.9 billion of cash consideration.

From time to time, we enter into strategic agreements to acquire various other businesses and investments. See Note 3 to the consolidated financial statements for additional information.

Cautionary Statement Concerning Forward-Looking Statements

In this report we have made forward-looking statements. These statements are based on our estimates and assumptions and are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed future results of operations. Forward-looking statements also include those preceded or followed by the words "anticipates," "believes," "estimates," "expects," "hopes" or similar expressions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

The following important factors, along with those discussed elsewhere in this report and in other filings with the SEC, could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements:

- adverse conditions in the U.S. and international economies;
- the effects of competition in the markets in which we operate;
- material changes in technology or technology substitution;
- disruption of our key suppliers’ provisioning of products or services;
- changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks;
- breaches of network or information technology security, natural disasters, terrorist attacks or acts of war or significant litigation and any resulting financial impact not covered by insurance;
- our high level of indebtedness;
- an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations or adverse conditions in the credit markets affecting the cost, including interest rates, and/or availability of further financing;
- material adverse changes in labor matters, including labor negotiations, and any resulting financial and/or operational impact;
- significant increases in benefit plan costs or lower investment returns on plan assets;
- changes in tax laws or treaties, or in their interpretation;
- changes in accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings;
- the inability to implement our business strategies; and
- the inability to realize the expected benefits of strategic transactions.

Report of Management on Internal Control Over Financial Reporting

We, the management of Verizon Communications Inc., are responsible for establishing and maintaining adequate internal control over financial reporting of the company. Management has evaluated internal control over financial reporting of the company using the criteria for effective internal control established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

Management has assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2018. Based on this assessment, we believe that the internal control over financial reporting of the company is effective as of December 31, 2018. In connection with this assessment, there were no material weaknesses in the company's internal control over financial reporting identified by management.

The company's financial statements included in this Annual Report have been audited by Ernst & Young LLP, independent registered public accounting firm. Ernst & Young LLP has also provided an attestation report on the company's internal control over financial reporting.

/s/ **Hans E. Vestberg**

Hans E. Vestberg
Chief Executive Officer

/s/ **Matthew D. Ellis**

Matthew D. Ellis
Executive Vice President and Chief Financial Officer

/s/ **Anthony T. Skiadas**

Anthony T. Skiadas
Senior Vice President and Controller

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Verizon Communications Inc.:

Opinion on Internal Control over Financial Reporting

We have audited Verizon Communications Inc. and subsidiaries' (Verizon) internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Verizon maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Verizon as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the three years in the period ended December 31, 2018, and the related notes and our report dated February 15, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

Verizon's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Report of Management on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on Verizon's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to Verizon 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

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

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 generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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/ **Ernst & Young LLP**

Ernst & Young LLP
New York, New York

February 15, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Verizon Communications Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Verizon Communications Inc. and subsidiaries (Verizon) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Verizon at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), Verizon's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control–Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 15, 2019 expressed an unqualified opinion thereon.

Adoption of New Accounting Standards

ASU No. 2016-15
As discussed in Note 1 to the consolidated financial statements, on January 1, 2018 Verizon retrospectively changed its method of presenting certain cash receipts and cash payments in the accompanying consolidated statements of cash flows as a result of the adoption of FASB Accounting Standards Update (ASU) No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments.

ASU No. 2016-18
As discussed in Note 1 to the consolidated financial statements, on January 1, 2018 Verizon retrospectively changed its method of presenting changes in restricted cash in the accompanying consolidated statements of cash flows as a result of the adoption of ASU No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash.

ASU No. 2017-07
As discussed in Note 1 to the consolidated financial statements, on January 1, 2018 Verizon retrospectively changed its method of presenting the service cost component of net benefit cost in the accompanying consolidated statements of income as a result of the adoption of ASU No. 2017-07, Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.

ASU No. 2014-09
As discussed in Note 1 to the consolidated financial statements, effective January 1, 2018 Verizon changed its method for recognizing revenue as a result of the adoption of ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), and the amendments in ASUs 2015-14, 2016-08, 2016-10 and 2016-12 using the modified retrospective method.

Basis for Opinion

These financial statements are the responsibility of Verizon's management. Our responsibility is to express an opinion on Verizon's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to Verizon 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ **Ernst & Young LLP**

Ernst & Young LLP

We have served as Verizon's auditor since 2000.

New York, New York

February 15, 2019

Consolidated Statements of Income Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts)

Years Ended December 31,		2018		2017		2016
Operating Revenues						
Service revenues and other	**$**	**108,605**	$	107,145	$	108,468
Wireless equipment revenues		**22,258**		18,889		17,512
Total Operating Revenues		**130,863**		126,034		125,980
Operating Expenses						
Cost of services (exclusive of items shown below)		**32,185**		30,916		30,463
Wireless cost of equipment		**23,323**		22,147		22,238
Selling, general and administrative expense (including net gain on sale of divested businesses of $0, $1,774 and $1,007, respectively)		**31,083**		28,592		28,102
Depreciation and amortization expense		**17,403**		16,954		15,928
Oath goodwill impairment		**4,591**		—		—
Total Operating Expenses		**108,585**		98,609		96,731
Operating Income		**22,278**		27,425		29,249
Equity in losses of unconsolidated businesses		**(186)**		(77)		(98)
Other income (expense), net		**2,364**		(2,021)		(3,789)
Interest expense		**(4,833)**		(4,733)		(4,376)
Income Before (Provision) Benefit For Income Taxes		**19,623**		20,594		20,986
(Provision) benefit for income taxes		**(3,584)**		9,956		(7,378)
Net Income	**$**	**16,039**	$	30,550	$	13,608
Net income attributable to noncontrolling interests	**$**	**511**	$	449	$	481
Net income attributable to Verizon		**15,528**		30,101		13,127
Net Income	**$**	**16,039**	$	30,550	$	13,608
Basic Earnings Per Common Share						
Net income attributable to Verizon	**$**	**3.76**	$	7.37	$	3.22
Weighted-average shares outstanding (in millions)		**4,128**		4,084		4,080
Diluted Earnings Per Common Share						
Net income attributable to Verizon	**$**	**3.76**	$	7.36	$	3.21
Weighted-average shares outstanding (in millions)		**4,132**		4,089		4,086

See Notes to Consolidated Financial Statements

Consolidated Statements of Comprehensive Income Verizon Communications Inc. and Subsidiaries

(dollars in millions)

Years Ended December 31,		**2018**		2017		2016
Net Income	**$**	**16,039**	$	30,550	$	13,608
Other Comprehensive Income (Loss), Net of Tax (Expense) Benefit						
Foreign currency translation adjustments		**(117)**		245		(159)
Unrealized gain (loss) on cash flow hedges, net of tax of $(19), $20 and $(168)		**55**		(31)		198
Unrealized gain (loss) on marketable securities, net of tax of $0, $10 and $26		**1**		(14)		(55)
Defined benefit pension and postretirement plans, net of tax of $284, $144 and $(1,339)		**(858)**		(214)		2,139
Other comprehensive income (loss) attributable to Verizon		**(919)**		(14)		2,123
Total Comprehensive Income	**$**	**15,120**	$	30,536	$	15,731
Comprehensive income attributable to noncontrolling interests	**$**	**511**	$	449	$	481
Comprehensive income attributable to Verizon		**14,609**		30,087		15,250
Total Comprehensive Income	**$**	**15,120**	$	30,536	$	15,731

See Notes to Consolidated Financial Statements

Consolidated Balance Sheets Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts)

At December 31,	2018	2017
Assets		
Current assets		
Cash and cash equivalents	$ **2,745**	$ 2,079
Accounts receivable, net of allowances of $765 and $939	**25,102**	23,493
Inventories	**1,336**	1,034
Prepaid expenses and other	**5,453**	3,307
Total current assets	**34,636**	29,913
Property, plant and equipment	**252,835**	246,498
Less accumulated depreciation	**163,549**	157,930
Property, plant and equipment, net	**89,286**	88,568
Investments in unconsolidated businesses	**671**	1,039
Wireless licenses	**94,130**	88,417
Goodwill	**24,614**	29,172
Other intangible assets, net	**9,775**	10,247
Other assets	**11,717**	9,787
Total assets	$ **264,829**	$ 257,143
Liabilities and Equity		
Current liabilities		
Debt maturing within one year	$ **7,190**	$ 3,453
Accounts payable and accrued liabilities	**22,501**	21,232
Other current liabilities	**8,239**	8,352
Total current liabilities	**37,930**	33,037
Long-term debt	**105,873**	113,642
Employee benefit obligations	**18,599**	22,112
Deferred income taxes	**33,795**	31,232
Other liabilities	**13,922**	12,433
Total long-term liabilities	**172,189**	179,419
Commitments and Contingencies (Note 16)		
Equity		
Series preferred stock ($0.10 par value; 250,000,000 shares authorized; none issued)	**—**	—
Common stock ($0.10 par value; 6,250,000,000 shares authorized in each period; 4,291,433,646 and 4,242,374,240 shares issued)	**429**	424
Additional paid in capital	**13,437**	11,101
Retained earnings	**43,542**	35,635
Accumulated other comprehensive income	**2,370**	2,659
Common stock in treasury, at cost (159,400,267 and 162,897,868 shares outstanding)	**(6,986)**	(7,139)
Deferred compensation – employee stock ownership plans and other	**353**	416
Noncontrolling interests	**1,565**	1,591
Total equity	**54,710**	44,687
Total liabilities and equity	$ **264,829**	$ 257,143

See Notes to Consolidated Financial Statements

Consolidated Statements of Cash Flows Verizon Communications Inc. and Subsidiaries

(dollars in millions)

Years Ended December 31,	2018	2017	2016
Cash Flows from Operating Activities			
Net Income	**$ 16,039**	$ 30,550	$ 13,608
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	**17,403**	16,954	15,928
Employee retirement benefits	**(2,657)**	440	2,705
Deferred income taxes	**389**	(14,463)	(1,063)
Provision for uncollectible accounts	**980**	1,167	1,420
Equity in losses of unconsolidated businesses, net of dividends received	**231**	117	138
Net gain on sale of divested businesses	—	(1,774)	(1,007)
Oath goodwill impairment	**4,591**	—	—
Changes in current assets and liabilities, net of effects from acquisition/disposition of businesses:			
Accounts receivable	**(2,667)**	(5,674)	(5,067)
Inventories	**(324)**	168	61
Prepaid expenses and other	**37**	27	(660)
Accounts payable and accrued liabilities and Other current liabilities	**1,777**	(459)	(1,089)
Discretionary employee benefits contributions	**(1,679)**	(3,411)	(186)
Other, net	**219**	676	(3,099)
Net cash provided by operating activities	**34,339**	24,318	21,689
Cash Flows from Investing Activities			
Capital expenditures (including capitalized software)	**(16,658)**	(17,247)	(17,059)
Acquisitions of businesses, net of cash acquired	**(230)**	(5,880)	(3,765)
Acquisitions of wireless licenses	**(1,429)**	(583)	(534)
Proceeds from dispositions of businesses	**—**	3,614	9,882
Other, net	**383**	1,640	1,602
Net cash used in investing activities	**(17,934)**	(18,456)	(9,874)
Cash Flows from Financing Activities			
Proceeds from long-term borrowings	**5,967**	27,707	12,964
Proceeds from asset-backed long-term borrowings	**4,810**	4,290	4,986
Repayments of long-term borrowings and capital lease obligations	**(10,923)**	(23,837)	(19,159)
Repayments of asset-backed long-term borrowings	**(3,635)**	(400)	—
Dividends paid	**(9,772)**	(9,472)	(9,262)
Other, net	**(1,824)**	(4,439)	(2,905)
Net cash used in financing activities	**(15,377)**	(6,151)	(13,376)
Increase (decrease) in cash, cash equivalents and restricted cash	**1,028**	(289)	(1,561)
Cash, cash equivalents and restricted cash, beginning of period	**2,888**	3,177	4,738
Cash, cash equivalents and restricted cash, end of period (Note 1)	**$ 3,916**	$ 2,888	$ 3,177

See Notes to Consolidated Financial Statements

Consolidated Statements of Changes in Equity Verizon Communications Inc. and Subsidiaries

(dollars in millions, except per share amounts, and shares in thousands)

Years Ended December 31,	2018 Shares	2018 Amount	2017 Shares	2017 Amount	2016 Shares	2016 Amount
Common Stock						
Balance at beginning of year	**4,242,374**	**$ 424**	4,242,374	$ 424	4,242,374	$ 424
Common shares issued	**49,059**	**5**	—	—	—	—
Balance at end of year	**4,291,433**	**429**	4,242,374	424	4,242,374	424
Additional Paid In Capital						
Balance at beginning of year		**11,101**		11,182		11,196
Other		**2,336**		(81)		(14)
Balance at end of year		**13,437**		11,101		11,182
Retained Earnings						
Balance at beginning of year		**35,635**		15,059		11,246
Opening balance sheet adjustment (Note 1)		**2,232**		—		—
Adjusted opening balance		**37,867**		15,059		11,246
Net income attributable to Verizon		**15,528**		30,101		13,127
Dividends declared ($2.385, $2.335, $2.285 per share)		**(9,853)**		(9,525)		(9,314)
Balance at end of year		**43,542**		35,635		15,059
Accumulated Other Comprehensive Income						
Balance at beginning of year attributable to Verizon		**2,659**		2,673		550
Opening balance sheet adjustment (Note 1)		**630**		—		—
Adjusted opening balance		**3,289**		2,673		550
Foreign currency translation adjustments		**(117)**		245		(159)
Unrealized gain (loss) on cash flow hedges		**55**		(31)		198
Unrealized gain (loss) on marketable securities		**1**		(14)		(55)
Defined benefit pension and postretirement plans		**(858)**		(214)		2,139
Other comprehensive income (loss)		**(919)**		(14)		2,123
Balance at end of year attributable to Verizon		**2,370**		2,659		2,673
Treasury Stock						
Balance at beginning of year	**(162,898)**	**(7,139)**	(165,690)	(7,263)	(169,199)	(7,416)
Employee plans (Note 15)	**3,494**	**153**	2,787	124	3,439	150
Shareholder plans (Note 15)	**4**	**—**	5	—	70	3
Balance at end of year	**(159,400)**	**(6,986)**	(162,898)	(7,139)	(165,690)	(7,263)
Deferred Compensation-ESOPs and Other						
Balance at beginning of year		**416**		449		428
Restricted stock equity grant		**162**		157		223
Amortization		**(225)**		(190)		(202)
Balance at end of year		**353**		416		449
Noncontrolling Interests						
Balance at beginning of year		**1,591**		1,508		1,414
Opening balance sheet adjustment (Note 1)		**44**		—		—
Adjusted opening balance		**1,635**		1,508		1,414
Net income attributable to noncontrolling interests		**511**		449		481
Total comprehensive income		**511**		449		481
Distributions and other		**(581)**		(366)		(387)
Balance at end of year		**1,565**		1,591		1,508
Total Equity		**$ 54,710**		$ 44,687		$ 24,032

See Notes to Consolidated Financial Statements

Note 1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Verizon Communications Inc. (Verizon or the Company) is a holding company that, acting through its subsidiaries, is one of the world's leading providers of communications, information and entertainment products and services to consumers, businesses and governmental agencies. With a presence around the world, we offer voice, data and video services and solutions on our networks that are designed to meet customers' demand for mobility, network connectivity, security and control. We have two reportable segments, Wireless and Wireline. See Note 13 for additional information regarding our business segments.

The Wireless segment provides wireless communications products and services, including wireless voice and data services and equipment sales, across the United States (U.S.). We provide these services and equipment sales to consumer, business and government customers across the U.S. on a postpaid and prepaid basis.

The Wireline segment provides communications products and enhanced services, including video and data services, corporate networking solutions, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the U.S., as well as to carriers, businesses and government customers both in the U.S. and around the world.

In November 2018, we announced a strategic reorganization of our business. We are modifying our internal and external reporting processes, systems and internal controls to accommodate the new structure and expect to transition to the new segment reporting structure during the second quarter of 2019. We continue to report operating results to our chief operating decision maker under our current operating segments.

Consolidation

The method of accounting applied to investments, whether consolidated, or equity, involves an evaluation of all significant terms of the investments that explicitly grant or suggest evidence of control or influence over the operations of the investee. The consolidated financial statements include our controlled subsidiaries, as well as variable interest entities (VIE) where we are deemed to be the primary beneficiary. For controlled subsidiaries that are not wholly-owned, the noncontrolling interests are included in Net income and Total equity. Investments in businesses that we do not control, but have the ability to exercise significant influence over operating and financial policies, are accounted for using the equity method. Equity method investments are included in Investments in unconsolidated businesses in our consolidated balance sheets. All significant intercompany accounts and transactions have been eliminated.

Basis of Presentation

We have reclassified certain prior year amounts to conform to the current year presentation.

Use of Estimates

We prepare our financial statements using U.S. generally accepted accounting principles (GAAP), which requires management to make estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates.

Examples of significant estimates include the allowance for doubtful accounts, the recoverability of property, plant and equipment, the recoverability of intangible assets and other long-lived assets, fair value measurements, including those related to financial instruments, goodwill, spectrum licenses and intangible assets, unrecognized tax benefits, valuation allowances on tax assets, pension and postretirement benefit obligations, contingencies and the identification and valuation of assets acquired and liabilities assumed in connection with business combinations.

Revenue Recognition

We earn revenue from contracts with customers, primarily through the provision of telecommunications and other services and through the sale of wireless equipment. We account for these revenues under Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers" (Topic 606), which we adopted on January 1, 2018, using the modified retrospective approach. This standard update, along with related subsequently issued updates, clarifies the principles for recognizing revenue and develops a common revenue standard U.S. GAAP. The standard update also amends current guidance for the recognition of costs to obtain and fulfill contracts with customers such that incremental costs of obtaining and direct costs of fulfilling contracts with customers will be deferred and amortized consistent with the transfer of the related good or service.

We also earn revenues that are not accounted for under Topic 606 from leasing arrangements (such as those for towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and the interest on equipment financed under a device payment plan agreement when sold to the customer by an authorized agent.

Wireless

Our Wireless segment earns revenue primarily by providing access to and usage of our telecommunications network and selling equipment. Performance obligations in a typical contract, as determined in accordance with Topic 606, with a customer include service and equipment.

Service

We offer our wireless services through a variety of plans on a postpaid or prepaid basis. For wireless service, we recognize revenue using an output method, either as the service allowance units are used or as time elapses, because it reflects the pattern by which we satisfy our performance obligation through the transfer of service to the customer. Monthly service is generally billed in advance, which results in a contract liability. See Note 2 for additional information. For postpaid plans where monthly usage exceeds the allowance, the overage usage represents options held by the customer for incremental services and the usage-based fee is recognized when the customer exercises the option (typically on a month-to-month basis).

Wireless Equipment

We sell wireless devices and accessories. Equipment revenue is generally recognized when the products are delivered to and accepted by the customer, as this is when control passes to the customer. In addition to offering the sale of equipment on a standalone basis, we have two primary offerings through which customers pay for a wireless device, in connection with a service contract: fixed-term plans and device payment plans.

Under a fixed-term plan, the customer is sold the wireless device without any upfront charge or at a discounted price in exchange for entering into a fixed-term service contract (typically for a term of 24 months or less).

Under a device payment plan, the customer is sold the wireless device in exchange for a non-interest bearing installment note, which is repaid by the customer, typically over a 24-month term, and concurrently enters into a month-to-month contract for wireless service. We may offer certain promotions that provide billing credits applied over a specified term, contingent upon the customer maintaining service. The credits are included in the transaction price, which are allocated to the performance obligations based on their relative selling price, and are recognized when earned.

A financing component exists in both our fixed-term plans and device payment plans because the timing of the payment for the device, which occurs over the contract term, differs from the satisfaction of the performance obligation, which occurs at contract inception upon transfer of device to the customer. We periodically assess, at the contract level, the significance of the financing component inherent in our fixed-term and device payment plan receivable based on qualitative and quantitative considerations related to our customer classes. These considerations include assessing the commercial objective of our plans, the term and duration of financing provided, interest rates prevailing in the marketplace, and credit risks of our customer classes, all of which impact our selection of appropriate discount rates. Based on current facts and circumstances, we determined that the financing component in our existing Wireless direct channel device payments and fixed-term contracts with customers is not significant and therefore is not accounted for separately. See Note 8 for additional information on the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent in our indirect channel.

Wireless Contracts

Total contract revenue, which represents the transaction price for wireless service and wireless equipment, is allocated between service and equipment revenue based on their estimated standalone selling prices. We estimate the standalone selling price of the device or accessory to be its retail price excluding subsidies or conditional purchase discounts. We estimate the standalone selling price of wireless service to be the price that we offer to customers on month-to-month contracts that can be cancelled at any time without penalty (i.e., when there is no fixed-term for service) or when service is procured without the concurrent purchase of a wireless device. In addition, we also assess whether the service term is impacted by certain legally enforceable rights and obligations in our contract with customers, such as penalties that a customer would have to pay to early terminate a fixed-term contract or billing credits that would cease if the month-to-month wireless service is canceled. The assessment of these legally enforceable rights and obligations involves judgment and impacts our determination of the transaction price and related disclosures.

From time to time, we may offer certain promotions that provide our customers on device payment plans with the right to upgrade to a new device after paying a specified portion of their device payment plan agreement amount and trading in their device in good working order. We account for this trade-in right as a guarantee obligation. The full amount of the trade-in right's fair value is recognized as a guarantee liability and results in a reduction to the revenue recognized upon the sale of the device. The guarantee obligation was insignificant at December 31, 2018 and 2017. The total transaction price is reduced by the guarantee obligation, which is accounted for outside the scope of Topic 606, and the remaining transaction price is allocated between the performance obligations within the contract.

Our fixed-term plans generally include the sale of a wireless device at subsidized prices. This results in the creation of a contract asset at the time of sale, which represents the recognition of equipment revenue in excess of amounts billed.

For our device payment plans, billing credits are accounted for as consideration payable to a customer and are included in the determination of total transaction price, resulting in a contract liability.

We may provide a right of return on our products and services for a short time period after a sale. These rights are accounted for as variable consideration when determining the transaction price, and accordingly we recognize revenue based on the estimated amount to which we expect to be entitled after considering expected returns. Returns and credits are estimated at contract inception and updated at the end of each reporting period as additional information becomes available. We also may provide credits or incentives on our products and services for contracts with resellers, which are accounted for as variable consideration when estimating the amount of revenue to recognize. These amounts have not been significant.

For certain bundled offerings/transactions involving third-party service providers, we evaluate gross versus net considerations by assessing indicators of control. These offerings have not been significant.

Wireline

Our Wireline segment earns revenue primarily by providing our customers with services involving access to our telecommunications network and facilities. These services include a variety of communication and connectivity services for our consumer and business customers and other carriers that use our facilities to provide services to their customers, as well as professional and integrated managed services for our large enterprises and government customers. We offer these services to customers that we categorize in the following customer groups: Consumer Markets, Enterprise Solutions, Partner Solutions and Business Markets.

Service

For Wireline service, in general, fixed monthly fees for service are billed one month in advance and service revenue is recognized over the enforceable contract term as the service is rendered, as the customer simultaneously receives and consumes the benefits of the services through network access and usage. While substantially all of our Wireline service revenues are the result of providing access to our network, revenue from services that are not fixed in amount and, instead, are based on usage are generally billed in arrears and recognized as the usage occurs.

For communication and connectivity services provided to our residential customers, which are sold to these customers on a standalone basis or as part of a bundle, we recognize service revenue over time since control over these services passes to the customer as the service is rendered. Service revenue is recognized ratably each month.

Wireline Contracts

Total consideration, for services that are bundled in a single contract, is allocated to each performance obligation based on our standalone selling price for each service. While many contracts include one or more service performance obligations, the revenue recognition pattern is generally not impacted by the allocation since the services are generally satisfied over the same period of time. We estimate the standalone selling price to be the price of the services when sold on a standalone basis without any promotional discount. In addition, we also assess whether the service term is impacted by certain legally enforceable rights and obligations in our contract with customers such as penalties that a customer would have to pay to early terminate a fixed-term contract. The assessment of these legally enforceable rights and obligations involves judgment and impacts our determination of transaction price and related disclosures.

We may provide performance-based credits or incentives on our products and services for contracts with our Enterprise Solutions, Partner Solutions and some Business Markets customers, which are accounted for as variable consideration when estimating the transaction price. Credits are estimated at contract inception and are updated at the end of each reporting period as additional information becomes available.

For certain bundled offerings/transactions involving third-party service providers, we evaluate gross versus net considerations by assessing indicators of control. These offerings have not been significant.

Other

Advertising revenues are generated through display advertising and search advertising. Display advertising revenue is generated by the display of graphical advertisements and other performance-based advertising. Search advertising revenue is generated when a consumer clicks on a text-based advertisement on their screen. Our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, primarily earns revenue through display advertising on Verizon Media properties, as well as on third-party properties through our advertising platforms, search advertising and subscription arrangements. We recognize revenue at a point in time for our display and search advertising contracts and over time for our subscription contracts. We determined that we are generally the principal in transactions carried out through our advertising platforms, and therefore report gross revenue based on the amount billed to our customers. Where we are the principal, we concluded that while the control and transfer of digital advertising inventory occurs in a rapid, real-time environment, our proprietary technology enables us to identify, enhance, verify and solely control digital advertising inventory that we then sell to our customers. Our control is further supported by us being primarily responsible to our customers for fulfillment and the fact that we can exercise a level of discretion over pricing.

Verizon Connect primarily earns revenue through subscription services. We recognize revenue over time for our subscription contracts.

We report taxes collected from customers on behalf of governmental authorities on revenue-producing transactions on a net basis.

Maintenance and Repairs

We charge the cost of maintenance and repairs, including the cost of replacing minor items not constituting substantial betterments, principally to Cost of services as these costs are incurred.

Advertising Costs

Costs for advertising products and services, as well as other promotional and sponsorship costs, are charged to Selling, general and administrative expense in the periods in which they are incurred. See Note 15 for additional information.

Earnings Per Common Share

Basic earnings per common share are based on the weighted-average number of shares outstanding during the period. Where appropriate, diluted earnings per common share include the dilutive effect of shares issuable under our stock-based compensation plans.

There were a total of approximately 4 million, 5 million and 6 million outstanding dilutive securities, primarily consisting of restricted stock units, included in the computation of diluted earnings per common share for the years ended December 31, 2018, 2017 and 2016, respectively.

Cash, Cash Equivalents and Restricted Cash

We consider all highly liquid investments with an original maturity of 90 days or less when purchased to be cash equivalents. Cash equivalents are stated at cost, which approximates quoted market value and includes amounts held in money market funds.

Cash collections on the device payment plan agreement receivables collateralizing asset-backed debt securities are required at certain specified times to be placed into segregated accounts. Deposits to the segregated accounts are considered restricted cash and are included in Prepaid expenses and other and Other assets in our consolidated balance sheets.

Cash, cash equivalents and restricted cash are included in the following line items on the consolidated balance sheets:

(dollars in millions)

At December 31,	**2018**	2017	**Increase**
Cash and cash equivalents	**$ 2,745**	$ 2,079	$ 666
Restricted cash:			
Prepaid expenses and other	**1,047**	693	354
Other assets	**124**	116	8
Cash, cash equivalents and restricted cash	**$ 3,916**	$ 2,888	$ 1,028

Investments in Debt and Equity Securities

Investments in equity securities that are not accounted for under equity method accounting or result in consolidation are to be measured at fair value. For investments in equity securities without readily determinable fair values, Verizon elects the measurement alternative permitted under GAAP to measure these investments at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. For investments in debt securities without quoted prices, Verizon uses an alternative matrix pricing method. Investments in equity securities that do not result in consolidation of the investee are included in Investments in unconsolidated businesses and debt securities are included in Other assets in our consolidated balance sheets.

Allowance for Doubtful Accounts

Accounts receivable are recorded in the consolidated financial statements at cost net of an allowance for credit losses, with the exception of indirect-channel device payment plan loans. We maintain allowances for uncollectible accounts receivable, including our direct-channel device payment plan agreement receivables, for estimated losses resulting from the failure or inability of our customers to make required payments. Indirect-channel device payment loans are considered financial instruments and are initially recorded at fair value net of imputed interest, and credit losses are recorded as incurred. However, loan balances are assessed quarterly for impairment and an allowance is recorded if the loan is considered impaired. Our allowance for uncollectible accounts receivable is based on management's assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those customers. We record an allowance to reduce the receivables to the amount that is reasonably believed to be collectible. We also record an allowance for all other receivables based on multiple factors including historical experience with bad debts, the general economic environment and the aging of such receivables. Similar to traditional service revenue, we record direct device payment plan agreement bad debt expense based on an estimate of the percentage of equipment revenue that will not be collected. This estimate is based on a number of factors including historical write-off experience, credit quality of the customer base and other factors such as macroeconomic conditions. We monitor the aging of our accounts with device payment plan agreement receivables and write-off account balances if collection efforts are unsuccessful and future collection is unlikely.

Inventories

Inventory consists of wireless and wireline equipment held for sale, which is carried at the lower of cost (determined principally on either an average cost or first-in, first-out basis) or net realizable value.

Plant and Depreciation

Property, Plant and Equipment

We record property, plant and equipment at cost. Property, plant and equipment are generally depreciated on a straight-line basis.

Leasehold improvements are amortized over the shorter of the estimated life of the improvement or the remaining term of the related lease, calculated from the time the asset was placed in service.

When depreciable assets are retired or otherwise disposed of, the related cost and accumulated depreciation are deducted from the property, plant and equipment accounts and any gains or losses on disposition are recognized in income.

We capitalize and depreciate network software purchased or developed along with related property, plant and equipment assets. We also capitalize interest associated with the acquisition or construction of network-related assets. Capitalized interest is reported as a reduction in interest expense and depreciated as part of the cost of the network-related assets.

In connection with our ongoing review of the estimated useful lives of property, plant and equipment during 2018, we determined that the average useful lives of certain assets would be increased. These changes in estimates were applied prospectively and resulted in a decrease to depreciation expense of $0.3 billion for the year ended 2018. In addition, during 2016 we determined that the average useful lives of certain leasehold improvements would be increased from 5 to 7 years. This change resulted in decreases to depreciation expense of $0.1 billion, $0.1 billion and $0.2 billion in 2018, 2017 and 2016, respectively. We determined that changes were also necessary to the remaining estimated useful lives of certain assets as a result of technology changes, enhancements and planned retirements. These changes resulted in increases in depreciation expense of $0.5 billion, $0.3 billion and $0.3 billion in 2018, 2017 and 2016, respectively. While the timing and extent of current deployment plans are subject to ongoing analysis and modification, we believe that the current estimates of useful lives are reasonable.

Computer Software Costs

We capitalize the cost of internal-use network and non-network software that has a useful life in excess of one year. Subsequent additions, modifications or upgrades to internal-use network and non-network software are capitalized only to the extent that they allow the software to perform a task it previously did not perform. Planning, software maintenance and training costs are expensed in the period in which they are incurred. Also, we capitalize interest associated with the development of internal-use network and non-network software. Capitalized non-network internal-use software costs are amortized using the straight-line method over a period of 3 to 7 years and are included in Other intangible assets, net in our consolidated balance sheets. For a discussion of our impairment policy for capitalized software costs, see "Goodwill and Other Intangible Assets" below. Also, see Note 4 for additional information of internal-use non-network software reflected in our consolidated balance sheets.

Goodwill and Other Intangible Assets

Goodwill

Goodwill is the excess of the acquisition cost of businesses over the fair value of the identifiable net assets acquired. Impairment testing for goodwill is performed annually in the fourth fiscal quarter or more frequently if impairment indicators are present.

To determine if goodwill is potentially impaired, we have the option to perform a qualitative assessment. However, we may elect to bypass the qualitative assessment and perform an impairment test even if no indications of a potential impairment exist. The quantitative impairment test for goodwill is performed at the reporting unit level and compares the fair value of the reporting unit (calculated using a combination of a market approach and a discounted cash flow method) to its carrying value. Estimated fair values of reporting units are Level 3 measures in the fair value hierarchy, see Fair Value Measurements discussion below for additional information.

Under the qualitative assessment, we consider several qualitative factors, including the business enterprise value of the reporting unit from the last quantitative test and the excess of fair value over carrying value from this test, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and Earnings before interest, taxes, depreciation and amortization (EBITDA) margin projections), the recent and projected financial performance of the reporting unit, as well as other factors.

The market approach includes the use of comparative multiples of guideline companies to corroborate discounted cash flow results. The discounted cash flow method is based on the present value of two components, a projected cash flows and a terminal value. The terminal value represents the expected normalized future cash flows of the reporting unit beyond the cash flows from the discrete projection period. The fair value of the reporting unit is calculated based on the sum of the present value of the cash flows from the discrete period and the present value of the terminal value. The discount rate represents our estimate of the weighted-average cost of capital, or expected return, that a marketplace participant would have required as of the valuation date. If the carrying value exceeds the fair value, an impairment charge is booked for the excess carrying value over fair value, limited to the total amount of goodwill of that reporting unit. During the fourth quarter of 2018, the Company updated its five-year strategic planning review for each of its reporting units. Those plans considered current economic conditions and trends, estimated future operating results, the Company’s view of growth-rates and-anticipated future economic and regulatory conditions.

See Note 4 for additional information regarding our goodwill impairment testing.

Intangible Assets Not Subject to Amortization

A significant portion of our intangible assets are wireless licenses that provide our wireless operations with the exclusive right to utilize designated radio frequency spectrum to provide wireless communication services. While licenses are issued for only a fixed time, generally ten years, such licenses are subject to renewal by the Federal Communications Commission (FCC). License renewals have occurred routinely and at nominal cost. Moreover, we have determined that there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful life of our wireless licenses. As a result, we treat the wireless licenses as an indefinite-lived intangible asset. We re-evaluate the useful life determination for wireless licenses each year to determine whether events and circumstances continue to support an indefinite useful life. We aggregate our wireless licenses into one single unit of accounting, as we utilize our wireless licenses on an integrated basis as part of our nationwide wireless network.

We test our wireless licenses for potential impairment annually or more frequently if impairment indicators are present. We have the option to first perform a qualitative assessment to determine whether it is necessary to perform a quantitative impairment test. However, we may elect to bypass the qualitative assessment in any period and proceed directly to performing the quantitative impairment test. Our quantitative assessment consists of comparing the estimated fair value of our aggregate wireless licenses to the aggregated carrying amount as of the test date. Using a quantitative assessment, we estimate the fair value of our aggregate wireless licenses using the Greenfield approach. The Greenfield approach is an income based valuation approach that values the wireless licenses by calculating the cash flow generating potential of a hypothetical start-up company that goes into business with no assets except the wireless licenses to be valued. A discounted cash flow analysis is used to estimate what a marketplace participant would be willing to pay to purchase the aggregated wireless licenses as of the valuation date. If the estimated fair value of the aggregated wireless licenses is less than the aggregated carrying amount of the wireless licenses, then an impairment charge is recognized. As part of our qualitative assessment, we consider several qualitative factors including the business enterprise value of our Wireless segment, macroeconomic conditions (including changes in interest rates and discount rates), industry and market considerations (including industry revenue and EBITDA), margin projections, the recent and projected financial performance of our Wireless segment, as well as other factors. See Note 4 for additional information regarding our impairment tests.

Interest expense incurred while qualifying activities are performed to ready wireless licenses for their intended use is capitalized as part of wireless licenses. The capitalization period ends when the development is discontinued or substantially completed and the license is ready for its intended use.

Intangible Assets Subject to Amortization and Long-Lived Assets

Our intangible assets that do not have indefinite lives (primarily customer lists and non-network internal-use software) are amortized over their estimated useful lives. All of our intangible assets subject to amortization, and long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. If any indications of impairment are present, we would test for recoverability by comparing the carrying amount of the asset group to the net undiscounted cash flows expected to be generated from the asset group. If those net undiscounted cash flows do not exceed the carrying amount, we would perform the next step, which is to determine the fair value of the asset and record an impairment, if any. We re-evaluate the useful life determinations for these intangible assets each year to determine whether events and circumstances warrant a revision to their remaining useful lives.

For information related to the carrying amount of goodwill, wireless licenses and other intangible assets, as well as the major components and average useful lives of our other acquired intangible assets, see Note 4.

Fair Value Measurements

Fair value of financial and non-financial assets and liabilities 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. The three-tier hierarchy for inputs used in measuring fair value, which prioritizes the inputs used in the methodologies of measuring fair value for assets and liabilities, is as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities
Level 2—Observable inputs other than quoted prices in active markets for identical assets and liabilities
Level 3—No observable pricing inputs in the market

Financial assets and financial liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurements. Our assessment of the significance of a particular input to the fair value measurements requires judgment and may affect the valuation of the assets and liabilities being measured and their categorization within the fair value hierarchy.

Income Taxes

Our effective tax rate is based on pre-tax income, statutory tax rates, tax laws and regulations and tax planning strategies available to us in the various jurisdictions in which we operate.

Deferred income taxes are provided for temporary differences in the basis between financial statement and income tax assets and liabilities. Deferred income taxes are recalculated annually at tax rates in effect for the years in which those tax assets and liabilities are expected to be realized or settled. We record valuation allowances to reduce our deferred tax assets to the amount that is more likely than not to be realized.

We use a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in a tax return. The first step is recognition: we determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more-likely-than-not recognition threshold, we presume that the position will be examined by the appropriate taxing authority that has full knowledge of all relevant information. The second step is measurement: a tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Differences between tax positions taken in a tax return and amounts recognized in the financial statements will generally result in one or more of the following: an increase in a liability for income taxes payable, a reduction of an income tax refund receivable, a reduction in a deferred tax asset or an increase in a deferred tax liability.

Significant management judgment is required in evaluating our tax positions and in determining our effective tax rate.

Verizon has completed its analysis of the impacts of the Tax Cuts and Jobs Act (TCJA), including analyzing the effects of any Internal Revenue Service (IRS) and U.S. Treasury guidance issued, and state tax law changes enacted, within the maximum one year measurement period resulting in no significant adjustments to the $16.8 billion provisional amount previously recorded.

Stock-Based Compensation

We measure and recognize compensation expense for all stock-based compensation awards made to employees and directors based on estimated fair values. See Note 10 for additional information.

Foreign Currency Translation

The functional currency of our foreign operations is generally the local currency. For these foreign entities, we translate income statement amounts at average exchange rates for the period, and we translate assets and liabilities at end-of-period exchange rates. We record these translation adjustments in Accumulated other comprehensive income, a separate component of Equity, in our consolidated balance sheets. We report exchange gains and losses on intercompany foreign currency transactions of a long-term nature in Accumulated other comprehensive income. Other exchange gains and losses are reported in income.

Employee Benefit Plans

Pension and postretirement health care and life insurance benefits earned during the year, as well as interest on projected benefit obligations, are accrued currently. Prior service costs and credits resulting from changes in plan benefits are generally amortized over the average remaining service period of the employees expected to receive benefits. Expected return on plan assets is determined by applying the return on assets assumption to the actual fair value of plan assets. Actuarial gains and losses are recognized in operating results in the year in which they occur. These gains and losses are measured annually as of December 31 or upon a remeasurement event. Verizon management employees no longer earn pension benefits or earn service towards the company retiree medical subsidy. See Note 11 for additional information.

We recognize a pension or a postretirement plan's funded status as either an asset or liability on the consolidated balance sheets. Also, we measure any unrecognized prior service costs and credits that arise during the period as a component of Accumulated other comprehensive income, net of applicable income tax.

Derivative Instruments

We enter into derivative transactions primarily to manage our exposure to fluctuations in foreign currency exchange rates and interest rates. We employ risk management strategies, which may include the use of a variety of derivatives including cross currency swaps, forward starting interest rate swaps, interest rate swaps, interest rate caps and foreign exchange forwards. We do not hold derivatives for trading purposes. See Note 9 for additional information.

We measure all derivatives at fair value and recognize them as either assets or liabilities on our consolidated balance sheets. Our derivative instruments are valued primarily using models based on readily observable market parameters for all substantial terms of our derivative contracts and thus are classified as Level 2. Changes in the fair values of derivative instruments not qualifying for hedge accounting are recognized in earnings in the current period. For fair value hedges, the change in the fair value of the derivative instruments is recognized in earnings, along with the change in the fair value of the hedged item. For cash flow hedges, the change in the fair value of the derivative instruments, along with the change in the fair value of the hedged item, are reported in Other comprehensive income (loss) and recognized in earnings when the hedged item is recognized in earnings. For net investment hedges of certain of our foreign operations, the change in the fair value of the derivative instruments is reported in Other comprehensive income (loss) as part of the cumulative translation adjustment and partially offset the impact of foreign currency changes on the value of our net investment.

Variable Interest Entities

VIEs are entities that lack sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties, have equity investors that 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. We consolidate the assets and liabilities of VIEs when we are deemed to be the primary beneficiary. The primary beneficiary is the party that has the power to make the decisions that most significantly affect the economic performance of the VIE and has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

Recently Adopted Accounting Standards

The following ASUs were issued by Financial Accounting Standards Board (FASB), and have been recently adopted by Verizon.

Description	Date of Adoption	Effect on Financial Statements
ASU 2014-09, Revenue from Contracts with Customers (Topic 606)		
This standard update, along with related subsequently issued updates, clarifies the principles for recognizing revenue and develops a common revenue standard for U.S. GAAP. The standard update amends current guidance for the recognition of costs to obtain and fulfill contracts with customers such that incremental costs of obtaining and direct costs of fulfilling contracts with customers will be deferred and amortized consistent with the transfer of the related good or service. The standard update intends to provide a more robust framework for addressing revenue issues; improve comparability of revenue recognition practices across entities, industries, jurisdictions, and capital markets; and provide more useful information to users of financial statements through improved disclosure requirements.	1/1/2018	We recorded the pre-tax cumulative effect of \$3.9 billion (\$2.9 billion net of tax) as an adjustment to the January 1, 2018 opening balance of Retained earnings. We adopted this standard using the modified retrospective method. The cumulative after-tax effect of the changes made to our consolidated balance sheet for the adoption of this standard are reflected in the table below. See Note 2 for additional information related to revenues and contract costs, including qualitative and quantitative disclosures required under Topic 606, as well as a reconciliation of the adjustments from the adoption of Topic 606 relative to Topic 605 on certain impacted financial statement line items.
ASU 2016-01, Financial Instruments - Overall (Subtopic 825-10)		
The amendments in this update make targeted improvements to GAAP by requiring most equity securities to be measured at fair value with changes in fair value recognized in net income. For investments in equity securities without readily determinable fair values, the cost method is eliminated. A practicability exception is available for investments in equity securities that do not have readily determinable fair values. These investments may be measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. This update simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment. When a qualitative assessment indicates impairment exists, an entity is required to measure the investment at fair value	1/1/2018	We adopted this standard update on a prospective basis resulting in an insignificant adjustment to our opening retained earnings. The amendments related to equity securities without readily determinable fair values are applied prospectively to equity investments that exist as of the date of adoption.
ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments		
This standard update addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice for these issues. This standard update requires, among other things, that cash receipts from payments on a transferor's beneficial interests in securitized trade receivables be classified as cash inflows from investing activities. The amendment relating to beneficial interests in securitization transactions impacted our presentation of collections of certain deferred purchase price from sales of wireless device payment plan agreement receivables in our consolidated statements of cash flows.	1/1/2018	We retrospectively reclassified approximately \$0.6 billion of deferred purchase price collections from Cash flows from operating activities to Cash flows from investing activities in our consolidated statement of cash flows for the year ended December 31, 2017 and \$1.1 billion for the year ended December 31, 2016. There were no other significant impacts as a result of adopting this standard.

Description	Date of Adoption	Effect on Financial Statements
ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash		
The amendments in this update require that cash and cash equivalent balances in a statement of cash flows include those amounts deemed to be restricted cash and restricted cash equivalents.	1/1/2018	We have provided a reconciliation from Cash and cash equivalents as presented in our consolidated balance sheets to Cash, cash equivalents and restricted cash as reported in our consolidated statements of cash flows. We adopted the amendments in this accounting standard update on a retrospective basis. The adoption of this standard update for the year ended December 31, 2017 resulted in an increase in cash flow used in financing activities of $0.6 billion, a decrease in cash flow provided by operating activities of $0.1 billion and an insignificant increase in cash flow used in investing activities. There was an insignificant impact to our consolidated statements of cash flows for the year ended December 31, 2016. See "Cash, Cash Equivalents and Restricted Cash" for additional information, as well as a discussion of the nature of our restricted cash balances.
ASU 2017-07, Compensation - Retirement Benefits (Topic 715)		
The amendments in this update require an employer to report the service cost component arising from employer sponsored pension and other postretirement plans in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost, including the recognition of prior service credits, will be presented in the consolidated statements of income separately from the service cost component and outside the subtotal of income from operations. The amendments in this update also allow only the service cost component of pension and other postretirement benefit costs to be eligible for capitalization when applicable. Verizon previously recorded service cost and other components of net periodic benefit cost in operating expenses in the consolidated statements of income. The amendments in this update allow a practical expedient that permits an employer to use the amounts disclosed in its employee benefits footnote for the prior comparative periods as the estimation basis for applying the retrospective presentation.	1/1/2018	As required by the amendments in this update, the presentation of the service cost component and other components of net periodic benefit cost in the consolidated statements of income were applied retrospectively, and the updates for the capitalization of the service cost component of net periodic benefit cost in assets were applied prospectively on and after the effective date. Verizon reclassified the other components of net periodic benefit costs from Cost of services and Selling, general and administrative expense to Other income (expense), net, which is part of non-operating expenses. The retrospective adoption of this standard update had an insignificant impact to consolidated operating income for the year ended December 31, 2017 and an increase to consolidated operating income of approximately $2.2 billion for the year ended December 31, 2016. These impacts to consolidated operating income were fully offset by an insignificant decrease and a $2.2 billion decrease to Other income (expense), net for the years ended December 31, 2017 and 2016, respectively. There was no impact to consolidated Net income for the years ended December 31, 2017 or 2016. Verizon utilized the practical expedient to estimate the impact on the prior comparative period information presented in the consolidated statements of income.
ASU 2018-02, Income Statement-Reporting Comprehensive Income (Topic 220)		
The amendments in this update allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from TCJA. The stranded tax effects result from the change in the federal tax rate for deferred taxes recorded to Accumulated other comprehensive income. This standard update is effective as of the first quarter of 2019; however, early adoption is permitted. Verizon has elected to early adopt this update effective January 1, 2018 and record the effects of adoption at the beginning of the period of adoption.	1/1/2018	The adoption of this standard update resulted in a charge to Retained earnings of $0.7 billion which consists primarily of stranded tax effects related to deferred taxes for pensions and postretirement benefits. It is Verizon's policy to release income tax effects from accumulated other comprehensive income at the same time that the related unit of account affects net income. The cumulative after-tax effect of the changes made to our consolidated balance sheet for the adoption of this standard are reflected in the table below.

The cumulative after-tax effect of the changes made to our consolidated balance sheet for the adoption of Topic 606, ASU 2018-02 and other ASUs was as follows:

		Adjustments due to			
(dollars in millions)	At December 31, 2017	Topic 606	ASU 2018-02	Other ASUs	At January 1, 2018
Accounts receivable, net of allowance	$ 23,493	$ 53	$ —	$ —	$ 23,546
Prepaid expenses and other	3,307	2,014	—	—	5,321
Other assets	9,787	1,238	—	(59)	10,966
Investments in unconsolidated businesses	1,039	2	—	—	1,041
Other current liabilities	8,352	(541)	—	—	7,811
Deferred income taxes	31,232	1,008	—	(31)	32,209
Other liabilities	12,433	(94)	—	—	12,339
Retained earnings	35,635	2,890	(652)	(6)	37,867
Accumulated other comprehensive income	2,659	—	652	(22)	3,289
Noncontrolling interests	1,591	44	—	—	1,635

Recently Issued Accounting Standards

The following ASUs have been recently issued by the FASB.

Description	Date of Adoption	Effect on Financial Statements
ASU 2016-02, Leases (Topic 842)		
In February 2016, the FASB issued this standard update to increase transparency and improve comparability by requiring entities to recognize assets and liabilities on the balance sheet for all leases, with certain exceptions. In addition, through improved disclosure requirements, the standard update will enable users of financial statements to further understand the amount, timing, and uncertainty of cash flows arising from leases. This standard update allows for a modified retrospective application and is effective as of the first quarter of 2019; however, early adoption is permitted. Entities are allowed to apply the modified retrospective approach: (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. The effective date of this standard is January 1, 2019, at which time Verizon will adopt the standard using the modified retrospective approach with a cumulative-effect adjustment to opening retained earnings recorded at the beginning of the period of adoption. Therefore, upon adoption, Verizon will recognize and measure leases without revising comparative period information or disclosure. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply.	1/1/2019	We have established a cross-functional coordinated team to implement the standard update. We have completed our assessment of the transition practical expedients offered by the standard. These practical expedients lessen the transitional burden of implementing the standard update by not requiring a reassessment of certain conclusions reached under existing lease accounting guidance. Accordingly, we will apply these practical expedients and will not reassess: (1) whether an expired or existing contract is a lease or contains an embedded lease; (2) lease classification of an expired or existing lease; (3) initial direct costs for an existing lease; and (4) whether an existing or expired land easement is or contains a lease if it has not historically been accounted for as a lease. We have identified and implemented a new system solution to meet the requirements of the new standard and have identified and implemented processes and internal controls to meet the standards reporting and disclosure requirements. Upon adoption of this standard, there will be a significant impact in our consolidated balance sheet as we expect to recognize a right-of-use asset and liability related to substantially all operating lease arrangements, which we currently estimate will range between $21.0 billion and $23.0 billion. Verizon's current operating lease portfolio included in this range is primarily comprised of network equipment including towers, distributed antenna systems, and small cells, real estate, connectivity mediums including dark fiber, and equipment leases. In addition, pre-tax deferred gains of approximately $0.6 billion arising from prior period sales-leaseback transactions, which would have been recognized to income over an average period of nine years, will be adjusted through opening retained earnings on January 1, 2019. Lastly, we expect a lower amount of lease costs to qualify as initial direct costs under the new standard which will result in an immediate recognition of expense instead of recognition of expense over time.

Description	Date of Adoption	Effect on Financial Statements
ASU 2016-13, Financial Instruments - Credit Losses (Topic 326)		
In June 2016, the FASB issued this standard update which requires certain financial assets be measured at amortized cost net of an allowance for estimated credit losses such that the net receivable represents the present value of expected cash collection. In addition, this standard update requires that certain financial assets be measured at amortized cost reflecting an allowance for estimated credit losses expected to occur over the life of the assets. The estimate of credit losses must be based on all relevant information including historical information, current conditions and reasonable and supportable forecasts that affect the collectability of the amounts. An entity will apply the update through a cumulative effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. A prospective transition approach is required for debt securities for which an other-than-temporary impairment has been recognized before the effective date. Early adoption of this standard is permitted.	1/1/2020	We are currently evaluating the impacts that this standard update will have on our various financial assets which we expect to include, but is not limited to, our device payment plan agreement receivables and service receivables. We have established a cross-functional coordinated team to address the potential impacts to our systems, processes and internal controls in order to meet the standard update's accounting and reporting requirements.

Note 2. Revenue and Contract Costs

We earn revenue from contracts with customers, primarily through the provision of telecommunications and other services and through the sale of wireless equipment. We account for these revenues under Topic 606, which we adopted on January 1, 2018, using the modified retrospective approach. We also earn revenues that are not accounted for under Topic 606 from leasing arrangements (such as those for towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent.

We applied the new revenue recognition standard to customer contracts not completed at the date of initial adoption. For incomplete contracts that were modified before the date of adoption, the Company elected to use the practical expedient available under the modified retrospective method, which allows us to aggregate the effect of all modifications when identifying satisfied and unsatisfied performance obligations, determining the transaction price and allocating transaction price to the satisfied and unsatisfied performance obligations for the modified contract at transition. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while amounts reported for prior periods have not been adjusted and continue to be reported under accounting standards in effect for those periods.

In our Wireless business, prior to the adoption of Topic 606, we were required to limit the revenue recognized when a wireless device was sold to the amount of consideration that was not contingent on the provision of future services, which was typically limited to the amount of consideration received from the customer at the time of sale. Under Topic 606, the total consideration in the contract is allocated between wireless equipment and service based on their relative standalone selling prices. This change primarily impacts our arrangements that include sales of wireless devices at subsidized prices in conjunction with a fixed-term plan, also known as the subsidy model, for service. Accordingly, under Topic 606, generally more equipment revenue is recognized upon sale of the equipment to the customer and less service revenue is recognized over the contract term than was previously recognized under the prior "Revenue Recognition" (Topic 605) standard. At the time the equipment is sold, this allocation results in the recognition of a contract asset equal to the difference between the amount of revenue recognized and the amount of consideration received from the customer. As of January 2017, we no longer offer consumers new fixed-term plans with subsidized equipment pricing; however, we continue to offer fixed-term plans to our business customers. At December 31, 2018 and December 31, 2017, approximately 14% and 19% of retail postpaid connections were under fixed-term plans, respectively.

Topic 606 also requires the deferral of incremental costs incurred to obtain a customer contract, which are then amortized to expense, as a component of Selling, general and administrative expense, over the respective periods of expected benefit. As a result, a significant amount of our sales commission costs, which were historically expensed as incurred by our Wireless and Wireline businesses under our previous accounting, are now deferred and amortized under Topic 606.

Finally, under Topic 605, at the time of the sale of a device, we imputed risk adjusted interest on the device payment plan agreement receivables. We recorded the imputed interest as a reduction to the related accounts receivable and interest income was recognized over the financed device payment term. Under Topic 606, while there continues to be a financing component in both the fixed-term plans and device payment plans, also known as the installment model, we have determined that this financing component for our customer classes in the Wireless direct channel plans is not significant and therefore we no longer impute interest for these contracts. This change results in additional revenue recognized upon the sale of wireless devices and no interest income recognized over the device payment term.

A reconciliation of the adjustments from the adoption of Topic 606 relative to Topic 605 on certain impacted financial statement line items in our consolidated statements of income and balance sheet were as follows:

			December 31, 2018
(dollars in millions)	As reported	Balances without adoption of Topic 606	Adjustments
Operating Revenues			
Service revenues and other	**$ 108,605**	$ 109,964	$ (1,359)
Wireless equipment revenues	**22,258**	20,474	1,784
Total Operating Revenues	**130,863**	130,438	425
Cost of services (exclusive of items shown below)	**32,185**	32,240	(55)
Wireless cost of equipment	**23,323**	23,189	134
Selling, general and administrative expense	**31,083**	32,588	(1,505)
Equity in losses of unconsolidated businesses	**(186)**	(187)	1
Income Before Provision For Income Taxes	**19,623**	17,771	1,852
Provision for income taxes	**(3,584)**	(3,104)	(480)
Net Income	**$ 16,039**	$ 14,667	$ 1,372
Net income attributable to noncontrolling interests	**$ 511**	$ 481	$ 30
Net income attributable to Verizon	**15,528**	14,186	1,342
Net Income	**$ 16,039**	$ 14,667	$ 1,372

			December 31, 2018
(dollars in millions)	As reported	Balances without adoption of Topic 606	Adjustments
Assets			
Current assets			
Accounts receivable, net of allowance	**$ 25,102**	$ 24,759	$ 343
Prepaid expenses and other	**5,453**	2,902	2,551
Investments in unconsolidated businesses	**671**	668	3
Other assets	**11,717**	9,631	2,086
Liabilities and Equity			
Current liabilities			
Accounts payable and accrued liabilities	**22,501**	21,727	774
Other current liabilities	**8,239**	8,805	(566)
Deferred income taxes	**33,795**	33,082	713
Other liabilities	**13,922**	14,166	(244)
Equity			
Retained earnings	**43,542**	39,310	4,232
Noncontrolling interests	**1,565**	1,491	74

Revenue by Category

We operate and manage our business in two reportable segments, Wireless and Wireline. Revenue is disaggregated by products and services, and customer groups, respectively, which we view as the relevant categorization of revenues for these businesses. See Note 13 for additional information on revenue by segment.

Corporate and other includes the results of our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, and our telematics business, branded Verizon Connect. Oath generated revenues from contracts with customers under Topic 606 of approximately $7.7 billion for the year ended December 31, 2018. Verizon Connect generated revenues from contracts with customers under Topic 606 of approximately $1.0 billion for the year ended December 31, 2018.

We also earn revenues, that are not accounted for under Topic 606, from leasing arrangements (such as towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent. Revenues from arrangements that were not accounted for under Topic 606 were approximately $4.5 billion for the year ended December 31, 2018.

Remaining Performance Obligations

When allocating the total contract transaction price to identified performance obligations, a portion of the total transaction price may relate to service performance obligations which were not satisfied or are partially satisfied as of the end of the reporting period. Below we disclose information relating to these unsatisfied performance obligations. We have elected to apply the practical expedient available under Topic 606, that provides the option to exclude the expected revenues arising from unsatisfied performance obligations related to contracts that have an original expected duration of one year or less. This situation primarily arises with respect to certain month-to-month service contracts. At December 31, 2018, month-to-month service contracts represented approximately 86% of Wireless postpaid contracts and approximately 56% of Wireline consumer and small business contracts.

Additionally, certain Wireless and Wireline contracts provide customers the option to purchase additional services. The fee related to the additional services is recognized when the customer exercises the option (typically on a month-to-month basis).

Wireless customer contracts are generally either month-to-month and cancellable at any time (typically under a device payment plan) or contain terms greater than one month (typically under a fixed-term plan). Additionally, customers may incur charges based on usage or may purchase additional optional services in conjunction with entering into a contract which can be cancelled at any time and therefore are not included in the transaction price. When a service contract is longer than one month, the service contract term will generally be two years or less. The transaction price allocated to service performance obligations, which are not satisfied or are partially satisfied as of the end of the reporting period, are generally related to our fixed-term plans.

Our wireless customers also include other telecommunications companies who utilize Verizon's network to resell wireless service to their respective end customers. Reseller arrangements occur on a month-to-month basis or include a stated contract term, which generally extends longer than two years. Arrangements with a stated contract term generally include an annual minimum revenue commitment over the term of the contract for which revenues will be recognized in future periods.

At December 31, 2018, the transaction price related to Wireless unsatisfied performance obligations expected to be recognized for 2019, 2020 and thereafter was $10.9 billion, $5.5 billion and $2.2 billion, respectively.

Wireline customer contracts are either month-to-month, include a specified term with fixed monthly fees, or contain revenue commitments, and may also contain usage based services. Consumer Markets customers under contract generally have a service term of two years; however, this term may be shorter at month-to-month. Certain Enterprise Solutions, Partner Solutions and Business Markets service contracts with customers extend into future periods, contain fixed monthly fees and usage-based fees, and can include annual commitments per each year of the contract or commitments over the entire specified contract term. A significant number of contracts within these businesses have a contract term that is twelve months or less.

At December 31, 2018, the transaction price relating to Wireline unsatisfied performance obligations expected to be recognized for 2019, 2020 and thereafter was $7.7 billion, $3.2 billion and $0.9 billion, respectively.

In certain Enterprise Solutions, Partner Solutions and Business Markets service contracts within Wireline and certain telematics service contracts within Corporate and other, there are customer contracts that have a contractual minimum fee over the total contract term. We cannot predict the time period when revenue will be recognized related to those contracts; thus they are excluded from the time bands above. These contracts have varying terms spanning over five years ending in June 2023 and have aggregate contract minimum payments totaling $3.9 billion.

Accounts Receivable and Contract Balances

The timing of revenue recognition may differ from the time of billing to our customers. Receivables presented in our consolidated balance sheet represent an unconditional right to consideration. Contract balances represent amounts from an arrangement when either Verizon has performed, by transferring goods or services to the customer in advance of receiving all or partial consideration for such goods and services from the customer, or the customer has made payment to Verizon in advance of obtaining control of the goods and/or services promised to the customer in the contract.

Contract assets primarily relate to our rights to consideration for goods or services provided to the customers but for which we do not have an unconditional right at the reporting date. Under a fixed-term plan, the total contract revenue is allocated between wireless services and equipment revenues, as discussed above. In conjunction with these arrangements, a contract asset is created, which represents the difference between the amount of equipment revenue recognized upon sale and the amount of consideration received from the customer. The contract asset is reclassified as accounts receivable as wireless services are provided and billed. We have the right to bill the customer as service is provided over time, which results in our right to the payment being unconditional. The contract asset balances are presented in our consolidated balance sheet as Prepaid expenses and other and Other assets. We assess our contract assets for impairment on a quarterly basis and will recognize an impairment charge to the extent their carrying amount is not recoverable. The impairment charge related to contract assets was $0.1 billion for the year ended December 31, 2018, and is included in Other in the table below.

Contract liabilities arise when we bill our customers and receive consideration in advance of providing the goods or services promised in the contract. We typically bill service one month in advance, which is the primary component of the contract liability balance. Contract liabilities are recognized as revenue when services are provided to the customer. The contract liability balances are presented in our consolidated balance sheet as Other current liabilities and Other liabilities.

The following table presents information about receivables from contracts with customers:

(dollars in millions)	At January 1, 2018	At December 31, 2018
Receivables[1]	$ 12,073	**$ 12,104**
Device payment plan agreement receivables[2]	1,461	**8,940**

[1] Balances do not include receivables related to the following contracts: leasing arrangements (such as towers and equipment), captive reinsurance arrangements primarily related to wireless device insurance and the interest on equipment financed on a device payment plan agreement when sold to the customer by an authorized agent.
[2] Included in device payment plan agreement receivables presented in Note 8. Balances do not include receivables related to contracts completed prior to January 1, 2018 and receivables derived from the sale of equipment on a device payment plan through an authorized agent.

The following table represents significant changes in the contract assets balance:

(dollars in millions)	Contract Assets
Balance at January 1, 2018	**$ 38**
Opening balance sheet adjustment related to Topic 606 adoption	**1,132**
Adjusted opening balance, January 1, 2018	**1,170**
Increase resulting from new contracts	**1,583**
Contract assets reclassified to a receivable or collected in cash	**(1,575)**
Other	**(175)**
Balance at December 31, 2018	**$ 1,003**

The following table represents significant changes in the contract liabilities balance:

(dollars in millions)	Contract Liabilities
Balance at January 1, 2018[1]	**$ 5,086**
Opening balance sheet adjustments related to Topic 606 adoption	**(634)**
Adjusted opening balance, January 1, 2018	**4,452**
Net increase in contract liabilities	**4,446**
Revenue recognized related to contract liabilities existing at January 1, 2018	**(3,923)**
Other	**(32)**
Balance at December 31, 2018	**$ 4,943**

[1] Prior to the adoption of Topic 606, liabilities related to contracts with customers included advanced billings and deferred revenue, which was included within Other current liabilities and Other liabilities in our consolidated balance sheet at December 31, 2017.

The balance of contract assets and contract liabilities recorded in our consolidated balance sheet were as follows:

(dollars in millions)	At December 31, 2018
Assets	
Prepaid expenses and other	**$ 757**
Other assets	**246**
Total	**$ 1,003**
Liabilities	
Other current liabilities	**$ 4,207**
Other liabilities	**736**
Total	**$ 4,943**

Contract Costs

Topic 606 requires the recognition of an asset for incremental costs to obtain a customer contract, which are then amortized to expense, over the respective periods of expected benefit. We recognize an asset for incremental commission expenses paid to internal sales personnel and agents in conjunction with obtaining customer contracts. We only defer these costs when we have determined the commissions are, in fact, incremental and would not have been incurred absent the customer contract. Costs to obtain a contract are amortized and recorded ratably as commission expense over the period representing the transfer of goods or services to which the assets relate. Wireless costs to obtain contracts are amortized over our customers' estimated device upgrade cycles, as such costs are typically incurred each time a customer upgrades. Wireline costs to obtain contracts are amortized as expense over the estimated customer relationship period for our Consumer Markets customers. Incremental costs to obtain contracts for our Enterprise Solutions, Partner Solutions and Business Markets are insignificant. These costs are recorded in Selling, general and administrative expense.

We also defer costs incurred to fulfill contracts that: (1) relate directly to the contract; (2) are expected to generate resources that will be used to satisfy our performance obligation under the contract; and (3) are expected to be recovered through revenue generated under the contract. Contract fulfillment costs are expensed to Cost of services as we satisfy our performance obligations. These costs principally relate to direct costs that enhance our Wireline business resources, such as costs incurred to install circuits.

We determine the amortization periods for our costs incurred to obtain or fulfill a customer contract at a portfolio level due to the similarities within these customer contract portfolios.

Other costs, such as general costs or costs related to past performance obligations, are expensed as incurred.

Collectively, costs to obtain a contract and costs to fulfill a contract are referred to as Deferred contract costs, which were as follows:

(dollars in millions)	Amortization Period		**At December 31, 2018**
Wireless	2 to 3 years	**$**	**2,989**
Wireline	2 to 5 years		**850**
Corporate	2 to 3 years		**56**
Total		**$**	**3,895**

Deferred contract costs are classified as current or non-current within Prepaid expenses and other and Other assets, respectively. The balances of Deferred contract costs included in our consolidated balance sheet were as follows:

(dollars in millions)		**At December 31, 2018**
Assets		
Prepaid expenses and other	**$**	**2,083**
Other assets		**1,812**
Total	**$**	**3,895**

For the year ended December 31, 2018, we recognized expense of $2.0 billion, associated with the amortization of Deferred contract costs, primarily within Selling, general and administrative expense in our consolidated statements of income.

We assess our Deferred contract costs for impairment on a quarterly basis. We recognize an impairment charge to the extent the carrying amount of a deferred cost exceeds the remaining amount of consideration we expect to receive in exchange for the goods and services related to the cost, less the expected costs related directly to providing those goods and services that have not yet been recognized as expenses. There have been no impairment charges recognized for the year ended December 31, 2018.

Note 3. Acquisitions and Divestitures

Wireless

Spectrum License Transactions

Since 2016, we have entered into or completed several strategic spectrum transactions including:

- During the fourth quarter of 2015, we entered into a license exchange agreement with affiliates of AT&T Inc. (AT&T) to exchange certain Advanced Wireless Services (AWS) and Personal Communication Services (PCS) spectrum licenses. This non-cash exchange was completed in March 2016. As a result, we received $0.4 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of $0.1 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2016.

- During the first quarter of 2016, we entered into a license exchange agreement with affiliates of Sprint Corporation (Sprint) to exchange certain AWS and PCS spectrum licenses. This non-cash exchange was completed in September 2016. As a result, we received $0.3 billion of AWS and PCS spectrum licenses at fair value and recorded an insignificant gain in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2016.

- During the fourth quarter of 2016, we entered into a license exchange agreement with affiliates of AT&T to exchange certain AWS and PCS spectrum licenses. This non-cash exchange was completed in February 2017. As a result, we received $1.0 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of $0.1 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2017.

- During the first quarter of 2017, we entered into a license exchange agreement with affiliates of Sprint to exchange certain PCS spectrum licenses. This non-cash exchange was completed in May 2017. As a result, we received $0.1 billion of PCS spectrum licenses at fair value and recorded an insignificant gain in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2017.

- During the third quarter of 2017, we entered into a license exchange agreement with affiliates of T-Mobile USA Inc. to exchange certain AWS and PCS spectrum licenses. This non-cash exchange was completed in December 2017. As a result, we received $0.4 billion of AWS and PCS spectrum licenses at fair value and recorded a pre-tax gain of $0.1 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2017.

- During 2018, we entered into and completed various wireless license transactions, including the purchase of Straight Path Communications Inc. (Straight Path) and NextLink Wireless LLC (NextLink).

Straight Path

In May 2017, we entered into a purchase agreement to acquire Straight Path, a holder of millimeter wave spectrum configured for fifth-generation (5G) wireless services, for total consideration reflecting an enterprise value of approximately $3.1 billion. Under the terms of the purchase agreement, we agreed to pay: (1) Straight Path shareholders $184.00 per share, payable in Verizon shares; and (2) certain transaction costs payable in cash of approximately $0.7 billion, consisting primarily of a fee to be paid to the FCC. The transaction closed in February 2018 at which time we issued approximately 49 million shares of Verizon common stock, valued at approximately $2.4 billion, and paid the associated cash consideration.

The acquisition of Straight Path was accounted for as an asset acquisition, as substantially all of the value related to the acquired spectrum. Upon closing, we recorded approximately $4.5 billion of wireless licenses and $1.4 billion of a deferred tax liability. The spectrum acquired as part of the transaction is being used for our 5G technology deployment. See Note 4 for additional information.

Wireline

Access Line Sale

In February 2015, we entered into a definitive agreement with Frontier Communications Corporation (Frontier) pursuant to which Verizon sold its local exchange business and related landline activities in California, Florida and Texas, including Fios Internet and video customers, switched and special access lines and high-speed Internet service and long distance voice accounts in these three states, for approximately $10.5 billion (approximately $7.3 billion net of income taxes), subject to certain adjustments and including the assumption of $0.6 billion of indebtedness from Verizon by Frontier. The transaction, which included the acquisition by Frontier of the equity interests of Verizon's incumbent local exchange carriers (ILECs) in California, Florida and Texas, did not involve any assets or liabilities of Verizon Wireless. The transaction closed on April 1, 2016.

The transaction resulted in Frontier acquiring approximately 3.3 million voice connections, 1.6 million Fios Internet subscribers, 1.2 million Fios video subscribers and the related ILEC businesses from Verizon. For the year ended December 31, 2016, these businesses generated revenues of approximately $1.3 billion and operating income of $0.7 billion for Verizon. The operating results of these businesses are excluded from our Wireline segment for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

During April 2016, Verizon used the net cash proceeds received of $9.9 billion to reduce its consolidated indebtedness. See Note 7 for additional information. As a result of the closing of the transaction, we derecognized property, plant and equipment of $9.0 billion, goodwill of $1.3 billion, $0.7 billion of defined benefit pension and other postretirement benefit plan obligations and $0.6 billion of indebtedness assumed by Frontier.

We recorded a pre-tax gain of approximately $1.0 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2016. The pre-tax gain included a $0.5 billion pension and postretirement benefit curtailment gain due to the elimination of the accrual of pension and other postretirement benefits for some or all future services of a significant number of employees covered by three of our defined benefit pension plans and one of our other postretirement benefit plans.

XO Holdings

In February 2016, we entered into a purchase agreement to acquire XO Holdings' wireline business (XO), which owned and operated one of the largest fiber-based Internet Protocol and Ethernet networks in the U.S. Concurrently, we entered into a separate agreement to utilize certain wireless spectrum from a wholly-owned subsidiary of XO Holdings, NextLink, that held its wireless spectrum. The agreement included an option, subject to certain conditions, to buy NextLink. In February 2017, we completed our acquisition of XO for total cash consideration of approximately $1.5 billion, of which $0.1 billion was paid in 2015, and we prepaid $0.3 billion in connection with the NextLink option which represented the fair value of the option.

In April 2017, we exercised our option to buy NextLink for approximately $0.5 billion, subject to certain adjustments, of which $0.3 billion was prepaid in the first quarter of 2017. The transaction closed in January 2018. The acquisition of NextLink was accounted for as an asset acquisition, as substantially all of the value related to the acquired spectrum. Upon closing, we recorded approximately $0.7 billion of wireless licenses, $0.1 billion of a deferred tax liability and $0.1 billion of other liabilities. The spectrum acquired as part of the transaction will be used for our 5G technology deployment.

The consolidated financial statements include the results of XO's operations from the date the acquisition closed. If the acquisition of XO had been completed as of January 1, 2016, the results of operations of Verizon would not have been significantly different than our previously reported results of operations.

The acquisition of XO was accounted for as a business combination. The consideration was allocated to the assets acquired and liabilities assumed based on their fair values as of the close of the acquisition. We recorded approximately $1.2 billion of property, plant and equipment, $0.1 billion of goodwill and $0.2 billion of other intangible assets. Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired. The goodwill included within our Wireline segment, represents future economic benefits that we expect to achieve as a result of the acquisition. See Note 4 for additional information.

Data Center Sale

In December 2016, we entered into a definitive agreement, which was subsequently amended in March 2017, with Equinix, Inc. (Equinix) pursuant to which we agreed to sell 23 customer-facing data center sites in the U.S. and Latin America for approximately $3.6 billion, subject to certain adjustments (Data Center Sale). The transaction closed in May 2017.

For the years ended December 31, 2017 and 2016, these sites generated an insignificant amount of revenues and earnings. As a result of the closing of the transaction, we derecognized assets with a carrying value of $1.4 billion, primarily consisting of goodwill, property, plant and equipment and other intangible assets. The liabilities associated with the sale were insignificant.

In connection with the Data Center Sale and other insignificant divestitures, we recorded a net gain on sale of divested businesses of approximately $1.8 billion in Selling, general and administrative expense in our consolidated statement of income for the year ended December 31, 2017.

WideOpenWest, Inc.

In August 2017, we entered into a definitive agreement to purchase certain fiber-optic network assets in the Chicago market from WideOpenWest, Inc. (WOW!), a leading provider of communications services. The transaction closed in December 2017. In addition, the parties entered into a separate agreement pursuant to which WOW! will complete the build-out of the network assets in 2019. The total cash consideration for the transactions is approximately $0.3 billion, of which $0.2 billion was received in December 2017.

Other

Acquisition of AOL Inc.

In May 2015, we entered into an Agreement and Plan of Merger with AOL Inc. (AOL) pursuant to which we commenced a tender offer to acquire all of the outstanding shares of common stock of AOL at a price of $50.00 per share, net to the seller in cash, without interest and less any applicable withholding taxes.

On June 23, 2015, we completed the tender offer and merger, and AOL became a wholly-owned subsidiary of Verizon. The aggregate cash consideration paid by Verizon at the closing of these transactions was approximately $3.8 billion. Holders of approximately 6.6 million shares exercised appraisal rights under Delaware law. In September 2018, we obtained court approval to settle this matter for total cash consideration of $0.2 billion of which an insignificant amount relates to interest, resulting in an insignificant gain. We paid the cash consideration in October 2018.

Acquisition of Yahoo! Inc.’s Operating Business

In July 2016, Verizon entered into a stock purchase agreement (the Purchase Agreement) with Yahoo! Inc. (Yahoo). Pursuant to the Purchase Agreement, upon the terms and subject to the conditions thereof, we agreed to acquire the stock of one or more subsidiaries of Yahoo holding all of Yahoo’s operating business for approximately $4.83 billion in cash, subject to certain adjustments (the Transaction).

In February 2017, Verizon and Yahoo entered into an amendment to the Purchase Agreement, pursuant to which the Transaction purchase price was reduced by $350 million to approximately $4.48 billion in cash, subject to certain adjustments. Subject to certain exceptions, the parties also agreed that certain user security and data breaches incurred by Yahoo (and the losses arising therefrom) were to be disregarded: (1) for purposes of specified conditions to Verizon’s obligations to close the Transaction; and (2) in determining whether a "Business Material Adverse Effect" under the Purchase Agreement had occurred.

Concurrently with the amendment of the Purchase Agreement, Yahoo and Yahoo Holdings, Inc., a wholly-owned subsidiary of Yahoo that Verizon agreed to purchase pursuant to the Transaction, also entered into an amendment to the related reorganization agreement, pursuant to which Yahoo (which has changed its name to Altaba Inc. following the closing of the Transaction) retains 50% of certain post-closing liabilities arising out of governmental or third-party investigations, litigations or other claims related to certain user security and data breaches incurred by Yahoo prior to its acquisition by Verizon, including an August 2013 data breach disclosed by Yahoo on December 14, 2016. At that time, Yahoo disclosed that more than one billion of the approximately three billion accounts existing in 2013 had likely been affected. In accordance with the original

Transaction agreements, Yahoo will continue to retain 100% of any liabilities arising out of any shareholder lawsuits (including derivative claims) and investigations and actions by the SEC.

In June 2017, we completed the Transaction. The aggregate purchase consideration at the closing of the Transaction was approximately $4.7 billion, including cash acquired of $0.2 billion.

Prior to the closing of the Transaction, pursuant to a related reorganization agreement, Yahoo transferred all of the assets and liabilities constituting Yahoo's operating business to the subsidiaries that we acquired in the Transaction. The assets that we acquired did not include Yahoo's ownership interests in Alibaba, Yahoo! Japan and certain other investments, certain undeveloped land recently divested by Yahoo, certain non-core intellectual property or its cash, other than the cash from its operating business we acquired. We received for our benefit and that of our current and certain future affiliates a non-exclusive, worldwide, perpetual, royalty-free license to all of Yahoo's intellectual property that was not conveyed with the business.

In October 2017, based upon information that we received in connection with our integration of Yahoo's operating business, we disclosed that we believe that the August 2013 data breach previously disclosed by Yahoo affected all of its accounts.

The acquisition of Yahoo's operating business has been accounted for as a business combination. The fair values of the assets acquired and liabilities assumed were determined using the income, cost, market and multiple period excess earnings approaches. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement as defined in Accounting Standards Codification 820, Fair Value Measurements and Disclosures, other than long-term debt assumed in the acquisition. The income approach was primarily used to value the intangible assets, consisting primarily of acquired technology and customer relationships. The income approach indicates value for an asset based on the present value of cash flow projected to be generated by the asset. Projected cash flow is discounted at a required rate of return that reflects the relative risk of achieving the cash flow and the time value of money. The cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, was used, as appropriate, for property, plant and equipment. The cost to replace a given asset reflects the estimated reproduction or replacement cost for the property, less an allowance for loss in value due to depreciation.

In June 2018, we finalized the accounting for the Yahoo acquisition. The following table summarizes the final accounting for of the assets acquired, including cash acquired of $0.2 billion, and liabilities assumed as of the close of the acquisition, as well as the fair value at the acquisition date of Yahoo's noncontrolling interests:

(dollars in millions)	As of December 31, 2017	Measurement-period adjustments [1]	Adjusted Fair Value
Cash payment to Yahoo's equity holders	$ 4,673	$ —	$ 4,673
Estimated liabilities to be paid	38	—	38
Total consideration	$ 4,711	$ —	$ 4,711
Assets acquired:			
Goodwill	$ 1,929	$ 215	$ 2,144
Intangible assets subject to amortization	1,873	1	1,874
Property, plant, and equipment	1,805	(6)	1,799
Other	1,332	128	1,460
Total assets acquired	6,939	338	7,277
Liabilities assumed:			
Total liabilities assumed	2,178	338	2,516
Net assets acquired:	4,761	—	4,761
Noncontrolling interest	(50)	—	(50)
Total consideration	$ 4,711	$ —	$ 4,711

[1] Adjustments to the fair value measurements to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognized as of that date. The most significant adjustments related to an increase in goodwill and the recognition of liabilities per certain pre-acquisition contingencies.

On the closing date of the Transaction, each unvested and outstanding Yahoo restricted stock unit award that was held by an employee who became an employee of Verizon was replaced with a Verizon restricted stock unit award, which is generally payable in cash upon the applicable vesting date. The value of those outstanding restricted stock units on the acquisition date was approximately $1.0 billion.

Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired. The goodwill was primarily attributable to increased synergies that were expected to be achieved from the integration of Yahoo's operating business into our Media business. The goodwill related to this acquisition is included within Corporate and other. See Note 4 for additional information.

The consolidated financial statements include the results of Yahoo's operating business from the date the acquisition closed. If the acquisition of Yahoo's operating business had been completed as of January 1, 2016, the results of operations of Verizon would not have been significantly different than our previously reported results of operations.

Acquisition and Integration Related Charges

Related to the Yahoo Transaction, we recorded $0.5 billion of acquisition and integration related charges during the year ended December 31, 2018, of which $0.3 billion, $0.2 billion and an insignificant amount are related to Severance, Integration costs and Transaction costs, respectively. In connection with the Yahoo Transaction, we recorded acquisition and integration related charges of approximately $0.8 billion during the year ended December 31, 2017, of which $0.5 billion, $0.2 billion and $0.1 billion related to Severance, Integration costs and Transaction costs, respectively. These charges were recorded in Selling, general and administrative expense in our consolidated statements of income.

Fleetmatics Group PLC

In July 2016, we entered into an agreement to acquire Fleetmatics Group PLC, a public limited company incorporated in Ireland (Fleetmatics). Fleetmatics was a leading global provider of fleet and mobile workforce management solutions. Pursuant to the terms of the agreement, we acquired Fleetmatics for $60.00 per ordinary share in cash. The aggregate merger consideration was approximately $2.5 billion, including cash acquired of $0.1 billion. We completed the acquisition on November 7, 2016. As a result of the transaction, Fleetmatics became a wholly-owned subsidiary of Verizon.

The consolidated financial statements include the results of Fleetmatics' operations from the date the acquisition closed. Had this acquisition been completed on January 1, 2016, the results of operations of Verizon would not have been significantly different than our previously reported results of operations. Upon closing, we recorded approximately $1.4 billion of goodwill and $1.1 billion of other intangibles.

The acquisition of Fleetmatics was accounted for as a business combination. The consideration was allocated to the assets acquired and liabilities assumed based on their fair values as of the close of the acquisition.

Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired. The goodwill recorded as a result of the Fleetmatics transaction represents future economic benefits we expect to achieve as a result of the acquisition. The goodwill related to this acquisition is included within Corporate and other. See Note 4 for additional information.

Other

In July 2016, we acquired Telogis, Inc., a global cloud-based mobile enterprise management software business, for $0.9 billion of cash consideration. Upon closing, we recorded $0.5 billion of goodwill that is included within Corporate and other.

During 2018, we entered into and completed various other transactions for $0.1 billion of cash consideration. During 2017 and 2016, we entered into and completed various other transactions for an insignificant amount of cash consideration.

Note 4. Wireless Licenses, Goodwill and Other Intangible Assets

Wireless Licenses

The carrying amounts of Wireless licenses are as follows:

				(dollars in millions)
At December 31,		**2018**		2017
Wireless licenses	**$**	**94,130**	$	88,417

For the year ended December 31, 2018, we recorded approximately $4.5 billion of wireless licenses in connection with the Straight Path acquisition and $0.7 billion in connection with the NextLink acquisition. See Note 3 for additional information.

At December 31, 2018 and 2017, approximately $8.6 billion and $8.8 billion, respectively, of wireless licenses were under development for commercial service for which we were capitalizing interest costs. We recorded approximately $0.5 billion of capitalized interest on wireless licenses for each of the years ended December 31, 2018 and 2017, respectively.

The average remaining renewal period of our wireless license portfolio was 4.6 years as of December 31, 2018. See Note 1 for additional information.

As discussed in Note 1, we test our wireless licenses for potential impairment annually or more frequently if impairment indicators are present. In 2018, our quantitative impairment test consisted of comparing the estimated fair value of our aggregate wireless licenses estimated using the Greenfield approach to the aggregated carrying amount of the licenses as of the test date. In 2017 and 2016, we performed a qualitative assessment to determine whether it was more likely than not that the fair value of our wireless licenses was less than the carrying amount. Our assessments in 2018, 2017 and 2016 indicated that the fair value of our wireless licenses exceeded the carrying value and, therefore, did not result in impairment.

Goodwill

Changes in the carrying amount of Goodwill are as follows:

(dollars in millions)

	Wireless	Wireline	Other	Total
Balance at January 1, 2017	$ 18,393	$ 3,746	$ 5,066	$ 27,205
Acquisitions (Note 3)	4	208	1,956	2,168
Reclassifications, adjustments and other	—	1	(202)	(201)
Balance at December 31, 2017	18,397	3,955	6,820	29,172
Acquisitions (Note 3)	**—**	**(77)**	**225**	**148**
Oath goodwill impairment	**—**	**—**	**(4,591)**	**(4,591)**
Reclassifications, adjustments and other	**—**	**(7)**	**(108)**	**(115)**
Balance at December 31, 2018	**$ 18,397**	**$ 3,871**	**$ 2,346**	**$ 24,614**

We recognized goodwill of $2.1 billion within the Media reporting unit (included within Other in the table above) as a result of the acquisition of Yahoo's operating business and $0.1 billion in Wireline as a result of the acquisition of XO. See Note 3 for additional information.

In the fourth quarter of 2018, we performed a quantitative impairment test for our Wireless, Wireline, Connect and Media reporting units. Based on our assessment, it was determined that the fair value exceeded the carrying amount of each of our reporting units except for our Media reporting unit. Our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, has continued to experience increased competitive and market pressures throughout 2018 that have resulted in lower than expected revenues and earnings. These pressures are expected to continue and have resulted in a loss of market positioning to our competitors in the digital advertising business. Oath has also achieved lower than expected benefits from the integration of the Yahoo and AOL businesses.

In connection with Verizon's annual budget process in the fourth quarter, the new leadership at both Oath and Verizon completed a comprehensive five-year strategic planning review of Oath's business prospects resulting in unfavorable adjustments to Oath's financial projections. These revised projections were used as a key input into the Company's annual goodwill impairment test performed in the fourth quarter.

Consistent with our accounting policy, we applied a combination of a market approach and a discounted cash flow method reflecting current assumptions and inputs, including our revised projections, discount rate and expected growth rates, which resulted in the fair value of the Media reporting unit being less than its carrying amount. As a result, we recorded a non-cash goodwill impairment charge of approximately $4.6 billion ($4.5 billion after-tax) in the fourth quarter of 2018 in our consolidated statement of income. The goodwill balance of the Media reporting unit was approximately $4.8 billion prior to the incurrence of this impairment charge.

We performed a quantitative impairment assessment for all of our reporting units in 2018 and for all of our reporting units, except for our Wireless reporting unit, in 2017 and 2016 for which a qualitative assessment was completed. For 2018, 2017 and 2016, our impairment tests indicated that the fair value for each of our Wireless, Wireline and Connect reporting units exceeded their respective carrying value and therefore, did not result in a goodwill impairment. For 2017 and 2016, our impairment tests indicated that the fair value for our Media reporting unit exceeded its carrying value and therefore, did not result in goodwill impairment.

Other Intangible Assets

The following table displays the composition of Other intangible assets, net:

(dollars in millions)

	2018			2017		
At December 31,	**Gross Amount**	**Accumulated Amortization**	**Net Amount**	Gross Amount	Accumulated Amortization	Net Amount
Customer lists (8 to 13 years)	**$ 3,951**	**$ (1,121)**	**$ 2,830**	$ 3,621	$ (691)	$ 2,930
Non-network internal-use software (3 to 7 years)	**18,603**	**(12,785)**	**5,818**	18,010	(12,374)	5,636
Other (2 to 25 years)	**1,988**	**(861)**	**1,127**	2,474	(793)	1,681
Total	**$ 24,542**	**$ (14,767)**	**$ 9,775**	$ 24,105	$ (13,858)	$ 10,247

During 2017, we recognized other intangible assets of $1.9 billion in Corporate and other as a result of the acquisition of Yahoo's operating business and $0.2 billion in Wireline as a result of the acquisition of XO. See Note 3 for additional information.

The amortization expense for Other intangible assets was as follows:

Years		(dollars in millions)
2018	**$**	**2,217**
2017		2,213
2016		1,701

Estimated annual amortization expense for Other intangible assets is as follows:

Years		(dollars in millions)
2019	**$**	**2,145**
2020		**1,801**
2021		**1,501**
2022		**1,230**
2023		**949**

Note 5. Property, Plant and Equipment

The following table displays the details of Property, plant and equipment, which is stated at cost:

					(dollars in millions)
At December 31,	**Lives (years)**		**2018**		2017
Land	-	**$**	**807**	$	806
Buildings and equipment	**7 to 45**		**30,468**		28,914
Central office and other network equipment	**3 to 50**		**147,250**		145,093
Cable, poles and conduit	**7 to 50**		**49,859**		47,972
Leasehold improvements	**5 to 20**		**8,580**		8,394
Work in progress	-		**6,362**		6,139
Furniture, vehicles and other	**3 to 20**		**9,509**		9,180
			252,835		246,498
Less accumulated depreciation			**(163,549)**		(157,930)
Property, plant and equipment, net		**$**	**89,286**	$	88,568

Note 6. Leasing Arrangements

As Lessee

We lease certain facilities and equipment for use in our operations under both capital and operating leases. Certain operating leases contain renewal options with varying terms and conditions that may be exercised. Total rent expense under operating leases amounted to $4.1 billion in 2018, $3.8 billion in 2017, and $3.6 billion in 2016.

Amortization of capital leases is included in Depreciation and amortization expense in the consolidated statements of income. Capital lease amounts included in Property, plant and equipment are as follows:

				(dollars in millions)
At December 31,		**2018**		2017
Capital leases	**$**	**1,756**	$	1,463
Less accumulated amortization		**(998)**		(692)
Total	**$**	**758**	$	771

The aggregate minimum rental commitments under noncancelable leases for the periods shown at December 31, 2018 are as follows:

(dollars in millions)

Years	Capital Leases	Operating Leases
2019	**$ 343**	**$ 4,043**
2020	**245**	**3,678**
2021	**148**	**3,272**
2022	**100**	**2,871**
2023	**52**	**2,522**
Thereafter	**115**	**10,207**
Total minimum rental commitments	**$ 1,003**	**$ 26,593**
Less interest and executory costs	**$ (98)**	
Present value of minimum lease payments	**905**	
Less current installments	**(316)**	
Long-term obligation at December 31, 2018	**$ 589**	

Tower Monetization Transaction

During March 2015, we completed a transaction with American Tower Corporation (American Tower) pursuant to which American Tower acquired the exclusive rights to lease and operate approximately 11,300 of our wireless towers and corresponding ground leases for an upfront payment of $5.0 billion. We have subleased capacity on the towers from American Tower for a minimum of 10 years at current market rates, with options to renew. Under this agreement, total rent payments for the towers amounted to $0.3 billion for both the years ended December 31, 2018 and 2017. We expect to make minimum future lease payments of approximately $1.8 billion. We continue to include the towers in Property, plant and equipment, net in our consolidated balance sheets and depreciate them accordingly. Towers related to this transaction that were included in Property, plant and equipment, net, amounted to $0.4 billion for both the years ended December 31, 2018 and 2017. In addition, the minimum future payments for the ground leases of approximately $2.5 billion is included in our operating lease commitments. As part of the rights obtained during the transaction, American Tower is responsible for the payment of the leases, and we do not expect to be required to make payments unless American Tower defaults.

Note 7. Debt

Outstanding long-term debt obligations as of December 31, 2018 are as follows:

(dollars in millions)

At December 31,	Interest Rates %	Maturities	2018	2017
Verizon Communications	**1.38 – 4.00**	**2018 – 2042**	**$ 29,651**	$ 31,370
	4.05 – 5.51	**2020 – 2055**	**66,230**	67,906
	5.82 – 6.90	**2026 – 2054**	**5,658**	5,835
	7.35 – 8.95	**2029 – 2039**	**1,076**	1,106
	Floating	**2018 – 2025**	**4,657**	6,684
Verizon Wireless	**6.80 – 7.88**	**2029 – 2032**	**234**	234
Telephone subsidiaries—debentures	**5.13 – 6.50**	**2028 – 2033**	**226**	226
	7.38 – 7.88	**2022 – 2032**	**341**	341
	8.00 – 8.75	**2022 – 2031**	**229**	229
Other subsidiaries—notes payable, debentures and other	**6.70 – 8.75**	**2018 – 2028**	**444**	748
Verizon Wireless and other subsidiaries—asset-backed debt	**1.42 – 3.55**	**2021 – 2023**	**7,962**	6,293
	Floating	**2021 – 2023**	**2,139**	2,620
Capital lease obligations (average rate of 4.1% and 3.6% in 2018 and 2017, respectively)			**905**	1,020
Unamortized discount, net of premium			**(6,298)**	(7,133)
Unamortized debt issuance costs			**(541)**	(534)
Total long-term debt, including current maturities			**112,913**	116,945
Less long-term debt maturing within one year			**7,040**	3,303
Total long-term debt			**$ 105,873**	$ 113,642
Total long-term debt, including current maturities			**$ 112,913**	$ 116,945
Plus short-term notes payable			**150**	150
Total debt			**$ 113,063**	$ 117,095

Maturities of long-term debt (secured and unsecured) outstanding, including current maturities, excluding unamortized debt issuance costs, at December 31, 2018 are as follows:

Years	(dollars in millions)
2019	$ 7,058
2020	7,380
2021	6,999
2022	7,674
2023	5,903
Thereafter	78,439

During 2018, we received $10.8 billion of proceeds from long-term borrowings, which included $4.8 billion of proceeds from asset-backed debt transactions. The net proceeds were used for general corporate purposes including the repayment of debt. We used $14.6 billion to repay long-term borrowings and capital lease obligations, including $3.6 billion to prepay and repay asset-backed, long-term borrowings.

During 2017, we received $32.0 billion of proceeds from long-term borrowings, which included $4.3 billion of proceeds from asset-backed debt transactions. The net proceeds were used for general corporate purposes including the repayment of debt. We used $24.2 billion to repay long-term borrowings and capital lease obligations, including $0.4 billion to prepay asset-backed, long-term borrowings.

2018 Significant Debt Transactions

Tender Offers

(dollars in millions)	Principal Amount Purchased	Cash Consideration[(1)]
Verizon 1.750% - 5.012% notes due 2021-2055	$ 2,881	$ 2,829
Verizon 3.850% - 5.012% notes due 2039-2055	1,876	1,787
Total	$ 4,757	$ 4,616

(1) In addition to the purchase price, any accrued and unpaid interest on the purchased notes was paid to the date of purchase.

Exchange Offers and Cash Offers

(dollars in millions)	Principal Amount Exchanged/ Purchased	Principal Amount Issued/ Cash Paid in Exchange
Verizon 1.750% - 5.150% and floating rate notes due 2020-2024	$ 4,633	$ —
Verizon 4.329% notes due 2028		4,252
Cash paid in exchange and cash offer		539 [(1)]
Total	$ 4,633	$ 4,791

(1) In addition to the purchase price, any accrued and unpaid interest on the purchased notes was paid to the date of purchase.

Debt Redemptions, Repurchases and Repayments

(dollars in millions)	Principal Amount Redeemed/ Repurchased	% of Principal Paid
Verizon floating rate (LIBOR + 1.372%) notes due 2025	$ 2,500	100.000%
Open market repurchase of various Verizon notes	1,481	Various
Verizon 2.550% notes due 2019	213	100.000%
Total	$ 4,194	

In 2018, we also repaid $0.4 billion for a Verizon floating rate note that matured in September 2018.

During February 2019, we notified investors of our intention to redeem in March 2019 in whole $0.5 billion aggregate principal amount of 5.900% notes due 2054.

Debt Issuances

(dollars in millions)	Principal Amount Issued	Net Proceeds [(1)]
Verizon 5.320% notes due 2053	$ 730	$ 725
Verizon floating rate (LIBOR + 1.100%) notes due 2025	1,789	1,782
Verizon retail notes	338	328
Total	$ 2,857	$ 2,835

(1) Net proceeds were net of discount and issuance costs.

In February 2019, we issued $1.0 billion aggregate principal amount of 3.875% notes due 2029, which we refer to as the "green bond." An amount equal to the net proceeds from the green bond will be used to fund, in whole or in part, "Eligible Green Investments." "Eligible Green Investments" include new and existing investments made by us during the period from two years prior to the issuance of the green bond through the maturity date of the green bond, in the following categories: (1) renewable energy; (2) energy efficiency; (3) green buildings; (4) sustainable water management; and (5) biodiversity and conservation.

Asset-Backed Debt

As of December 31, 2018, the carrying value of our asset-backed debt was $10.1 billion. Our asset-backed debt includes notes (the Asset-Backed Notes) issued to third-party investors (Investors) and loans (ABS Financing Facilities) received from banks and their conduit facilities (collectively, the Banks). Our consolidated asset-backed debt bankruptcy remote legal entities (each, an ABS Entity or collectively, the ABS Entities) issue the debt or are otherwise party to the transaction documentation in connection with our asset-backed debt transactions. Under the terms of our asset-backed debt, we transfer device payment plan agreement receivables from Cellco Partnership (Cellco) and certain other affiliates of Verizon (collectively, the Originators) to one of the ABS Entities, which in turn transfers such receivables to another ABS Entity that issues the debt. Verizon entities retain the equity interests in the ABS Entities, which represent the rights to all funds not needed to make required payments on the asset-backed debt and other related payments and expenses.

Our asset-backed debt is secured by the transferred device payment plan agreement receivables and future collections on such receivables. The device payment plan agreement receivables transferred to the ABS Entities and related assets, consisting primarily of restricted cash, will only be available for payment of asset-backed debt and expenses related thereto, payments to the Originators in respect of additional transfers of device payment plan agreement receivables, and other obligations arising from our asset-backed debt transactions, and will not be available to pay other obligations or claims of Verizon's creditors until the associated asset-backed debt and other obligations are satisfied. The Investors or Banks, as applicable, which hold our asset-backed debt have legal recourse to the assets securing the debt, but do not have any recourse to Verizon with respect to the payment of principal and interest on the debt. Under a parent support agreement, Verizon has agreed to guarantee certain of the payment obligations of Cellco and the Originators to the ABS Entities.

Cash collections on the device payment plan agreement receivables collateralizing our asset-backed debt securities are required at certain specified times to be placed into segregated accounts. Deposits to the segregated accounts are considered restricted cash and are included in Prepaid expenses and other, and Other assets in our consolidated balance sheets.

Proceeds from our asset-backed debt transactions are reflected in Cash flows from financing activities in our condensed consolidated statements of cash flows. The asset-backed debt issued and the assets securing this debt are included in our consolidated balance sheets.

Asset-Backed Notes

In 2018, we completed the following major Asset-Backed Notes transactions:

(dollars in millions)

	Interest Rates %	Expected Weighted-average Life to Maturity	Principal Amount Issued
March			
A-1a Senior class notes	**2.820**	**2.49**	$ **725**
A-1b Senior floating rate class notes	**0.260** (1)	**2.49**	**275**
B Junior class notes	**3.050**	**3.14**	**91**
C Junior class notes	**3.200**	**3.36**	**92**
March total			**1,183**
October			
A-1a Senior class notes	**3.230**	**2.51**	**1,226**
A-1b Senior floating rate class notes	**0.240** (1)	**2.51**	**200**
B Junior class notes	**3.380**	**3.24**	**98**
C Junior class notes	**3.550**	**3.41**	**76**
October total			**1,600**
Total			$ **2,783**

(1) Rate is the percentage presented plus one-month London Interbank Offered Rate (LIBOR), which will be reset monthly. The applicable one-month LIBOR rate at December 31, 2018 was 2.520%

Under the terms of each series of Asset-Backed Notes, there is a two year revolving period during which we may transfer additional receivables to the ABS Entity. The two year revolving period of the Asset-Backed Notes we issued in July 2016 and November 2016 ended in July 2018 and November 2018 respectively, and we began to repay principal on the 2016-1 Class A senior Asset-Backed Notes and the 2016-2 Class A senior Asset-Backed Notes in August 2018 and December 2018, respectively. During 2018, we made aggregate repayments of $0.6 billion.

ABS Financing Facility

In May 2018, we entered into a second device payment plan agreement financing facility with a number of financial institutions (2018 ABS Financing Facility). Under the terms of the 2018 ABS Financing Facility, the financial institutions made advances under asset-backed loans backed by device payment plan agreement receivables of business customers for proceeds of $0.5 billion. The loan agreement entered into in connection with the 2018 ABS Financing Facility has a final maturity date in December 2021 and bears interest at a floating rate. There is a one year revolving period beginning from May 2018 during which we may transfer additional receivables to the ABS Entity. Subject to certain conditions, we may also remove receivables from the ABS Entity. Under the loan agreement, we have the right to prepay all or a portion of the advances at any time without penalty, but in certain cases, with breakage costs. If we choose to prepay, the amount prepaid shall be available for further drawdowns until May 2019, except in certain circumstances. As of December 31, 2018, the 2018 ABS Financing Facility is fully drawn and the outstanding borrowing under the 2018 ABS Financing Facility was $0.5 billion.

We entered into an ABS Financing Facility in September 2016 with a number of financial institutions (2016 ABS Financing Facility). Under the terms of the 2016 ABS Financing Facility, the financial institutions made advances under asset-backed loans backed by device payment plan agreement receivables of consumer customers. Two loan agreements were entered into in connection with the 2016 ABS Financing Facility in September 2016 and May 2017. The loan agreements have a final maturity date in March 2021 and bear interest at floating rates. The two year revolving period of the two loan agreements ended in September 2018. Under the loan agreements, we have the right to prepay all or a portion of the advances at any time without penalty, but in certain cases, with breakage costs. Subject to certain conditions, we may also remove receivables from the ABS Entity. As a result of a $1.5 billion drawdown and an aggregate amount of $3.0 billion of prepayments and repayments, aggregate outstanding borrowings under the two loans agreements were $0.9 billion as of December 31, 2018.

Variable Interest Entities

The ABS Entities meet the definition of a VIE for which we have determined that we are the primary beneficiary as we have both the power to direct the activities of the entity that most significantly impact the entity's performance and the obligation to absorb losses or the right to receive benefits of the entity. Therefore, the assets, liabilities and activities of the ABS Entities are consolidated in our financial results and are included in amounts presented on the face of our consolidated balance sheets.

The assets and liabilities related to our asset-backed debt arrangements included in our consolidated balance sheets were as follows:

(dollars in millions)

At December 31,	**2018**	2017
Assets		
Accounts receivable, net	**$ 8,861**	$ 8,101
Prepaid expenses and other	**989**	636
Other Assets	**2,725**	2,680
Liabilities		
Accounts payable and accrued liabilities	**7**	5
Debt maturing within one year	**5,352**	1,932
Long-term debt	**4,724**	6,955

See Note 8 for additional information on device payment plan agreement receivables used to secure asset-backed debt.

Credit Facilities

In April 2018, we amended our $9.0 billion credit facility to increase the capacity to $9.5 billion and extend its maturity to April 4, 2022. As of December 31, 2018, the unused borrowing capacity under our $9.5 billion credit facility was approximately $9.4 billion. The credit facility does not require us to comply with financial covenants or maintain specified credit ratings, and it permits us to borrow even if our business has incurred a material adverse change. We use the credit facility for the issuance of letters of credit and for general corporate purposes.

In March 2016, we entered into a $1.0 billion credit facility insured by Eksportkreditnamnden Stockholm, Sweden, the Swedish export credit agency. As of December 31, 2018, the outstanding balance was $0.7 billion. We used this credit facility to finance network equipment-related purchases.

In July 2017, we entered into credit facilities insured by various export credit agencies providing us with the ability to borrow up to $4.0 billion to finance equipment-related purchases. The facilities have borrowings available, portions of which extend through October 2019, contingent upon the amount of eligible equipment-related purchases that we make. During 2018, we drew down $3.0 billion from these facilities, and $2.8 billion remained outstanding as of December 31, 2018. In January 2019, we drew down an additional $0.4 billion from these facilities.

Non-Cash Transaction

During the years ended December 31, 2018, 2017 and 2016, we financed, primarily through vendor financing arrangements, the purchase of approximately $1.1 billion, $0.5 billion, and $0.5 billion respectively, of long-lived assets consisting primarily of network equipment. At December 31, 2018 and December 31, 2017, $1.1 billion and $1.2 billion, respectively, relating to these financing arrangements, including those entered into in prior years and liabilities assumed through acquisitions, remained outstanding. These purchases are non-cash financing activities and therefore not reflected within Capital expenditures in our consolidated statements of cash flows.

Early Debt Redemptions

During 2018 and 2017, we recorded losses on early debt redemptions of $0.7 billion and $2.0 billion, respectively.

We recognize losses on early debt redemptions in Other income (expense), net, in our consolidated statements of income and within our Net cash used in financing activities in our consolidated statements of cash flows.

Guarantees

We guarantee the debentures of our operating telephone company subsidiaries. As of December 31, 2018, $0.8 billion aggregate principal amount of these obligations remained outstanding. Each guarantee will remain in place for the life of the obligation unless terminated pursuant to its terms, including the operating telephone company no longer being a wholly-owned subsidiary of Verizon.

We also guarantee the debt obligations of GTE LLC, as successor in interest to GTE Corporation, that were issued and outstanding prior to July 1, 2003. As of December 31, 2018, $0.4 billion aggregate principal amount of these obligations remain outstanding.

Debt Covenants

We and our consolidated subsidiaries are in compliance with all of our restrictive covenants in our debt agreements.

Note 8. Wireless Device Payment Plans

Under the Verizon device payment program, our eligible wireless customers purchase wireless devices under a device payment plan agreement. Customers that activate service on devices purchased under the device payment program pay lower service fees as compared to those under our fixed-term service plans, and their device payment plan charge is included on their wireless monthly bill. As of January 2017, we no longer offer consumers new fixed-term subsidized service plans for phones; however, we continue to offer subsidized plans to our business customers, and we also continue to service existing fixed-term subsidized plans for consumers who have not yet purchased and activated devices under the Verizon device payment program.

Wireless Device Payment Plan Agreement Receivables

The following table displays device payment plan agreement receivables, net, that continue to be recognized in our consolidated balance sheets:

				(dollars in millions)
At December 31,		**2018**		2017
Device payment plan agreement receivables, gross	**$**	**19,313**	$	17,770
Unamortized imputed interest		**(546)**		(821)
Device payment plan agreement receivables, net of unamortized imputed interest		**18,767**		16,949
Allowance for credit losses		**(597)**		(848)
Device payment plan agreement receivables, net	**$**	**18,170**	$	16,101
Classified in our consolidated balance sheets:				
Accounts receivable, net	**$**	**12,624**	$	11,064
Other assets		**5,546**		5,037
Device payment plan agreement receivables, net	**$**	**18,170**	$	16,101

Included in our device payment plan agreement receivables, net at December 31, 2018 and December 31, 2017, are net device payment plan agreement receivables of $11.5 billion and $10.7 billion, respectively, that have been transferred to ABS Entities and continue to be reported in our consolidated balance sheet. See Note 7 for additional information. We believe the carrying value of our installment loans receivables approximate their fair value using a Level 3 expected cash flow model.

We may offer certain promotions that allow a customer to trade in their owned device in connection with the purchase of a new device. Under these types of promotions, the customer receives a credit for the value of the trade-in device. In addition, we may provide the customer with additional future credits that will be applied against the customer’s monthly bill as long as service is maintained. We recognize a liability for the trade-in device measured at fair value, which is determined by considering several factors, including the weighted-average selling prices obtained in recent resales of similar devices eligible for trade-in. Future credits are recognized when earned by the customer. Device payment plan agreement receivables, net does not reflect the trade-in device liability. At December 31, 2018 and December 31, 2017, the amount of trade-in liability was $0.1 billion and insignificant, respectively.

From time to time, we offer certain marketing promotions that allow our customers to upgrade to a new device after paying down a certain specified portion of the required device payment plan agreement amount as well as trading in their device in good working order. When a customer enters into a device payment plan agreement with the right to upgrade to a new device, we account for this trade-in right as a guarantee obligation.

For Wireless indirect channel contracts with customers, we impute risk adjusted interest on the device payment plan agreement receivables. We record the imputed interest as a reduction to the related accounts receivable. Interest income, which is included within Service revenues and other in our consolidated statements of income, is recognized over the financed device payment term. See Note 2 for additional information on financing considerations with respect to Wireless direct channel contracts with customers.

When originating device payment plan agreements, we use internal and external data sources to create a credit risk score to measure the credit quality of a customer and to determine eligibility for the device payment program. If a customer is either new to Verizon Wireless or has less than 210 days of customer tenure with Verizon Wireless (a new customer), the credit decision process relies more heavily on external data sources. If the customer has 210 days or more of customer tenure with Verizon Wireless (an existing customer), the credit decision process relies on internal data sources. Verizon Wireless' experience has been that the payment attributes of longer tenured customers are highly predictive for estimating their reliability to make future payments. External data sources include obtaining a credit report from a national consumer credit reporting agency, if available. Verizon Wireless uses its internal data and/or credit data obtained from the credit reporting agencies to create a custom credit risk score. The custom credit risk score is generated automatically (except with respect to a small number of applications where the information needs manual intervention) from the applicant's credit data using Verizon Wireless' proprietary custom credit models, which are empirically derived, demonstrably and statistically sound. The credit risk score measures the likelihood that the potential customer will become severely delinquent and be disconnected for non-payment. For a small portion of new customer applications, a traditional credit report is not available from one of the national credit reporting agencies because the potential customer does not have sufficient credit history. In those instances, alternate credit data is used for the risk assessment.

Based on the custom credit risk score, we assign each customer to a credit class, each of which has specified offers of credit including an account level spending limit and either a maximum amount of credit allowed per device or a required down payment percentage. During the fourth quarter of 2018 Verizon Wireless moved all customers, new and existing, from a required down payment percentage, between zero and 100%, to a maximum amount of credit per device.

Subsequent to origination, Verizon Wireless monitors delinquency and write-off experience as key credit quality indicators for its portfolio of device payment plan agreements and fixed-term service plans. The extent of our collection efforts with respect to a particular customer are based on the results of proprietary custom empirically derived internal behavioral scoring models that analyze the customer's past performance to predict the likelihood of the customer falling further delinquent. These customer scoring models assess a number of variables, including origination characteristics, customer account history and payment patterns. Based on the score derived from these models, accounts are grouped by risk category to determine the collection strategy to be applied to such accounts. We continuously monitor collection performance results and the credit quality of our device payment plan agreement receivables based on a variety of metrics, including aging. Verizon Wireless considers an account to be delinquent and in default status if there are unpaid charges remaining on the account on the day after the bill's due date.

The balance and aging of the device payment plan agreement receivables on a gross basis was as follows:

		(dollars in millions)
At December 31,	**2018**	2017
Unbilled	**$ 18,043**	$ 16,591
Billed:		
Current	**986**	975
Past due	**284**	204
Device payment plan agreement receivables, gross	**$ 19,313**	$ 17,770

Activity in the allowance for credit losses for the device payment plan agreement receivables was as follows:

		(dollars in millions)
	2018	2017
Balance at January 1,	**$ 848**	$ 688
Bad debt expense	**459**	718
Write-offs	**(710)**	(558)
Balance at December 31,	**$ 597**	$ 848

Sales of Wireless Device Payment Plan Agreement Receivables

In 2015 and 2016, we established programs pursuant to a Receivables Purchase Agreement (RPA) to sell from time to time, on an uncommitted basis, eligible device payment plan agreement receivables to a group of primarily relationship banks (Purchasers) on both a revolving and non-revolving basis, collectively the Programs. In December 2017, the RPA and all other related transaction documents were terminated. Under the Programs, eligible device payment plan agreement receivables were transferred to the Purchasers for upfront cash proceeds and additional consideration upon settlement of the receivables, referred to as the deferred purchase price.

There were no sales of device payment plan agreement receivables under the Programs during 2017. During 2016, we sold $3.3 billion of receivables, net of allowance and imputed interest, under the Revolving Program. We received cash proceeds from new transfers of $2.0 billion and cash proceeds from reinvested collections of $0.9 billion and recorded a deferred purchase price of $0.4 billion.

The sales of receivables under the RPA did not have a significant impact on our consolidated statements of income. The cash proceeds received from the Purchasers were recorded within Cash flows provided by operating activities in our consolidated statements of cash flows.

Deferred Purchase Price

The deferred purchase price was initially recorded in our consolidated balance sheets as an Other asset at fair value, based on the remaining device payment amounts expected to be collected, adjusted, as applicable, for the time value of money and by the timing and estimated value of the device trade-in in connection with upgrades. The estimated value of the device trade-in considered prices expected to be offered to us by independent third parties. This estimate contemplated changes in value after the launch of a device. The fair value measurements were considered to be Level 3 measurements within the fair value hierarchy. The collection of the deferred purchase price was contingent on collections from customers. During 2017, we repurchased all outstanding receivables previously sold to the Purchasers in exchange for the obligation to pay the associated deferred purchase price to the wholly-owned subsidiaries that were bankruptcy remote special purpose entities (Sellers). At December 31, 2017, our deferred purchase price receivable was fully satisfied.

Collections following the repurchase of receivables were $0.2 billion during both 2018 and 2017. Collections of deferred purchase price were $1.4 billion during 2017 and $1.1 billion during 2016. These collections were recorded in Cash flows used in investing activities in our consolidated statement of cash flows.

Variable Interest Entities

As the Programs were terminated in December 2017, VIEs related to the sale of wireless device payment plan receivables did not exist at December 31, 2018 or December 31, 2017.

During 2017, under the RPA, the Sellers’ sole business consisted of the acquisition of the receivables from Cellco and certain other affiliates of Verizon and the resale of the receivables to the Purchasers. The assets of the Sellers were not available to be used to satisfy obligations of any Verizon entities other than the Sellers. We determined that the Sellers were VIEs as they lack sufficient equity to finance their activities. Given that we had the power to direct the activities of the Sellers that most significantly impact the Sellers’ economic performance, we were deemed to be the primary beneficiary of the Sellers. As a result, we consolidated the assets and liabilities of the Sellers into our consolidated financial statements.

Continuing Involvement

At December 31, 2018 and 2017, the total portfolio of device payment plan agreement receivables that we were servicing was $19.3 billion and $17.8 billion, respectively. There were no derecognized device payment plan agreement receivables outstanding at December 31, 2017. As of December 31, 2017, we have collected and remitted approximately $10.1 billion, net of fees and no amounts remained to be remitted to the Purchasers.

During the year ended December 31, 2017, Verizon had continuing involvement with the sold receivables as it serviced the receivables. We continued to service the customer and their related receivables on behalf of the Purchasers, including facilitating customer payment collection, in exchange for a monthly servicing fee. While servicing the receivables, the same policies and procedures were applied to the sold receivables that applied to owned receivables, and we continued to maintain normal relationships with our customers. The credit quality of the customers we continued to service was consistent throughout the periods presented.

In addition, we had continuing involvement related to the sold receivables as we were responsible for absorbing additional credit losses pursuant to the agreements. Credit losses on receivables sold were $0.1 billion during 2017.

Note 9. Fair Value Measurements and Financial Instruments

Recurring Fair Value Measurements

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2018:

(dollars in millions)

	Level 1[(1)]	Level 2[(2)]	Level 3[(3)]	Total
Assets:				
Other assets:				
Fixed income securities	$ —	$ 405	$ —	$ 405
Interest rate swaps	—	3	—	3
Cross currency swaps	—	220	—	220
Interest rate caps	—	14	—	14
Total	$ —	$ 642	$ —	$ 642
Liabilities:				
Other liabilities:				
Interest rate swaps	$ —	$ 813	$ —	$ 813
Cross currency swaps	—	536	—	536
Forward starting interest rate swaps	—	60	—	60
Interest rate caps	—	4	—	4
Total	$ —	$ 1,413	$ —	$ 1,413

The following table presents the balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2017:

(dollars in millions)

	Level 1 [(1)]	Level 2 [(2)]	Level 3 [(3)]	Total
Assets:				
Other assets:				
Equity securities	$ 74	$ —	$ —	$ 74
Fixed income securities	—	366	—	366
Interest rate swaps	—	54	—	54
Cross currency swaps	—	450	—	450
Interest rate caps	—	6	—	6
Total	$ 74	$ 876	$ —	$ 950
Liabilities:				
Other liabilities:				
Interest rate swaps	$ —	$ 413	$ —	$ 413
Cross currency swaps	—	46	—	46
Total	$ —	$ 459	$ —	$ 459

(1) Quoted prices in active markets for identical assets or liabilities
(2) Observable inputs other than quoted prices in active markets for identical assets and liabilities
(3) Unobservable pricing inputs in the market

Equity securities measured at fair value on a recurring basis consist of investments in common stock of domestic and international corporations measured using quoted prices in active markets. Equity securities in the table above excludes certain of our equity investments, which were previously accounted for under the cost method, as they do not have readily determinable fair values. Beginning January 1, 2018 these investments have been measured using a quantitative approach under the practicability exception offered by ASU 2016-01. Such investments are measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer and are included in Investments in unconsolidated businesses in our consolidated balance sheets. As of December 31, 2018, the carrying amount of our investments without readily determinable fair values was $0.2 billion. During 2018, there were insignificant adjustments due to observable price changes and we recognized an insignificant impairment charge.

Fixed income securities consist primarily of investments in municipal bonds. For fixed income securities that do not have quoted prices in active markets, we use alternative matrix pricing resulting in these debt securities being classified as Level 2.

Derivative contracts are valued using models based on readily observable market parameters for all substantial terms of our derivative contracts and thus are classified within Level 2. We use mid-market pricing for fair value measurements of our derivative instruments. Our derivative instruments are recorded on a gross basis.

We recognize transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers between Level 1 and Level 2 during 2018 and 2017.

Fair Value of Short-term and Long-term Debt

The fair value of our debt is determined using various methods, including quoted prices for identical terms and maturities, which is a Level 1 measurement, as well as quoted prices for similar terms and maturities in inactive markets and future cash flows discounted at current rates, which are Level 2 measurements. The fair value of our short-term and long-term debt, excluding capital leases, was as follows:

(dollars in millions)

At December 31,	2018		2017	
	Carrying Amount	**Fair Value**	Carrying Amount	Fair Value
Short- and long-term debt, excluding capital leases	**$ 112,159**	**$ 118,535**	$ 116,075	$ 128,658

Derivative Instruments

The following table sets forth the notional amounts of our outstanding derivative instruments:

(dollars in millions)

At December 31,	2018	2017
Interest rate swaps	**$ 19,813**	$ 20,173
Cross currency swaps	**16,638**	16,638
Forward starting interest rate swaps	**4,000**	—
Interest rate caps	**2,218**	2,840
Foreign exchange forwards	**600**	—

Interest Rate Swaps

We enter into interest rate swaps to achieve a targeted mix of fixed and variable rate debt. We principally receive fixed rates and pay variable rates based on the LIBOR, resulting in a net increase or decrease to Interest expense. These swaps are designated as fair value hedges and hedge against interest rate risk exposure of designated debt issuances. We record the interest rate swaps at fair value in our consolidated balance sheets as assets and liabilities. Changes in the fair value of the interest rate swaps are recorded to Interest expense, which are offset by changes in the fair value of the hedged debt due to changes in interest rates.

During 2018, we entered into interest rate swaps with a total notional value of $0.7 billion and settled interest rate swaps with a total notional value of $1.1 billion. During 2017, we entered into interest rate swaps with a total notional value of $7.5 billion and settled interest rate swaps with a total notional value of $0.5 billion.

The ineffective portion of these interest rate swaps was insignificant for the years ended December 31, 2018 and 2017.

The following amounts were recorded in Long-term debt in our consolidated balance sheets related to cumulative basis adjustments for fair value hedges:

(dollars in millions)

At December 31,	2018	2017
Carrying amount of hedged liabilities	**$ 18,903**	$ 19,723
Cumulative amount of fair value hedging adjustment included in the carrying amount of the hedged liabilities	**(785)**	(316)

Cross Currency Swaps

We have entered into cross currency swaps designated as cash flow hedges to exchange our British Pound Sterling, Euro, Swiss Franc and Australian Dollar-denominated cash flows into U.S. dollars and to fix our cash payments in U.S. dollars, as well as to mitigate the impact of foreign currency transaction gains or losses.

During 2018, a pre-tax loss of $0.7 billion was recognized in Other comprehensive income (loss) with respect to these swaps.

During 2017, we entered into cross currency swaps with a total notional value of $14.0 billion and settled $10.2 billion notional amount of cross currency swaps. A pre-tax gain of $1.4 billion was recognized in Other comprehensive income (loss) with respect to these swaps.

A portion of the gains and losses recognized in Other comprehensive income (loss) was reclassified to Other income (expense), net to offset the related pre-tax foreign currency transaction gain or loss on the underlying hedged item.

Forward Starting Interest Rate Swaps

We have entered into forward starting interest rate swaps designated as cash flow hedges in order to manage our exposure to interest rate changes on future forecasted transactions.

During 2018, we entered into forward starting interest rate swaps with a total notional value of $4.0 billion. During 2018, a pre-tax loss of $0.1 billion was recognized in Other comprehensive income (loss).

We hedge our exposure to the variability in future cash flows of based on the expected maturities of the related forecasted debt issuance.

Net Investment Hedges

We have designated certain foreign currency instruments as net investment hedges to mitigate foreign exchange exposure related to non-U.S. dollar net investments in certain foreign subsidiaries against changes in foreign exchange rates. The notional amount of the Euro-denominated debt as a net investment hedge was $0.8 billion and $0.9 billion at December 31, 2018 and 2017, respectively.

Undesignated Derivatives

We also have the following derivative contracts which we use as economic hedges but for which we have elected not to apply hedge accounting.

Interest Rate Caps

We enter into interest rate caps to mitigate our interest exposure to interest rate increases on our ABS Financing Facility and Asset-Backed Notes. During 2017, we entered into interest rate caps with a notional value of $0.3 billion. During both 2018 and 2017, we recognized an insignificant amount in Interest expense.

Foreign Exchange Forwards

We enter into British Pound Sterling and Euro foreign exchange forwards to mitigate our foreign exchange rate risk related to non-functional currency denominated monetary assets and liabilities of international subsidiaries. During 2018, we entered into foreign exchange forwards with a total notional value of $2.8 billion and settled foreign exchange forwards with a total notional value of $2.2 billion.

Treasury Rate Locks

We entered into treasury rate locks with a total notional value of $2.0 billion to hedge the tender offers conducted in September 2018 for eight series of notes issued by Verizon with coupon rates ranging from 3.850% to 5.012% and maturity dates ranging from 2039 to 2055 (September Tender Offers). Upon the early settlement of the September Tender Offers, we settled these hedges. During 2018, we recognized an insignificant loss related to treasury rate locks in Other income (expense), net.

Concentrations of Credit Risk

Financial instruments that subject us to concentrations of credit risk consist primarily of temporary cash investments, short-term and long-term investments, trade receivables, including device payment plan agreement receivables, certain notes receivable, including lease receivables and derivative contracts.

Counterparties to our derivative contracts are major financial institutions with whom we have negotiated derivatives agreements (ISDA master agreements) and credit support annex (CSA) agreements which provide rules for collateral exchange. Our CSA agreements entered into prior to the fourth quarter of 2017 generally require collateralized arrangements with our counterparties in connection with uncleared derivatives. During 2017, we paid an insignificant amount of cash to extend amendments to certain of our collateral exchange arrangements, which eliminated the requirement to post collateral for a specified period of time. Additionally, during the fourth quarter of 2017, we began negotiating and executing new ISDA master agreements and CSA agreements with our counterparties. The negotiations and executions of new agreements continued in 2018. The newly executed CSA agreements contain rating based thresholds such that we or our counterparties may be required to hold or post collateral based upon changes in outstanding positions as compared to established thresholds and changes in credit ratings. At December 31, 2018, we posted collateral of approximately $0.1 billion related to derivative contracts under collateral exchange arrangements, which were recorded as Prepaid expenses and other in our consolidated balance sheet. We did not post any collateral at December 31, 2017. While we may be exposed to credit losses due to the nonperformance of our counterparties, we consider the risk remote and do not expect that any such nonperformance would result in a significant effect on our results of operations or financial condition due to our diversified pool of counterparties.

Note 10. Stock-Based Compensation

Verizon Long-Term Incentive Plan

In May 2017, Verizon’s shareholders approved the 2017 Long-Term Incentive Plan (the 2017 Plan) and terminated Verizon's authority to grant new awards under the Verizon 2009 Long-Term Incentive Plan (the 2009 Plan). The 2017 Plan provides for broad-based equity grants to employees, including executive officers, and permits the granting of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance stock units and other awards. Upon approval of the 2017 Plan, Verizon reserved the number of shares that were remaining but not issued under the 2009 Plan. Shares subject to outstanding awards under the 2009 Plan that expire, are canceled or otherwise terminated will also be available for the awards under the 2017 Plan. As of December 31, 2018, 89 million shares are reserved for future issuance under the 2017 Plan.

Restricted Stock Units

Restricted Stock Units (RSUs) granted under the 2017 Plan generally vest in three equal installments on each anniversary of the grant date. The RSUs that are paid in stock upon vesting and are thus classified as equity awards are measured using the grant date fair value of Verizon common stock and are not remeasured at the end of each reporting period. The RSUs that are settled in cash are classified as liability awards and the liability is measured at its fair value at the end of each reporting period. All RSUs granted under the 2017 Plan have dividend equivalent units, which will be paid to participants at the time the RSU award is paid, and in the same proportion as the RSU award.

In February 2018, Verizon announced a broad-based employee special award of RSUs under the 2017 Plan to eligible full-time and part-time employees. These RSUs will vest in two equal installments on each anniversary of the grant date, and will be paid in cash.

In connection with our acquisition of Yahoo's operating business, on the closing date of the Transaction each unvested and outstanding Yahoo RSU award that was held by an employee who became an employee of Verizon was replaced with a Verizon RSU award, which is generally payable in cash upon the applicable vesting date. These awards are classified as liability awards and are measured at fair value at the end of each reporting period.

Performance Stock Units

The 2017 Plan also provides for grants of Performance Stock Units (PSUs) that generally vest at the end of the third year after the grant. As defined by the 2017 Plan, the Human Resources Committee of the Board of Directors determines the number of PSUs a participant earns based on the extent to which the corresponding performance goals have been achieved over the three-year performance cycle. The PSUs are classified as liability awards because the PSU awards are paid in cash upon vesting. The PSU award liability is measured at its fair value at the end of each reporting period and, therefore, will fluctuate based on the price of Verizon common stock as well as performance relative to the targets. All PSUs granted under the 2017 Plan have dividend equivalent units, which will be paid to participants at the time that PSU award is determined and paid, and in the same proportion as the PSU award. The granted and cancelled activity for the PSU award includes adjustments for the performance goals achieved.

The following table summarizes Verizon's Restricted Stock Unit and Performance Stock Unit activity:

	Restricted Stock Units		Performance
(shares in thousands)	Equity Awards	Liability Awards	Stock Units
Outstanding January 1, 2016	13,903	—	17,203
Granted	4,409	—	6,391
Payments	(4,890)	—	(4,702)
Cancelled/Forfeited	(114)	—	(1,143)
Outstanding Adjustments	—	—	170
Outstanding December 31, 2016	13,308	—	17,919
Granted	4,216	25,168	6,564
Payments	(4,825)	(8,487)	(6,031)
Cancelled/Forfeited	(66)	(2,690)	(217)
Outstanding December 31, 2017	12,633	13,991	18,235
Granted	**4,134**	**15,157**	**5,779**
Payments	**(5,977)**	**(6,860)**	**(4,526)**
Cancelled/Forfeited	**(213)**	**(2,362)**	**(2,583)**
Outstanding December 31, 2018	**10,577**	**19,926**	**16,905**

As of December 31, 2018, unrecognized compensation expense related to the unvested portion of Verizon's RSUs and PSUs was approximately $1.1 billion and is expected to be recognized over approximately two years.

The equity RSUs granted in 2018 and 2017 have weighted-average grant date fair values of $49.19 and $49.93 per unit, respectively. During 2018, 2017 and 2016, we paid $0.8 billion, $0.8 billion and $0.4 billion, respectively, to settle RSUs and PSUs classified as liability awards.

Stock-Based Compensation Expense

After-tax compensation expense for stock-based compensation related to RSUs and PSUs described above included in Net income attributable to Verizon was $0.7 billion, $0.4 billion and $0.4 billion for 2018, 2017 and 2016, respectively.

Note 11. Employee Benefits

We maintain non-contributory defined benefit pension plans for certain employees. In addition, we maintain postretirement health care and life insurance plans for certain retirees and their dependents, which are both contributory and non-contributory, and include a limit on our share of the cost for certain recent and future retirees. In accordance with our accounting policy for pension and other postretirement benefits, operating expenses include pension and benefits related credits and/or charges based on actuarial assumptions, including projected discount rates, an estimated return on plan assets, and health care trend rates. These estimates are updated in the fourth quarter to reflect actual return on plan assets and updated actuarial assumptions or upon a remeasurement. The adjustment is recognized in the income statement during the fourth quarter or upon a remeasurement event pursuant to our accounting policy for the recognition of actuarial gains and losses.

Pension and Other Postretirement Benefits

Pension and other postretirement benefits for certain employees are subject to collective bargaining agreements. Modifications in benefits have been bargained from time to time, and we may also periodically amend the benefits in the management plans. The following tables summarize benefit costs, as well as the benefit obligations, plan assets, funded status and rate assumptions associated with pension and postretirement health care and life insurance benefit plans.

Obligations and Funded Status

(dollars in millions)

	Pension		Health Care and Life	
At December 31,	**2018**	2017	**2018**	2017
Change in Benefit Obligations				
Beginning of year	**$ 21,531**	$ 21,112	**$ 19,460**	$ 19,650
Service cost	**284**	280	**127**	149
Interest cost	**690**	683	**615**	659
Plan amendments	**230**	—	**(8)**	(545)
Actuarial (gain) loss, net	**(1,418)**	1,377	**(2,729)**	627
Benefits paid	**(1,475)**	(1,932)	**(1,101)**	(1,080)
Curtailment and termination benefits	**181**	11	**—**	—
Settlements paid	**(456)**	—	**—**	—
End of year	**19,567**	21,531	**16,364**	19,460
Change in Plan Assets				
Beginning of year	**19,175**	14,663	**1,119**	1,363
Actual return on plan assets	**(494)**	2,342	**(26)**	134
Company contributions	**1,066**	4,141	**1,183**	702
Benefits paid	**(1,475)**	(1,932)	**(1,101)**	(1,080)
Settlements paid	**(456)**	—	**—**	—
Divestiture (Note 3)	**—**	(39)	**—**	—
End of year	**17,816**	19,175	**1,175**	1,119
Funded Status				
End of year	**$ (1,751)**	$ (2,356)	**$ (15,189)**	$ (18,341)

(dollars in millions)

	Pension		Health Care and Life	
At December 31,	**2018**	2017	**2018**	2017
Amounts recognized on the balance sheet				
Noncurrent assets	**$ 3**	$ 21	**$ —**	$ —
Current liabilities	**(71)**	(63)	**(292)**	(637)
Noncurrent liabilities	**(1,683)**	(2,314)	**(14,897)**	(17,704)
Total	**$ (1,751)**	$ (2,356)	**$ (15,189)**	$ (18,341)
Amounts recognized in Accumulated Other Comprehensive Income (Pre-tax)				
Prior service cost (benefit)	**$ 585**	$ 404	**$ (4,698)**	$ (5,667)
Total	**$ 585**	$ 404	**$ (4,698)**	$ (5,667)

The accumulated benefit obligation for all defined benefit pension plans was $19.6 billion and $21.5 billion at December 31, 2018 and 2017, respectively.

2018 Collective Bargaining Negotiations

The extension agreement ratified in August 2018 extended our collective bargaining agreements with the Communications Workers of America and the International Brotherhood of Electrical Workers that were due to expire on August 3, 2019 for four years until August 5, 2023. The collective bargaining agreements cover approximately 34,000 employees. Amendments triggered by the collective bargaining negotiations were made to certain pension plans for certain union represented employees and retirees. The impact of the plan amendments was an increase in our defined benefit pension plans plan obligations and a net decrease to Accumulated other comprehensive income of $0.2 billion (net of taxes of $0.2 billion). The annual impact of the amount recorded in Accumulated other comprehensive income that will be reclassified to net periodic benefit cost is minimal.

2017 Postretirement Plan Amendments

During 2017, amendments were made to certain postretirement plans related to retiree medical benefits for management and certain union represented employees and retirees. The impact of the plan amendments was a reduction in our postretirement benefit plan obligations of approximately $0.5 billion, which has been recorded as a net increase to Accumulated other comprehensive income of $0.3 billion (net of taxes of $0.2 billion). The impact of the amount recorded in Accumulated other comprehensive income that will be reclassified to net periodic benefit cost is insignificant.

2016 Collective Bargaining Negotiations

During 2016, we adopted changes to our defined benefit pension plans and other postretirement benefit plans to reflect the agreed upon terms and conditions of the collective bargaining agreements ratified in June 2016. The impact includes a net increase to Accumulated other comprehensive income of $2.9 billion (net of taxes of $1.8 billion). The amount recorded in Accumulated other comprehensive income will be reclassified to net periodic benefit cost on a straight-line basis over the average remaining service period of the respective plans' participants, which, on a weighted-average basis, is 12.2 years for defined benefit pension plans and 7.8 years for other postretirement benefit plans. The above-noted reclassification resulted in a decrease to net periodic benefit cost and increase to pre-tax income of approximately $0.7 billion, $0.7 billion and $0.4 billion, respectively, during 2018, 2017 and 2016.

Information for pension plans with an accumulated benefit obligation in excess of plan assets follows:

(dollars in millions)

At December 31,	**2018**	2017
Projected benefit obligation	$ **19,510**	$ 21,300
Accumulated benefit obligation	**19,461**	21,242
Fair value of plan assets	**17,757**	18,923

Net Periodic Benefit Cost (Income)

The following table summarizes the components of net periodic benefit cost (income) related to our pension and postretirement health care and life insurance plans:

(dollars in millions)

	Pension			**Health Care and Life**		
Years Ended December 31,	**2018**	2017	2016	**2018**	2017	2016
Service cost - Cost of services	$ **230**	$ 215	$ 252	$ **104**	$ 116	$ 150
Service cost - Selling, general and administrative expense	**54**	65	70	**23**	33	43
Service cost	**284**	280	322	**127**	149	193
Amortization of prior service cost (credit)	**48**	39	21	**(976)**	(949)	(657)
Expected return on plan assets	**(1,293)**	(1,262)	(1,045)	**(44)**	(53)	(54)
Interest cost	**690**	683	677	**615**	659	746
Remeasurement loss (gain), net	**369**	337	1,198	**(2,658)**	546	1,300
Curtailment and termination benefits	**181**	11	4	**—**	—	—
Other components	**(5)**	(192)	855	**(3,063)**	203	1,335
Total	$ **279**	$ 88	$ 1,177	$ **(2,936)**	$ 352	$ 1,528

The service cost component of net periodic benefit cost (income) is recorded in Cost of services and Selling, general and administrative expense in the consolidated statements of income while the other components, including mark-to-market adjustments, if any, are recorded in Other income (expense), net.

Other pre-tax changes in plan assets and benefit obligations recognized in other comprehensive (income) loss are as follows:

(dollars in millions)

	Pension			Health Care and Life		
At December 31,	**2018**	2017	2016	**2018**	2017	2016
Prior service cost (benefit)	**$ 230**	$ —	$ 428	**$ (8)**	$ (544)	$ (5,142)
Reversal of amortization items						
Prior service (benefit) cost	**(48)**	(39)	(21)	**976**	949	657
Amounts reclassified to net income	**—**	—	87	**—**	—	451
Total recognized in other comprehensive loss (income) (pre-tax)	**$ 182**	$ (39)	$ 494	**$ 968**	$ 405	$ (4,034)

Amounts reclassified to net income for the year ended December 31, 2016 includes the reclassification to Selling, general and administrative expense of a pre-tax pension and postretirement benefit curtailment gain of $0.5 billion ($0.3 billion net of taxes) due to the transfer of employees to Frontier, which caused the elimination of a significant amount of future service in three of our defined benefit pension plans and one of our other postretirement benefit plans requiring us to recognize a portion of the prior service credits. See Note 3 for additional information.

The estimated prior service cost for the defined benefit pension plans that will be amortized from Accumulated other comprehensive income into net periodic benefit (income) cost over the next fiscal year is $0.1 billion. The estimated prior service cost for the defined benefit postretirement plans that will be amortized from Accumulated other comprehensive income into net periodic benefit income over the next fiscal year is $1.0 billion.

Assumptions

The weighted-average assumptions used in determining benefit obligations follow:

	Pension		Health Care and Life	
At December 31,	**2018**	2017	**2018**	2017
Discount Rate	**4.40%**	3.70%	**4.30%**	3.60%
Rate of compensation increases	**3.00**	3.00	**N/A**	N/A

The weighted-average assumptions used in determining net periodic cost follow:

	Pension			Health Care and Life		
At December 31,	**2018**	2017	2016	**2018**	2017	2016
Discount rate in effect for determining service cost	**4.10%**	4.70%	4.50%	**3.90%**	4.60%	4.20%
Discount rate in effect for determining interest cost	**3.40**	3.40	3.20	**3.20**	3.50	4.20
Expected return on plan assets	**7.00**	7.70	7.00	**4.80**	4.50	4.80
Rate of compensation increases	**3.00**	3.00	3.00	**N/A**	N/A	N/A

In determining our pension and other postretirement benefit obligations, we used a weighted-average discount rate of 4.40% in 2018. The rates were selected to approximate the composite interest rates available on a selection of high-quality bonds available in the market at December 31, 2018. The bonds selected had maturities that coincided with the time periods during which benefits payments are expected to occur, were non-callable and available in sufficient quantities to ensure marketability (at least $0.3 billion par outstanding).

In order to project the long-term target investment return for the total portfolio, estimates are prepared for the total return of each major asset class over the subsequent 10-year period. Those estimates are based on a combination of factors including the current market interest rates and valuation levels, consensus earnings expectations and historical long-term risk premiums. To determine the aggregate return for the pension trust, the projected return of each individual asset class is then weighted according to the allocation to that investment area in the trust's long-term asset allocation policy.

The assumed health care cost trend rates follow:

	Health Care and Life		
At December 31,	**2018**	2017	2016
Healthcare cost trend rate assumed for next year	**6.30%**	7.00%	6.50%
Rate to which cost trend rate gradually declines	**4.50**	4.50	4.50
Year the rate reaches the level it is assumed to remain thereafter	**2027**	2026	2025

A one-percentage point change in the assumed health care cost trend rate would have the following effects:

(dollars in millions)

One-Percentage Point	Increase	Decrease
Effect on 2018 service and interest cost	$ **20**	$ **(19)**
Effect on postretirement benefit obligation as of December 31, 2018	**462**	**(485)**

Plan Assets

The company's overall investment strategy is to achieve a mix of assets that allows us to meet projected benefit payments while taking into consideration risk and return. While target allocation percentages will vary over time, the current target allocation for plan assets is designed so that 52.5% of the assets have the objective of achieving a return in excess of the growth in liabilities (comprised of public equities, private equities, real estate, hedge funds and emerging debt) and 45.5% of the assets are invested as liability hedging assets (where cash flows from investments better match projected benefit payments, typically longer duration fixed income) and 2.0% is in cash. This allocation will shift as funded status improves to a higher allocation of liability hedging assets. Target policies will be revisited periodically to ensure they are in line with fund objectives. Both active and passive management approaches are used depending on perceived market efficiencies and various other factors. Due to our diversification and risk control processes, there are no significant concentrations of risk, in terms of sector, industry, geography or company names.

Pension and healthcare and life plans assets do not include significant amounts of Verizon common stock.

Pension Plans

The fair values for the pension plans by asset category at December 31, 2018 are as follows:

(dollars in millions)

Asset Category	**Total**	**Level 1**	**Level 2**	**Level 3**
Cash and cash equivalents	$ **1,701**	$ **1,694**	$ **7**	$ **—**
Equity securities	**2,253**	**2,220**	**20**	**13**
Fixed income securities				
U.S. Treasuries and agencies	**1,684**	**1,557**	**127**	**—**
Corporate bonds	**3,645**	**124**	**3,244**	**277**
International bonds	**1,113**	**19**	**1,076**	**18**
Other	**—**	**—**	**—**	**—**
Real estate	**727**	**—**	**—**	**727**
Other				
Private equity	**664**	**—**	**—**	**664**
Hedge funds	**459**	**—**	**373**	**86**
Total investments at fair value	**12,246**	**5,614**	**4,847**	**1,785**
Investments measured at NAV	**5,570**			
Total	$ **17,816**	$ **5,614**	$ **4,847**	$ **1,785**

The fair values for the pension plans by asset category at December 31, 2017 are as follows:

(dollars in millions)

Asset Category	**Total**	**Level 1**	**Level 2**	**Level 3**
Cash and cash equivalents	$ 2,889	$ 2,874	$ 15	$ —
Equity securities	2,795	2,794	—	1
Fixed income securities				
U.S. Treasuries and agencies	1,382	1,234	148	—
Corporate bonds	2,961	139	2,718	104
International bonds	1,068	17	1,031	20
Other	396	4	392	—
Real estate	627	—	—	627
Other				
Private equity	580	—	—	580
Hedge funds	845	—	660	185
Total investments at fair value	13,543	7,062	4,964	1,517
Investments measured at NAV	5,632			
Total	$ 19,175	$ 7,062	$ 4,964	$ 1,517

The following is a reconciliation of the beginning and ending balance of pension plan assets that are measured at fair value using significant unobservable inputs:

(dollars in millions)

	Equity Securities	Corporate Bonds	International Bonds	Real Estate	Private Equity	Hedge Funds	Total
Balance at January 1, 2017	$ —	$ 97	$ 14	$ 655	$ 624	$ 4	$ 1,394
Actual gain (loss) on plan assets	—	(1)	—	76	78	—	153
Purchases (sales)	119	27	22	(70)	(114)	183	167
Transfers out	(118)	(19)	(16)	(34)	(8)	(2)	(197)
Balance at December 31, 2017	1	104	20	627	580	185	1,517
Actual gain (loss) on plan assets	**1**	**(7)**	**3**	**134**	**25**	**—**	**156**
Purchases (sales)	**11**	**177**	**(5)**	**(34)**	**59**	**62**	**270**
Transfers out	**—**	**3**	**—**	**—**	**—**	**(161)**	**(158)**
Balance at December 31, 2018	**$ 13**	**$ 277**	**$ 18**	**$ 727**	**$ 664**	**$ 86**	**$ 1,785**

Health Care and Life Plans

The fair values for the other postretirement benefit plans by asset category at December 31, 2018 are as follows:

(dollars in millions)

Asset Category	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	**$ 471**	**$ 431**	**$ 40**	**$ —**
Equity securities	**239**	**239**	**—**	**—**
Fixed income securities				
U.S. Treasuries and agencies	**24**	**24**	**—**	**—**
Corporate bonds	**96**	**96**	**—**	**—**
International bonds	**18**	**18**	**—**	**—**
Total investments at fair value	**848**	**808**	**40**	**—**
Investments measured at NAV	**327**			
Total	**$ 1,175**	**$ 808**	**$ 40**	**$ —**

The fair values for the other postretirement benefit plans by asset category at December 31, 2017 are as follows:

(dollars in millions)

Asset Category	Total	Level 1	Level 2	Level 3
Cash and cash equivalents	$ 71	$ 1	$ 70	$ —
Equity securities	294	294	—	—
Fixed income securities				
U.S. Treasuries and agencies	23	22	1	—
Corporate bonds	141	141	—	—
International bonds	60	18	42	—
Total investments at fair value	589	476	113	—
Investments measured at NAV	530			
Total	$ 1,119	$ 476	$ 113	$ —

The following are general descriptions of asset categories, as well as the valuation methodologies and inputs used to determine the fair value of each major category of assets.

Cash and cash equivalents include short-term investment funds (less than 90 days to maturity), primarily in diversified portfolios of investment grade money market instruments and are valued using quoted market prices or other valuation methods. The carrying value of cash equivalents approximates fair value due to the short-term nature of these investments.

Investments in securities traded on national and foreign securities exchanges are valued by the trustee at the last reported sale prices on the last business day of the year or, if no sales were reported on that date, at the last reported bid prices. Government obligations, corporate bonds, international bonds and asset-backed debt are valued using matrix prices with input from independent third-party valuation sources. Over-the-counter securities are valued at the bid prices or the average of the bid and ask prices on the last business day of the year from published sources or, if not available, from other sources considered reliable such as multiple broker quotes.

Commingled funds not traded on national exchanges are priced by the custodian or fund's administrator at their net asset value (NAV). Commingled funds held by third-party custodians appointed by the fund managers provide the fund managers with a NAV. The fund managers have the responsibility for providing this information to the custodian of the respective plan.

The investment manager of the entity values venture capital, corporate finance, and natural resource limited partnership investments. Real estate investments are valued at amounts based upon appraisal reports prepared by either independent real estate appraisers or the investment manager using discounted cash flows or market comparable data. Loans secured by mortgages are carried at the lesser of the unpaid balance or appraised value of the underlying properties. The values assigned to these investments are based upon available and current market information and do not necessarily represent amounts that might ultimately be realized. Because of the inherent uncertainty of valuation, estimated fair values might differ significantly from the values that would have been used had a ready market for the securities existed. These differences could be material.

Forward currency contracts, futures, and options are valued by the trustee at the exchange rates and market prices prevailing on the last business day of the year. Both exchange rates and market prices are readily available from published sources. These securities are classified by the asset class of the underlying holdings.

Hedge funds are valued by the custodian at NAV based on statements received from the investment manager. These funds are valued in accordance with the terms of their corresponding offering or private placement memoranda.

Commingled funds, hedge funds, venture capital, corporate finance, natural resource and real estate limited partnership investments for which fair value is measured using the NAV per share as a practical expedient are not leveled within the fair value hierarchy and are included as a reconciling item to total investments.

Employer Contributions

In 2018, we made $1.0 billion discretionary contribution to our qualified pension plans and $0.7 billion discretionary contribution to a retiree benefit account to fund health and welfare benefits. Qualified pension plans contributions are estimated to be $0.3 billion, nonqualified pension plans contributions are estimated to be $0.1 billion, and contributions to our other postretirement benefit plans are estimated to be $0.5 billion in 2019.

Estimated Future Benefit Payments

The benefit payments to retirees are expected to be paid as follows:

(dollars in millions)

Year	Pension Benefits	Health Care and Life
2019	**$ 2,771**	**$ 1,086**
2020	**1,796**	**1,113**
2021	**1,578**	**1,130**
2022	**1,526**	**1,135**
2023	**1,500**	**1,137**
2024 to 2028	**5,008**	**5,689**

Savings Plan and Employee Stock Ownership Plans

We maintain four leveraged employee stock ownership plans (ESOP). We match a certain percentage of eligible employee contributions to certain savings plans with shares of our common stock from this ESOP. At December 31, 2018, the number of allocated shares of common stock in this ESOP was 51 million. There were no unallocated shares of common stock in this ESOP at December 31, 2018. All leveraged ESOP shares are included in earnings per share computations.

Total savings plan costs were $1.1 billion in 2018, $0.8 billion in 2017 and $0.7 billion in 2016.

Severance Benefits

The following table provides an analysis of our severance liability recorded in accordance with the accounting standard regarding employers' accounting for postemployment benefits:

(dollars in millions)

Year	Beginning of Year	Charged to Expense	Payments	Other	End of Year
2016	$ 800	$ 417	$ (583)	$ 22	$ 656
2017	656	581	(564)	(46)	627
2018	**627**	**2,093**	**(560)**	**(4)**	**2,156**

Severance, Pension and Benefits (Credits) Charges

During 2018, we recorded net pre-tax pension and benefits credits of $2.1 billion in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefits remeasurement credits of $2.3 billion, which were recorded in Other income (expense), net in our consolidated statements of income, were primarily driven by an increase in our discount rate assumption used to determine the current year liabilities of our pension plans and postretirement benefit plans from a weighted-average of 3.7% at December 31, 2017 to a weighted-average of 4.4% at December 31, 2018 ($2.6 billion), and mortality and other assumption adjustments of $1.7 billion, $1.6 billion of which related to healthcare claims and trend adjustments, offset by the difference between our estimated return on assets of 7.0% and our actual return on assets of (2.7)% ($1.9 billion). The credits were partially offset by $0.2 billion due to the effect of participants retiring under the voluntary separation program.

In September 2018, Verizon announced a voluntary separation program for select U.S.-based management employees. Approximately 10,400 eligible employees will separate from the Company under this program by the end of June 2019, with nearly half of these employees having exited in December of 2018. Principally as a result of this program but also as a result of other headcount reduction initiatives, the Company recorded a severance charge of $1.8 billion ($1.4 billion after-tax) during the year ended December 31, 2018, which was recorded in Selling, general and administrative expense in our consolidated statement of income. During 2018, we also recorded $0.3 billion in severance costs under our other existing separation plan.

During 2017, we recorded net pre-tax severance, pension and benefits charges of $1.4 billion, exclusive of acquisition related severance charges, in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefits remeasurement charges of approximately $0.9 billion, which were recorded in Other income (expense), net in our consolidated statements of income, were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities of our pension and postretirement benefit plans from a weighted-average of 4.2% at December 31, 2016 to a weighted-average of 3.7% at December 31, 2017 ($2.6 billion). The charges were partially offset by the difference between our estimated return on assets of 7.0% and our actual return on assets of 14.0% ($1.2 billion), a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2017) issued by the Society of Actuaries ($0.2 billion) and other assumption adjustments ($0.3 billion). As part of these charges, we also recorded severance costs of $0.5 billion under our existing separation plans, which were recorded in Selling, general and administrative expense in our consolidated statements of income.

During 2016, we recorded net pre-tax severance, pension and benefits charges of $2.9 billion in accordance with our accounting policy to recognize actuarial gains and losses in the period in which they occur. The pension and benefits remeasurement charges of $2.5 billion, which were recorded in Other income (expense), net in our consolidated statements of income, were primarily driven by a decrease in our discount rate assumption used to determine the current year liabilities of our pension and other postretirement benefit plans from a weighted-average of 4.6% at December 31, 2015 to a weighted-average of 4.2% at December 31, 2016 ($2.1 billion), updated health care trend cost assumptions ($0.9 billion), the difference between our estimated return on assets of 7.0% and our actual return on assets of 6.0% ($0.2 billion) and other assumption adjustments ($0.3 billion). These charges were partially offset by a change in mortality assumptions primarily driven by the use of updated actuarial tables (MP-2016) issued by the Society of Actuaries ($0.5 billion) and lower negotiated prescription drug pricing ($0.5 billion). As part of these charges, we also recorded severance costs of $0.4 billion under our existing separation plans, which were recorded in Selling, general and administrative expense in our consolidated statements of income.

The net pre-tax severance, pension and benefits charges during 2016 were comprised of a net pre-tax pension remeasurement charge of $0.2 billion measured as of March 31, 2016 related to settlements for employees who received lump-sum distributions in one of our defined benefit pension plans, a net pre-tax pension and benefits remeasurement charge of $0.8 billion measured as of April 1, 2016 related to curtailments in three of our defined benefit pension and one of our other postretirement plans, a net pre-tax pension and benefits remeasurement charge of $2.7 billion measured as of May 31, 2016 in two defined benefit pension plans and three other postretirement benefit plans as a result of our accounting for the contractual healthcare caps and bargained for changes, a net pre-tax pension remeasurement charge of $0.1 billion measured as of May 31, 2016 related to settlements for employees who received lump-sum distributions in three of our defined benefit pension plans, a net pre-tax pension remeasurement charge of $0.6 billion measured as of August 31, 2016 related to settlements for employees who received lump-sum distributions in five of our defined benefit pension plans, and a net pre-tax pension and benefits credit of $1.9 billion as a result of our fourth quarter remeasurement of our pension and other postretirement assets and liabilities based on updated actuarial assumptions.

Note 12. Taxes

The components of income before provision (benefit) for income taxes are as follows:

(dollars in millions)

Years Ended December 31,	2018	2017	2016
Domestic	$ 19,801	$ 19,645	$ 20,047
Foreign	(178)	949	939
Total	$ 19,623	$ 20,594	$ 20,986

The components of the provision (benefit) for income taxes are as follows:

(dollars in millions)			
Years Ended December 31,	**2018**	2017	2016
Current			
Federal	**$ 2,187**	$ 3,630	$ 7,451
Foreign	**267**	200	148
State and Local	**741**	677	842
Total	**3,195**	4,507	8,441
Deferred			
Federal	**175**	(14,360)	(933)
Foreign	**30**	(66)	(2)
State and Local	**184**	(37)	(128)
Total	**389**	(14,463)	(1,063)
Total income tax provision (benefit)	**$ 3,584**	$ (9,956)	$ 7,378

The following table shows the principal reasons for the difference between the effective income tax rate and the statutory federal income tax rate:

Years Ended December 31,	**2018**	2017	2016
Statutory federal income tax rate	**21.0 %**	35.0 %	35.0 %
State and local income tax rate, net of federal tax benefits	**3.7**	1.6	2.2
Affordable housing credit	**(0.6)**	(0.6)	(0.7)
Employee benefits including ESOP dividend	**(0.3)**	(0.5)	(0.5)
Impact of tax reform re-measurement	**—**	(81.6)	—
Internal restructure	**(9.1)**	(0.6)	(0.7)
Noncontrolling interests	**(0.5)**	(0.6)	(0.6)
Non-deductible goodwill	**4.7**	1.0	2.2
Other, net	**(0.6)**	(2.0)	(1.7)
Effective income tax rate	**18.3 %**	(48.3)%	35.2 %

The effective income tax rate for 2018 was 18.3% compared to (48.3)% for 2017. The increase in the effective tax rate and the provision for income taxes was primarily due to the non-recurring, non-cash income tax benefit of $16.8 billion recorded in 2017 for the re-measurement of U.S. deferred tax liabilities at the lower 21% U.S. federal corporate income tax rate, as a result of the enactment of the TCJA on December 22, 2017. In addition, the current period provision for income taxes includes the tax impact of the Oath goodwill impairment charge not deductible for tax purposes, offset by the current year reduction in the statutory U.S. federal corporate income tax rate from 35% to 21%, effective January 1, 2018 under the TCJA and a non-recurring deferred tax benefit of approximately $2.1 billion as a result of an internal reorganization of legal entities within the Wireless business.

In December 2017, the Securities and Exchange Commission staff issued Staff Accounting Bulletin (SAB) 118 to provide guidance for companies that had not completed their accounting for the income tax effects of the TCJA. Due to the complexities involved in accounting for the enactment of the TCJA, SAB 118 allowed for a provisional estimate of the impacts of the TCJA in our earnings for the year ended December 31, 2017, as well as up to a one year measurement period that ended on December 22, 2018, for any subsequent adjustments to such provisional estimate. Pursuant to SAB 118, Verizon recorded a provisional estimate of $16.8 billion for the impacts of the TCJA, primarily due to the re-measurement of its U.S. deferred income tax liabilities at the lower 21% U.S. federal corporate income tax rate, with no significant impact from the transition tax on repatriation, the implementation of the territorial tax system, or limitations on the deduction of interest expense. Verizon has completed its analysis of the impacts of the TCJA, including analyzing the effects of any Internal Revenue Service (IRS) and U.S. Treasury guidance issued, and state tax law changes enacted, within the maximum one year measurement period resulting in no significant adjustments to the $16.8 billion provisional amount previously recorded.

The effective income tax rate for 2017 was (48.3)% compared to 35.2% for 2016. The decrease in the effective income tax rate and the provision for income taxes was primarily due to a non-recurring, non-cash income tax benefit recorded in 2017 as a result of the enactment of the TCJA described above.

The amounts of cash taxes paid by Verizon are as follows:

(dollars in millions)			
Years Ended December 31,	**2018**	2017	2016
Income taxes, net of amounts refunded	**$ 2,213**	$ 4,432	$ 9,577
Employment taxes	**1,066**	1,207	1,196
Property and other taxes	**1,598**	1,737	1,796
Total	**$ 4,877**	$ 7,376	$ 12,569

Deferred Tax Assets and Liabilities

Deferred taxes arise because of differences in the book and tax bases of certain assets and liabilities. Significant components of deferred tax assets and liabilities are as follows:

(dollars in millions)

At December 31,		2018		2017
Deferred Tax Assets				
Employee benefits	**$**	**5,403**	$	6,174
Tax loss and credit carry forwards		**3,576**		4,176
Other - assets		**1,650**		1,938
		10,629		12,288
Valuation allowances		**(2,741)**		(3,293)
Deferred tax assets		**7,888**		8,995
Deferred Tax Liabilities				
Spectrum and other intangible amortization		**21,976**		21,148
Depreciation		**15,662**		14,767
Other - liabilities		**3,976**		4,281
Deferred tax liabilities		**41,614**		40,196
Net deferred tax liability	**$**	**33,726**	$	31,201

At December 31, 2018, undistributed earnings of our foreign subsidiaries indefinitely invested outside the U.S. amounted to approximately $3.0 billion. The majority of Verizon's cash flow is generated from domestic operations and we are not dependent on foreign cash or earnings to meet our funding requirements, nor do we intend to repatriate these undistributed foreign earnings to fund U.S. operations. Furthermore, a portion of these undistributed earnings represents amounts that legally must be kept in reserve in accordance with certain foreign jurisdictional requirements and are unavailable for distribution or repatriation. As a result, we have not provided U.S. deferred taxes on these undistributed earnings because we intend that they will remain indefinitely reinvested outside of the U.S. and therefore unavailable for use in funding U.S. operations. Determination of the amount of unrecognized deferred taxes related to these undistributed earnings is not practicable.

At December 31, 2018, we had net after-tax loss and credit carry forwards for income tax purposes of approximately $3.6 billion that primarily relate to state and foreign taxes. Of these net after-tax loss and credit carry forwards, approximately $2.1 billion will expire between 2019 and 2038 and approximately $1.5 billion may be carried forward indefinitely.

During 2018, the valuation allowance decreased approximately $0.6 billion. The balance of the valuation allowance at December 31, 2018 and the 2018 activity is primarily related to state and foreign taxes.

Unrecognized Tax Benefits

A reconciliation of the beginning and ending balance of unrecognized tax benefits is as follows:

(dollars in millions)

		2018		2017		2016
Balance at January 1,	**$**	**2,355**	$	1,902	$	1,635
Additions based on tax positions related to the current year		**160**		219		338
Additions for tax positions of prior years		**699**		756		188
Reductions for tax positions of prior years		**(248)**		(419)		(153)
Settlements		**(40)**		(42)		(18)
Lapses of statutes of limitations		**(55)**		(61)		(88)
Balance at December 31,	**$**	**2,871**	$	2,355	$	1,902

Included in the total unrecognized tax benefits at December 31, 2018, 2017 and 2016 is $2.3 billion, $1.9 billion and $1.5 billion, respectively, that if recognized, would favorably affect the effective income tax rate.

We recognized the following net after-tax expenses related to interest and penalties in the provision for income taxes:

Years Ended December 31,		(dollars in millions)
2018	**$**	**(75)**
2017		(77)
2016		(25)

The after-tax accruals for the payment of interest and penalties in the consolidated balance sheets are as follows:

At December 31,		(dollars in millions)
2018	**$**	**348**
2017		269

Verizon and/or its subsidiaries file income tax returns in the U.S. federal jurisdiction, and various state, local and foreign jurisdictions. As a large taxpayer, we are under audit by the IRS and multiple state and foreign jurisdictions for various open tax years. The IRS is currently examining the Company's U.S. income tax returns for tax years 2013-2014 and Cellco Partnership's U.S. income tax return for tax year 2013-2014. Tax controversies are ongoing for tax years as early as 2005. The amount of the liability for unrecognized tax benefits will change in the next twelve months due to the expiration of the statute of limitations in various jurisdictions and it is reasonably possible that various current tax examinations will conclude or require reevaluations of the Company's tax positions during this period. An estimate of the range of the possible change cannot be made until these tax matters are further developed or resolved.

Note 13. Segment Information

Reportable Segments

We have two reportable segments, Wireless and Wireline, which we operate and manage as strategic business units and organize by products and services, and customer groups, respectively. We measure and evaluate our reportable segments based on segment operating income, consistent with the chief operating decision maker's assessment of segment performance.

Our segments and their principal activities consist of the following:

Segment	Description
Wireless	Wireless' communications products and services include wireless voice and data services and equipment sales, which are provided to consumer, business and government customers across the U.S.
Wireline	Wireline's communications products and enhanced services include video and data services, corporate networking solutions, security and managed network services and local and long distance voice services. We provide these products and services to consumers in the U.S., as well as to carriers, businesses and government customers both in the U.S. and around the world.

The Wireline segment is organized in four customer groups: Consumer Markets, which includes consumer retail customers; Enterprise Solutions, which includes large business customers, including multinational corporations, and federal government customers; Partner Solutions, which includes other carriers that use our facilities to provide services to their customers; and Business Markets, which includes U.S.-based small and medium business customers, state and local governments, and educational institutions.

Corporate and other includes the results of our Media business, Verizon Media, which operated in 2018 under the "Oath" brand, our telematics business, branded Verizon Connect, and other businesses, investments in unconsolidated businesses, unallocated corporate expenses, pension and other employee benefit related costs and interest and financing expenses. Corporate and other also includes the historical results of divested businesses and other adjustments and gains and losses that are not allocated in assessing segment performance due to their nature. Although such transactions are excluded from the business segment results, they are included in reported consolidated earnings. Gains and losses from these transactions that are not individually significant are included in segment results as these items are included in the chief operating decision maker's assessment of segment performance.

In November 2018, we announced a strategic reorganization of our business. We are modifying our internal and external reporting processes, systems and internal controls to accommodate the new structure and expect to transition to the new segment reporting structure during the second quarter of 2019. We continue to report operating results to our chief operating decision maker under our current operating segments.

We completed our acquisition of Yahoo's operating business on June 13, 2017.

In May 2017, we completed the Data Center Sale, where we sold 23 customer-facing data center sites in the U.S. and Latin America to Equinix. The results of operations for this divestiture and other insignificant transactions are included within Corporate and other for all periods presented to reflect comparable segment operating results consistent with the information regularly reviewed by our chief operating decision maker.

In addition, Corporate and other includes the results of our telematics businesses for all periods presented, which were reclassified from our Wireline segment effective April 1, 2016. The impact of this reclassification was insignificant to our consolidated financial statements and our segment results of operations.

The reconciliation of segment operating revenues and expenses to consolidated operating revenues and expenses below includes the effects of special items that management does not consider in assessing segment performance, primarily because of their nature.

We have adjusted prior period consolidated and segment information, where applicable, to conform to the current period presentation. On January 1, 2018, we adopted ASU 2017-07, "Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." Components other than the service component of net periodic pension cost and periodic postretirement benefit cost (income), inclusive of the mark-to-market pension and benefit remeasurements, have been reclassified from operating to non-operating charges (benefits) in our consolidated statements of income. The adoption of ASU 2017-07 did not change how we present our segment results.

The following table provides operating financial information for our two reportable segments:

(dollars in millions)

2018	**Wireless**	**Wireline**	**Total Reportable Segments**
External Operating Revenues			
Service	$ **62,936**	$ **—**	$ **62,936**
Equipment	**22,258**	**—**	**22,258**
Other	**6,201**	**—**	**6,201**
Consumer Markets	**—**	**12,586**	**12,586**
Enterprise Solutions	**—**	**8,837**	**8,837**
Partner Solutions	**—**	**3,685**	**3,685**
Business Markets	**—**	**3,397**	**3,397**
Other	**—**	**242**	**242**
Intersegment revenues	**339**	**1,013**	**1,352**
Total operating revenues	**91,734**	**29,760**	**121,494**
Cost of services	**9,251**	**17,701**	**26,952**
Wireless cost of equipment	**23,323**	**—**	**23,323**
Selling, general and administrative expense	**16,604**	**6,151**	**22,755**
Depreciation and amortization expense	**9,736**	**6,181**	**15,917**
Total operating expenses	**58,914**	**30,033**	**88,947**
Operating income (loss)	$ **32,820**	$ **(273)**	$ **32,547**
Assets	$ **213,290**	$ **94,799**	$ **308,089**
Property, plant and equipment, net	**42,749**	**43,350**	**86,099**
Capital expenditures	**8,486**	**6,255**	**14,741**

(dollars in millions)

2017	Wireless	Wireline	Total Reportable Segments
External Operating Revenues			
Service	$ 62,972	$ —	$ 62,972
Equipment	18,889	—	18,889
Other	5,270	—	5,270
Consumer Markets	—	12,775	12,775
Enterprise Solutions	—	9,165	9,165
Partner Solutions	—	3,969	3,969
Business Markets	—	3,585	3,585
Other	—	234	234
Intersegment revenues	380	952	1,332
Total operating revenues	87,511	30,680	118,191
Cost of services	8,886	17,922	26,808
Wireless cost of equipment	22,147	—	22,147
Selling, general and administrative expense	17,876	6,274	24,150
Depreciation and amortization expense	9,395	6,104	15,499
Total operating expenses	58,304	30,300	88,604
Operating income	$ 29,207	$ 380	$ 29,587
Assets	$ 235,873	$ 75,282	$ 311,155
Property, plant and equipment, net	43,935	41,351	85,286
Capital expenditures	10,310	5,339	15,649

(dollars in millions)

2016		Wireless		Wireline		Total Reportable Segments
External Operating Revenues						
Service	$	66,362	$	—	$	66,362
Equipment		17,511		—		17,511
Other		4,915		—		4,915
Consumer Markets		—		12,751		12,751
Enterprise Solutions		—		9,162		9,162
Partner Solutions		—		3,976		3,976
Business Markets		—		3,356		3,356
Other		—		314		314
Intersegment revenues		398		951		1,349
Total operating revenues		89,186		30,510		119,696
Cost of services		9,031		18,353		27,384
Wireless cost of equipment		22,238		—		22,238
Selling, general and administrative expense		18,881		6,476		25,357
Depreciation and amortization expense		9,183		5,975		15,158
Total operating expenses		59,333		30,804		90,137
Operating income (loss)	$	29,853	$	(294)	$	29,559
Assets	$	211,345	$	66,679	$	278,024
Property, plant and equipment, net		42,898		40,205		83,103
Capital expenditures		11,240		4,504		15,744

Reconciliation to Consolidated Financial Information

A reconciliation of the reportable segment operating revenues to consolidated operating revenues is as follows:

(dollars in millions)

Years Ended December 31,		**2018**		2017		2016
Operating Revenues						
Total reportable segments	**$**	**121,494**	$	118,191	$	119,696
Corporate and other		**10,942**		9,019		5,663
Reconciling items:						
Operating results from divested businesses (Note 3)		**—**		368		2,115
Eliminations		**(1,573)**		(1,544)		(1,494)
Consolidated operating revenues	**$**	**130,863**	$	126,034	$	125,980

Fios revenues are included within our Wireline segment and amounted to approximately $11.9 billion, $11.7 billion, and $11.2 billion for the years ended December 31, 2018, 2017 and 2016, respectively.

A reconciliation of the total of the reportable segments' operating income to consolidated income before provision for income taxes is as follows:

(dollars in millions)

Years Ended December 31,	2018	2017	2016
Operating Income			
Total reportable segments	**$ 32,547**	$ 29,587	$ 29,559
Corporate and other	**(1,694)**	(1,492)	(1,455)
Reconciling items:			
Severance charges (Note 11)	**(2,157)**	(497)	(421)
Other components of net periodic pension and benefit (charges) credits (Note 11)	**(823)**	(800)	(578)
Net gain on sale of divested businesses (Note 3)	**—**	1,774	1,007
Acquisition and integration related charges (Note 3)	**(553)**	(884)	—
Gain on spectrum license transaction (Note 3)	**—**	270	142
Operating results from divested businesses	**—**	149	995
Oath goodwill impairment	**(4,591)**	—	
Product realignment charges	**(451)**	(682)	—
Consolidated operating income	**22,278**	27,425	29,249
Equity in losses of unconsolidated businesses	**(186)**	(77)	(98)
Other income (expense), net	**2,364**	(2,021)	(3,789)
Interest expense	**(4,833)**	(4,733)	(4,376)
Income Before (Provision) Benefit For Income Taxes	**$ 19,623**	$ 20,594	$ 20,986

A reconciliation of the total of the reportable segments' assets to consolidated assets is as follows:

(dollars in millions)

At December 31,	2018	2017
Assets		
Total reportable segments	**$ 308,089**	$ 311,155
Corporate and other	**244,695**	239,040
Eliminations	**(287,955)**	(293,052)
Total consolidated	**$ 264,829**	$ 257,143

No single customer accounted for more than 10% of our total operating revenues during the years ended December 31, 2018, 2017 and 2016. International operating revenues and long-lived assets are not significant.

Note 14. Comprehensive Income

Comprehensive income consists of net income and other gains and losses affecting equity that, under U.S. GAAP, are excluded from net income. Significant changes in the components of Other comprehensive income, net of provision for income taxes are described below.

Accumulated Other Comprehensive Income

The changes in the balances of Accumulated other comprehensive income by component are as follows:

(dollars in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on cash flow hedges	Unrealized gains (losses) on marketable securities	Defined benefit pension and postretirement plans	Total
Balance at January 1, 2016	$ (554)	$ (278)	$ 101	$ 1,281	$ 550
Other comprehensive income (loss)	(159)	(225)	(13)	2,881	2,484
Amounts reclassified to net income	—	423	(42)	(742)	(361)
Net other comprehensive income (loss)	(159)	198	(55)	2,139	2,123
Balance at December 31, 2016	(713)	(80)	46	3,420	2,673
Other comprehensive income	245	818	10	327	1,400
Amounts reclassified to net income	—	(849)	(24)	(541)	(1,414)
Net other comprehensive income (loss)	245	(31)	(14)	(214)	(14)
Balance at December 31, 2017	(468)	(111)	32	3,206	2,659
Opening balance sheet adjustment (Note 1)	**(15)**	**(24)**	**(13)**	**682**	**630**
Adjusted opening balance	**(483)**	**(135)**	**19**	**3,888**	**3,289**
Other comprehensive income (loss)	**(117)**	**(574)**	**—**	**(164)**	**(855)**
Amounts reclassified to net income	**—**	**629**	**1**	**(694)**	**(64)**
Net other comprehensive income (loss)	**(117)**	**55**	**1**	**(858)**	**(919)**
Balance at December 31, 2018	**$ (600)**	**$ (80)**	**$ 20**	**$ 3,030**	**$ 2,370**

The amounts presented above in net other comprehensive income (loss) are net of taxes. The amounts reclassified to net income related to unrealized gain (loss) on cash flow hedges in the table above are included in Other income (expense), net and Interest expense in our consolidated statements of income. See Note 9 for additional information. The amounts reclassified to net income related to unrealized gain (loss) on marketable securities in the table above are included in Other income (expense), net in our consolidated statements of income. The amounts reclassified to net income related to defined benefit pension and postretirement plans in the table above are included in Other income (expense), net in our consolidated statements of income. See Note 11 for additional information.

Note 15. Additional Financial Information

The tables that follow provide additional financial information related to our consolidated financial statements:

Income Statement Information

(dollars in millions)

Years Ended December 31,	2018	2017	2016
Depreciation expense	**$ 15,186**	$ 14,741	$ 14,227
Interest costs on debt balances	**5,399**	5,256	4,961
Net amortization of debt discount	**174**	155	119
Capitalized interest costs	**(740)**	(678)	(704)
Advertising expense	**2,682**	2,643	2,744
Other income (expense), net			
Interest income	**$ 94**	$ 82	$ 59
Other components of net periodic benefit (cost) income	**3,068**	(11)	(2,190)
Other, net	**(798)**	(2,092)	(1,658)
	$ 2,364	$ (2,021)	$ (3,789)

Balance Sheet Information

At December 31,		2018		2017
				(dollars in millions)
Accounts payable and accrued liabilities				
Accounts payable	$	**7,232**	$	7,063
Accrued expenses		**5,948**		6,756
Accrued vacation, salaries and wages		**6,268**		4,521
Interest payable		**1,570**		1,409
Taxes payable		**1,483**		1,483
	$	**22,501**	$	21,232
Other current liabilities				
Dividends payable	$	**2,512**	$	2,429
Contract liability[1]		**4,207**		4,050
Other		**1,520**		1,873
	$	**8,239**	$	**8,352**

[1] Prior to the adoption of Topic 606, liabilities related to contracts with customers included advance billing and deferred revenues. These balances have been reclassified to conform to current year presentation.

Cash Flow Information

Years Ended December 31,		2018		2017		2016
						(dollars in millions)
Cash Paid						
Interest, net of amounts capitalized	$	**4,408**	$	4,369	$	4,085
Income taxes, net of amounts refunded		**2,213**		4,432		9,577
Other, net Cash Flows from Operating Activities						
Changes in device payment plan agreement non-current receivables	$	**(509)**	$	(579)	$	(3,303)
Other, net		**728**		1,255		204
	$	**219**	$	676	$	(3,099)
Other, net Cash Flows from Financing Activities						
Net debt related costs	$	**(141)**	$	(3,599)	$	(1,991)
Change in short-term obligations, excluding current maturities		**(790)**		(170)		(149)
Other, net		**(893)**		(670)		(765)
	$	**(1,824)**	$	(4,439)	$	(2,905)

In March 2017, the Verizon Board of Directors authorized a share buyback program to repurchase up to 100 million shares of the Company's common stock. The program will terminate when the aggregate number of shares purchased reaches 100 million, or at the close of business on February 28, 2020, whichever is sooner. During the years ended December 31, 2018, 2017, and 2016, Verizon did not repurchase any shares of Verizon’s common stock under our authorized share buyback programs. At December 31, 2018, the maximum number of shares that could be purchased by or on behalf of Verizon under our share buyback program was 100 million.

Common stock has been used from time to time to satisfy some of the funding requirements of employee and shareholder plans. During the years ended December 31, 2018, 2017, and 2016, we issued 3.5 million, 2.8 million and 3.5 million common shares from Treasury stock, respectively, which had an insignificant aggregate value.

Note 16. Commitments and Contingencies

In the ordinary course of business, Verizon is involved in various commercial litigation and regulatory proceedings at the state and federal level. Where it is determined, in consultation with counsel based on litigation and settlement risks, that a loss is probable and estimable in a given matter, the Company establishes an accrual. In none of the currently pending matters is the amount of accrual material. An estimate of the reasonably possible loss or range of loss in excess of the amounts already accrued cannot be made at this time due to various factors typical in contested proceedings, including: (1) uncertain damage theories and demands; (2) a less than complete factual record; (3) uncertainty concerning legal theories and their resolution by courts or regulators; and (4) the unpredictable nature of the opposing party and its demands. We continuously monitor these proceedings as they develop and adjust any accrual or disclosure as needed. We do not expect that the ultimate resolution of any pending regulatory or legal matter in future periods, including the Hicksville matter described below, will have a material effect on our financial condition, but it could have a material effect on our results of operations for a given reporting period.

Reserves have been established to cover environmental matters relating to discontinued businesses and past telecommunications activities. These reserves include funds to address contamination at the site of a former Sylvania facility in Hicksville NY, which had processed nuclear fuel rods in the 1950s and 1960s. In September 2005, the Army Corps of Engineers (ACE) accepted the site into its Formerly Utilized Sites Remedial Action Program. As a result, the ACE has taken primary responsibility for addressing the contamination at the site. An adjustment to the reserves may be made after a cost allocation is conducted with respect to the past and future expenses of all of the parties. Adjustments to the environmental reserve may also be made based upon the actual conditions found at other sites requiring remediation.

Verizon is currently involved in approximately 30 federal district court actions alleging that Verizon is infringing various patents. Most of these cases are brought by non-practicing entities and effectively seek only monetary damages; a small number are brought by companies that have sold products and could seek injunctive relief as well. These cases have progressed to various stages and a small number may go to trial in the coming 12 months if they are not otherwise resolved.

In connection with the execution of agreements for the sales of businesses and investments, Verizon ordinarily provides representations and warranties to the purchasers pertaining to a variety of nonfinancial matters, such as ownership of the securities being sold, as well as indemnity from certain financial losses. From time to time, counterparties may make claims under these provisions, and Verizon will seek to defend against those claims and resolve them in the ordinary course of business.

Subsequent to the sale of Verizon Information Services Canada in 2004, we continue to provide a guarantee to publish directories, which was issued when the directory business was purchased in 2001 and had a 30-year term (before extensions). The preexisting guarantee continues, without modification, despite the subsequent sale of Verizon Information Services Canada and the spin-off of our domestic print and Internet yellow pages directories business. The possible financial impact of the guarantee, which is not expected to be adverse, cannot be reasonably estimated as a variety of the potential outcomes available under the guarantee result in costs and revenues or benefits that may offset each other. We do not believe performance under the guarantee is likely.

As of December 31, 2018, letters of credit totaling approximately $0.6 billion, which were executed in the normal course of business and support several financing arrangements and payment obligations to third parties, were outstanding.

We have several commitments, totaling $22.2 billion, primarily to purchase programming and network services, equipment, software and marketing services, which will be used or sold in the ordinary course of business, from a variety of suppliers. Of this total amount, $8.8 billion is attributable to 2019, $9.1 billion is attributable to 2020 through 2021, $2.1 billion is attributable to 2022 through 2023 and $2.2 billion is attributable to years thereafter. These amounts do not represent our entire anticipated purchases in the future, but represent only those items that are the subject of contractual obligations. Our commitments are generally determined based on the noncancelable quantities or termination amounts. Purchases against our commitments totaled approximately $9.0 billion for 2018, $8.2 billion for 2017, and $8.1 billion for 2016. Since the commitments to purchase programming services from television networks and broadcast stations have no minimum volume requirement, we estimated our obligation based on number of subscribers at December 31, 2018, and applicable rates stipulated in the contracts in effect at that time. We also purchase products and services as needed with no firm commitment.

Note 17. Quarterly Financial Information (Unaudited)

(dollars in millions, except per share amounts)

Quarter Ended	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
2018					
Operating Revenues	**$ 31,772**	**$ 32,203**	**$ 32,607**	**$ 34,281**	**$ 130,863**
Operating Income	**7,349**	**6,617**	**7,675**	**637**	**22,278**
Net Income	**4,666**	**4,246**	**5,062**	**2,065**	**16,039**
Net Income Attributable to Verizon	**4,545**	**4,120**	**4,924**	**1,939**	**15,528**
Basic Earnings Per Share Attributable to Verizon[(1)]	**$ 1.11**	**$ 1.00**	**$ 1.19**	**$ 0.47**	**$ 3.76**
Diluted Earnings Per Share Attributable to Verizon[(1)]	**$ 1.11**	**$ 1.00**	**$ 1.19**	**$ 0.47**	**$ 3.76**
2017					
Operating Revenues	$ 29,814	$ 30,548	$ 31,717	$ 33,955	$ 126,034
Operating Income	6,963	8,013	6,990	5,459	27,425
Net Income	3,553	4,478	3,736	18,783	30,550
Net Income Attributable to Verizon	3,450	4,362	3,620	18,669	30,101
Basic Earnings Per Share Attributable to Verizon[(1)]	$ 0.85	$ 1.07	$ 0.89	$ 4.57	$ 7.37
Diluted Earnings Per Share Attributable to Verizon[(1)]	$ 0.84	$ 1.07	$ 0.89	$ 4.56	$ 7.36

[(1)] Net income attributable to Verizon per common share is computed independently for each quarter and the sum of the quarters may not equal the annual amount.

Results of operations for 2018 and 2017 include the following after-tax charges (credits) attributable to Verizon:

(dollars in millions)

	2018				2017			
	First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Severance, pension and benefits charges (credits)	**$ —**	**$ 250**	**$ (335)**	**$ 108**	$ —	$ 118	$ —	$ 732
Early debt redemption costs	**184**	**—**	**352**	**—**	512	—	274	409
Acquisition and integration related charges	**82**	**92**	**103**	**142**	—	355	100	95
Gain on spectrum license transactions	**—**	**—**	**—**	**—**	(77)	—	—	(91)
Net gain on sale of divested businesses	**—**	**—**	**—**	**—**	—	(931)	—	—
Product realignment charges	**—**	**509**	**—**	**—**	—	—	—	461
Corporate tax reform	**—**	**—**	**—**	**—**	—	—	—	(16,761)
Oath goodwill impairment	**—**	**—**	**—**	**4,527**	—	—	—	—
Wireless legal entity restructuring	**—**	**—**	**—**	**(2,065)**	—	—	—	—

Wireless Legal Entity Restructuring

During the fourth quarter of 2018, we completed an internal reorganization of legal entities within the Wireless business and recorded a non-recurring deferred tax benefit of approximately $2.1 billion on our consolidated statement of income for the year ended December 31, 2018, which reduced our deferred tax liability by the same amount.

Corporate Tax Reform

During the fourth quarter of 2017, we recorded a one-time corporate tax reduction of approximately $16.8 billion in (Provision) benefit for income taxes in our consolidated statement of income for the year ended December 31, 2017. Verizon has completed its analysis of the impacts of the TCJA, including analyzing the effects of any IRS and U.S. Treasury guidance issued, and state tax law changes enacted, within the maximum one year measurement period resulting in no significant adjustments to the provisional amount previously recorded.

EXHIBIT 21

Verizon Communications Inc. and Subsidiaries

Principal Subsidiaries of Registrant at December 31, 2018

Name	**State of Incorporation / Organization**
Verizon Delaware LLC	Delaware
Verizon Maryland LLC	Delaware
Verizon New England Inc.	New York
Verizon New Jersey Inc.	New Jersey
Verizon New York Inc.	New York
Verizon Pennsylvania LLC	Delaware
Verizon Virginia LLC	Virginia
Bell Atlantic Mobile Systems LLC	Delaware
Cellco Partnership (d/b/a Verizon Wireless)	Delaware
GTE LLC	Delaware
GTE Wireless LLC	Delaware
MCI Communications Corporation	Delaware
Verizon Americas Inc.	Delaware
Verizon Business Global LLC	Delaware
Oath Inc.	Delaware

EXHIBIT 23

Consent of Independent Registered Public Accounting Firm and Report on Schedule

Consent

We consent to the incorporation by reference in the following Registration Statements:

Form S-4, No. 333-11573; Form S-8, No. 333-41593; Form S-8, No. 333-50146; Form S-4, No. 333-76171; Form S-8, No. 333-76171; Form S-8, No. 333-53830; Form S-8, No. 333-82690; Form S-4, No. 333-124008; Form S-8, No. 333-124008; Form S-4, No. 333-132651; Form S-8, No. 333-172501; Form S-8, No. 333-172999; Form S-8, No. 333-200398; Form S-3, No. 333-213439; Form S-8, No. 333-217717; Form S-4, No. 333-218484; and Form S-8, No. 333-223523;

of our reports dated February 15, 2019, with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting of Verizon, incorporated by reference in this Annual Report (Form 10-K) of Verizon for the year ended December 31, 2018, and the financial statement schedule of Verizon, included herein.

Report on Schedule

To the Board of Directors and Shareholders of Verizon Communications Inc.:

We have audited the consolidated financial statements of Verizon Communications Inc. (Verizon) as of December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, and have issued our report thereon dated February 15, 2019 incorporated by reference in this Annual Report (Form 10-K) of Verizon from the 2018 Annual Report to Shareholders of Verizon. Our audits of the consolidated financial statements included the financial statement schedule listed in Item 15(a) of this Annual Report (Form 10-K) (the “schedule”). This schedule is the responsibility of Verizon's management. Our responsibility is to express an opinion on Verizon’s schedule based on our audits.

In our opinion, the schedule presents fairly, in all material respects, the information set forth therein when considered in conjunction with the consolidated financial statements.

/s/ Ernst & Young LLP

Ernst & Young LLP
New York, New York

February 15, 2019

EXHIBIT 24

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2018.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg, Matthew D. Ellis and Anthony T. Skiadas and each of them, her true and lawful attorneys-in-fact and agents with full power of substitution, for her and in her name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Shellye L. Archambeau

Shellye L. Archambeau

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the "Company"), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the "Form 10-K") for the fiscal year ended December 31, 2018.

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Mark T. Bertolini

Mark T. Bertolini

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Richard L. Carrión

Richard L. Carrión

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Melanie L. Healey

Melanie L. Healey

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ M. Frances Keeth

M. Frances Keeth

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Lowell C. McAdam

Lowell C. McAdam

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Clarence Otis, Jr.

Clarence Otis, Jr.

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Daniel H. Schulman

Daniel H. Schulman

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Rodney E. Slater

Rodney E. Slater

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Kathryn A. Tesija

Kathryn A. Tesija

POWER OF ATTORNEY

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NOW, THEREFORE, the undersigned hereby appoints Matthew D. Ellis and Anthony T. Skiadas and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Hans E. Vestberg

Hans E. Vestberg

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Gregory G. Weaver

Gregory G. Weaver

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2018.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg and Anthony T. Skiadas and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Matthew D. Ellis

Matthew D. Ellis

POWER OF ATTORNEY

WHEREAS, VERIZON COMMUNICATIONS INC., a Delaware corporation (hereinafter referred to as the “Company”), proposes to file with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2018.

NOW, THEREFORE, the undersigned hereby appoints Hans E. Vestberg and Matthew D. Ellis and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign the Form 10-K and any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, making such changes in the Form 10-K as such person or persons so acting deems appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney this 7th day of February, 2019.

/s/ Anthony T. Skiadas

Anthony T. Skiadas

EXHIBIT 31.1

I, Hans E. Vestberg, certify that:

1. I have reviewed this annual report on Form 10-K of Verizon Communications 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 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.

Date: February 15, 2019

/s/ Hans E. Vestberg

Hans E. Vestberg

Chief Executive Officer

EXHIBIT 31.2

I, Matthew D. Ellis, certify that:

1. I have reviewed this annual report on Form 10-K of Verizon Communications 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 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.

Date: February 15, 2019

/s/ Matthew D. Ellis

Matthew D. Ellis

Executive Vice President and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002, PURSUANT TO SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE

I, Hans E. Vestberg, Chief Executive Officer of Verizon Communications Inc. (the Company), certify that:

(1) the report of the Company on Form 10-K for the annual period ending December 31, 2018 (the Report) fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934 (the Exchange Act); and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods referred to in the Report.

Date: February 15, 2019

/s/ Hans E. Vestberg

Hans E. Vestberg
Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Verizon Communications Inc. and will be retained by Verizon Communications Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002, PURSUANT TO SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE

I, Matthew D. Ellis, Executive Vice President and Chief Financial Officer of Verizon Communications Inc. (the Company), certify that:

(1) the report of the Company on Form 10-K for the annual period ending December 31, 2018 (the Report) fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934 (the Exchange Act); and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods referred to in the Report.

Date: February 15, 2019	/s/ Matthew D. Ellis
	Matthew D. Ellis
	Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Verizon Communications Inc. and will be retained by Verizon Communications Inc. and furnished to the Securities and Exchange Commission or its staff upon request.