

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**FORM 10-K**

- ☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the fiscal year ended December 31, 2019  
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 No. 001-7784



**CENTURYLINK, INC.**  
(Exact name of registrant as specified in its charter)

<p style="text-align: center;"><b>Louisiana</b> (State or other jurisdiction of incorporation or organization)</p> <p style="text-align: center;"><b>100 CenturyLink Drive,</b> <b>Monroe, Louisiana</b> (Address of principal executive offices)</p>	<p style="text-align: center;"><b>72-0651161</b> (I.R.S. Employer Identification No.)</p> <p style="text-align: center;"><b>71203</b> (Zip Code)</p>
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**(318) 388-9000**  
(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value \$1.00 per share	CTL	New York Stock Exchange
Preferred Stock Purchase Rights	N/A	New York Stock Exchange

**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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>	Non-accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
						Emerging Growth Company	<input type="checkbox"/>

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

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

On February 21, 2020, 1,089,540,310 shares of common stock were outstanding. The aggregate market value of the voting stock held by non-affiliates as of June 30, 2019 was \$11.4 billion.

**DOCUMENTS INCORPORATED BY REFERENCE:**



## TABLE OF CONTENTS

### **PART I**

<a href="#"><u>Item 1. Business</u></a>	<a href="#"><u>6</u></a>
<a href="#"><u>Item 1A. Risk Factors</u></a>	<a href="#"><u>20</u></a>
<a href="#"><u>Item 1B. Unresolved Staff Comments</u></a>	<a href="#"><u>48</u></a>
<a href="#"><u>Item 2. Properties</u></a>	<a href="#"><u>49</u></a>
<a href="#"><u>Item 3. Legal Proceedings</u></a>	<a href="#"><u>49</u></a>
<a href="#"><u>Item 4. Mine Safety Disclosures</u></a>	<a href="#"><u>49</u></a>

### **PART II**

<a href="#"><u>Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u></a>	<a href="#"><u>50</u></a>
<a href="#"><u>Item 6. Selected Financial Data</u></a>	<a href="#"><u>51</u></a>
<a href="#"><u>Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations</u></a>	<a href="#"><u>53</u></a>
<a href="#"><u>Item 7A. Quantitative and Qualitative Disclosures About Market Risk</u></a>	<a href="#"><u>78</u></a>
<a href="#"><u>Item 8. Consolidated Financial Statements and Supplementary Data</u></a>	<a href="#"><u>79</u></a>
<a href="#"><u>Consolidated Statements of Operations</u></a>	<a href="#"><u>84</u></a>
<a href="#"><u>Consolidated Statements of Comprehensive (Loss) Income</u></a>	<a href="#"><u>85</u></a>
<a href="#"><u>Consolidated Balance Sheets</u></a>	<a href="#"><u>86</u></a>
<a href="#"><u>Consolidated Statements of Cash Flows</u></a>	<a href="#"><u>87</u></a>
<a href="#"><u>Consolidated Statements of Stockholders' Equity</u></a>	<a href="#"><u>88</u></a>
<a href="#"><u>Notes to Consolidated Financial Statements</u></a>	<a href="#"><u>89</u></a>
<a href="#"><u>Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u></a>	<a href="#"><u>159</u></a>
<a href="#"><u>Item 9A. Controls and Procedures</u></a>	<a href="#"><u>159</u></a>
<a href="#"><u>Item 9B. Other Information</u></a>	<a href="#"><u>161</u></a>

### **PART III**

<a href="#"><u>Item 10. Directors, Executive Officers and Corporate Governance</u></a>	<a href="#"><u>161</u></a>
<a href="#"><u>Item 11. Executive Compensation</u></a>	<a href="#"><u>161</u></a>
<a href="#"><u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u></a>	<a href="#"><u>162</u></a>
<a href="#"><u>Item 13. Certain Relationships and Related Transactions and Director Independence</u></a>	<a href="#"><u>162</u></a>
<a href="#"><u>Item 14. Principal Accountant Fees and Services</u></a>	<a href="#"><u>162</u></a>

### **PART IV**

<a href="#"><u>Item 15. Exhibits and Financial Statement Schedules</u></a>	<a href="#"><u>163</u></a>
<a href="#"><u>Item 16. Summary Business and Financial Information</u></a>	<a href="#"><u>175</u></a>
<a href="#"><u>Signatures</u></a>	<a href="#"><u>176</u></a>

*Unless the context requires otherwise, (i) references in this report on Form 10-K, for all periods presented, to "CenturyLink," "we," "us", the "Company" and "our" refer to CenturyLink, Inc. and its consolidated subsidiaries and (ii) references in this report to "Level 3" refer to Level 3 Parent, LLC and its predecessor, Level 3 Communications, Inc., which we acquired on November 1, 2017.*

## **PART I**

### **Special Note Regarding Forward-Looking Statements**

This report and other documents filed by us under the federal securities law include, and future oral or written statements or press releases by us and our management may include, forward-looking statements about our business, financial condition, operating results and prospects. These "forward-looking" statements are defined by, and are subject to the "safe harbor" protections under, the federal securities laws. These statements include, among others:

- forecasts of our anticipated future results of operations, cash flows or financial position;
- statements concerning the anticipated impact of our transactions, investments, product development and other initiatives, including synergies or costs associated with our transformational initiatives, acquisitions or dispositions, and the impact of our participation in government programs;
- statements about our liquidity, profitability, profit margins, tax position, tax assets, tax rates, asset values, contingent liabilities, growth opportunities, growth rates, acquisition and divestiture opportunities, business prospects, regulatory and competitive outlook, market share, product capabilities, investment and expenditure plans, business strategies, dividend and securities repurchase plans, debt leverage, capital allocation plans, financing alternatives and sources, and pricing plans; and
- other similar statements of our expectations, beliefs, future plans and strategies, anticipated developments and other matters that are not historical facts, many of which are highlighted by words such as "may," "will," "would," "could," "should," "plan," "believes," "expects," "anticipates," "estimates," "projects," "intends," "likely," "seeks," "hopes," or variations or similar expressions with respect to the future.

These forward-looking statements are based upon our judgment and assumptions as of the date such statements are made concerning future developments and events, many of which are beyond our control. These forward-looking statements, and the assumptions upon which they are based, (i) are not guarantees of future results, (ii) are inherently speculative and (iii) are subject to a number of risks and uncertainties. Actual events and results may differ materially from those anticipated, estimated, projected or implied by us in those statements if one or more of these risks or uncertainties materialize, or if our underlying assumptions prove incorrect. All of our forward-looking statements are qualified in their entirety by reference to our discussion of factors that could cause our actual results to differ materially from those anticipated, estimated, projected or implied by us in those forward-looking statements. Factors that could affect actual results include but are not limited to:

- the effects of competition from a wide variety of competitive providers, including decreased demand for our more mature service offerings and increased pricing pressures;
- the effects of new, emerging or competing technologies, including those that could make our products less desirable or obsolete;
- our ability to attain our key operating imperatives, including simplifying and consolidating our network, simplifying and automating our service support systems, strengthening our relationships with customers and attaining projected cost savings;
- our ability to safeguard our network, and to avoid the adverse impact on our business from possible security breaches, service outages, system failures, equipment breakage, or similar events impacting our network or the availability and quality of our services;

- the effects of ongoing changes in the regulation of the communications industry, including the outcome of regulatory or judicial proceedings relating to intercarrier compensation, interconnection obligations, special access, universal service, broadband deployment, data protection, privacy and net neutrality;
- our ability to effectively adjust to changes in the communications industry, and changes in the composition of our markets and product mix;
- possible changes in the demand for our products and services, including our ability to effectively respond to increased demand for high-speed data transmission services;
- our ability to successfully maintain the quality and profitability of our existing product and service offerings and to introduce profitable new offerings on a timely and cost-effective basis;
- our ability to generate cash flows sufficient to fund our financial commitments and objectives, including our capital expenditures, operating costs, debt repayments, dividends, pension contributions and other benefits payments;
- our ability to implement our operating plans and corporate strategies, including our delevering strategy;
- changes in our operating plans, corporate strategies, dividend payment plans or other capital allocation plans, whether based upon changes in our cash flows, cash requirements, financial performance, financial position, market conditions or otherwise;
- our ability to effectively retain and hire key personnel and to successfully negotiate collective bargaining agreements on reasonable terms without work stoppages;
- the negative impact of increases in the costs of our pension, health, post-employment or other benefits, including those caused by changes in markets, interest rates, mortality rates, demographics or regulations;
- the potential negative impact of customer complaints, governmental investigations, security breaches or service outages impacting us or our industry;
- adverse changes in our access to credit markets on favorable terms, whether caused by changes in our financial position, lower debt credit ratings, unstable markets or otherwise;
- our ability to meet the terms and conditions of our debt obligations and covenants, including our ability to make transfers of cash in compliance therewith;
- our ability to maintain favorable relations with our key business partners, suppliers, vendors, landlords and financial institutions;
- our ability to collect our receivables from financially troubled customers;
- our ability to use our net operating loss carryforwards in the amounts projected;
- any adverse developments in legal or regulatory proceedings involving us;
- changes in tax, communications, pension, healthcare or other laws or regulations, in governmental support programs, or in general government funding levels;
- the effects of changes in accounting policies, practices or assumptions, including changes that could potentially require additional future impairment charges;
- the effects of adverse weather, terrorism or other natural or man-made disasters;
- the potential adverse effects if our internal controls over financial reporting have weaknesses or deficiencies, or otherwise fail to operate as intended;

- the effects of more general factors such as changes in interest rates, in exchange rates, in operating costs, in public policy, in the views of financial analysts, or in general market, labor, economic or geo-political conditions; and
- other risks referenced in "Risk Factors" in Item 1A or elsewhere in this report or other of our filings with the SEC.

Additional factors or risks that we currently deem immaterial, that are not presently known to us or that arise in the future could also cause our actual results to differ materially from our expected results. Given these uncertainties, investors are cautioned not to unduly rely upon our forward-looking statements, which speak only as of the date made. We undertake no obligation to publicly update or revise any forward-looking statements for any reason, whether as a result of new information, future events or developments, changed circumstances, or otherwise. Furthermore, any information about our intentions contained in any of our forward-looking statements reflects our intentions as of the date of such forward-looking statement, and is based upon, among other things, existing regulatory, technological, industry, competitive, economic and market conditions, and our assumptions as of such date. We may change our intentions, strategies or plans (including our dividend or other capital allocation plans) at any time and without notice, based upon any changes in such factors, in our assumptions or otherwise.

## **ITEM 1. BUSINESS**

### **Overview**

We are an international facilities-based communications company engaged primarily in providing a broad array of integrated services to our business and residential customers. Our specific products and services are detailed below under the heading "Operations - Products and Services."

With approximately 450,000 route miles of fiber optic cable globally, we believe we are among the largest providers of communications services to domestic and global enterprise customers. Our terrestrial and subsea fiber optic long-haul network throughout North America, Europe, Latin America and Asia Pacific connects to metropolitan fiber networks that we operate. We provide services in over 60 countries, with most of our revenue being derived in the United States. We believe we are the second largest enterprise wireline telecommunications company in the United States.

We were incorporated under the laws of the State of Louisiana in 1968. Our principal executive offices are located at 100 CenturyLink Drive, Monroe, Louisiana 71203 and our telephone number is (318) 388-9000.

For a discussion of certain risks applicable to our business, see "Risk Factors" in Item 1A of Part I of this report. The summary financial information in this Item 1 should be read in conjunction with, and is qualified by reference to, our consolidated financial statements and notes thereto in Item 8 of Part II of this report and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of Part II of this report.

### **Acquisition of Level 3**

On November 1, 2017, CenturyLink acquired Level 3 through successive merger transactions, including a merger of Level 3 with and into a merger subsidiary, which survived such merger as our indirect wholly-owned subsidiary under the name of Level 3 Parent, LLC. Upon closing, CenturyLink shareholders owned approximately 51% and former Level 3 shareholders owned approximately 49% of the combined company.

For additional information about our acquisition of Level 3, see (i) Note 2—Acquisition of Level 3 to our consolidated financial statements in Item 8 of Part II of this report and (ii) our prior reports filed by us with the Securities and Exchange Commission (the "SEC") including those filed on February 13, 2017, November 1, 2017 and January 16, 2018.

## Sale of Data Centers and Colocation Business

On May 1, 2017, we sold a portion of our data centers and colocation business to a consortium led by BC Partners, Inc. and Medina Capital ("the Purchaser") in exchange for pre-tax cash proceeds of \$1.8 billion and a minority stake in the limited partnership that owns the consortium's newly-formed global secure infrastructure company, Cyxtera Technologies ("Cyxtera"). As part of the transaction, the Purchaser acquired 57 of our data centers and assumed \$294 million (as of May 1, 2017) of our capital lease obligations related to the divested properties.

See Note 3—Sale of Data Centers and Colocation Business to our consolidated financial statements in Item 8 of Part II of this report for additional information.

## Financial Highlights

Our consolidated operating results and financial position include the operating results and financial position of Level 3 beginning as of November 1, 2017. For additional information, see Note 2—Acquisition of Level 3 to our consolidated financial statements in Item 8 of Part II of this report.

The following table summarizes the results of our consolidated operations.

	Years Ended December 31,		
	2019 <sup>(1)(2)</sup>	2018 <sup>(1)(2)(3)</sup>	2017 <sup>(1)(3)</sup>
	(Dollars in millions)		
Operating revenue	\$ 22,401	23,443	17,656
Operating expenses	25,127	22,873	15,647
Operating (loss) income	\$ (2,726)	570	2,009
Net (loss) income	\$ (5,269)	(1,733)	1,389

(1) During 2019, 2018 and 2017, we incurred Level 3 acquisition-related expenses of \$234 million, \$393 million and \$271 million, respectively. For additional information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Acquisition of Level 3" and Note 2—Acquisition of Level 3 to our consolidated financial statements in Item 8 of Part II of this report.

(2) During 2019 and 2018, we recorded non-cash, non-tax-deductible goodwill impairment charges of \$6.5 billion and \$2.7 billion. For additional information, see Note 4—Goodwill, Customer Relationships and Other Intangible Assets to our consolidated financial statements in Item 8 of Part II of this report.

(3) The enactment of the Tax Cuts and Jobs Act in December 2017 resulted in a re-measurement of our deferred tax assets and liabilities at the new federal corporate tax rate of 21%. The re-measurement resulted in tax expense of \$92 million for 2018 and a tax benefit of approximately \$1.1 billion for 2017.

We estimate that during 2019, 2018 and 2017, approximately 8.2%, 7.9% and 2.0%, respectively, of our consolidated revenue was derived from providing telecommunications, colocation and hosting services outside the United States.

The following table summarizes certain selected financial information from our consolidated balance sheets:

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Total assets	\$ 64,742	70,256
Total long-term debt <sup>(1)</sup>	34,694	36,061
Total stockholders' equity	13,470	19,828

(1) For additional information on our total long-term debt, see Note 7—Long-Term Debt and Credit Facilities to our consolidated financial statements in Item 8 of Part II of this report. For information on our total obligations, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Future Contractual Obligations" in Item 7 of Part II of this report.

## Operations

### Reporting Segments

At December 31, 2019, we had the following five reportable segments:

- *International and Global Accounts Management ("IGAM") Segment.* Under our IGAM segment, we provide our products and services to approximately 200 global enterprise customers and three operating regions: Europe Middle East and Africa, Latin America and Asia Pacific;
- *Enterprise Segment.* Under our enterprise segment, we provide our products and services to large and regional domestic and global enterprises, as well as the public sector, which includes the U.S. Federal Government, state and local governments and research and education institutions;
- *Small and Medium Business ("SMB") Segment.* Under our SMB segment, we provide our products and services to small and medium businesses directly and through our indirect channel partners;
- *Wholesale Segment.* Under our wholesale segment, we provide our products and services to a wide range of other communication providers across the wireline, wireless, cable, voice and data center sectors. Our wholesale customers range from large global telecom providers to small regional providers; and
- *Consumer Segment.* Under our consumer segment, we provide our products and services to residential customers. Additionally, Universal Service Fund ("USF") federal and state support payments, Connect America Fund ("CAF") federal support revenue, and other revenue from leasing and subleasing including prior year rental income associated with the 2017 failed-sale-leaseback are reported in our consumer segment as regulatory revenue.

The following table shows the composition of our operating revenue by segment under our current segment categorization for the years ended December 31, 2019, 2018 and 2017:

	Years Ended December 31,			Percent Change	
	2019	2018	2017	2019 vs 2018	2018 vs 2017
Percentage of revenue:					
International and Global Accounts	16%	16%	8%	— %	8 %
Enterprise	28%	26%	24%	2 %	2 %
Small and Medium Business	13%	13%	14%	— %	(1)%
Wholesale	18%	19%	17%	(1)%	2 %
Consumer	25%	26%	36%	(1)%	(10)%
Operations and Other *	—%	—%	1%	— %	(1)%
Total operating revenue	100%	100%	100%		

\* Consists of all revenue not attributable to our segment revenue.

For additional information on our segment data, including information on certain centrally-managed assets and expenses not reflected in our segment results, see Note 17—Segment Information to our consolidated financial statements in Item 8 of Part II of this report and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Reporting Segments" in Item 7 of Part II of this report.

### Products and Services

#### Our Business Segments

We categorize our products and services revenue among four categories for our International and Global Accounts Management, Enterprise, Small and Medium Business and Wholesale segments.



While most of our customized customer interactions involve multiple integrated technologies and services, we organize our products and services according to the core technologies that drive them. We report our related revenue under the following categories: IP and data services, transport and infrastructure services, voice and collaboration services, and IT and managed services, each of which is described in further detail below.

### **IP and Data Services**

- *VPN Data Network.* Built on our extensive fiber-optic network, we create private networks tailored to our customers' needs. These technologies enable service providers, enterprises and government entities to streamline multiple networks into a single, cost-effective solution that simplifies the transmission of voice, video, and data over a single secure network;
- *Ethernet.* We deliver a robust array of networking services built on Ethernet technology. Ethernet services include point-to-point and multi-point equipment configurations that facilitate data transmissions across metropolitan areas and larger enterprise-class wide area networks. Our Ethernet technology is also used by wireless service providers for data transmission via our fiber-optic cables connected to their towers;
- *Internet Protocol ("IP").* Our Internet Protocol services provide global internet access over a high performance, diverse network with connectivity in more than 60 countries with approximately 129 Tbps of global throughput. Our network features approximately 82 Tbps of global peering capacity, and spans approximately 450,000 route miles globally with extensive off-net access solutions across North America, Europe, Latin America and Asia Pacific; and
- *Content Delivery.* Our content delivery services provide our customers with the ability to meet their streaming video and far-reaching digital content distribution needs through our Content Delivery Network (CDN) services and our Vvvx Broadcast Solutions.

### **Transport and Infrastructure**

- *Wavelength.* We deliver high bandwidth optical networks to firms requiring an end-to-end transport solution with Ethernet technology by contracting for a scalable amount of bandwidth connecting sites or providing high-speed access to cloud computing resources;
- *Dark Fiber.* We possess an extensive array of unlit optical fiber, known as "dark fiber." Many large enterprises are interested in building their networks with this high-bandwidth, highly secure optical technology and dark fiber gives them access to the technology. CenturyLink provides professional services to engineer these networks, and in some cases, manage them for customers;
- *Private Line.* We deliver private line services, a direct circuit or channel specifically dedicated for connecting two or more organizational sites. Private line service offers a high-speed, secure solution for frequent transmission of large amounts of data between sites, including wireless backhaul transmissions;
- *Colocation and Data Center Services.* We provide different options for organizations' data center needs. Our data center services range from dedicated hosting and cloud services to more complex managed solutions, including disaster recovery, business continuity, applications management support and security services to manage mission critical applications; and
- *Professional Services.* Our experts deliver a robust array of consulting services to organizations either as part of a larger engagement or as stand-alone services. This category includes network management, installation and maintenance of data equipment and the building of proprietary fiber-optic broadband networks for government and business customers.

### **Voice and Collaboration**

- *Voice.* We offer our customers a complete portfolio of traditional Time Division Multiplexing voice services including Primary Rate Interface service, local inbound service, switched one-plus, toll free, long distance and international services; and

- *Voice Over IP (VoIP)*. We deliver a broad range of local and enterprise voice and data services built on VoIP (Voice over Internet Protocol) technology. Our local and enterprise voice services include VoIP enhanced local service, national and multinational SIP Trunking, Hosted VoIP, support of Primary Rate Interface service, long distance service, and toll-free service.

## **IT and Managed Services**

- We craft technology solutions for our customers and often manage those solutions on an ongoing basis. Managed services represent a blend of network, hosting, cloud (public and private), and IT services that typically require ongoing support such as managing applications, operating systems and hardware. This product line includes intuitive management tools that optimize efficiencies in companies' technology infrastructure. These services frequently enhance equipment or networks owned, acquired or controlled by the customer and often include our consulting or software development.

## **Our Consumer Segment**

We categorize our products and services revenue among the following four categories for our Consumer segment:

- *Broadband*, which includes high speed, fiber-based and lower speed Digital Subscriber Line ("DSL") broadband services;
- *Voice*, which includes local and long-distance revenue;
- *Regulatory Revenue*, which consists of (i) CAF, USF, and other support payments designed to reimburse us for various costs related to certain telecommunications services and (ii) other operating revenue from the leasing and subleasing of space; and
- *Other*, which includes retail video (including our facilities-based linear TV service), professional services and other ancillary services.

From time to time, we may continue to change the categorization of our products and services.

## **Additional Information**

From time to time, we may make investments in other communications or technology companies.

For further information on regulatory, technological and competitive factors that could impact our revenue, see "Regulation" and "Competition" under this Item 1 below and "Risk Factors" under Item 1A below. For more information on the financial contributions of our various services, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of Part II of this report.

## **Our Network**

Most of our products and services are provided using our telecommunications network, which consists of fiber-optic and copper cables, high-speed transport equipment, electronics, voice switches, data switches and routers, and various other equipment. Our local exchange carrier networks also include central offices and remote site assets, and form a portion of the public switched telephone network. We operate part of our network with leased assets, and a substantial portion of our equipment with licensed software.

At December 31, 2019, our network (both owned and leased) included:

- Approximately 450,000 route miles of fiber optic plant globally;
- Approximately 916,000 miles of copper plant;
- Approximately 340 colocation facilities and data centers globally;
- Approximately 37,500 route miles of subsea fiber optic cable systems;

- Approximately 170,000 buildings directly connected to our network, which we refer to as "Fiber On-net" buildings;
- Multiple gateway and transmission facilities used in connection with operating our network throughout North America, Europe and Latin America; and
- Central office and other equipment that enables us to provide telephone service as an incumbent local telephone company ("ILEC") in 37 states.

We continue to enhance and expand our network by deploying various technologies to provide additional capacity to our customers. Rapid and significant changes in technology are expected to continue in the telecommunications industry. Our future success will depend, in part, on our ability to anticipate and adapt to changes in technology and customer demands, including demands for enhanced digitization, automation and customer self-service capabilities. In addition, we anticipate that continued increases in internet usage by our customers will require us to make significant capital expenditures to increase network capacity or to implement network management practices to alleviate network capacity shortages. The FCC's stringent definition of broadband service and consumers' demand for faster transmission speeds could create additional requirements for higher capital spending. Any such additional expenditures could adversely impact our results of operations and financial condition.

Similarly, we continue to take steps to simplify and modernize our network. We assembled much of our network by acquiring companies that previously operated their independent networks. We continue to take steps to eliminate differences between previously separate and older systems. To attain these objectives, we plan to continue to pursue several complex projects that we expect will be costly and may take several years to complete. The costs of these projects could materially increase if we conclude that we need to replace any or all of our legacy systems.

Like other large communications companies, we are a constant target of cyber-attacks of varying degrees, which has caused us to spend increasingly more time and money to deal with increasingly sophisticated attacks. Some of the attacks result in security breaches, and we periodically notify our customers, our employees, our regulators or the public of these breaches when necessary or appropriate. None of these resulting security breaches to date has materially adversely affected our business, results of operations or financial condition.

Similarly, like other large communication companies operating complex networks, from time to time in the ordinary course of our business we experience disruptions in our service. Although none of these outages have thus far materially adversely affected us, certain of these outages have resulted in regulatory fines, negative publicity, service credits and other adverse consequences.

We rely on several other communications companies to provide our offerings. We lease a portion of our core fiber network from our competitors and other third parties. Many of these leases will lapse in future years. A portion of our services are provided by other carriers under agency agreements or through reselling arrangements with other carriers. Our future ability to provide services on the terms of our current offerings will depend in part upon our ability to renew or replace these leases, agreements and arrangements on terms substantially similar to those currently in effect.

For additional information regarding our systems, network assets, network risks, capital expenditure requirements and reliance upon third parties, see "Risk Factors," generally, in Item 1A of Part I of this report, and, in particular, "Risk Factors—Risks Affecting Our Business" and "Risk Factors—Risks Affecting Our Liquidity and Capital Resources." For more information on our properties, see Item 2 of Part I of this report.

### **Patents, Trade Names, Trademarks and Copyrights**

Either directly or through our subsidiaries, we have rights in various patents, trade names, trademarks, copyrights and other intellectual property necessary to conduct our business. Our services often use the intellectual property of others, including licensed software. We also occasionally license our intellectual property to others as we deem appropriate.

Through acquisitions or our own research and development, as of December 31, 2019, we had approximately 2,600 patents and patent applications in the United States and other countries. Our patents cover a range of technologies, including those relating to data and voice services, content distribution and transmission and networking equipment. We have also received licenses to use patents held by others, including through certain extensive cross-license arrangements. Patents give us the right to prevent others, particularly competitors, from using our proprietary technologies. Patent licenses give us the freedom to operate our business without the risk of interruption from the holder of the patented technology. We plan to continue to file new patent applications as we enhance and develop products and services, and we plan to continue to seek opportunities to expand our patent portfolio through strategic acquisitions and licensing.

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, or are named in lawsuits, alleging that our products or services infringe on patents or other intellectual property rights of third parties, or receive requests to indemnify customers who allege that their use of our products or services caused them to be named in an infringement proceeding. In certain instances, these matters can potentially adversely impact our operations, operating results or financial position. For additional information, see "Risk Factors—Risks Affecting Our Business" in Item 1A of Part I of this report, and Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements in Item 8 of Part II of this report.

## **Sales and Marketing**

We maintain local offices in (i) most major and secondary markets within the U.S., (ii) most of the larger population centers within our local service area and (iii) many of the primary markets of the more than 60 countries in which we provide services. These offices provide sales and customer support services to the communities in our local markets. We also rely on our call center personnel and a variety of channel partners to promote sales of services that meet the needs of our customers. Our sales and marketing strategy is to enhance our sales by offering solutions tailored to the needs of our various customers and promoting our brands. To meet the needs of different customers, our offerings include both stand-alone services and bundled services designed to provide a complete offering of integrated services.

We conduct most of our operations under the brand name "CenturyLink." Our satellite television service is offered on a co-branded basis under the "DIRECTV" name.

Our sales and marketing approach to our business customers includes a commitment to provide comprehensive communications and IT solutions for business, wholesale and government customers of all sizes, ranging from small business offices to the world's largest global enterprise customers. We strive to offer our business customers stable, reliable, secure and trusted solutions. Our marketing plans include marketing our products and services primarily through direct sales representatives, inbound call centers, telemarketing and third parties, including telecommunications agents, system integrators, value-added resellers and other telecommunications firms. We support our distribution through digital advertising, events, television advertising, website promotions and public relations.

Similarly, our sales and marketing approach to our residential customers emphasizes customer-oriented sales, marketing and service with a local presence. Our marketing plans include marketing our products and services primarily through direct sales representatives, inbound call centers, telemarketing and third parties, including retailers, satellite television providers, door to door sales agents and digital marketing firms. We support our distribution with digital marketing, direct mail, bill inserts, newspaper and television advertising, website promotions, public relations activities and sponsorship of community events and sports venues.

## **Regulation**

### **Overview**

Our domestic operations are regulated by the Federal Communications Commission (the "FCC"), various state utility commissions and occasionally by local agencies. Our non-domestic operations are regulated by supranational groups (such as the European Union, or EU), national agencies and frequently state, provincial or local bodies. Generally, we must obtain and maintain operating licenses from these bodies in most areas where we offer regulated services.

The following description discusses some of the major industry regulations that affect our operations, but numerous other regulations not discussed below also have a substantial impact on us. For additional information, see "Risk Factors" in Item 1A of Part I of this report.

### **Federal Regulation of Domestic Operations**

#### **General**

The FCC regulates the interstate services we provide, including the business data service charges we bill for wholesale network transmission and intercarrier compensation, including the interstate access charges that we bill to long-distance companies and other communications companies in connection with the origination and termination of interstate phone calls. Additionally, the FCC regulates several aspects of our business related to international communications services, privacy, public safety and network infrastructure, including our access to and use of local telephone numbers and our provision of emergency 911 services.

#### **Universal Service**

In 2015, we accepted Connect America Fund or "CAF" funding from the FCC of approximately \$500 million per year for six years to fund the deployment of voice and broadband capable infrastructure for approximately 1.2 million rural households and businesses in 33 of the 37 states in which we are an ILEC under the CAF Phase II high-cost support program. The funding from the CAF Phase II support program in these 33 states has substantially replaced the funding from the interstate USF high-cost program that we previously utilized to support voice services in high-cost rural markets in these 33 states. As a result of accepting CAF Phase II support payments for 33 states, as well as existing merger-related commitments, we are obligated to make substantial capital expenditures to build infrastructure by certain specified milestone deadlines. For information on the risks associated with participating in this program, see "Risk Factors—Risks Relating to Legal and Regulatory Matters" in Item 1A of Part I of this report.

On January 30, 2020 the FCC approved an order creating the Rural Digital Opportunity Fund (the "RDOF"), which is a new federal support program designed to follow the CAF Phase II program. Through the RDOF, the FCC plans to award up to \$20.4 billion in support payments, beginning January 1, 2022, to bring broadband to unserved areas through multi-round reverse auctions. The FCC plans to conduct the first auction late in 2020. In its order, the FCC also addressed the transition of carriers from CAF Phase II to RDOF and clarified that price cap carriers, like CenturyLink, will receive an additional year of CAF Phase II funding in 2021. We are in the early stages of analyzing this opportunity.

For additional information about the potential financial impact of the CAF Phase II program, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of Part II of this report.

## **Broadband Regulation**

In February 2015, the FCC adopted an order classifying Broadband Internet Access Services ("BIAS") under Title II of the Communications Act of 1934 and applying new regulations. In December 2017, the FCC voted to repeal most of those regulations and the classification of BIAS as a Title II service and to preempt states from imposing substantial regulations on broadband. Opponents of this change appealed this action in federal court and have advocated in favor of re-instituting regulation of Internet services under Title II of the Communications Act. Several states have also opposed the change and have initiated state executive orders or introduced legislation focused on state-specific Internet service regulation. In October 2019, the federal court upheld the FCC's classification decision but vacated a part of its preemption ruling. The court also requested the FCC to make further findings relating to its classification decision. Numerous parties have sought further appellate review of this decision. The result of these appeals is pending and the potential impact to CenturyLink is currently unknown.

## **State Regulation of Domestic Operations**

In recent years, most states have reduced their regulation of ILECs, including our ILEC operations. Nonetheless, state regulatory commissions generally continue to (i) set the rates that telecommunication companies charge each other for exchanging traffic, (ii) administer support programs designed to subsidize the provision of services to high-cost rural areas, (iii) regulate the purchase and sale of ILECs, (iv) require ILECs to provide service under publicly-filed tariffs setting forth the terms, conditions and prices of regulated services, (v) limit ILECs' ability to borrow and pledge their assets, (vi) regulate transactions between ILECs and their affiliates and (vii) impose various other service standards. In most states, switched and business data services and interconnection services are subject to price regulation, although the extent of regulation varies by type of service and geographic region.

We operate in states where traditional cost recovery mechanisms, including state USF, are under evaluation or have been modified. The 2017 changes to the federal tax code prompted several states to review the potential impact to regulated rates. As laws and regulations change, there can be no assurance that these mechanisms will continue to provide us with the same level of cost recovery.

## **International Regulations**

Our subsidiaries operating outside of the United States are subject to various regulations in the markets where service is provided. The scope of regulation varies from country to country. The telecommunications regulatory regimes in certain of our non-domestic markets are in the process of development. Many issues, including the pricing of services, have not been addressed fully, or even at all. We cannot accurately predict whether and how these issues will be resolved, or their effect on our operations. Further, some of the legal requirements governing our foreign operations are more restrictive than or conflict with those governing our domestic operations, which raises our compliance costs and regulatory risks.

On January 31, 2020, the United Kingdom (the "UK") terminated its membership in the EU ("Brexit"), subject to an 11-month transition period during which the UK will continue to be subject to all EU rules, but will no longer have any voting rights. The British government is currently negotiating the terms of Brexit. Several factors which are currently unknown will influence Brexit's impact on our business, including the form Brexit will take. We operate a staging facility in the UK, where certain core network elements and customer premises equipment is configured before being shipped to both UK and EU locations. The UK is currently also a central repository of our spare parts for use in our European operations. However, we have also recently established a third party sparing facility in Amsterdam which will help mitigate potential disruptions resulting from any restriction on the free movement of goods between the EU and the UK after the end of the transition period. Given the small percentage of our global personnel that are UK or EU nationals, we do not anticipate any adverse impact from Brexit on our workforce. We are currently monitoring Brexit developments, reviewing our supply chain alternatives, and assessing the short and long-term implications of Brexit on our operations. Nonetheless, based on current information, we do not anticipate Brexit will have a substantial impact on our business.

## **Other Regulations**

Our networks are subject to numerous local regulations, including codes that regulate our trenching and construction operations or that require us to obtain permits, licenses or franchises to operate. Such regulations are enacted by municipalities, counties or other regional governmental bodies, and can vary widely from jurisdiction to jurisdiction as a result. Such regulations may also require us to pay substantial fees.

Various foreign, federal and state laws govern our storage, maintenance and use of customer data, including a wide range of consumer protection, data protection, privacy, intellectual property and similar laws. The application, interpretation and enforcement of these laws are often uncertain, and may be interpreted and applied inconsistently from jurisdiction to jurisdiction. Various foreign, federal and state legislative or regulatory bodies have recently adopted increasingly restrictive laws or regulations governing the protection or retention of data, and others are contemplating similar actions. In particular, regulatory bodies in Europe have aggressively enforced the stringent terms of the EU's General Data Protection Regulation.

For additional information about these matters, see "Risk Factors—Risks Affecting Our Business" and "Risk Factors—Risks Relating to Legal and Regulatory Matters" in item 1A of Part I of this report.

## **Competition**

### ***General***

We compete in a rapidly evolving and highly competitive market, and we expect intense competition from a wide variety of sources under evolving market conditions to continue. In addition to competition from larger telecommunication service providers, we are facing increasing competition from cable and satellite companies, wireless providers, technology companies, cloud companies, broadband providers, device providers, resellers, sales agents, facilities-based providers, and smaller more narrowly focused niche providers. Further technological advances and regulatory and legislative changes have increased opportunities for a wide range of alternative communications service providers, which in turn have increased competitive pressures on our business. These alternate providers often face fewer regulations and have lower cost structures than we do. In addition, the communications industry has, in recent years, experienced substantial consolidation, and some of our competitors in one or more lines of our business are generally larger, have stronger brand names, have more financial and business resources and have broader service offerings than we currently do. In certain overseas markets, we compete against national incumbent telecommunications providers and other regional or international companies that may have a longer history of providing service in the market.

The Telecommunications Act of 1996, which obligates ILECs to permit competitors to interconnect their facilities to the ILEC's network and to take various other steps that are designed to promote competition, imposes several duties on an ILEC if it receives a specific request from another entity which seeks to connect with or provide services using the ILEC's network. In particular, each ILEC is obligated to (i) negotiate interconnection agreements in good faith, (ii) provide nondiscriminatory "unbundled" access to specific portions of the ILEC's network and (iii) permit competitors, on terms and conditions (including rates) that are just, reasonable and nondiscriminatory, to colocate their physical plant on the ILEC's property, or provide virtual colocation if physical colocation is not practicable. Current FCC rules require ILECs to lease a network element only in those situations where competing carriers genuinely would be impaired without access to such network elements, and where the unbundling would not interfere with the development of facilities-based competition.

Wireless voice services are a significant source of competition with our traditional ILEC services. It is increasingly common for customers to completely forego use of traditional wireline phone service and instead rely solely on wireless service for voice services. We anticipate this trend will continue, particularly with younger customers who are less accustomed to using traditional wireline voice services. Technological and regulatory developments in wireless services, Wi-Fi, and other wired and wireless technologies have contributed to the development of alternatives to traditional landline voice services. Moreover, the growing prevalence of electronic mail, text messaging, social networking and similar digital non-voice communications services continues to reduce the demand for traditional landline voice services. These factors have led to a long-term systemic decline in the number of our wireline voice service customers.

In addition to facing direct competition from those providers described above, ILECs increasingly face competition from alternate communication systems constructed by long distance carriers, large customers, municipalities or alternative access vendors. These systems are capable of originating or terminating calls without use of an ILEC's networks or switching services. Other potential sources of competition include non-carrier systems that are capable of bypassing ILECs' local networks, either partially or completely, through various means, including the provision of business data services or independent switching services and the concentration of telecommunications traffic on a few of an ILEC's access lines. We anticipate that all these trends will continue and lead to decreased billable use of our networks.

Demand for our broadband services could be adversely affected by advanced wireless data transmission technologies being deployed by wireless providers and by certain technologies permitting cable companies and other competitors to deliver generally faster average broadband transmission speeds than ours.

As a result of these regulatory, consumer and technological developments, ILECs also face competition from competitive local exchange carriers, or CLECs, particularly in densely populated areas. CLECs provide competing services through (i) reselling an ILEC's local services, (ii) using an ILEC's unbundled network elements, (iii) operating their own facilities or (iv) a combination thereof.

We compete to provide services to business customers based on a variety of factors, including the comprehensiveness and reliability of our network, our data transmission speeds, price, the latency of our available intercity and metro routes, the scope of our integrated offerings, the reach and peering capacity of our IP network, and customer service. Depending on the applicable market and requested services, competition can be intense, especially if one or more competitors in the market have network assets better suited to the customer's needs or are offering faster transmission speeds or lower prices.

As both residential and business customers increasingly demand high-speed connections for entertainment, communications and productivity, we expect the demands on our network will continue to increase over the next several years. To succeed, we must continue to invest in our networks to ensure that they can deliver competitive services that meet these increasing bandwidth and speed requirements. In addition, network reliability and security are increasingly important competitive factors in our business.

Additional information about competitive pressures is located (i) under the heading "Risk Factors—Risks Affecting Our Business" in Item 1A of Part I of this report and (ii) in the discussion immediately below, which contains more specific information on how these trends in competition have impacted our segments.

### **International and Global Accounts Management, Enterprise, Small and Medium Business and Wholesale Segments**

In connection with providing services to our business customers, which includes our International and Global Accounts Management, Enterprise, Small and Medium Business and Wholesale customers, we compete against other telecommunication providers, as well as other regional, national and international carriers, other data transport providers, cable companies, CLECs and other enterprises, some of whom are substantially larger than us. Competition is based on price, bandwidth, quality and speed of service, promotions and bundled offerings. In providing broadband services, we compete primarily with cable companies, wireless providers, technology companies and other broadband service providers. We face competition in Ethernet based services in the wholesale market from cable companies and fiber-based providers.

Our competitors for providing integrated data, broadband, voice services and other IT services to our business customers range from mid-sized businesses to large enterprises. Due to the size and capacity of some of these companies, our competitors may be able to offer more inexpensive solutions to our customers. To compete, we focus on providing sophisticated, secure and performance-driven services to our business customers through our global infrastructure.

The number of companies providing business services has grown and increased competition for these services, particularly with respect to smaller business customers. Many of our competitors for business services are not subject to the same regulatory requirements as we are and therefore, they are able to avoid significant regulatory costs and obligations.

Our competitors for cloud, hosting, colocation and other IT services include telecommunications companies, technology companies, cloud companies, colocation companies, hardware manufacturers and system integrators that support the in-house IT operations for a business or offer outsourcing solutions. Due to the size, capacity and strategically low pricing tactics of some of these companies, our competitors may be able to offer more inexpensive solutions to our customers. The increase in recent years in the number of companies providing these services has placed substantial downward pressure on pricing for a wide range of cloud, hosting, colocation and other IT services. To address these competitive pressures, we have focused on offering end-to-end integrated customer solutions which we believe could help differentiate our products and services from those offered by competitors with a narrower range of products and services.



For our wholesale customers, we will continue to be adversely affected by product substitution, technological migration, industry consolidation and mandated rate reductions. Competition for private line services is based on price, network reach and reliability, service, promotions and bundled offerings. We face significant competition for access services from CLECs, cable companies, resellers and wireless service providers as well as some of our own wholesale markets customers, many of which are deploying their own networks to provide customers with local services. By doing so, these competitors reduce revenue producing traffic on our network.

In providing equipment sales and professional services to our business customers, we compete primarily with large integrators, equipment providers and national telecommunication providers. Competition is based on package offerings, and as such our strategy is to provide these customers individualized and customizable packages that include other services. As such, in providing data integration we often face many of the same competitive pressures as we face in providing other services, as discussed above.

We expect equipment sales and professional services revenue to continue to fluctuate from quarter to quarter as these offerings tend to be more sensitive than others to changes in the economy and in spending trends of our governmental customers. We further expect the profit margins on our equipment sales and professional services offerings to continue to be lower than those of our other services.

### **Consumer Segment**

With respect to providing our services to residential customers, technology advancements have increased both the quantity and type of competitors that we compete with for our services. More specifically, voice services face significant product and technology substitution. Additionally, cable companies have increased broadband speeds and continue to compete with our broadband services, and wireless carriers' latest generation technologies are allowing them to more directly compete with our Broadband services. The fragmentation of the video market with the proliferation of Over the Top providers has made it difficult for us to offer a cost-effective video product. Lastly, the regulatory environment in which we operate, while it provides us certain advantages, can make us less nimble than cable, wireless, and other technology companies.

As a result, our strategy for competing in the consumer space is to continue to invest in our network with fiber solutions to increase connection speeds and service quality, partner with video providers such as DIRECTV to provide video and content options to customers, and encourage customers to bundle voice services by providing a high quality voice connection with discounts for bundling. In addition, we believe initiatives to improve the customer experience and digital experience should increase customer loyalty over time.

The domestic consumer market for broadband services is mature, with a significant portion of households already receiving those services. We compete for customers on the basis of pricing, packaging of services and features and quality of service. In order to remain competitive, we believe continually increasing connection speeds is important. As a result, we continue to invest in our network, which allows for the delivery of higher speed broadband services.

Although our status as an ILEC in our local service areas continues to provide us advantages in providing local services in those territories, as noted above, we increasingly face significant competition as an increasing number of consumers are willing to substitute cable, wireless and electronic communications for traditional voice telecommunications services. This has led to an increase in the number and type of competitors within our industry, price compression and a decrease in our market share. As a result of this product substitution, we face greater competition in providing local and long-distance voice services from wireless providers, resellers and sales agents (including ourselves), social media hosts and broadband service providers, including cable companies. We also continue to compete with traditional telecommunications providers, such as national carriers, smaller regional providers, CLECs and independent telephone companies.

### **Acquisitions and Dispositions**

Since being incorporated in 1968, we have grown principally through acquisitions. By 2008, we had become one of the largest providers of rural telephone services in the United States. Since then, we acquired Embarq Corporation in mid-2009, Qwest Communications International Inc. in early 2011 and Level 3 Communications, Inc. in late 2017. These acquisitions have substantially changed our customer base, geographic footprint and mix of products and services.

We regularly evaluate the possibility of acquiring additional assets or disposing of assets in exchange for cash, securities or other properties, and at any given time may be engaged in discussions or negotiations regarding additional acquisitions or dispositions. We generally do not announce our acquisitions or dispositions until we have entered into a preliminary or definitive agreement.

See above under "Acquisition of Level 3", for additional information about our November 1, 2017 acquisition of Level 3, and "Sale of Data Centers and Colocation Business" for additional information about our May 1, 2017 disposition.

See Note 4—Goodwill, Customer Relationships and Other Intangible Assets for additional information on these acquisitions.

## **Environmental Matters**

From time to time we may incur environmental compliance and remediation expenses, mainly resulting from owning or operating prior industrial sites or operating vehicle fleets or power supplies for our communications equipment. Although we cannot assess with certainty the impact of any future compliance and remediation obligations or provide you with any assurances regarding the ultimate impact thereof, we do not currently believe that future environmental compliance and remediation expenditures will have a material adverse effect on our financial condition or results of operations. For additional information, see (i) "Risk Factors—Risks Relating to Legal and Regulatory Matters—Risks posed by other regulation" and "Risk Factors—Other Risks—We face risks from natural disasters and extreme weather, which can disrupt our operations and cause us to incur additional capital and operating costs" in Item 1A of Part I of this report and (ii) Note 19—Commitments, Contingencies and Other Items included in Item 8 of Part II of this report.

## **Seasonality**

Overall, our business is not materially impacted by seasonality. Our network-related operating expenses are, however, generally higher in the second and third quarters of the year. From time to time, weather related problems have resulted in increased costs to repair our network and respond to service calls in some of our markets. The amount and timing of these costs are subject to the weather patterns of any given year, but have generally been highest during the third quarter and have been related to damage from severe storms, including hurricanes, tropical storms and tornadoes in our markets along the Atlantic and Gulf of Mexico coastlines.

## **Employees**

At December 31, 2019, we had approximately 42,500 employees, of which approximately 10,700 are members of either the Communications Workers of America ("CWA") or the International Brotherhood of Electrical Workers ("IBEW"). See "Risk Factors—Risks Affecting Our Business" in Item 1A of Part I of this report for a discussion of risks relating to our labor relations and see Note 21—Labor Union Contracts to our consolidated financial statements in Item 8 of Part II of this report for additional information on the timing of certain contract expirations.

## **Website Access and Important Investor Information**

Our website is [www.centurylink.com](http://www.centurylink.com). We routinely post important investor information in the "Investor Relations" section of our website at [ir.centurylink.com](http://ir.centurylink.com). The information contained on, or that may be accessed through, our website is not part of this report or any other periodic reports that we file with the SEC. You may obtain free electronic copies of our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports in the "Investor Relations" section of our website ([ir.centurylink.com](http://ir.centurylink.com)) under the heading "FINANCIALS" and subheading "SEC Filings." These reports are available on our website and on the SEC's website at [www.sec.gov](http://www.sec.gov). From time to time we also use our website to webcast our earnings calls and certain of our meetings with investors or other members of the investment community.

We have adopted a written code of conduct that serves as the code of ethics applicable to our directors, officers and employees, in accordance with applicable laws and rules promulgated by the SEC and the New York Stock Exchange. In the event that we make any changes (other than by a technical, administrative or non-substantive amendment) to, or provide any waivers from, the provisions of our code of conduct applicable to our directors or executive officers, we intend to disclose these events on our website or in a report on Form 8-K filed with the SEC. The code of conduct, as well as copies of our guidelines on significant governance issues and the charters of our key board committees, are also available in the "Governance" section of our website at [www.centurylink.com/aboutus/governance](http://www.centurylink.com/aboutus/governance) or in print to any shareholder who requests them by sending a written request to our Corporate Secretary at CenturyLink, Inc., 100 CenturyLink Drive, Monroe, Louisiana, 71203.

In connection with filing this report, our chief executive officer and chief financial officer made the certifications regarding our financial disclosures required under the Sarbanes-Oxley Act of 2002, and its related regulations. In addition, during 2019, our chief executive officer certified to the New York Stock Exchange that he was unaware of any violations by us of the New York Stock Exchange's corporate governance listing standards.

As a large complex organization, we are from time to time subject to litigation, disputes, governmental or internal investigations, service outages, security breaches or other adverse events. We typically publicly disclose these events only when we determine these disclosures to be material to investors or otherwise required by applicable law.

We typically disclose material non-public information by disseminating press releases, making public filings with the SEC, or disclosing information during publicly accessible meetings or conference calls. Nonetheless, from time to time we have used, and intend to continue to use, our website and social media accounts to augment our disclosures.

Investors should also be aware that while we do, at various times, answer questions raised by securities analysts, it is against our policy to disclose to them selectively any material non-public information or other confidential information. Accordingly, investors should not assume that we agree with any statement or report issued by an analyst with respect to our past or projected performance. To the extent that reports issued by securities analysts contain any projections, forecasts or opinions, such reports are not our responsibility.

Unless otherwise indicated, information contained in this report and other documents filed by us under the federal securities laws concerning our views and expectations regarding the communications industry are based on estimates made by us using data from industry sources, and on assumptions made by us based on our management's knowledge and experience in the markets in which we operate and the communications industry generally. You should be aware that we have not independently verified data from industry or other third-party sources and cannot guarantee its accuracy or completeness.

## ITEM 1A. RISK FACTORS

The following discussion identifies the most significant risks or uncertainties that could (i) materially and adversely affect our business, financial condition, results of operations, liquidity or prospects or (ii) cause our actual results to differ materially from our anticipated results or other expectations. The following information should be read in conjunction with the other portions of this report, including “Special Note Regarding Forward-Looking Statements”, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 and our consolidated financial statements and related notes in Item 8. Please note that the following discussion is not intended to comprehensively list all risks or uncertainties faced by us. Our operations or actual results could also be similarly impacted by additional risks and uncertainties that are not currently known to us, that we currently deem to be immaterial, that arise in the future or that are not specific to us, such as general economic conditions. In addition, certain of the risks described below apply only to a part or segment of our business.

### Risks Affecting Our Business

#### ***Our failure to simplify our service support systems could adversely impact our competitive position.***

For many of our services, we can effectively compete only if we can quickly and efficiently (i) quote and accept customer orders, (ii) provision and initiate ordered services, (iii) provide customers with adequate means to manage their services and (iv) accurately bill for our services. To attain these objectives, we believe we must digitally transform our global service support processes to permit greater automation and customer self-service options. This digital transformation is complex and will require a substantial amount of resources, especially in light of the multiplicity of our systems. Development of systems designed to support this transformation will continuously require our personnel and third-party vendors to, among other things, (i) adjust to changes in our offerings and customers’ preferences, (ii) simplify our processes, (iii) improve our data management capabilities, (iv) eliminate inconsistencies between our legacy and acquired operations, (v) eliminate older support systems that are costly or obsolete, (vi) develop uniform practices and procedures, and (vii) automate them as much as possible. These undertakings will be challenging and time-consuming, and we cannot assure you that they will be successful. Our competitive position could be adversely impacted if we fail to continuously develop viable service support systems that are satisfactory to our current and potential customers.

#### ***We could experience difficulties in consolidating, integrating, updating and simplifying our technical infrastructure.***

Our ability to consolidate, integrate, update and simplify our systems and information technology infrastructure in response to our growth and changing business needs is very important to our ability to develop and maintain attractive product and service offerings and to interface effectively with our customers. As discussed further under “Business-Network” in Item 1 of this report, we are currently undertaking several complex, costly and multi-year projects to simplify, consolidate and modernize our network, which combines our legacy network and the networks of companies we have acquired in the past. Delays in the completion of these projects have hampered our progress, and any additional delays may lead to increased project costs or operational inefficiencies. In addition, there may be issues related to our expanded or updated infrastructure that are not identified by our testing processes, and which may only become evident after we have started to fully utilize the redesigned systems. Our failure to modernize, consolidate and upgrade our technology infrastructure could have adverse consequences, including the delayed implementation of new service offerings, decreased competitiveness of existing service offerings, network instabilities, increased operating or acquisition integration costs, service or billing interruptions or delays, service offering inconsistencies, customer dissatisfaction, and the diversion of development resources. In addition, our dedication of significant resources to these projects could divert attention from ongoing operations and other strategic initiatives. Any or all of the foregoing developments could have a negative impact on our business, results of operations, financial condition and cash flows.

***We may not be able to compete successfully against current or future competitors.***

Each of our offerings to our business and consumer customers face increasingly intense competition from a wide variety of sources under evolving market conditions. In particular, (i) aggressive competition from a wide range of communications and technology companies has limited the prospects for several of our offerings to business customers, (ii) intense competition from wireless and other communications providers has led to a long-term systemic decline in the number of our wireline voice customers and (iii) strong competition from cable companies has impacted our operations. We also face competition from cloud companies, broadband providers, software developers, device providers, resellers, sales agents and facilities-based providers using their own networks as well as those leasing parts of our network. We expect these trends will continue. For more detailed information, see "Business—Competition" in Item 1 of this report.

Some of our current and potential competitors (i) offer products or services that are substitutes for our traditional wireline voice services, including wireless voice and non-voice communication services, (ii) offer a more comprehensive range of communications products and services, (iii) offer products or services with features that we cannot readily match in some or all of our markets, (iv) install their services more quickly than we do, (v) have greater marketing, engineering, research, development, technical, provisioning, customer relations, financial or other resources, (vi) have larger or more diverse networks with greater transmission capacity, (vii) conduct operations or raise capital at a lower cost than us, (viii) are subject to less regulation, which we believe enables such competitors to operate more flexibly than us with respect to certain offerings, (ix) offer services nationally or internationally to a larger geographic area or larger base of customers, (x) have substantially stronger brand names, which may provide them with greater pricing power than ours, (xi) have deeper or more long-standing relationships with key customers, or (xii) have larger operations than ours, which may enable them to compete more successfully in recruiting top talent, entering into operational or strategic partnerships or acquiring companies. Consequently, these competitors may be better equipped to provide more attractive offerings, to charge lower prices for their products and services, to develop and expand their communications and network infrastructure more quickly, to adapt more swiftly to changes in technologies or customer requirements, to devote greater resources to the marketing and sale of their products and services, to provide more comprehensive customer service, to provide greater resources to research and development initiatives and to take advantage of business or other opportunities more readily.

Competition could adversely impact us in several ways, including (i) the loss of customers, market share or traffic on our networks, (ii) our need to expend substantial time or money on new capital improvement projects, (iii) our need to lower prices or increase marketing expenses to remain competitive and (iv) our inability to diversify by successfully offering new products or services.

We are continually taking steps to respond to these competitive pressures, but these efforts may not be successful. Our operating results and financial condition would be adversely affected if these initiatives are unsuccessful or insufficient.

***Rapid technological changes could significantly impact our competitive and financial position.***

The communications industry has been and continues to be impacted by significant technological changes, which in general are enabling a much broader array of companies to compete with us. Many of these technological changes are (i) enabling customers to reduce or bypass use of our networks, (ii) displacing or reducing demand for our services, or (iii) enabling the development of competitive products or services. For years, the development of wireless and Internet-based voice and non-voice communications technologies and social media platforms have significantly reduced demand for our traditional voice services, and these trends continue. More recently, continuous improvements in wireless data technologies have enabled wireless carriers to offer competing data transmission products that are highly convenient to use, and we expect this trend to continue as technological advances enable these carriers to carry greater amounts of data faster and with less latency. Technological advancements have also permitted cable companies and other of our competitors to deliver generally faster average broadband transmission speeds than ours. Developments in software have permitted new competitors to offer affordable networking products that historically required more expensive hardware investment. Rapid changes in technology have also placed competitive pressures on our cloud hosting and enabled new competitors to enter our markets. To enhance the competitiveness of certain of our services, we will likely be required to spend additional capital to install more fiber optic cable or to augment the capabilities of our copper-based services.

We may not be able to accurately predict or respond to changes in technology or industry standards, or to the introduction of newly-offered services. Any of these developments could make some or all of our offerings less desirable or even obsolete, which would place downward pressure on our market share and revenue. These developments could also require us to (i) expend capital or other resources in excess of currently contemplated levels to enhance our network or develop products or services, (ii) forego the development or provision of products or services that others can provide more efficiently, or (iii) make other changes to our operating plans, corporate strategies or capital allocation plans, any of which could be contrary to the expectations of our security holders or could adversely impact our business operating results.

In addition to introducing new technologies and offerings, we may need, from time to time, to 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. Similarly, if new market entrants are not burdened by an installed base of outdated equipment or obsolete technology, they may have a competitive advantage over us.

For additional information on the risks of increased expenditures, see “Risk Factors—Risks Affecting our Liquidity and Capital Resources—Our business requires us to incur substantial capital and operating expenses, which reduces our available free cash flow.”

***Our failure to meet the evolving needs of our customers could adversely impact our competitive position.***

In order to compete effectively and respond to changing market conditions, we must continuously offer products and services on terms and conditions that allow us to retain and attract customers and to meet their evolving needs. To do so, we must continuously (i) invest in our network (ii) develop, test and introduce new products and services and (iii) rationalize and simplify our offerings by eliminating older or overlapping products or services. Our ability to maintain attractive products and services and to successfully introduce new product or service offerings on a timely and cost-effective basis could be constrained by a range of factors, including network limitations, support system limitations, limited capital, an inability to attract key personnel with the necessary skills, intellectual property constraints, inadequate digitization or automation, technological limits or an inability to act as quickly or efficiently as other competitors. Network service enhancements and product launches could take longer or cost more money than expected due to a range of factors, including software issues, supplier delays, testing delays, permitting delays, or network incompatibility issues. In addition, new product or service offerings may not be widely accepted by our customers. Our business could be materially adversely affected if we are unable to maintain competitive products and services and to timely and successfully develop and introduce new products or services.

***Several of our services continue to experience declining revenue, and our efforts to offset these declines may not be successful.***

Primarily as a result of the competitive and technological changes discussed above, we have experienced a prolonged systemic decline in our local voice, long-distance voice, network access and private line revenue. Consequently, we have experienced declining consolidated revenue (excluding acquisitions) for a prolonged period. More recently, we have experienced declines in revenue derived from the sale of a broader array of our products and services.

We have taken a variety of steps to counter these declines in revenue, including an increased focus on selling services in greater demand. However, for the reasons described elsewhere in this report, we have thus far been unable to reverse our annual revenue losses (excluding acquisitions). In addition, most of our more recent product and service offerings generate lower profit margins than our traditional services, and some can be expected to experience slowing or no growth in the future. Accordingly, you should not assume that we will be successful in attaining our goal of achieving future revenue growth.

***We may not be able to successfully adjust to changes in our industry, our markets and our product mix.***

Ongoing changes in the communications industry have fundamentally changed consumers' communications expectations and requirements. In response to these changes, we have substantially altered our product and service offerings through acquisitions and internal product development. Many of these changes have placed a higher premium on sales, marketing and product development functions, and necessitated ongoing changes in our processes and operating protocols, as well as periodic reorganizations of our sales and leadership teams. In addition, we now offer a much more complex range of products and services, operate larger and more complex networks and serve a much larger and more diverse set of global customers. Consequently, we now face greater challenges in effectively managing and administering our operations and allocating capital and other resources to our various offerings. For all these reasons, we cannot assure you that our efforts to adjust to these changes will be timely or successful.

***Our revenue and cash flows from operating activities may not be adequate to fund all of our cash requirements.***

As noted in greater detail elsewhere herein, our business is capital intensive, including our need to continually invest to update, consolidate and improve our network, our product offerings and our customer support systems. We expect our business to continue to be capital intensive for the foreseeable future. We will also continue to need substantial amounts of cash to meet our fixed commitments and other business objectives, including without limitation funding our operating costs, maintenance expenses, debt repayments, tax obligations, periodic pension contributions and other benefits payments. We further expect to continue to require significant cash to fund our quarterly dividend payments, subject to the discretionary right of our Board of Directors to change or terminate our current dividend practices at any time. We rely upon our consolidated revenue and cash flows from operating activities to fund our cash needs.

As noted in the risk factor disclosures appearing above and below, changes in competition, technology, regulation and demand for our traditional wireline services continue to place downward pressure on our consolidated revenue and cash flows from operating activities. Over the next several years, we expect that our future cash flows from operating activities will remain under pressure due to the factors discussed herein.

For these reasons, we cannot assure you that our future cash flows from operating activities will be sufficient to fund all of our cash requirements in the manner currently contemplated. Our inability to fund certain of these payments could have an adverse impact on our business, operations, network reliability, competitive position, prospects or on the value of our securities.

***Our failure to hire and retain qualified personnel could harm our business.***

Our future success depends on our ability to identify, hire, train and retain executives, managers and employees with technological, engineering, software, product development, operational, provisioning, marketing, sales, customer service, administrative, managerial and other key skills. There is a shortage of qualified personnel in several of these fields, particularly in certain growth markets, such as the areas adjoining our Denver and Seattle offices. We compete with several other companies for this limited pool of potential employees. As our industry increasingly becomes more competitive, it could become especially difficult to attract and retain top personnel with skills in high demand. Other more general factors have further increased the challenges of attracting and retaining talented individuals, including disruptions caused by our workforce reduction and restructuring initiatives over the past couple of years, and the challenges of employing represented and non-represented personnel under different compensation structures. In addition, subject to limited exceptions, our executives and domestic employees do not have long-term employment agreements. For all these reasons, there is no assurance that our efforts to recruit and retain qualified personnel will be successful.

***We could be harmed by security breaches or other significant disruptions or failures of networks, information technology infrastructure or related systems owned or operated by us.***

We are materially reliant upon our networks, information technology infrastructure and related technology systems (including our billing and provisioning systems) to provide products and services to our customers and to manage our operations and affairs. We face the risk, as does any company, of a security breach or significant disruption of our information technology infrastructure and related systems. As a communications company that transmits large amounts of information over communications networks, we face an added risk that a security breach or other significant disruption of our network, infrastructure or systems, or those that we operate or maintain for certain of our business customers, could lead to material interruptions or curtailments of service. Moreover, in connection with processing and storing sensitive and confidential customer data, we face a heightened risk that a security breach or disruption could result in unauthorized access to our customers' proprietary information.

To safeguard our systems and data stored thereon, we strive to maintain effective security measures, disaster recovery plans, business contingency plans and employee training programs, and to continuously upgrade these safeguards. Nonetheless, we cannot assure you that our security efforts and measures will prevent unauthorized access to our systems, loss or destruction of data (including confidential customer information), account takeovers, unavailability of service, computer viruses, malware, ransomware, distributed denial-of-service attacks, or other forms of cyber-attacks or similar events. These threats may derive from human error, hardware or software vulnerabilities, aging equipment or accidental technological failure. These threats may also stem from fraud, malice or sabotage on the part of employees, third parties or foreign nations, including attempts by outside parties to fraudulently induce our employees or customers to disclose or grant access to our data or our customers' data, potentially including information subject to stringent domestic and foreign data protection laws governing personally identifiable information, protected health information or other similar types of sensitive data. These threats may also arise from failure or breaches of systems owned, operated or controlled by other unaffiliated operators to the extent we rely on such other systems to deliver services to our customers. Various other factors could intensify these risks, including, (i) our maintenance of information in digital form stored on servers connected to the Internet, (ii) our use of open and software-defined networks, (iii) the complexity of our multi-continent network composed of legacy and acquired properties, (iv) growth in the size and sophistication of our customers and their service requirements, and (v) increased use of our network due to greater demand for data services.

Similar to other large communications companies, we are a constant target of cyber-attacks of varying degrees. Although some of these attacks have resulted in security breaches, thus far none of these breaches have resulted in a material adverse effect on our operating results or financial condition. You should be aware, however, that the risk of breaches is likely to increase due to several factors, including the increasing sophistication of cyber-attacks and the wider accessibility of cyber-attack tools. You should be further aware that defenses against cyber-attacks currently available to U.S. companies are unlikely to prevent intrusions by a highly-determined, highly-sophisticated hacker. Consequently, you should assume that we will be unable to implement security barriers or other preventative measures that repel all future cyber-attacks. Any such future security breaches or disruptions could materially adversely affect our business, results of operations or financial condition, especially in light of the growing frequency, scope and well-documented sophistication of cyber-attacks and intrusions.

Although we maintain insurance coverage that may, subject to policy terms and conditions (including self-insured deductibles, coverage restrictions and monetary coverage caps), cover certain aspects of our cyber risks, such insurance coverage may be unavailable or insufficient to cover our losses.

Additional risks to our network, infrastructure and related systems include, among others:

- capacity or system configuration limitations, including those resulting from changes in our customer's usage patterns, the introduction of new technologies or products, or incompatibilities between our newer and older systems;
- theft or failure of our equipment;
- software or hardware obsolescence, defects or malfunctions;
- power losses or power surges;



- physical damage, whether caused by fire, flood, adverse weather conditions, terrorism, sabotage, vandalism or otherwise;
- deficiencies in our processes or controls;
- our inability to hire and retain personnel with the requisite skills to adequately maintain or improve our systems;
- programming, processing and other human error; and
- inadequate building maintenance by third-party landlords or other service failures of our third-party vendors.

Due to these factors, from time to time in the ordinary course of our business we experience disruptions in our service. We could experience more significant disruptions in the future, especially if network traffic continues to increase and we continue to assume greater responsibility for managing our customers' critical systems and networks.

Disruptions, security breaches and other significant failures of the above-described networks and systems could:

- disrupt the proper functioning of these networks and systems, which could in turn disrupt (i) our operational, billing or other administrative functions or (ii) the operations of certain of our customers who rely upon us to provide services critical to their operations;
- result in the unauthorized access to, and destruction, loss, theft, misappropriation or release of proprietary, confidential, sensitive, classified or otherwise valuable information of ours, our customers or our customers' end users, including trade secrets, which others could use for competitive, disruptive, destructive or otherwise harmful purposes and outcomes;
- require us to notify customers, regulatory agencies or the public of data breaches;
- require us to provide credits for future service under certain service level commitments we have provided contractually to our customers or to offer expensive incentives to retain customers;
- subject us to claims for damages, fines, penalties, termination or other remedies under our customer contracts or service standards set by regulators, which in certain cases could exceed our insurance coverage;
- result in a loss of business, damage our reputation among our customers and the public generally, subject us to additional regulatory scrutiny or expose us to prolonged litigation; or
- require significant management attention or financial resources to remedy the resulting damages or to change our systems, including expenses to repair systems, add new personnel or develop additional protective systems.

Any or all of the foregoing developments could have a negative impact on our business, results of operations, financial condition and cash flows.

***Negative publicity may adversely impact us.***

We believe our industry is by its nature more prone to reputational risks than many other industries. Our ability to attract and retain customers depends substantially upon external perceptions of our products, services, management integrity and financial performance. Customer complaints, governmental investigations, outages, or other service failures of networks operated by us could cause substantial adverse publicity affecting us. Similar events impacting other operators could indirectly harm us by causing substantial adverse publicity affecting our industry in general. In either case, press coverage, social media messaging or other public statements that insinuate improper actions by us or other operators, regardless of their factual accuracy or truthfulness, may result in negative publicity, litigation, governmental investigations or additional regulations. Addressing negative publicity and any resulting litigation or investigations may distract management, increase costs and divert resources. Negative publicity may have an adverse impact on our reputation and the morale of our employees. We could suffer similar adverse effects if shareholders, financial analysts or other financial professionals issue public statements that cast us or our industry in a negative light. Any of these developments could adversely affect our business, results of operations, financial condition, cash flows, prospects and the value of our securities.

In mid-2017, a former employee alleged that we had engaged in sales-related misconduct. Later that year, a special committee of our independent directors formed to investigate these allegations concluded, among other things, that systems and human error had contributed to inaccurate consumer billings. Since then we have implemented several changes to improve our customers' experience and have settled various claims with private and state litigants relating to our consumer billing practices. While we believe we have largely mitigated the issues identified by our 2017 investigation, we cannot assure you that all of our service support issues have been addressed to the full satisfaction of our customers. Nor can we assure you that customers, governmental agencies or employees will not raise further concerns about our operations in the future.

***Market prices for many of our services have decreased in the past, and any similar price decreases in the future will adversely affect our revenue and margins.***

Over the past several years, a range of competitive and technological factors, including robust network construction and intense competition, have lowered market prices for many of our products and services. If these market conditions persist, we may need to continue to reduce prices to retain customers and revenue. If future price reductions are necessary, our operating results will suffer unless we are able to offset these reductions by reducing our operating expenses or increasing our sales volumes.

***Our future growth potential will depend in part on the continued development and expansion of the Internet.***

Our future growth potential will depend in part upon the continued development and expansion of the Internet as a communication medium and marketplace for the distribution of data, video, voice and other products by businesses, consumers, and governments. The use of the Internet for these purposes may not grow and expand at the rate anticipated by us or others, or may be restricted by factors outside of our control, including (i) actions by other carriers or governmental authorities that restrict us from delivering traffic over other parties' networks, (ii) changes in regulations, (iii) technological stagnation, (iv) increased concerns regarding cyber threats or (v) changes in consumers' preferences or data usage.

***Increases in broadband usage may cause network capacity limitations, resulting in service disruptions, reduced capacity or slower transmission speeds for our customers.***

Video streaming services, gaming and peer-to-peer file sharing applications use significantly more bandwidth than other Internet activity such as web browsing and email. As use of these services continues to grow, our broadband customers will likely use much more bandwidth than in the past. If this occurs, we could be required to make significant budgeted or unbudgeted capital expenditures to increase network capacity in order to avoid service disruptions, service degradation or slower transmission speeds for our customers. Alternatively, we could choose to implement network management practices to reduce the network capacity available to bandwidth-intensive activities during certain times in market areas experiencing congestion, which could negatively affect our ability to retain and attract customers in affected markets. Competitive or regulatory constraints may preclude us from recovering the costs of network investments designed to address these issues, which could adversely impact our operating margins, results of operations, financial condition and cash flows.

***We have been accused of infringing the intellectual property rights of others and will likely face similar accusations in the future, which could subject us to costly and time-consuming litigation or require us to seek third-party licenses.***

Like other communications companies, we have increasingly in recent years received a number of notices from third parties or have been named in lawsuits filed by third parties claiming we have infringed or are infringing upon their intellectual property rights. We are currently responding to several of these notices and claims and expect this industry-wide trend will continue. Responding to these claims may require us to expend significant time and money defending our use of the applicable technology, and divert management's time and resources away from other business. In certain instances, we may be required to enter into licensing agreements requiring royalty payments. In the case of litigation, we could be required to pay significant monetary damages or cease using the applicable technology. If we are required to take one or more of these actions, our profit margins may decline or our operations could be materially impaired. In addition, in responding to these claims, we may be required to stop selling or redesign one or more of our products or services, which could significantly and adversely affect our business, results of operations, financial condition and cash flows.

Similarly, from time to time, we may need to obtain the right to use certain patents or other intellectual property from third parties to be able to offer new products and services. If we cannot license or otherwise obtain rights to use any required technology from a third party on reasonable terms, our ability to offer new products and services may be prohibited, restricted, made more costly or delayed.

***We may not be successful in protecting and enforcing our intellectual property rights.***

We rely on various patents, copyrights, trade names, trademarks, service marks, trade secrets and other similar intellectual property rights, as well as confidentiality agreements and procedures, to establish and protect our proprietary rights. These steps, however, may not fully protect us. Others may independently develop technologies that are substantially equivalent, superior to, or otherwise competitive to the technologies we employ in our services, or may intentionally or unintentionally infringe on our intellectual property. Moreover, we may be unable to prevent our current or former employees from using or disclosing to others our proprietary information. Enforcement of our intellectual property rights may depend on initiating legal actions against parties who infringe or misappropriate our proprietary information, but these actions may not be successful, even when our rights have been infringed. If we are unsuccessful in protecting or enforcing our intellectual property rights, our business, competitive position, results of operations and financial condition could be adversely affected.

***Our operations, financial performance and liquidity are materially reliant on various third parties.***

**Reliance on other communications providers.** To offer certain services in certain of our markets, we must either purchase services or lease network capacity from, or interconnect our network with the infrastructure of, other communications carriers or cloud companies who typically compete against us in those markets. Our reliance on these supply or interconnection arrangements exposes us to multiple risks. Typically, these arrangements limit our control over the quality of our services and expose us to the risk that our ability to market our services could be adversely impacted by changes in the plans or properties of the carriers upon which we are reliant. In addition, we are exposed to the risk that the other carriers may be unwilling or unable to continue or renew these arrangements in the future on terms favorable to us, or at all. This risk is heightened when the other carrier is a competitor who may benefit from terminating the agreement or imposing price increases, or a carrier who suffers financial distress or bankruptcy. If we lose these arrangements and cannot timely replace them, our ability to provide services to our customers and conduct our business could be materially adversely affected. Moreover, many of our arrangements with other carriers are regulated by domestic or foreign agencies, which subject us to the additional risk that changes in regulation could increase our costs or otherwise adversely affect our ability to provide services. Finally, even when another carrier agrees or is obligated to provide services to us to permit us to obtain new customers, it is frequently expensive, difficult and time-consuming to switch the new customers to our network, especially if the other carrier fails to provide timely and efficient cooperation.

Conversely, certain of our operations carry a significant amount of voice or data traffic for other communications providers. Their reliance on our services exposes us to the risk that they may transfer all or a portion of this traffic from our network to existing or newly built networks, owned or leased by them, thereby reducing our revenue. For additional information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Business Trends" included in Item 7 of this report.

We also rely on reseller and sales agency arrangements with other communications companies to provide some of the services that we offer to our customers, including video and wireless services. As a reseller or sales agent, we do not control the availability, retail price, design, function, quality, reliability, customer service, marketing or branding of these products and services.

Our operations and financial performance could be adversely affected if any of these other communications companies are unable or unwilling to continue to engage with us for any reason, including financial distress, bankruptcy, strikes, regulatory impediments, legal disputes or commercial differences.

**Reliance on other key suppliers and vendors.** We depend on a limited number of suppliers and vendors for equipment and services relating to our network infrastructure, including fiber optic cable, software, optronics, transmission electronics, digital switches and related components. We also rely on a limited number of software vendors, content suppliers or other parties to assist us with operating, maintaining and administering our business. If any of these suppliers experience interruptions or other problems delivering their products or services on a timely basis, our operations could suffer significantly. To the extent that proprietary technology of a supplier is an integral component of our network, we may have limited flexibility to purchase key network components from alternative suppliers and may be adversely affected if third parties assert patent infringement claims against our suppliers or us. Similarly, in certain instances we have access to only a limited number of alternative suppliers or vendors. In the event it becomes necessary to seek alternative suppliers and vendors, we may be unable to obtain satisfactory replacement equipment, software, supplies, services, utilities or programming on economically attractive terms, on a timely basis, or at all, which could increase costs or cause disruptions in our services.

**Reliance on utility providers and landlords.** Our energy costs can fluctuate significantly or increase for a variety of reasons, including changes in legislation and regulation. Several pending proposals designed to reduce greenhouse emissions could substantially increase our energy costs, which we may not be able to pass on to our customers. We lease many of our office facilities, which subjects us to risk of higher future rent payments or non-renewals when each current lease expires.

**Reliance on governmental payments.** We receive a material amount of revenue or government subsidies under various government programs, which are further described under the heading "Risk Factors—Risks Relating to Legal and Regulatory Matters." We also provide products or services to various federal, state and local agencies. Our failure to comply with complex governmental regulations and laws applicable to these programs, or the terms of our governmental contracts, could result in us being suspended or barred from future governmental programs or contracts for a significant period of time. Moreover, certain governmental agencies frequently reserve the right to terminate their contracts for convenience or if funding is unavailable. If our governmental contracts are terminated for any reason, or if we are suspended or debarred from governmental programs or contracts, our results of operations and financial condition could be materially adversely affected.

***Violating our government contracts could have other serious consequences.***

We provide services to various governmental agencies with responsibility for national security or law enforcement. These governmental contracts impose significant requirements on us relating to network security, information storage and other matters, and in certain instances impose on us additional heightened responsibilities, including requirements related to the composition of our Board of Directors. While we expect to continue to comply fully with all of our obligations under these contracts, we cannot assure you of this. The consequences of violating these contracts could be severe, potentially including the revocation of our Federal Communications Commission (the "FCC") licenses in the U.S. (in addition to being suspended or debarred from government contracting, as noted above.)

***If we fail to extend or renegotiate our collective bargaining agreements with our labor unions as they expire from time to time, or if our unionized employees were to engage in a strike or other work stoppage, our business and operating results could be materially harmed.***

As of December 31, 2019, approximately 25% of our employees were members of various bargaining units represented by the Communications Workers of America or the International Brotherhood of Electrical Workers. From time to time, our labor agreements with unions expire. Although we typically are able to negotiate new bargaining agreements, we cannot predict the outcome of our future negotiations of these agreements. We may be unable to reach new agreements, and union employees may engage in strikes, work slowdowns or other labor actions, which could materially disrupt our ability to provide services and result in increased cost to us. Our mixed workforce of represented and non-represented personnel could induce additional organizational activities. New or replacement labor agreements may impose significant new costs on us, which could impair our financial condition or results of operations in the future. To the extent they contain benefit provisions, these agreements may also limit our flexibility to change benefits. In particular, retirement benefits provided under these agreements could cause us to incur costs not faced by many of our competitors, which could ultimately hinder our competitive position.

***Portions of our property, plant and equipment are located on property owned by third parties.***

We rely on rights-of-way, colocation agreements, franchises and other authorizations granted by governmental bodies, railway companies, utilities, carriers and other third parties to locate our cable, conduit and other network equipment on or under their respective properties. A significant number of these authorizations are scheduled to lapse over the next five to ten years, unless we are able to extend or renew them. Our operations could be adversely affected if any of these authorizations terminate or lapse, or if the landowner requests price increases. Moreover, our ability to expand our network could depend in part on obtaining additional authorizations, the receipt of which is not assured.

Over the past few years, certain utilities, cooperatives and municipalities in certain of the states in which we operate have requested significant rate increases for attaching our plant to their facilities. To the extent that these entities are successful in increasing the amount we pay for these attachments, our future operating costs will increase.

Our subsidiaries currently are, and in the past have been, subject to lawsuits challenging the subsidiaries' use of rights-of-way. Similar suits are possible in the future. Plaintiffs in these suits typically seek to have them certified as class action suits. These suits are typically complex, lengthy and costly to defend, and expose us to each of the other general litigation risks described elsewhere herein.

***Our major contracts subject us to various risks.***

We furnish to and receive from our business customers indemnities relating to damages caused or sustained by us in connection with certain of our operations. Our customers' changing views on risk allocation could cause us to accept greater risk to win new business or could result in us losing business if we are not prepared to take such risks. To the extent that we accept such additional risk, and seek to insure against it, our insurance premiums could rise.

We have several complex high-value national and global customer contracts. The revenue and profitability of these contracts are frequently impacted by a variety of factors, including variations in cost, attaining milestones, meeting service level commitments, service outages, achieving cost savings anticipated in our contract pricing, changes in our customers' needs, and our suppliers' performance. Any of these factors could reduce or eliminate the profitability of these contracts. Moreover, we would be adversely impacted if we fail to renew major contracts upon their expiration.

***Our international operations expose us to various regulatory, currency, tax, legal and other risks.***

Our international operations are subject to U.S. and non-U.S. laws and regulations regarding operations in international jurisdictions in which we provide services. These numerous and sometimes conflicting laws and regulations include anti-corruption laws, anti-competition laws, trade restrictions, tax laws, immigration laws, privacy laws and accounting requirements. Many of these laws are complex and change frequently. Regulations that require the awarding of contracts to local contractors or the employment of local citizens may adversely affect our flexibility or competitiveness in these jurisdictions. Local laws and regulations, and their interpretation and enforcement, differ significantly among those jurisdictions. There is a risk that these laws or regulations may materially restrict our ability to deliver services in various international jurisdictions or could be breached through inadvertence or mistake, fraudulent or negligent behavior of our employees or agents, failure to comply with certain formal documentation or technical requirements, or otherwise. Violations of these laws and regulations could result in fines and penalties, criminal sanctions against us or our personnel, or prohibitions on the conduct of our business or our ability to operate in one or more countries, any of which could have a material adverse effect on our business, reputation, results of operations, financial condition or prospects.

Many non-U.S. laws and regulations relating to communications services are more restrictive than U.S. laws and regulations, particularly those relating to privacy rights and data retention. Moreover, national regulatory frameworks that are consistent with the policies and requirements of global organizations and standards have only recently been, or are still being, enacted in many countries. Accordingly, many countries are still in the early stages of providing for and adapting to a liberalized telecommunications market. As a result, in these markets we may encounter more protracted and difficult procedures to obtain licenses necessary to provide the full set of products and services we seek to offer.

In addition to these international regulatory risks, some of the other risks inherent in conducting business internationally include:

- tax, licensing, political or other business restrictions or requirements, which may render it more difficult to obtain licenses or interconnection agreements on acceptable terms, if at all;
- uncertainty concerning import and export restrictions, including the risk of fines or penalties assessed for violations;
- longer payment cycles and problems collecting accounts receivable;
- U.S. and non-U.S. regulation of overseas operations, including regulation under the U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act of 2010, the Brazilian Anti-corruption Law and other applicable anti-corruption laws (collectively with the FCPA, the "Anti-Corruption Laws");
- economic, social and political instability, with the attendant risks of terrorism, kidnapping, extortion, civic unrest and potential seizure or nationalization of assets;
- currency and exchange controls, repatriation restrictions and fluctuations in currency exchange rates;
- challenges in securing and maintaining the necessary physical and telecommunications infrastructure;
- the inability in certain jurisdictions to enforce contract rights either due to underdeveloped legal systems or government actions that result in a deprivation of contract rights;
- increased risk of cyber-attacks or similar events to our network as we expand our network or interconnect our network with other networks internationally;
- the inability in certain jurisdictions to adequately protect intellectual property rights or prevent its misappropriation;
- laws, policies or practices that restrict with whom we can contract or otherwise limit the scope of operations that can legally or practicably be conducted within any particular country;
- potential submission of disputes to the jurisdiction of a non-U.S. court or arbitration panel;

- reliance on third parties, including those with which we have limited experience;
- limitations in the availability, amount or terms of insurance coverage;
- the imposition of unanticipated or increased taxes, increased communications or privacy regulations or other forms of public or governmental regulation that increase our operating expenses; and
- challenges in staffing and managing overseas operations.

Changes in multilateral conventions, treaties, tariffs or other arrangements between or among sovereign nations could impact us. Specifically, the United Kingdom exited the European Union on January 31, 2020 ("Brexit"), subject to the 11-month transition period further described elsewhere herein, and the British government is currently negotiating the terms of Brexit. Brexit could potentially impact our supply chains, logistics, and human resources, and subject us to additional regulatory complexities. Additionally, Brexit and other changes in multilateral arrangements may more broadly adversely affect our operations and financial results.

Many of these risks are beyond our control, and we cannot predict the nature or the likelihood of the occurrence or corresponding effect of any such events, each of which could have an adverse effect on our financial condition and results of operations.

***Certain of our international operations are conducted in countries or regions experiencing corruption or instability, which subjects us to heightened legal and economic risks.***

We do business and may in the future do additional business in certain countries or regions in which corruption is a serious problem. Moreover, in order to effectively compete in certain non-U.S. jurisdictions, it is frequently necessary or required to establish joint ventures, strategic alliances or marketing arrangements with local operators, partners or agents. In certain instances, these local operators, partners or agents may have interests that are not always aligned with ours. Reliance on local operators, partners or agents could expose us to the risk of being unable to control the scope or quality of our overseas services or products, or being held liable under any Anti-Corruption Laws for actions taken by our strategic or local partners or agents. Any determination that we have violated any Anti-Corruption Laws could have a material adverse effect on our business, results of operations, reputation or prospects.

We conduct significant operations in regions that have historically experienced high levels of political, economic and social instability, including the Latin American region. Various events in recent years have placed pressures on the stability of the currencies of several Latin American countries in which we operate, including Argentina, Brazil and Colombia. Pressures or volatility in local or regional currencies may adversely affect our customers in this region, which could diminish their ability or willingness to order products or services from us. Several Latin American countries have historically experienced high rates of inflation. Governmental actions taken to curb inflation, coupled with speculation about possible future actions, have in the past contributed to periodic economic uncertainty in many Latin American countries. Similar actions in the future, together with abrupt shifts in governmental administrations, could impede our ability to develop or implement effective business plans in the region. In addition, if high rates of inflation persist, we may not be able to adjust the price of our services sufficiently to offset our higher costs. A high inflation environment would also have negative effects on the level of economic activity and employment and adversely affect our business.

***We are exposed to currency exchange rate risks and currency transfer restrictions and our results may suffer due to currency translations and re-measurements.***

Declines in the value of non-U.S. currencies relative to the U.S. dollar could adversely affect us in several respects, including hampering our ability to market our services to customers whose revenue is denominated in depreciated currencies. In addition, where we issue invoices for our services in currencies other than U.S. dollars, our results of operations may suffer due to currency translations if such currencies depreciate relative to the U.S. dollar and we cannot or do not elect to enter into currency hedging arrangements regarding those payment obligations. Similarly, the strengthening of the U.S. dollar and exchange control regulations could negatively impact the ability of overseas customers to pay for our services in U.S. dollars.

Certain Latin American economies have experienced shortages in non-U.S. currency reserves and have adopted restrictions on the use of certain mechanisms to expatriate local earnings and convert local currencies into U.S. dollars. Any of these shortages or restrictions may limit or impede our ability to transfer or convert those currencies into U.S. dollars and to expatriate those funds.

***We expect rising costs and other industry changes will continue to adversely impact our video business.***

Demand for our video products and services has been adversely impacted by several factors, including (i) strong customer demand for streaming and other competing services, (ii) various new technologies that have increased the number of competitive entertainment offerings and (iii) substantial increases in our video programming expenses. We expect these trends to continue.

***We may not be able in the future to acquire new businesses on attractive terms.***

Historically, much of our growth has been attributable to acquisitions. Our future ability to grow through additional acquisitions could be limited by several factors, including our leverage, debt covenants and inability to identify attractively-priced target companies. Moreover, we generally must devote significant management attention and resources to evaluate acquisition opportunities, which could preclude us from evaluating acquisition opportunities during periods when management is committed to other opportunities, tasks or activities. Accordingly, we cannot assure you that we will be able to attain future growth through acquisitions. See the next risk factor immediately below for a discussion of certain general risks raised by acquisitions.

***Any additional future acquisitions or strategic investments by us would subject us to additional business, operating and financial risks, the impact of which cannot presently be evaluated, and could adversely impact our capital structure or financial position.***

In an effort to implement our business strategies, we may from time to time in the future pursue other acquisition or expansion opportunities, including strategic investments. These transactions could involve acquisitions of entire businesses or investments in start-up or established companies, and could take several forms, including mergers, joint ventures, investments in new lines of business, or the purchase of equity interests or assets. These types of transactions may present significant risks and uncertainties, including the difficulty of identifying appropriate companies to acquire or invest in on acceptable terms, potential violations of covenants in our debt instruments, distraction of management from current operations, insufficient revenue acquired to offset liabilities assumed, unexpected expenses, inadequate return of capital, regulatory or compliance issues, potential infringements and other unidentified issues not discovered in due diligence. To the extent we acquire part or all of a business that is financially unstable or is otherwise subject to a high level of risk, we may be affected by currently unascertainable risks of that business. Accordingly, there is no current basis to evaluate the possible merits or risks of the particular business or assets that we may acquire. Moreover, we cannot guarantee that any such transaction will ultimately result in the realization of the benefits of the transaction originally anticipated by us or that any such transaction will not have a material adverse impact on our financial condition or results of operations. In particular, we can provide no assurances that we will be able to successfully integrate the technology systems, billing systems, accounting processes, workforce, cost structure, product development and service delivery processes, standards, controls, policies, strategies and culture of the acquired company with ours. In addition, the financing of any future acquisition completed by us could adversely impact our capital structure as any such financing would likely include the issuance of additional securities or the borrowing of additional funds. Except as required by law or applicable securities exchange listing standards, we do not expect to ask our shareholders to vote on any proposed acquisition. Moreover, we generally do not announce our material transactions until we have entered into a preliminary or definitive agreement.

***Asset dispositions could have a detrimental impact on us or the holders of our securities.***

In the past, we have disposed of assets or asset groups for a variety of reasons, and we may consider disposing of other assets or asset groups from time to time in the future. We may not be able to divest any such assets on terms that are attractive to us, or at all. In addition, if we agree to proceed with any such divestitures of assets, we may experience operational difficulties segregating them from our retained assets and operations, which could impact the execution or timing for such dispositions and could result in disruptions to our operations or claims for damages, among other things. Moreover, such dispositions could reduce our cash flows and make it harder for us to fund all of our cash requirements.



***Unfavorable general economic conditions could negatively impact our operating results and financial condition.***

Unfavorable general economic conditions, including unstable economic and credit markets, or depressed economic activity caused by trade wars, epidemics, pandemics or other factors, could negatively affect our business. While it is difficult to predict the ultimate impact of these general economic conditions, they could adversely affect demand for some of our products and services and could cause customers to shift to lower priced products and services or to delay or forego purchases of our products and services. These conditions impact, in particular, our ability to sell discretionary products or services to business customers that are under pressure to reduce costs or to governmental customers operating under budgetary constraints. Any one or more of these circumstances could continue to depress our revenue. Also, our customers may encounter financial hardships or may not be able to obtain adequate access to credit, which could negatively impact their ability to make timely payments to us. In addition, as discussed further below, unstable economic and credit markets may preclude us from refinancing maturing debt at terms that are as favorable as those from which we previously benefited, at terms that are acceptable to us, or at all. For these reasons, among others, weak economic conditions could adversely affect our operating results, financial condition, and liquidity.

***Although we believe we have successfully integrated our incumbent business with Level 3's business, additional challenges may remain.***

In late 2017, this transaction combined two companies which previously operated as independent public companies. Although, we believe the integration of the two companies has been successfully completed, additional challenges could arise, including those relating to the following:

- the complexities of combining two companies with different histories, cultures, regulatory restrictions, operating structures, lending arrangements and markets;
- the complexities associated with managing the combined businesses out of several different locations and integrating personnel from the two companies, while at the same time attempting to provide consistent, high-quality products and services under a unified culture; and
- impediments to fully and timely integrating systems, technologies, procedures, policies, standards and controls.

Our failure to adequately address these and related challenges could adversely affect our business and financial results.

For additional information about our business and operations, see "Business" in Item 1 of this report.

**Risks Relating to Legal and Regulatory Matters**

***We operate in a highly regulated industry and are therefore exposed to restrictions on our operations and a variety of risks relating to such regulation.***

**General.** Our domestic operations are regulated by the FCC, various state utility commissions and occasionally by local agencies. Our domestic operations are also subject to potential investigation and legal action by the Federal Trade Commission ("FTC") and other federal and state regulatory authorities over issues such as consumer marketing, competitive practices, and privacy protections. Our non-domestic operations are regulated by supranational groups (such as the European Union), national agencies and frequently state, provincial or local bodies.

Generally, we must obtain and maintain operating licenses from these bodies in most territories where we offer regulated services. We cannot assure you that we will be successful in obtaining or retaining all licenses necessary to carry out our business plan. Even if we are, the prescribed service standards and conditions imposed on us under these licenses may increase our costs and limit our operational flexibility. We also operate in some areas of the world without licenses, as permitted through relationships with locally-licensed partners.

We are subject to numerous requirements and interpretations under various international, federal, state and local laws, rules and regulations, which are often quite detailed and occasionally in conflict with each other. The regulation of telecommunications networks and services around the world varies widely. In some countries, the range of services we are legally permitted to provide may be limited or may change. As noted above, in other countries existing telecommunications legislation is in development, is subject to currently ongoing proceedings, is unclear or inconsistent, or is applied in an unequal or unpredictable fashion, often in the absence of adjudicative forums that are adequate to address disputes. Accordingly, we cannot ensure that we will always be considered to be in compliance with all these requirements at any single point in time (as discussed further elsewhere herein). Our inability or failure to comply with the telecommunications and other laws of one or more countries in which we operate could prevent us from commencing or continuing to provide service therein.

The agencies responsible for the enforcement of these laws, rules and regulations may initiate inquiries or actions based on customer complaints or on their own initiative. Even if we are ultimately found to have complied with applicable regulations, such actions or inquiries could create adverse publicity that negatively impacts our business.

Domestic regulation of the telecommunications industry continues to change, and the regulatory environment varies substantially from jurisdiction to jurisdiction. A substantial portion of our local voice services revenue remains subject to FCC and state utility commission pricing regulation, which periodically exposes us to pricing or earnings disputes and could expose us to unanticipated price declines. In addition, from time to time carriers or other third parties refuse to pay for certain of our services or challenge our rights to receive certain service payments. Our future revenue, costs, and capital investment could be adversely affected by material changes to or decisions regarding the applicability of government requirements, and we cannot assure you that future regulatory, judicial or legislative activities will not have a material adverse effect on our operations.

Changes in the composition and leadership of the FCC, state commissions and other agencies that regulate our business could have significant impacts on our revenue, expenses, competitive position and prospects. Changes in the composition and leadership of these agencies are often difficult to predict, which makes future planning more difficult.

**Risks associated with changes in regulation.** Changes in regulation can have a material impact on our business, revenue or financial performance. Changes over the past couple of decades in federal regulations have substantially impacted our operations including recent orders or laws overhauling intercarrier compensation, revamping universal service funding and increasing our responsibilities to assist various governmental agencies and safeguard customer data. These changes, coupled with our participation in the new FCC support programs, have significantly impacted various aspects of our operations, financial results and capital expenditures, including the amount of revenue we collect from our wholesale customers and from federal support programs. We expect these impacts will continue in the future.

Many of the FCC's regulations adopted in recent years remain subject to judicial review and additional rulemakings, thus increasing the difficulty of determining the ultimate impact of these changes on us and our competitors.

Federal and state agencies that dispense support program payments can, and from time to time do, reduce the amount of those payments to us and other carriers.

For more information, see "Business—Regulation" in Item 1 of this report, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of this report.

**Risks of higher costs.** Regulations continue to create significant operating and capital costs for us. Regulatory challenges to our business practices or delays in obtaining certifications and regulatory approvals could cause us to incur substantial legal and administrative expenses, and, if successful, such challenges could adversely affect our operations.

Our business also may be impacted by legislation and regulation imposing new or greater obligations related to regulations or laws related to regulating broadband services, storing records, fighting crime, bolstering homeland security or cyber security, increasing disaster recovery requirements, minimizing environmental impacts, enhancing privacy, restricting data collection, protecting intellectual property rights of third parties, or addressing other issues

that impact our business. We expect our compliance costs to increase if future laws or regulations continue to increase our obligations.

**Risks of investigations and fines.** Various governmental agencies, including state attorneys general, with jurisdiction over our operations have routinely in the past investigated our business practices either in response to customer complaints or on their own initiative, and are expected to continue to do the same in the future. These investigations can potentially result in enforcement actions, litigation, fines, settlements or reputational harm, or could cause us to change our sales practices or operations. We typically publicly disclose the existence or outcome of these investigations, or our own internal investigations, only when we determine these disclosures to be material to investors or otherwise required by applicable law.

We have recently paid certain regulatory fines associated with network or service outages, particularly with respect to outages impacting the availability of emergency - 911 services. Federal and state regulators continue to be focused on 911 service reliability and we believe this trend will continue and may result in future investigations.

**Risks of reduced flexibility.** As a diversified full service incumbent local exchange carrier in many of our operating markets, we have traditionally been subject to significant regulation that does not apply to many of our competitors. This regulation in many instances restricts our ability to change rates, to compete and to respond rapidly to changing industry conditions. As our business becomes increasingly competitive, regulatory disparities could continue to favor our competitors.

**Risks posed by other regulations.** All of our operations are also subject to a variety of environmental, safety, health and other governmental regulations. In connection with our current operations, we use, handle and dispose of various hazardous and non-hazardous substances and wastes. In prior decades, certain of our current or former subsidiaries owned or operated, or are alleged to have owned or operated, former manufacturing businesses, for which we have been notified of certain potential environmental liabilities. We monitor our compliance with applicable regulations or commitments governing these current and past activities. Although we believe that we are in compliance with these regulations in all material respects, our use, handling and disposal of environmentally sensitive materials, or the prior operations of our predecessors, could expose us to claims or actions that could potentially have a material adverse effect on our business, financial condition and operating results.

For a discussion of regulatory risks associated with our international operations, see "Risk Factors—Risks Affecting Our Business—Our international operations expose us to various regulatory, currency, tax, legal and other risks."

***Our participation in the FCC's Connect America Fund ("CAF") Phase II support program poses certain risks.***

Our participation in the FCC's CAF Phase II support program subjects us to certain financial risks. If we fail to attain certain specified infrastructure buildout requirements, the FCC could withhold future CAF support payments until these shortcomings are rectified. In addition, if we are not in compliance with FCC measures by the end of the CAF Phase II program, we would incur substantial penalties. To comply with the FCC's buildout requirements, we believe we will need to continue to dedicate a substantial portion of our capital expenditure budget through the end of the program to the construction of new infrastructure. The CAF-related expenditures could reduce the amount of funds we are willing or able to allocate to other initiatives or projects. The FCC has determined it will use reverse auctions to award support under a new fund following the completion of CAF Phase II. We cannot assure you that any funding that we pursue and receive through these upcoming auctions will be sufficient to replace our current CAF Phase II payments.

***Regulation of the Internet and data privacy could substantially impact us.***

Since the creation of the Internet, there has been extensive debate about whether and how to regulate Internet service providers. A significant number of U.S. congressional leaders, state elected officials and various consumer interest groups have long advocated in favor of extensive regulation. In 2015, the FCC adopted new regulations that regulated broadband services as a public utility under Title II of the Communications Act of 1934. The FCC voted to repeal most of those regulations in December 2017 and preempted states from substantial regulations of their own. Opponents of the rescission judicially challenged this action and continue to advocate in favor of re-instituting extensive federal regulation. In addition, California and other states have adopted, or are considering adopting, legislation or regulations that govern the terms of internet services. In October 2019, a federal court upheld the FCC's classification decision but vacated a part of its preemption ruling. The court also requested the FCC to make further findings relating to its classification decision. Numerous parties have sought further appellate review of this decision. The result of these further appeals is pending. Depending on the scope of such current and future federal or state regulation and judicial proceedings regarding these matters, the imposition of heightened regulation of our Internet operations could hamper our ability to operate our data networks efficiently, restrict our ability to implement network management practices necessary to ensure quality service, increase the cost of operating, maintaining and upgrading our network, and otherwise negatively impact our current operations. As the significance of the Internet continues to expand, foreign governments similarly may adopt new laws or regulations governing the Internet. We cannot predict the outcome of any such changes.

A growing number of non-U.S. jurisdictions have adopted rigorous data privacy laws. For example, all current member states of the European Union have adopted new European data protection laws that have exposed our European operations to an increased risk of litigation and substantial regulatory fines. In the U.S., California and other states have adopted, or are considering adopting, comparable data privacy laws. These laws are complex and not consistent across jurisdictions. Although we cannot predict the ultimate outcomes of this growing trend toward additional regulation, we expect it will increase our operating costs and heighten our regulatory risk.

***We may be liable for the material that content providers or distributors distribute over our network.***

The liability of private network operators for information stored or transmitted on their networks is impacted both by changing technology and evolving legal principles that remain unsettled in many jurisdictions. While we disclaim any liability for third-party content in our service contracts, as a private network provider we potentially could be exposed to legal claims relating to third party content stored or transmitted on our networks. Such claims could involve, among others, allegations of defamation, invasion of privacy, copyright infringement, or aiding and abetting restricted activities such as online gambling or pornography. Although we believe our liability for these types of claims is limited, suits against other carriers have been successful and we cannot assure you that our defenses will prevail. If we decide to implement additional measures to reduce our exposure to these risks, or if we are required to defend ourselves against these kinds of claims, our operations and financial results could be negatively affected.

***Our pending legal proceedings could have a material adverse impact on our financial condition and operating results, the trading price of our securities and our ability to access the capital markets.***

There are several material proceedings pending against us, as described in Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements included in Item 8 of this report. Results of these legal proceedings cannot be predicted with certainty. Irrespective of its merits, litigation may be both lengthy and disruptive to our operations and could cause significant expenditure and diversion of management attention. We review our litigation accrual liabilities on a quarterly basis, but in accordance with applicable accounting guidelines only establish accrual liabilities when losses are deemed probable and reasonably estimable and only revise previously-established accrual liabilities when warranted by changes in circumstances, in each case based on then-available information. As such, as of any given date we could have exposure to losses under proceedings as to which no liability has been accrued or as to which the accrued liability is inadequate. For each of these reasons, any of the proceedings described in Note 19—Commitments, Contingencies and Other Items, as well as current litigation not described therein or future litigation, could have a material adverse effect on our business, reputation, financial position, operating results, the trading price of our securities and our ability to access the capital markets. We can give you no assurances as to the ultimate impact of these matters on us.

***We are subject to franchising requirements that could impede our expansion opportunities or result in potential fines or penalties.***

We may be required to obtain from municipal authorities operating franchises to install or expand certain facilities related to our fiber transport operations and certain of our other services. Some of these franchises may require us to pay franchise fees, and may require us to pay fines or penalties if we violate or terminate our related contractual commitments. In some cases, certain franchise requirements could delay us in expanding our operations or increase the costs of providing these services.

***We are exposed to risks arising out of legislation affecting U.S. public companies.***

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, and related regulations implemented thereunder, have increased our legal and financial compliance costs and made some activities more time consuming. Any failure to comply with these laws and regulations, including any failure to timely complete annual assessments of our internal controls, could subject us to sanctions or investigation by regulatory authorities. Any such action could adversely affect our financial results or our reputation with investors, lenders or others.

***Changes in any of the above-described laws or regulations may limit our ability to plan, and could subject us to further costs or constraints.***

From time to time, the laws or regulations governing us or our customers, or the government's policy of enforcing those laws or regulations, have changed frequently and materially. The variability of these laws could hamper the ability of us and our customers to plan for the future or establish long-term strategies. Moreover, future changes in these laws or regulations could further increase our operating or compliance costs, or further restrict our operational flexibility, any of which could have a material adverse effect on our results of operations, competitive position, financial condition or prospects.

For a more thorough discussion of the regulatory issues that may affect our business, see "Business—Regulation" in Item 1 of this report.

## **Risks Affecting Our Liquidity and Capital Resources**

***Our high debt levels expose us to a broad range of risks.***

We continue to carry significant debt. As of December 31, 2019, the aggregate principal amount of our consolidated long-term debt was \$34.8 billion, excluding unamortized discounts, net, unamortized debt issuance costs and finance lease and other obligations. Following the January 2020 refinancing of our revolving credit facilities and term loan debt originally maturing in 2022, as discussed in Note 7—Long-Term Debt and Credit Facilities, we now have \$7.0 billion of aggregate principal amount of long-term debt scheduled to become payable prior to December 31, 2022. While we currently believe we will have the financial resources to meet or refinance our obligations when they come due, we cannot fully anticipate our future performance or financial condition, the future condition of the credit markets or the economy generally.

Our significant levels of debt can adversely affect us in several respects, including:

- limiting our ability to obtain additional financing for working capital, capital expenditures, acquisitions, refinancings or other general corporate purposes, particularly if, as discussed further in the risk factor disclosure below, (i) the ratings assigned to our debt securities by nationally recognized credit rating organizations are revised downward or (ii) we seek capital during periods of turbulent or unsettled market conditions;
- requiring us to dedicate a substantial portion of our cash flow from operations to the payment of interest and principal on our debt, thereby reducing the funds available to us for other purposes, including acquisitions, capital expenditures, strategic initiatives, dividends, stock repurchases, marketing and other potential growth initiatives;

- hindering our ability to capitalize on business opportunities and to plan for or react to changing market, industry, competitive or economic conditions;
- increasing our future borrowing costs;
- limiting or precluding us from entering into commercial, hedging or other financial arrangements with vendors, customers or other business partners;
- making us more vulnerable to economic or industry downturns, including interest rate increases;
- placing us at a competitive disadvantage compared to less leveraged competitors;
- increasing the risk that we will need to sell securities or assets, possibly on unfavorable terms, or take other unfavorable actions to meet payment obligations; or
- increasing the risk that we may not meet the financial covenants contained in our debt agreements or timely make all required debt payments, either of which could result in the acceleration of some or all of our outstanding indebtedness.

The effects of each of these factors could be intensified if we increase our borrowings.

Although we have hedged some of our interest rate exposures, a substantial portion of our indebtedness continues to bear interest at variable rates. If market interest rates increase, our variable-rate debt will have higher debt service requirements, which could adversely impact our cash flows and financial condition. If such rate increases are significant and sustained, these impacts could be material.

Any failure to make required debt payments could, among other things, adversely affect our ability to conduct operations or raise capital.

***Subject to certain limitations, our debt agreements and the debt agreements of our subsidiaries allow us to incur additional debt, which could exacerbate the other risks described in this report.***

Subject to certain limitations and restrictions, the current terms of our debt instruments and the debt instruments of our subsidiaries permit us or them to incur additional indebtedness, including additional borrowings under our revolving credit facility. Incremental borrowings that impose additional financial risks could exacerbate the other risks described in this report.

***We expect to periodically require financing, and we cannot assure you that we will be able to obtain such financing on terms that are acceptable to us, or at all.***

We have a significant amount of indebtedness that we intend to refinance over the next several years, principally through the issuance of debt securities or term loans by CenturyLink or one or more of our principal subsidiaries. We may also need to obtain additional financing under a variety of other circumstances, including if:

- we engage in additional acquisitions or undertake substantial capital projects or other initiatives that increase our cash requirements;
- we are required to make pension or other benefits payments earlier or in greater amounts than currently anticipated;
- we become subject to significant judgments or settlements, including in connection with one or more of the matters discussed elsewhere herein; or
- we otherwise require additional cash to fund our cash requirements described elsewhere herein.

Our ability to arrange additional financing will depend on, among other factors, our financial position, performance, and credit ratings, as well as prevailing market conditions and other factors beyond our control. Prevailing market conditions could be adversely affected by (i) general market conditions, such as disruptions in domestic or overseas sovereign or corporate debt markets, geo-political instabilities, contractions or limited growth in the economy or other similar adverse economic developments in the U.S. or abroad and (ii) specific conditions in the communications industry. Instability in the domestic or global financial markets has from time to time resulted in periodic volatility and disruptions in capital markets. Uncertainty regarding worldwide trade, the strength of various global and supranational governing bodies and other geopolitical events could significantly affect global financial markets in 2020. Volatility in the global markets could limit our access to the credit markets, leading to higher borrowing costs or, in some cases, the inability to obtain financing on terms that are as favorable as those from which we previously benefited, on terms that are acceptable to us, or at all.

In addition, our ability to borrow funds in the future will depend in part on the satisfaction of the covenants in our credit facilities and other debt instruments, which are discussed further below.

Our access to funds under our revolving credit facility is further dependent upon the ability of the facility's lenders to meet their funding commitments. Stricter capital-related and other regulations, particularly in the United States and Europe, could hamper the ability of these lenders to continue to fund their commitments. If one or more of the lenders fails to fund, the remaining lenders will not be legally obligated to rectify the funding shortfall.

For all the reasons mentioned above, we can give no assurance that additional financing for any of these purposes will be available on terms that are acceptable to us, or at all.

If we are unable to make required debt payments or refinance our debt, we would likely have to consider other options, such as selling assets, issuing additional securities, reducing or terminating our dividend payments, cutting or delaying costs or otherwise reducing our cash requirements, or negotiating with our lenders to restructure our applicable debt. Our current and future debt instruments may restrict, or market or business conditions may limit, our ability to complete some of these actions on favorable terms, or at all. For these and other reasons, we cannot assure you that we could implement these steps in a sufficient or timely manner, or at all. Moreover, any steps taken to strengthen our liquidity, such as cutting costs, could adversely impact our business or operations.

***We have a highly complex debt structure, which could impact the rights of our investors.***

CenturyLink, Inc. and various of its subsidiaries owe substantial sums pursuant to various debt and financing arrangements, certain of which are guaranteed by other principal subsidiaries. Over half of the debt of CenturyLink, Inc. is guaranteed by nine of its principal domestic subsidiaries, six of which have pledged substantially all of their assets (including certain of their respective subsidiaries) to secure their guarantees. The remainder of the debt of CenturyLink, Inc. is neither secured by collateral nor guaranteed by any of its subsidiaries. Nearly half of the debt of Level 3 Financing, Inc. is (i) secured by a pledge of substantially all of its assets and (ii) guaranteed on a secured basis by certain of its affiliates. The remainder of the debt of Level 3 Financing, Inc. is not secured by any of its assets, but is guaranteed by its parent. Substantial amounts of debt are also owed by two direct or indirect subsidiaries of Qwest Communications International Inc. and by Embarq Corporation and one of its subsidiaries. Most of the approximately 400 subsidiaries of CenturyLink, Inc. have neither borrowed money nor guaranteed any of the debt of CenturyLink, Inc. or its affiliates. As such, investors in our consolidated debt instruments should be aware that (i) determining the priority of their rights as creditors is a complex matter which is substantially dependent upon the assets and earning power of the entities that issued or guaranteed (if any) the applicable debt and (ii) a substantial portion of such debt is structurally subordinated to all liabilities of the non-guarantor subsidiaries of CenturyLink, Inc. to the extent of the value of those subsidiaries that are obligors.

***Our various debt agreements include restrictions and covenants that could (i) limit our ability to conduct operations or borrow additional funds, (ii) restrict our ability to engage in inter-company transactions and (iii) lead to the acceleration of our repayment obligations in certain instances.***

Under our consolidated debt and financing arrangements the issuer of the debt is subject to various covenants and restrictions, the most restrictive of which pertain to the debt of CenturyLink, Inc. and Level 3 Financing, Inc.

CenturyLink, Inc.'s senior secured credit facilities and secured notes contain several significant limitations restricting CenturyLink, Inc.'s ability to, among other things:

- borrow additional money or issue guarantees;
- pay dividends or other distributions to shareholders;
- make loans, advances or other investments;
- create liens on assets;
- sell assets;
- enter into sale-leaseback transactions;
- enter into transactions with affiliates; and
- engage in mergers or consolidations.

These above-listed restrictive covenants could materially adversely affect our ability to operate or expand our business, to pursue strategic transactions, or to otherwise pursue our plans and strategies.

The debt and financing arrangements of Level 3 Financing, Inc. contain substantially similar limitations that restrict their operations on a standalone basis as a separate restricted group. Consequently, certain of these covenants may significantly restrict our ability to receive cash from Level 3, to distribute cash from Level 3 to other of our affiliated entities, or to enter into other transactions among our wholly-owned entities.

CenturyLink, Inc.'s senior secured credit facilities and senior secured notes, as well as the term loan debt of Qwest Corporation also contain financial covenants. The ability of CenturyLink, Inc. and Qwest Corporation to comply with these provisions may be affected by events beyond their control.

Increasingly in recent years, certain debt investors have sought to financially benefit themselves by identifying and seeking to enforce defaults under borrowers' debt agreements. This development could increase the risk of claims made under our debt agreements.

The failure of CenturyLink, Inc. or any of its subsidiaries to comply with the above-described restrictive or financial covenants could result in an event of default, which, if not cured or waived, could accelerate our debt repayment obligations. Certain of our debt instruments have cross-default or cross-acceleration provisions. When present, these provisions could have a wider impact on liquidity than might otherwise arise from a default or acceleration of a single debt instrument. As noted elsewhere herein, we cannot assure you that we could adequately address any such defaults, cross-defaults or acceleration of our debt payment obligations in a sufficient or timely manner, or at all. For additional information, see "Risks Affecting Our Liquidity and Capital Resources—We expect to periodically require financing, and we cannot assure you that we will be able to obtain such financing on terms that are acceptable to us, or at all" and Note 7—Long-Term Debt and Credit Facilities.

***Any downgrade in the credit ratings of us or our affiliates could limit our ability to obtain future financing, increase our borrowing costs and adversely affect the market price of our existing debt securities or otherwise impair our business, financial condition and results of operations.***

Nationally recognized credit rating organizations have issued credit ratings relating to CenturyLink, Inc.'s long-term debt and the long-term debt of several of its subsidiaries. Many of these ratings are below "investment grade", which results in higher borrowing costs than "investment grade" debt as well as reduced marketability of our debt securities. There can be no assurance that any rating assigned to any of these debt securities will remain in effect for any given period of time or that any such ratings will not be lowered, suspended or withdrawn entirely by a rating agency if, in that rating agency's judgment, circumstances so warrant.



A downgrade of any of these credit ratings could:

- adversely affect the market price of some or all of our outstanding debt or equity securities;
- limit our access to the capital markets or otherwise adversely affect the availability of other new financing on favorable terms, if at all;
- trigger the application of restrictive covenants or adverse conditions in our current or future debt agreements;
- increase our cost of borrowing; and
- impair our business, financial condition and results of operations.

For more information on the credit ratings of our secured and unsecured debt, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Debt and Other Financing Arrangements” in Item 7 of this report.

***Under our debt agreements, a change of control of us or certain of our affiliates could have certain adverse ramifications.***

Under our January 31, 2020 amended and restated credit agreement, a “change of control” of CenturyLink, Inc. constitutes an event of default. Moreover, if the credit ratings relating to certain of our currently outstanding long-term debt securities are downgraded in the manner specified thereunder in connection with a “change of control” of CenturyLink, Inc., then we will be required to offer to repurchase such debt securities. The long-term debt securities of several of our subsidiaries include similar covenants that could, under similar circumstances in connection with a “change of control” of one of the subsidiaries, require us to offer to repurchase such securities. If, due to lack of cash, legal or contractual impediments (including certain covenants in CenturyLink’s credit agreement that restrict payments on outstanding indebtedness other than regularly scheduled payments), or otherwise, we fail to offer to repurchase such debt securities, such failure could constitute an event of default under such debt securities. Any default under our credit facility or these debt securities could in turn constitute a default under other of our agreements relating to our indebtedness outstanding at that time. Moreover, the existence of these default or repurchase provisions may in certain circumstances render it more difficult or discourage a sale or takeover of us, or the removal of our incumbent directors.

***Our business requires us to incur substantial capital and operating expenses, which reduces our available free cash flow.***

Our business is capital intensive. We expect to continue to require significant cash to maintain, upgrade and expand our network infrastructure as a result of several factors, including:

- changes in customers’ service requirements, including increased demands by customers to transmit larger amounts of data at faster speeds;
- our above-described need to (i) consolidate and simplify our various legacy systems, (ii) strengthen and transform our customer support systems and (iii) support our development and launch of new products and services;
- technological advances of our competitors; and
- our regulatory commitments, including infrastructure construction requirements arising out of our participation in the FCC’s CAF Phase II program, which are discussed further herein.

We may be unable to expand or adapt our network infrastructure to respond to these developments in a timely manner, at a commercially reasonable cost or on terms producing satisfactory returns on our investment.

In addition to investing in expanded networks, new products or new technologies, we must from time to time invest capital to (i) replace some of our aging equipment that supports many of our traditional services that are experiencing revenue declines or (ii) convert older systems to simplify and modernize our network. While we believe that our currently planned level of capital expenditures will meet both our maintenance and core growth requirements, this may not be the case if demands on our network continue to accelerate or other circumstances underlying our expectations change. Increased spending could, among other things, adversely affect our operating margins, cash flows, results of operations and financial position.

Similarly, we continue to anticipate incurring substantial operating expenses to support and maintain our operations. If we are unable to attain our objectives for managing or reducing these costs, our operating margins will be adversely impacted.

***As a holding company, we rely on payments from our operating companies to meet our obligations.***

As a holding company, substantially all of our income and operating cash flow is dependent upon the earnings of our subsidiaries and their distribution of those earnings to us in the form of dividends, loans or other payments. As a result, we rely upon our subsidiaries to generate cash flows in amounts sufficient to fund our obligations, including the payment of our long-term debt. Our subsidiaries are separate and distinct legal entities and have no obligation to pay any amounts owed by us, except to the extent they have guaranteed such payments. Similarly, subject to limited exceptions for tax-sharing or cash management purposes, our subsidiaries have no obligation to make any funds available to us to repay our obligations, whether by dividends, loans or other payments. As discussed in greater detail elsewhere herein, restrictions imposed by credit instruments or other agreements applicable to Level 3 and certain of our other subsidiaries limit the amount of funds that our subsidiaries are permitted to transfer to us, including the amount of dividends that may be paid to us. Moreover, our rights to receive assets of any subsidiary upon its liquidation or reorganization will be effectively subordinated to the claims of creditors of that subsidiary, including trade creditors. In addition, the laws under which our subsidiaries were organized typically restrict the amount of dividends that they may pay. The ability of our subsidiaries to transfer funds could be further restricted under applicable tax laws or orders imposed by state regulators (either in connection with obtaining necessary approvals for our acquisitions or in connection with our regulated operations). For all these reasons, you should not assume that our subsidiaries will be able in the future to generate and distribute to us cash in amounts sufficient to fund our cash requirements. See "Management's Discussion and Analysis of Financial Condition and Results of Operations —Liquidity and Capital Resources" included elsewhere in this report for further discussion of these matters.

***We cannot assure you that we will continue paying dividends at the current rates, or at all.***

For the reasons noted below, we cannot assure you that we will continue periodic dividends on our capital stock at the current rates, or at all. From time to time, our board has reduced our dividend rate, including reductions in early 2019 and early 2013.

As noted in the immediately preceding risk factor, because we are a holding company with no material assets other than the stock of our subsidiaries, our ability to pay dividends will depend on our subsidiaries generating a sufficient amount of earnings and cash flow and their ability to furnish funds to us in the form of dividends, loans or other payments.

Any quarterly dividends on our common stock and our outstanding shares of preferred stock will be paid from funds legally available for such purpose when, as and if declared by our Board of Directors. Decisions on whether, when and in which amounts to continue making any future dividend distributions will remain at all times entirely at the discretion of our Board of Directors, which reserves the right to change or terminate our dividend practices at any time and for any reason without prior notice, including without limitation any of the following:

- our supply of cash or other liquid assets is anticipated to remain under pressure for the various reasons described in this report;
- our cash requirements or plans might change for a wide variety of reasons, including changes in our financial position, capital allocation plans (including a desire to retain or accumulate cash), capital spending plans, stock purchase plans, acquisition strategies, strategic initiatives, debt payment plans (including a desire to maintain or improve credit ratings on our debt securities), pension funding or other benefits payments;

- our ability to service and refinance our current and future indebtedness and our ability to borrow or raise additional capital to satisfy our capital needs;
- the amount of dividends that we may distribute to our shareholders is subject to restrictions under Louisiana law and restrictions imposed by our existing or future credit facilities, debt securities, outstanding preferred stock securities, leases and other agreements, including restricted payment and leverage covenants; and
- the amount of cash that our subsidiaries may make available to us, whether by dividends, loans or other payments, may be subject to the legal, regulatory and contractual restrictions described in the immediately preceding risk factor.

Based on its evaluation of these and other relevant factors, our Board of Directors may, in its sole discretion, decide not to declare a dividend on our common stock or our outstanding shares of preferred stock for any period for any reason without prior notice, regardless of whether we have funds legally available for such purposes. Holders of our equity securities should be aware that they have no contractual or other legal right to receive dividends.

Similarly, holders of our common stock should be aware that repurchases of our common stock under any repurchase plan then in effect are completely discretionary, and may be suspended or discontinued at any time for any reason regardless of our financial position.

***Our current dividend practices could limit our ability to deploy cash for other beneficial purposes.***

The current practice of our Board of Directors to pay common share dividends reflects a current intention to distribute to our shareholders a substantial portion of our cash flow. As a result, we may not retain a sufficient amount of cash to apply to other transactions that could be beneficial to our shareholders or debtholders, including stock buybacks, debt prepayments or capital expenditures that strengthen our business. In addition, our ability to pursue any material expansion of our business through acquisitions or increased capital spending may depend more than it otherwise would on our ability to obtain third party financing.

***We cannot assure you whether, when or in what amounts we will be able to use our net operating loss carryforwards, or when they will be depleted.***

As of December 31, 2019, CenturyLink had approximately \$6.2 billion of federal net operating loss carryforwards, ("NOLs"), which for U.S. federal income tax purposes can be used to offset future taxable income. A significant portion of our federal NOLs were acquired through the Level 3 acquisition and are subject to limitations under Section 382 of the Internal Revenue Code ("Code") and related Treasury regulations. Issuances or sales of our stock (including certain transactions outside of our control) could result in an ownership change of CenturyLink under Section 382, which may further limit our use of the NOLs. For these and other reasons, you should be aware that these limitations could restrict our ability to use these NOLs in the amounts we project or could limit our flexibility to pursue otherwise favorable transactions. In an effort to safeguard our NOLs, we adopted a rights agreement in the first half of 2019, which is discussed further below under "Other Risks".

At December 31, 2019, we had state NOL carryforwards of approximately \$18 billion. A significant portion of the state NOL carryforwards are generated in states where separate company income tax returns are filed and our subsidiaries that generated the losses may not have the ability to generate income in sufficient amounts to realize these losses. In addition, certain of these state NOL carryforwards will be limited by state laws related to ownership changes. As a result, we expect to utilize only a small portion of the state NOL carryforwards, and consequently have determined that as of December 31, 2019, these state NOL carryforwards, net of federal benefit, had a net tax benefit (after giving effect to our valuation allowance) of \$372 million.

Additionally, at December 31, 2019, we had foreign NOL carryforwards of \$6 billion. A significant portion of the foreign NOL carryforwards are generated in subsidiaries that do not have a history of earnings and may not have the ability to generate income in sufficient amounts to realize the losses. As of December 31, 2019, we have determined that these foreign NOL carryforwards had a net benefit of \$275 million (after giving effect to our valuation allowances).

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

As of December 31, 2019, we had approximately 36,000 active employees participating in our company sponsored benefit plans, approximately 66,000 active and retired employees and surviving spouses eligible for post-retirement healthcare benefits, approximately 66,000 pension retirees and approximately 13,000 former employees with vested pension benefits participating in our benefit plans. The cost to fund the pension and healthcare benefit plans for our active and retired employees has a significant impact on our profitability. Our costs of maintaining our pension and healthcare plans, and the future funding requirements for these plans, are affected by several factors, most of which are outside our control, including:

- decreases in investment returns on funds held by our pension and other benefit plan trusts;
- changes in prevailing interest rates and discount rates or other factors used to calculate the funding status of our pension and other post-retirement plans;
- increases in healthcare costs generally or claims submitted under our healthcare plans specifically;
- increasing longevity of our employees and retirees;
- the impact of the continuing implementation, modification or potential repeal of current federal healthcare legislation and regulations promulgated thereunder;
- increases in the number of retirees who elect to receive lump sum benefit payments;
- increases in insurance premiums we are required to pay to the Pension Benefit Guaranty Corporation due to its systemic underfunded status;
- changes in plan benefits; and
- changes in funding laws or regulations.

Increased costs under these plans could reduce our profitability and increase our funding commitments to our pension plans. Any future material cash contributions could have a negative impact on our liquidity by reducing our cash flows available for other purposes. Similarly, depletion of assets placed in trust by us to fund these benefits, such as those discussed elsewhere herein, will similarly reduce our liquidity by requiring us to deploy a portion of our cash flows to fund such benefit payments.

As of December 31, 2019, our pension plans and our other post-retirement benefit plans were substantially underfunded from an accounting standpoint. See Note 11—Employee Benefits to our consolidated financial statements included in Item 8 of this report. For more information on our obligations under our defined benefit pension plans and other post-retirement benefit plans, please see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Pension and Post-retirement Benefit Obligations” included in Item 7 of this report.

For additional information concerning our liquidity and capital resources, see Item 7 of this report. For a discussion of certain currency and liquidity risks associated with our international operations, see “Risk Factors—Risks Affecting Our Business—Our international operations expose us to various regulatory, currency, tax, legal and other risks.”

***European Union regulation and reform of “benchmarks,” including LIBOR, is ongoing and could have a material adverse effect on the value and return on our variable rate indebtedness.***

LIBOR and other interest rate and other types of indices which are deemed to be “benchmarks” are the subject of ongoing international regulatory reform in the European Union. Regulatory changes and the uncertainty as to the nature of such potential changes, alternative reference rates or other reforms could cause market volatility or disruptions for variable-rate debt instruments. Any changes announced by regulators or any other governance or oversight body, or future changes adopted thereby, in the method of determining LIBOR rates may impact reported LIBOR rates, and thereby affect our interest costs. In addition, in mid-2017, the U.K. Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021. Although we believe that our variable rate indebtedness provides for alternative methods of calculating the interest rate payable on such indebtedness if LIBOR is not reported, uncertainty as to the extent and manner of future changes may adversely affect the value of our variable rate indebtedness.

## **Other Risks**

***We face risks from natural disasters and extreme weather, which can disrupt our operations and cause us to incur substantial additional capital and operating costs.***

A substantial number of our domestic facilities are located in Florida, Alabama, Louisiana, Texas, North Carolina, South Carolina and other coastal states, which subjects them to the risks associated with severe tropical storms, hurricanes and tornadoes, and many other of our facilities are subject to the risk of earthquakes, floods or other similar casualty events. These events could cause substantial damages, including downed telephone lines, flooded facilities, power outages, fuel shortages, damaged or destroyed property and equipment, and work interruptions. Although we maintain property and casualty insurance on our property (excluding our above ground outside plant) and may, under certain circumstances, be able to seek recovery of some additional costs through increased rates, only a portion of our additional costs directly related to such natural disasters have historically been recoverable. We cannot predict whether we will continue to be able to obtain insurance for catastrophic hazard-related losses or, if obtainable and carried, whether this insurance will be adequate to cover such losses. In addition, we expect any insurance of this nature to be subject to substantial deductibles, retentions and coverage exclusions, and the premiums to be based on our loss experience. Moreover, many climate experts have predicted an increase in extreme weather events in the future, which would increase our exposure to casualty risks. For all these reasons, any future hazard-related costs and work interruptions could adversely affect our operations and our financial condition.

***Terrorist attacks and other acts of violence or war may adversely affect the financial markets and our business.***

Future terrorist attacks or armed conflicts may directly affect our physical facilities or those of our customers. These events could cause consumer confidence and spending to decrease or result in increased volatility in the U.S. and world financial markets and economy. Any of these occurrences could materially adversely affect our business.

***If conditions or assumptions differ from the judgments, assumptions or estimates used in our critical accounting policies or forward-looking statements, our consolidated financial statements and related disclosures could be materially affected.***

The preparation of financial statements and related disclosures in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make judgments, assumptions and estimates that affect the amounts reported in our consolidated financial statements and accompanying notes including the judgments, assumptions and estimates applied pursuant to our critical accounting policies, which are described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates” in Item 7 of this report. If future events or assumptions differ significantly from the judgments, assumptions and estimates applied in connection with preparing our historical financial statements, our future financial statements could be materially impacted.

While frequently presented with numeric specificity, the guidance and other forward-looking statements that we disseminate from time to time is based on numerous variables and assumptions (including, but not limited to, those related to industry performance and competition and general business, economic, market and financial conditions and additional matters specific to our business, as applicable) that are inherently subjective and speculative and are largely beyond our control. As a result, actual results may differ materially from our guidance or other forward-looking statements. Similarly, for a variety of reasons, we may change our intentions, strategies or plans at any time, which could materially alter our actual results from those previously anticipated. For additional information, see "Special Note Regarding Forward-Looking Statements" in Item 1 of this report.

In February 2019, we announced our expectation of attaining by the end of a three-year period \$800 million to \$1.0 billion of annualized run-rate Adjusted EBITDA (as defined in our quarterly earnings releases filed with the SEC) synergies and savings from our ongoing transformational initiatives, excluding \$450 to \$650 million in one-time costs to achieve these savings. Although we believe we are on track to attain these savings within this time frame, we cannot assure you of this.

***Lapses in our disclosure controls and procedures or internal control over financial reporting could materially and adversely affect our operations, profitability or reputation.***

We maintain (i) disclosure controls and procedures designed to provide reasonable assurances regarding the accuracy and completeness of our SEC reports and (ii) internal control over financial reporting designed to provide reasonable assurance regarding the reliability and compliance with GAAP of our financial statements. We cannot assure you that these measures will be effective. As of December 31, 2018, we concluded that we had two material weaknesses relating to our accounting for the Level 3 combination and for revenue transactions. These material weaknesses caused us to file our annual report on Form 10-K for the year ended December 31, 2018 after its original due date. Although we successfully remediated these material weaknesses during 2019, we cannot assure you that our remedial measures will avoid other control deficiencies in the future.

There can be no assurance that our disclosure controls and procedures or internal control over financial reporting will be effective in the future. As a result, it is possible that our current or future financial statements or SEC reports may not comply with generally accepted accounting principles or other applicable requirements, will contain a material misstatement or omission, or will not be available on a timely basis, any of which could cause investors to lose confidence in us and lead to, among other things, unanticipated legal, accounting and other expenses, delays in filing required financial disclosures or reports, enforcement actions by regulatory authorities, fines, penalties, the delisting of our securities, liabilities arising from shareholder litigation, restricted access to the capital markets and lower valuations of our securities.

***If we are required to record additional intangible asset impairments, we will be required to record a significant charge to earnings and reduce our stockholders' equity.***

As of December 31, 2019, approximately 48% of our total consolidated assets reflected on the consolidated balance sheet included in this report consisted of goodwill, customer relationships and other intangible assets. Under U.S. generally accepted accounting principles, these intangible assets must be tested for impairment on an annual basis or more frequently whenever events or circumstances indicate that their carrying value may not be recoverable. From time to time, including in the fourth quarter of 2018 and the first quarter of 2019, we have recorded large non-cash charges to earnings in connection with required reductions of the value of our intangible assets. If our intangible assets are determined to be impaired in the future, we may be required to record additional significant, non-cash charges to earnings during the period in which the impairment is determined to have occurred. Any such charges could, in turn, have a material adverse effect on our results of operation, financial condition or ability to comply with financial covenants in our debt instruments. Moreover, even if we conclude that our intangible assets are recorded at carrying values that are recoverable, we cannot assure you of the amount of cash we would receive in the event of a voluntary or involuntary sale of these assets.

***Shareholder activism efforts could cause a material disruption to our business***

While we always welcome constructive input from our shareholders and regularly engage in dialogue with our shareholders to that end, activist shareholders may from time to time engage in proxy solicitations, advance shareholder proposals or otherwise attempt to affect changes or acquire control over us. Responding to these actions can be costly and time-consuming, may disrupt our operations and divert the attention of the Board and management from the management of our operations and the pursuit of our business strategies, particularly if shareholders advocate actions that are not supported by other shareholders, our board or management.

***The Tax Cuts and Jobs Act will continue to have a substantial impact on us.***

The Tax Cuts and Jobs Act (the "Act") enacted in December 2017 significantly changed U.S. tax law by reducing the U.S. corporate income tax rate and making certain changes to U.S. taxation of income earned by foreign subsidiaries, capital expenditures, interest expense and various other items. The net impact of this Act, as applied to date, has been favorable to us. However, the Act is quite complex and the impacts could potentially change as additional regulatory guidance is received from the Internal Revenue Service. As a result, our views on the Act's ultimate impact on us could change.

***Additional changes in tax laws or tax audits could adversely affect us.***

Like all large multinational businesses, we are subject to multiple sets of complex and varying foreign, federal, state and local tax laws and rules. Legislators and regulators at various levels of government may from time to time change existing tax laws or regulations or enact new laws or regulations. In many cases, the application of existing, newly enacted or amended tax laws may be uncertain and subject to differing interpretations that could negatively impact our operating results or financial condition. We are also subject to frequent and regular audits by a broad range of foreign, federal, state and local tax authorities. These audits could subject us to tax liabilities if adverse positions are taken by these tax authorities.

We believe that we have adequately provided for tax contingencies. However, our tax audits and examinations may result in tax liabilities that differ materially from those that we have recognized in our consolidated financial statements. Because the ultimate outcomes of all of these matters are uncertain, we can give no assurance as to whether an adverse result from one or more of them will have a material effect on our financial results.

***The trading price of our common stock could be reduced if a large number of shares of our common stock are sold in the public market, or under various other circumstances.***

Our articles of incorporation currently authorize us to issue additional shares of our common stock, frequently without shareholder approval. Such additional issuances may dilute the beneficial ownership and voting power of our shareholders, and could reduce the trading price of our common stock. Similarly, the market price of our common stock could drop significantly if certain large holders of our common stock sell all or a substantial portion of their holdings in the public markets, or indicate their intent to do so. Similarly, the market price of our stock could be adversely affected if analysts or other market participants issue reports or make other statements that recommend the sale of our shares, or if we report financial results or other developments that are viewed negatively by investors.

***The rights agreement that we entered into to protect our ability to use our accumulated NOLs could discourage third parties from seeking strategic transactions with us that could be beneficial to our shareholders.***

On February 13, 2019, we entered into the rights agreement in an effort to deter acquisitions of our common stock that might reduce our ability to use our NOL carryforwards. Under the rights agreement, from and after the record date of February 25, 2019, each share of our common stock carries with it one preferred share purchase right until the earlier of the date when the preferred share purchase rights become exercisable or expire. The rights agreement and the preferred share purchase rights issuable thereunder could discourage a third party from proposing a change of control or other strategic transaction concerning CenturyLink or otherwise have the effect of delaying or preventing a change of control of CenturyLink that other shareholders may view as beneficial.

***Our other agreements and organizational documents and applicable law could similarly limit another party's ability to acquire us.***

In addition to other restrictions mentioned above, a number of provisions in our organizational documents and various provisions of applicable law may delay, defer or prevent a future takeover of CenturyLink unless the takeover is approved by our Board of Directors. These provisions could deprive our shareholders of any related takeover premium. For additional information, please see our Registration Statement on Form 8-A/A filed with the SEC on March 2, 2015.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.



## ITEM 2. PROPERTIES

Our property, plant and equipment consists principally of fiber-optic and metallic cables, high-speed transport equipment, electronics, switches, routers, cable landing stations, central office equipment, land and buildings related to our operations. Our gross property, plant and equipment consisted of the following components:

	As of December 31,	
	2019	2018
Land	2%	2%
Fiber, conduit and other outside plant <sup>(1)</sup>	45%	45%
Central office and other network electronics <sup>(2)</sup>	35%	35%
Support assets <sup>(3)</sup>	14%	15%
Construction in progress <sup>(4)</sup>	4%	3%
Gross property, plant and equipment	100%	100%

(1) Fiber, conduit and other outside plant consists of fiber and metallic cables, conduit, poles and other supporting structures.

(2) Central office and other network electronics consists of circuit and packet switches, routers, transmission electronics and electronics providing service to customers.

(3) Support assets consist of buildings, cable landing stations, data centers, computers and other administrative and support equipment.

(4) Construction in progress includes inventory held for construction and property of the aforementioned categories that has not been placed in service as it is still under construction.

We own substantially all of our telecommunications equipment required for our business. However, we lease from third parties certain facilities, plant, equipment under various finance and operating lease arrangements when the leasing arrangements are more favorable to us than purchasing the assets. We also own and lease administrative offices in major metropolitan locations both in the United States and internationally. Substantially all of our network electronics equipment is located in buildings or on land that we own or lease, typically within our local service area. Outside of our local service area, our assets are generally located on real property pursuant to an agreement with the property owner or another person with rights to the property. It is possible that we may lose our rights under one or more of these agreements, due to their termination or expiration or in connection with legal challenges to our rights under such agreements. With the acquisition of Level 3 on November 1, 2017, we acquired, among other things, title or leasehold rights to various cable landing stations and data centers throughout the world related to undersea and terrestrial cable systems.

Our net property, plant and equipment was approximately \$26.1 billion and \$26.4 billion at December 31, 2019 and 2018, respectively. Substantial portions of our property, plant and equipment is pledged to secure the long-term debt of our subsidiaries or the guarantee obligations of our subsidiary guarantors. For additional information, see Note 9—Property, Plant and Equipment to our consolidated financial statements in Item 8 of Part II of this report.

## ITEM 3. LEGAL PROCEEDINGS

The information contained under the subheadings "Pending Matters" and "Other Proceedings and Disputes" in Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements included in Item 8 of Part II of this report is incorporated herein by reference.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed on the New York Stock Exchange ("NYSE") and the Berlin Stock Exchange and is traded under the symbol CTL and CYT, respectively.

At February 21, 2020, there were approximately 93,000 stockholders of record, although there were significantly more beneficial holders of our common stock.

As described in greater detail in "Risk Factors" in Item 1A of Part I of this report, the declaration and payment of dividends is at the discretion of our Board of Directors, and will depend upon our financial results, cash requirements, future prospects and other factors deemed relevant by our Board of Directors.

#### Issuer Purchases of Equity Securities

The following table contains information about shares of our previously-issued common stock that we withheld from employees upon vesting of their stock-based awards during the fourth quarter of 2019 to satisfy the related tax withholding obligations:

Period	Total Number of Shares Withheld for Taxes	Average Price Paid Per Share
October 2019	16,585	\$ 11.57
November 2019	185,887	13.15
December 2019	12,368	13.70
Total	214,840	

#### Equity Compensation Plan Information

See Item 12 of this report.

## ITEM 6. SELECTED FINANCIAL DATA

The following tables of selected consolidated financial data should be read in conjunction with, and are qualified by reference to, our consolidated financial statements and notes thereto in Item 8 of Part II and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of Part II of this report.

The tables of selected financial data shown below are derived from our audited consolidated financial statements, which include the operating results, cash flows and financial condition of Level 3 beginning November 1, 2017. These historical results are not necessarily indicative of results that you can expect for any future period.

The following table summarizes selected financial information from our consolidated statements of operations.

	Years Ended December 31, <sup>(1)</sup>				
	2019 <sup>(2)(3)(4)</sup>	2018 <sup>(2)(3)(4)(5)</sup>	2017 <sup>(3)(4)(5)</sup>	2016 <sup>(3)(4)</sup>	2015 <sup>(4)</sup>
(Dollars in millions, except per share amounts and shares in thousands)					
Operating revenue	\$ 22,401	23,443	17,656	17,470	17,900
Operating expenses	25,127	22,873	15,647	15,137	15,321
Operating (loss) income	\$ (2,726)	570	2,009	2,333	2,579
(Loss) income before income tax expense	\$ (4,766)	(1,563)	540	1,020	1,316
Net (loss) income	\$ (5,269)	(1,733)	1,389	626	878
Basic (loss) earnings per common share	\$ (4.92)	(1.63)	2.21	1.16	1.58
Diluted (loss) earnings per common share	\$ (4.92)	(1.63)	2.21	1.16	1.58
Dividends declared per common share	\$ 1.00	2.16	2.16	2.16	2.16
Weighted average basic common shares outstanding	1,071,441	1,065,866	627,808	539,549	554,278
Weighted average diluted common shares outstanding	1,071,441	1,065,866	628,693	540,679	555,093

- (1) See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations" in Item 7 of Part II of this report and in our preceding annual reports on Form 10-K for a discussion of unusual items affecting the results for each of the years presented.
- (2) During 2019 and 2018, we recorded non-cash, non-tax-deductible goodwill impairment charges of \$6.5 billion and \$2.7 billion, respectively.
- (3) During 2019, 2018, 2017 and 2016, we incurred Level 3 acquisition-related expenses of \$234 million, \$393 million, \$271 million and \$52 million, respectively. For additional information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Acquisition of Level 3" and Note 2—Acquisition of Level 3 to our consolidated financial statements in Item 8 of Part II of this report.
- (4) During 2019, 2018, 2017, 2016 and 2015, we recognized an incremental \$157 million, \$171 million, \$186 million, \$201 million and \$215 million, respectively, of revenue associated with the Federal Communications Commission ("FCC") Connect America Fund Phase II support program, as compared to revenue received under the previous interstate USF program.
- (5) The enactment of the Tax Cuts and Jobs Act in December 2017 resulted in a re-measurement of our deferred tax assets and liabilities at the new federal corporate tax rate of 21%. The re-measurement resulted in tax expense of \$92 million for 2018 and a tax benefit of approximately \$1.1 billion for 2017.

Selected financial information from our consolidated balance sheets is as follows:

	As of December 31,				
	2019	2018	2017	2016	2015
	(Dollars in millions)				
Net property, plant and equipment <sup>(1)</sup>	\$ 26,079	26,408	26,852	17,039	18,069
Goodwill <sup>(1)(2)</sup>	21,534	28,031	30,475	19,650	20,742
Total assets <sup>(3)(4)</sup>	64,742	70,256	75,611	47,017	47,604
Total long-term debt <sup>(3)(5)</sup>	34,694	36,061	37,726	19,993	20,225
Total stockholders' equity	13,470	19,828	23,491	13,399	14,060

- (1) During 2016, as a result of our then pending sale of a portion of our colocation business and data centers, we reclassified \$1.1 billion in net property, plant and equipment and \$1.1 billion of goodwill to assets held for sale which is included in other current assets on our consolidated balance sheet. See Note 3—Sale of Data Centers and Colocation Business to our consolidated financial statements in Item 8 of Part II of this report, for additional information.
- (2) During 2019 and 2018, we recorded non-cash, non-tax-deductible goodwill impairment charges of \$6.5 billion and \$2.7 billion, respectively.
- (3) In 2015, we adopted both ASU 2015-03 "Simplifying the Presentation of Debt Issuance Costs" and ASU 2015-17 "Balance Sheet Classification of Deferred Taxes" by retrospectively applying the requirements of the ASUs to our previously issued consolidated financial statements.
- (4) In 2019, we adopted ASU 2016-02 "Leases (ASC 842)" by using the non-comparative transition option pursuant to ASU 2018-11. Therefore, we have not restated comparative period financial information for the effects of ASC 842.
- (5) Total long-term debt includes current maturities of long-term debt and finance lease obligations of \$305 million for the year ended December 31, 2016 associated with assets held for sale. For additional information on our total long-term debt, see Note 7—Long-Term Debt and Credit Facilities to our consolidated financial statements in Item 8 of Part II of this report. For total contractual obligations, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Future Contractual Obligations" in Item 7 of Part II of this report.

Selected financial information from our consolidated statements of cash flows is as follows:

	Years Ended December 31,				
	2019	2018	2017	2016	2015
	(Dollars in millions)				
Net cash provided by operating activities	\$ 6,680	7,032	3,878	4,608	5,153
Net cash used in investing activities	(3,570)	(3,078)	(8,871)	(2,994)	(2,853)
Net cash (used in) provided by financing activities	(1,911)	(4,023)	5,356	(1,518)	(2,301)
Capital Expenditures	(3,628)	(3,175)	(3,106)	(2,981)	(2,872)

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*All references to "Notes" in this Item 7 of Part II refer to the Notes to Consolidated Financial Statements included in Item 8 of Part II of this report. Certain statements in this report constitute forward-looking statements. See "Special Note Regarding Forward-Looking Statements" in Item 1 of Part I of this report for factors relating to these statements and "Risk Factors" in Item 1A of Part I of this report for a discussion of certain risk factors applicable to our business, financial condition, results of operations, liquidity or prospects.*

### Overview

We are an international facilities-based communications company engaged primarily in providing a broad array of integrated services to our business and residential customers. We believe, we are among the largest providers of communications services to domestic and global enterprise customers and the second largest enterprise wireline telecommunications company in the United States. We provide services in over 60 countries, with most of our revenue being derived in the United States.

We continue expanding the reach and capabilities of our network by investing at the edge of our world class fiber network consisting of approximately 450,000 route miles, connecting approximately 170,000 fiber-based on-net enterprise buildings, connecting to public and private data centers and subsea networks. We are also investing in new technologies, leveraging our extensive fiber network that provide customers with dynamic bandwidth and low-latency edge computing services to enable their digital transformation.

### Acquisition of Level 3

On November 1, 2017, CenturyLink, Inc. ("CenturyLink") acquired Level 3 Communications, Inc. ("Level 3") through successive merger transactions, including a merger of Level 3 with and into a merger subsidiary, which survived such merger as our indirect wholly-owned subsidiary under the name of Level 3 Parent, LLC.

During the year ended December 31, 2019, we recognized \$234 million of integration and transformation-related expenses associated with our activities related to the Level 3 acquisition.

Our consolidated financial statements include the accounts of CenturyLink and its majority owned subsidiaries, including Level 3 beginning on November 1, 2017. Due to the significant size of the acquisition, direct comparison of our results of operations for the periods ending on or after December 31, 2017 to prior periods are less meaningful than usual.

As a result of the acquisition, Level 3's assets and liabilities have been revalued and recorded at their fair value. The assignment of estimated fair value requires a significant amount of judgment. The use of fair value measures affects the comparability of our post-acquisition financial information and may make it more difficult to predict earnings in future periods. We completed our final fair value determinations during the fourth quarter 2018. Our final fair value determinations were different than those preliminary values reflected in our consolidated financial statements at December 31, 2017 and resulted in an increase in goodwill of \$340 million and an increase to other noncurrent assets offset by a decrease in customer relationships during 2018.

In the discussion that follows, we refer to the business that we operated prior to the Level 3 acquisition as "Legacy CenturyLink", and we refer to the incremental business activities that we now operate as a result of the Level 3 acquisition as "Legacy Level 3."

For additional information about our acquisition of Level 3, see (i) Note 2—Acquisition of Level 3 to our consolidated financial statements in Item 8 of Part II of this report and (ii) the documents we filed with the SEC on February 13, 2017, November 1, 2017 and January 16, 2018.

## Sale of Data Centers and Colocation Business

On May 1, 2017, we sold a portion of our data centers and colocation business to a consortium led by BC Partners, Inc. and Medina Capital ("the Purchaser") in exchange for pre-tax cash proceeds of \$1.8 billion and a minority stake in the limited partnership that owns the consortium's global secure infrastructure company, Cyxtera Technologies. As part of the transaction, the Purchaser acquired 57 of our data centers and assumed our capital lease obligations, which amounted to \$294 million on May 1, 2017, related to the divested properties.

Our colocation business generated revenue (excluding revenue from affiliates) of \$210 million from January 1, 2017 through May 1, 2017.

This transaction did not meet the accounting requirements for a sale-leaseback transaction as described in ASC 840-40, *Leases - Sale-Leaseback Transaction*. Under the failed-sale-leaseback accounting model, after the transaction we were deemed under GAAP to still own certain real estate assets sold to the Purchaser.

After factoring in the costs to sell the data centers and colocation business, excluding the impacts from the failed-sale-leaseback accounting treatment, the sale resulted in a \$20 million gain as a result of the aggregate value of the consideration we received exceeding the carrying value of the assets sold and liabilities assumed. Based on the fair market values of the failed-sale-leaseback assets, the failed-sale-leaseback accounting treatment resulted in a loss of \$102 million as a result of the requirement to treat a certain amount of the pre-tax cash proceeds from the sale of the assets as though it were the result of a financing obligation. The combined net loss of \$82 million is included in selling, general and administrative expenses in our consolidated statement of operations for the year ended December 31, 2017.

Effective with the January 1, 2019 implementation date of the new accounting standard for Leases (ASU 2016-02), this particular accounting treatment was no longer applicable to our May 1, 2017 divestiture transaction. Consequently, the above-described real estate assets and corresponding financing obligation were derecognized as of January 1, 2019 from our future consolidated balance sheets resulting in an increase of \$115 million to stockholder's equity.

See Note 3—Sale of Data Centers and Colocation Business for additional information on the sale and Note 1—Background And Summary Of Significant Accounting Policies for discussion of the impact of implementing ASU 2016-02 to our consolidated financial statements in Item 8 of Part II of this report.

## Reporting Segments

Our reporting segments are organized by customer focus:

- *International and Global Accounts Management ("IGAM") Segment.* Under our IGAM segment, we provide our products and services to approximately 200 global enterprise customers and to enterprises and carriers in three operating regions: Europe Middle East and Africa, Latin America and Asia Pacific. IGAM is responsible for working with large multinational organizations in support of their business and IT transformation strategies. With our extensive fiber network, and our ability to provide global networking solutions and a differentiated customer experience spanning the globe, we believe we are well-positioned to serve customers within this segment. This segment contains some of our largest customers which could result in revenue fluctuations driven by contract renegotiations or churn. We remain focused on investing globally to expand our reach, scale and technology to grow services that we can offer to our global and international customers;
- *Enterprise Segment.* Under our enterprise segment, we provide our products and services to large and regional domestic and global enterprises, as well as the public sector, which includes the U.S. Federal government, state and local governments and research and education institutions. Our ability to meet our enterprise customers' increasing needs for integrated data, broadband and voice services with our extensive product portfolio and our local approach to the market are differentiators. We plan to grow revenue within our Enterprise segment by leveraging our extensive enterprise-focused fiber network to deliver dynamic solutions our customers require to meet their growing and evolving needs;

- *Small and Medium Business ("SMB") Segment.* Under our SMB segment, we provide our products and services to small and medium businesses directly and through our indirect channel partners. We generally designate businesses as small or medium if they have fewer than 500 employees. With traditional voice services representing a significant portion of SMB segment revenues, we believe revenue growth will continue to be a challenge for this segment. We believe by bringing products specific to meet the needs of this segment, adding fiber-fed on-net buildings and collaborating with our indirect channel partners, we will be better positioned to meet our SMB customers' needs;
- *Wholesale Segment.* Under our wholesale segment, we provide our products and services to a wide range of other communication providers across the wireline, wireless, cable, voice and data center sectors. Our wholesale segment contributes scale that we leverage in connection with serving our Enterprise customers. We plan to continue to partner with 5G wireless providers to support their growing needs for transmission capacity, which in turn will place our network closer to our customers. Nonetheless, we expect the relative contributions of our wholesale segment will decline over the longer term due to competitive pressures. In the meantime, we expect our wholesale segment will remain volatile from quarter to quarter given the relatively large size of wholesale customer contracts.
- *Consumer Segment.* Under our consumer segment, we provide our products and services to residential customers. For this segment, we expect continued declines in revenues from our traditional voice services, as consumers continue their long-term migration towards alternative products and services, and from our video business, which we are no longer actively marketing to consumers. We are aggressively investing in fiber to drive higher average revenue per broadband customer to offset legacy voice and video declines. Additionally, we continue to invest in our own digital transformation to improve our service delivery and reduce our costs. At December 31, 2019, we served 4.7 million consumer broadband subscribers. Our methodology for counting consumer broadband subscribers may not be comparable to those of other companies. We no longer report or discuss access lines as a key operating metric given the significant migration in our industry from legacy services to IP-enabled services.

See Note 17—Segment Information to our consolidated financial statements in Item 8 of Part II of this report for additional information.

We categorize our revenue among the following four product and services categories that we sell to business customers:

- *IP and Data Services*, which include primarily VPN data networks, Ethernet, IP, content delivery and other ancillary services;
- *Transport and Infrastructure*, which includes wavelengths, dark fiber, private line, colocation and data center services, including cloud, hosting and application management solutions, professional services and other ancillary services;
- *Voice and Collaboration*, which includes primarily local and long-distance voice, including wholesale voice, and other ancillary services, as well as VoIP services; and
- *IT and Managed Services*, which include information technology services and managed services, which may be purchased in conjunction with our other network services.

We categorize revenue among the following four categories that we sell to residential customers:

- *Broadband*, which includes high speed, fiber-based and lower speed DSL broadband services;
- *Voice*, which include local and long-distance services;
- *Regulatory Revenue*, which consist of (i) CAF, USF and other support payments designed to reimburse us for various costs related to certain telecommunications services and (ii) other operating revenue from the leasing and subleasing of space; and
- *Other*, which include retail video services (including our linear TV services), professional services and other ancillary services.

## Trends Impacting Our Operations

Our consolidated operations have been, and are expected to continue to be, impacted by the following company-wide trends:

- Customers' demand for automated products and services and competitive pressures will require that we continue to invest in new technologies and automated processes to improve the customer experience and reduce our operating expenses.
- The increasingly digital environment and the growth in online video require robust, scalable network services. We are continuing to enhance our product capabilities and simplify our product portfolio based on demand and profitability to enable customers to have access to greater bandwidth.
- Businesses continue to adopt distributed, global operating models. We are expanding and densifying our fiber network, connecting more buildings to our network to generate revenue opportunities and reduce our costs associated with leasing networks from other carriers.
- Industry consolidation, coupled with changes in regulation, technology and customer preferences, are significantly reducing demand for our traditional voice services and are pressuring some other revenue streams, while other advances, such as the need for lower latency provided by Edge computing or the implementation of 5G networks, are expected to create opportunities.
- The operating margins of several of our newer, more technologically advanced services, some of which may connect to customers through other carriers, are lower than the operating margins on our traditional, on-net wireline services.

Additional trends impacting our segments are discussed elsewhere in this Item 7.

## 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 five reporting segments in more detail.

### Consolidated Revenue

The following table summarizes our consolidated operating revenue recorded under each of our eight above described revenue categories:

	Year Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
IP and Data Services	\$ 7,000	6,961	1 %	6,961	3,594	94 %
Transport and Infrastructure	5,203	5,433	(4)%	5,433	3,663	48 %
Voice and Collaboration	4,021	4,309	(7)%	4,309	3,304	30 %
IT and Managed Services	535	624	(14)%	624	644	(3)%
Broadband	2,876	2,822	2 %	2,822	2,698	5 %
Voice	1,881	2,173	(13)%	2,173	2,531	(14)%
Regulatory	634	729	(13)%	729	731	— %
Other	251	392	(36)%	392	491	(20)%
Total operating revenue	\$ 22,401	23,443	(4)%	23,443	17,656	33 %



Our consolidated revenue decreased by \$1.0 billion, or 4%, for the year ended December 31, 2019 as compared to the year ended December 31, 2018 largely due to continued declines in voice revenue as customers transition to other voice and non-voice services, our deemphasis of low margin equipment sales within Transport and Infrastructure, churn in legacy contracts within IT and Managed Services, and the derecognition of our prior failed-sale leaseback, partially offset by growth in our IP and Data services and Broadband revenue. See our segment results below for additional information.

Our consolidated revenue increased by \$5.8 billion or 33%, for the year ended December 31, 2018 compared to the year ended December 31, 2017 primarily due to the inclusion of \$6.7 billion in Legacy Level 3 post-acquisition operating revenue in our consolidated operating revenue. See our segment results below for additional information.

## Operating Expenses

These expense classifications may not be comparable to those of other companies.

The following tables summarize our operating expenses:

	Years Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Cost of services and products (exclusive of depreciation and amortization)	\$ 10,077	10,862	(7)%	10,862	8,203	32%
Selling, general and administrative	3,715	4,165	(11)%	4,165	3,508	19%
Depreciation and amortization	4,829	5,120	(6)%	5,120	3,936	30%
Goodwill impairment	6,506	2,726	139 %	2,726	—	nm
Total operating expenses	\$ 25,127	22,873	10 %	22,873	15,647	46%

Percentages greater than 200% and comparison between positive and negatives values or to/from zero values are considered not meaningful.

## Cost of Services and Products (exclusive of depreciation and amortization)

Cost of services and products (exclusive of depreciation and amortization) decreased by \$785 million, or 7%, for the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease in costs of services and products (exclusive of depreciation and amortization) was primarily due to reductions in (i) salaries and wages and employee-related expenses from lower headcount directly related to operating and maintaining our network, (ii) network expenses and voice usage costs, (iii) customer premises equipment costs from lower sales, in (iv) content costs from Prism TV, and (v) lower space and power expenses. These reductions were partially offset by increases in direct taxes and fees, USF rates, professional services, customer installation costs and right of way and dark fiber expenses.

Cost of services and products (exclusive of depreciation and amortization) increased by \$2.7 billion, or 32%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The increase in costs of services and products (exclusive of depreciation and amortization) was attributable to the inclusion of \$3.2 billion Legacy Level 3 post-acquisition costs (net of intercompany eliminations) in our consolidated costs of services and products (exclusive of depreciation and amortization). Costs of services and products (exclusive of depreciation and amortization) for Legacy CenturyLink decreased \$588 million, or 8%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The decrease was primarily due to reductions in salaries and wages and employee related expenses from lower headcount, reduced overtime, lower real estate and power expenses and a decline in content costs for Prism TV.

## Selling, General and Administrative

Selling, general and administrative expenses decreased by \$450 million, or 11%, for the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease in selling, general and administrative expenses was primarily due to reductions in salaries and wages and employee-related expenses from lower headcount, contract labor costs, lower rent expense in 2019 and from higher exited lease obligations in 2018, hardware and software maintenance costs, marketing and advertising expenses, bad debt expense, property and other taxes and an increase in the amount of labor capitalized or deferred and gains on the sale of assets. These reductions were slightly offset by higher professional fees, network infrastructure maintenance expenses and commissions.

Selling, general and administrative expenses increased by \$657 million, or 19%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The increase in selling, general and administrative expenses was attributable to the inclusion of \$1.1 billion legacy Level 3 post-acquisition costs (net of intercompany eliminations) in our consolidated selling, general and administrative expenses. Selling, general and administrative expenses for Legacy CenturyLink decreased by \$444 million, or 14%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The decrease was primarily due to (i) reductions in salaries and wages and employee related expenses from lower headcount, (ii) reduced overtime, professional fees, bad debt and marketing expenses and (iii) a loss on sale of data centers in 2017.

## Depreciation and Amortization

The following tables provide detail of our depreciation and amortization expense:

	Years Ended December 31,			Years Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Depreciation	\$ 3,089	3,339	(7)%	3,339	2,710	23%
Amortization	1,740	1,781	(2)%	1,781	1,226	45%
Total depreciation and amortization	\$ 4,829	5,120	(6)%	5,120	3,936	30%

Depreciation expense decreased by \$250 million, or 7%, for the year ended December 31, 2019 as compared to the year ended December 31, 2018 primarily due to the impact of the full depreciation of plant, property, and equipment assigned a one year life at the time we acquired Level 3 of \$200 million that were fully depreciated in 2018, the impact of annual rate depreciable life changes of \$108 million, and the discontinuation of depreciation on failed sale leaseback assets on \$69 million. These decreases were partially offset by net growth in depreciable assets of \$93 million and increases associated with changes in our estimates of the remaining economic life of certain network assets of \$34 million.

Depreciation expense increased by \$629 million, or 23%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017, primarily due to the inclusion of \$763 million Legacy Level 3 post-acquisition depreciation expense in our consolidated depreciation expense, which was partially offset by lower Legacy CenturyLink depreciation expense.

Amortization expense decreased by \$41 million, or 2%, for the year ended December 31, 2019 as compared to the year ended December 31, 2018 primarily due to a \$71 million decrease associated with the use of accelerated amortization methods for a portion of the customer intangibles and a \$25 million decrease associated with annual rate amortizable life changes of software for the period. These decreases were partially offset by net growth in amortizable assets of \$55 million for the period.

Amortization expense increased by \$555 million, or 45%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The increase in amortization expense was primarily attributable to the inclusion of \$659 million, of post-acquisition Legacy Level 3 amortization expense in our consolidated amortization expense. Legacy CenturyLink's amortization expense was lower primarily due to the use of accelerated amortization for a portion of our customer relationship assets and our entry into an agreement to sell a portion of our data centers and colocation business. The effect of using an accelerated amortization method resulted in an incremental decline in expense as the intangible assets amortize. In 2017, we ceased amortizing the intangible assets of our colocation business when we entered into the agreement to sell that business. Absent the sale, we estimate that we would have recorded additional amortization expense of \$13 million from January 1, 2017 through May 1, 2017, related to the conveyed intangible assets. In addition, amortization of capitalized software was lower due to software becoming fully amortized faster than new software was acquired or developed.

## Goodwill Impairments

We are required to perform impairment tests related to our goodwill annually, which we perform as of October 31, or sooner if an indicator of impairment occurs. Both our January 2019 internal reorganization and the decline in our stock price triggered impairment testing in the first quarter of 2019. Consequently, we evaluated our goodwill in January 2019 and again as of March 31, 2019.

When we performed our annual impairment test in the fourth quarter of 2019 the results indicated we did not have any impairment charges. When we performed our impairment tests during the first quarter of 2019, we concluded that the estimated fair value of certain of our reporting units was less than our carrying value of equity as of the date of each of our triggering events during the first quarter of 2019. As a result, we recorded non-cash, non-tax-deductible goodwill impairment charges aggregating to \$6.5 billion in the quarter ended March 31, 2019. Additionally, when we performed our annual impairment test in the fourth quarter of 2018 we concluded that the estimated fair value of our consumer reporting unit was less than our carrying value of equity for such reporting unit and we recorded a non-cash non-tax-deductible goodwill impairment charge of approximately \$2.7 billion in the fourth quarter of 2018.

See Note 4—Goodwill, Customer Relationships and Other Intangible Assets for further details on these tests and impairment charges.

## Other Consolidated Results

The following tables summarize our total other expense, net and income tax expense (benefit):

	Years Ended December 31,			Years Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Interest expense	\$ (2,021)	(2,177)	(7)%	(2,177)	(1,481)	47%
Other (loss) income, net	(19)	44	nm	44	12	nm
Total other expense, net	<u>\$ (2,040)</u>	<u>(2,133)</u>	<u>(4)%</u>	<u>(2,133)</u>	<u>(1,469)</u>	<u>45%</u>
Income tax expense (benefit)	<u>\$ 503</u>	<u>170</u>	<u>nm</u>	<u>170</u>	<u>(849)</u>	<u>nm</u>

Percentages greater than 200% and comparison between positive and negatives values or to/from zero values are considered not meaningful.

## Interest Expense

Interest expense decreased by \$156 million, or 7%, for the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease in interest expense was primarily due to the decrease in long-term debt from an average of \$36.9 billion in 2018 to \$35.4 billion in 2019.

Interest expense increased by \$696 million, or 47%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The increase in interest expense was primarily due to our assumption of debt in conjunction with the acquisition of Level 3.

## **Other Income, Net**

Other income, net reflects certain items not directly related to our core operations, including our share of income from partnerships we do not control, interest income, gains and losses from non-operating asset dispositions, foreign currency gains and losses and components of net periodic pension and postretirement benefit costs. Other (loss) income, net decreased by \$63 million, for the year ended December 31, 2019 as compared to the year ended December 31, 2018. This decrease in other (loss) income, net was primarily due to an increase in components of net periodic pension and postretirement benefit costs in 2019, partially offset by a gain on extinguishment of debt in 2019 compared to a loss on extinguishment of debt in 2018.

Other income, net increased by \$32 million, for the year ended December 31, 2018 as compared to the year ended December 31, 2017. This increase in other income, net was primarily due to a decrease in components of net periodic pension and postretirement benefit costs in 2018.

## **Income Tax Expense (Benefit)**

For the years ended December 31, 2019, 2018 and 2017, our effective income tax rate was (10.6)%, (10.9)%, and (157.2)%, respectively. The effective tax rates for the year ended December 31, 2019 and December 31, 2018 include a \$1.4 billion and a \$572 million unfavorable impact of non-deductible goodwill impairments, respectively. Additionally, the effective tax rate for the year ended December 31, 2018 reflects the impact of purchase price accounting adjustments resulting from the Level 3 acquisition and from the tax reform impact of those adjustments of \$92 million. The 2018 unfavorable impacts were partially offset by the tax benefit of a 2017 tax loss carryback to 2016 of \$142 million. The effective tax rate for the year ended December 31, 2017 reflects the tax benefit of approximately \$1.1 billion from re-measurement of deferred taxes to the new federal corporate tax rate of 21% as a result of the enactment of the Tax Cuts and Jobs Act in December 2017. The re-measurement resulted in a tax benefit recorded in the fourth quarter of 2017, which was the predominant factor contributing to our recognition of an \$849 million income tax benefit for 2017. The 2017 effective tax rate also includes a \$27 million tax expense related to the sale of a portion of our data centers and colocation business and a \$32 million tax impact of non-deductible transaction costs related to the Level 3 acquisition. See Note 16—Income Taxes to our consolidated financial statements in Item 8 of Part II of this report and "Critical Accounting Policies and Estimates—Income Taxes" below for additional information.

## Segment Results

### General

Reconciliation of segment revenue to total operating revenue is below:

	Year Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Operating revenue			
International and Global Accounts	\$ 3,596	3,653	1,382
Enterprise	6,133	6,133	4,186
Small and Medium Business	2,956	3,144	2,418
Wholesale	4,074	4,397	3,026
Consumer	5,642	6,116	6,451
Total segment revenue	\$ 22,401	23,443	17,463
Operations and Other <sup>(1)</sup>	—	—	193
Total operating revenue	\$ 22,401	23,443	17,656

<sup>(1)</sup> On May 1, 2017 we sold a portion of our data centers and colocation business. See Note 3—Sale of Data Centers and Colocation Business to our consolidated financial statements in Item 8 of Part II of this report, for additional information.

Reconciliation of segment EBITDA to total adjusted EBITDA is below:

	Year Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Adjusted EBITDA			
International and Global Accounts	\$ 2,286	2,341	821
Enterprise	3,490	3,522	2,456
Small and Medium Business	1,870	2,013	1,581
Wholesale	3,427	3,666	2,566
Consumer	4,914	5,105	5,136
Total segment EBITDA	\$ 15,987	16,647	12,560
Operations and Other EBITDA	(7,216)	(8,045)	(6,504)
Total adjusted EBITDA	\$ 8,771	8,602	6,056

For additional information on our reportable segments and product and services categories, see Note 17—Segment Information to our consolidated financial statements in Item 8 of Part II of this report.

**International and Global Accounts Management Segment**

	Year Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Revenue:						
IP and Data Services	\$ 1,676	1,728	(3)%	1,728	528	227 %
Transport and Infrastructure	1,318	1,276	3 %	1,276	406	214 %
Voice and Collaboration	377	387	(3)%	387	176	120 %
IT and Managed Services	225	262	(14)%	262	272	(4)%
Total revenue	3,596	3,653	(2)%	3,653	1,382	164 %
Total expense	1,310	1,312	— %	1,312	561	134 %
Total adjusted EBITDA	\$ 2,286	2,341	(2)%	2,341	821	185 %

*Year Ended December 31, 2019 Compared to the same periods Ended December 31, 2018 and December 31, 2017*

Segment revenue decreased \$57 million, or 2% for the year ended December 31, 2019 compared to December 31, 2018 and increased \$2.3 billion or 164%, for the year ended December 31, 2018 compared to December 31, 2017. Excluding the impact of foreign currency fluctuations, segment revenue decreased \$5 million, or less than 1% for the year ended December 31, 2019 compared to December 31, 2018, primarily due to the following factors:

- IT and managed services revenue declined due to a large unprofitable contract with a European customer that renegotiated in the second quarter of 2018 and higher overall churn;
- IP and data services revenue declined mostly due to reduced rates and lower traffic;
- voice and collaboration revenue decreased due to higher churn and benefited from certain non-recurring revenue items in 2018; and
- transport and infrastructure revenue increased due to expanded services for large customers and higher rates.
- Segment revenue increased \$2.3 billion, or 164%, for the year ended December 31, 2018 compared to December 31, 2017, primarily due to the Level 3 acquisition on November 1, 2017.

Segment expenses decreased by \$2 million, or less than 1%, for the year ended December 31, 2019 compared to December 31, 2018 primarily due to lower cost of services in line with lower revenue. Segment expenses increased by \$751 million, or 134%, for the year ended December 31, 2018 compared to December 31, 2017, primarily due to the Level 3 acquisition as noted above.

Segment adjusted EBITDA as a percentage of revenue was 64%, 64% and 59% for the year ended December 31, 2019, 2018 and 2017, respectively.

## Enterprise Segment

	Year Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Revenue:						
IP and Data Services	\$ 2,763	2,673	3 %	2,673	1,515	76 %
Transport and Infrastructure	1,545	1,550	— %	1,550	1,116	39 %
Voice and Collaboration	1,567	1,607	(2)%	1,607	1,245	29 %
IT and Managed Services	258	303	(15)%	303	310	(2)%
Total revenue	6,133	6,133	— %	6,133	4,186	47 %
Total expense	2,643	2,611	1 %	2,611	1,730	51 %
Total adjusted EBITDA	\$ 3,490	3,522	(1)%	3,522	2,456	43 %

### Year Ended December 31, 2019 Compared to the same periods Ended December 31, 2018 and December 31, 2017

Segment revenue remained unchanged for the year ended December 31, 2019 compared to December 31, 2018 and increased \$1.9 billion or 47% for the year ended December 31, 2018 compared to December 31, 2017, due to the following factors:

- For the year ended 2019 compared to 2018, IP and data services revenue increased, primarily driven by an increase in rates, and for the period ended 2018 compared to 2017, the increase was driven mainly by the acquisition of Level 3;
- for both periods, IT and managed services revenue declined mainly due to churn in legacy managed services contracts;
- for the year ended 2019 compared to 2018, voice and collaboration revenue decreased as customers continue to disconnect traditional voice TDM service and transition to newer (low cost) products such as VoIP, and for the year ended 2018 compared to 2017, voice and collaboration revenue increased due to the Level 3 acquisition partially offset by migration from traditional TDM services to VoIP; and
- for the year ended 2019 compared to 2018, transport and infrastructure revenue decreased due to our deemphasis of low-margin equipment and lower professional services, and for the year ended 2018 compared to 2017, transport and infrastructure increased due to the Level 3 acquisition partially offset by lower equipment sales.

Segment expenses increased by \$32 million or 1% for the year ended December 31, 2019 compared to December 31, 2018 and \$881 million or 51% for the year ended December 31, 2018 compared to December 31, 2017, primarily due to:

- For the year ended 2019 compared to 2018, selling, general and administrative costs decreased due to lower headcount related costs and external commissions, and for the year ended 2018 compared to 2017, selling, general and administrative costs increased due to the Level 3 acquisition; and
- for the year ended 2018 compared to 2017, cost of services and products increased primarily driven by the higher revenues from the Level 3 acquisition, increased rates and higher offnet costs.

Segment adjusted EBITDA as a percentage of revenue was 57%, 57% and 59% for the year ended December 31, 2019, 2018 and 2017, respectively.

## Small and Medium Business Segment

	Year Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Revenue:						
IP and Data Services	\$ 1,184	1,178	1 %	1,178	634	86%
Transport and Infrastructure	420	471	(11)%	471	419	12%
Voice and Collaboration	1,306	1,443	(9)%	1,443	1,314	10%
IT and Managed Services	46	52	(12)%	52	51	2%
Total revenue	2,956	3,144	(6)%	3,144	2,418	30%
Total expense	1,086	1,131	(4)%	1,131	837	35%
Total adjusted EBITDA	\$ 1,870	2,013	(7)%	2,013	1,581	27%

### Year Ended December 31, 2019 Compared to the same periods Ended December 31, 2018 and December 31, 2017

Segment revenue decreased \$188 million or 6% for the year ended December 31, 2019 compared to December 31, 2018 and increased \$726 million, or 30% for the year ended December 31, 2018 compared to December 31, 2017, primarily due to the following factors:

- For the year ended 2019 compared to 2018, voice and collaboration revenue decreased due to continued decline in demand for legacy voice services, and for the year ended 2018 compared to 2017, voice and collaboration increased due to the Level 3 acquisition, partially offset by continued legacy voice declines;
- for the year ended 2019 compared to 2018, transport and infrastructure revenue decreased primarily due to lower equipment sales as we continue to focus on driving profitable growth, and for the year ended 2018 compared to 2017, transport and infrastructure increased due to the Level 3 acquisition, partially offset by de-emphasis of Customer Premises Equipment ("CPE") sales; and
- for the year ended 2018 compared to 2017, IP and data services increased due to the Level 3 acquisition and VPN revenue growth as we continue to experience good momentum in this product within our small and medium business segment.

Segment expenses decreased by \$45 million or 4% for the year ended December 31, 2019 compared to December 31, 2018 and increased \$294 million or 35% for the year ended December 31, 2018 compared to December 31, 2017, primarily due to:

- For the year ended 2019 compared to 2018, expenses decreased due to lower network cost driven by declines in customer demand, and network expense synergies; and
- for the year ended 2018 compared to 2017, expenses increased due to the Level 3 acquisition.

Segment adjusted EBITDA as a percentage of revenue was 63%, 64% and 65% for the year ended December 31, 2019, 2018 and 2017, respectively.



## Wholesale Segment

	Year Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Revenue:						
IP and Data Services	\$ 1,377	1,382	— %	1,382	916	51 %
Transport and Infrastructure	1,920	2,136	(10)%	2,136	1,530	40 %
Voice and Collaboration	771	872	(12)%	872	569	53 %
IT and Managed Services	6	7	(14)%	7	11	(36)%
Total revenue	4,074	4,397	(7)%	4,397	3,026	45 %
Total expense	647	731	(11)%	731	460	59 %
Total adjusted EBITDA	\$ 3,427	3,666	(7)%	3,666	2,566	43 %

### Year Ended December 31, 2019 Compared to the same periods Ended December 31, 2018 and December 31, 2017

Segment revenue decreased \$323 million or 7% for the year ended December 31, 2019 compared to December 31, 2018 and increased \$1.4 billion or 45% for the year ended December 31, 2018 compared to December 31, 2017, primarily due to the following factors:

- For the year ended 2019 compared to 2018, transport and infrastructure revenue decreased due to continued declines in legacy private line and customer network consolidation and grooming efforts, and for the year ended 2018 compared to 2017 transport and infrastructure increased due to the Level 3 acquisition;
- for the year ended 2019 compared to 2018, voice and collaboration revenue decreased due to a combination of market rate compression, customer volume losses resulting from insourcing and industry consolidation, and for the year ended 2018 compared to 2017 voice and collaboration increased due to the Level 3 acquisition; and
- for the year ended 2018 compared to 2017 IP and data services revenue increased due to the Level 3 acquisition.

Segment expenses decreased by \$84 million, or 11%, for the year ended December 31, 2019 compared to December 31, 2018, primarily due to lower cost of services and products in line with the reduced customer demand, network grooming and operating synergies, and increased \$271 million, or 59%, for the year ended December 31, 2018 compared to December 31, 2017, due to the Level 3 acquisition.

Segment adjusted EBITDA as a percentage of revenue was 84%, 83% and 85% for the year ended December 31, 2019, 2018 and 2017, respectively.

## Consumer Segment

	Year Ended December 31,			Year Ended December 31,		
	2019	2018	% Change	2018	2017	% Change
	(Dollars in millions)			(Dollars in millions)		
Revenue:						
Broadband	\$ 2,876	2,822	2 %	2,822	2,698	5 %
Voice	1,881	2,173	(13)%	2,173	2,531	(14)%
Regulatory	634	729	(13)%	729	731	— %
Other	251	392	(36)%	392	491	(20)%
Total revenue	5,642	6,116	(8)%	6,116	6,451	(5)%
Total expense	728	1,011	(28)%	1,011	1,315	(23)%
Total adjusted EBITDA	\$ 4,914	5,105	(4)%	5,105	5,136	(1)%

*Year Ended December 31, 2019 Compared to the same periods Ended December 31, 2018 and December 31, 2017*

Segment revenue decreased \$474 million or 8% for the year ended December 31, 2019 compared to December 31, 2018 and \$335 million or 5% for the year ended December 31, 2018 compared to December 31, 2017, primarily due to the following factors:

- For both periods, decreases in our voice, other and regulatory revenue was driven by continued decline in our legacy voice customers, our deemphasis of our Prism video product and the derecognition of our prior failed-sale leaseback; partially offset by
- for both periods, an increase in Broadband revenue.

Segment expenses decreased by \$283 million or 28% for the year ended December 31, 2019 compared to December 31, 2018 and \$304 million or 23% for the year ended December 31, 2018 compared to December 31, 2017, primarily due to the following factors:

- For both periods, reduction in personnel;
- for both periods, decreased marketing expenses; and
- lower TV content costs for both periods.

Segment adjusted EBITDA as a percentage of revenue was 87%, 83% and 80% for the year ended December 31, 2019, 2018 and 2017, respectively.

### Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with accounting principles that are generally accepted in the United States. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of our assets, liabilities, revenue and expenses. We have identified certain policies and estimates as critical to our business operations and the understanding of our past or present results of operations related to (i) business combinations, (ii) goodwill, customer relationships and other intangible assets; (iii) property, plant and equipment; (iv) pension and post-retirement benefits; (v) loss contingencies and litigation reserves and (vi) income taxes. These policies and estimates are considered critical because they had a material impact, or they have the potential to have a material impact, on our consolidated financial statements and because they require us to make significant judgments, assumptions or estimates. We believe that the estimates, judgments and assumptions made when accounting for the items described below were reasonable, based on information available at the time they were made. However, actual results may differ from those estimates, and these differences may be material.

## ***Business Combination***

We have accounted for our acquisition of Level 3 on November 1, 2017, under the acquisition method of accounting, whereby the tangible and separately identifiable intangible assets acquired and liabilities assumed are recognized at their fair values at the acquisition date. The portion of the purchase price in excess of the fair value of the net tangible and separately identifiable intangible assets acquired represents goodwill. The fair value and resulting assignment of the purchase price related to our acquisition of Level 3 involved significant estimates and judgments by our management. In arriving at the fair values of assets acquired and liabilities assumed, we considered the following generally accepted valuation approaches: the cost approach, income approach and market approach. Our estimates also included assumptions about projected growth rates, cost of capital, effective tax rates, tax amortization periods, technology life cycles, customer attrition rates, the regulatory and legal environment and industry and economic trends. For additional information about our acquisition of Level 3, see Note 2—Acquisition of Level 3 to our consolidated financial statements in Item 8 of Part II of this report.

## ***Goodwill, Customer Relationships and Other Intangible Assets***

Intangible assets arising from business combinations, such as goodwill, customer relationships, capitalized software, trademarks and tradenames, are initially recorded at estimated fair value. We amortize customer relationships primarily over an estimated life of 7 to 15 years, using either the sum-of-years-digits or the straight-line methods, depending on the customer retention patterns for the type of customer at the companies we acquire. We amortize capitalized software using the straight-line method primarily over estimated lives ranging up to 7 years. We annually review the estimated lives and methods used to amortize our other intangible assets. The amount of future amortization expense may differ materially from current amounts, depending on the results of our annual reviews.

Our goodwill was derived from numerous acquisitions where the purchase price exceeded the fair value of the net assets acquired.

We are required to reassign goodwill to reporting units whenever reorganizations of our internal reporting structure changes the composition of our reporting units. Goodwill is reassigned to the reporting units using a relative fair value approach. When the fair value of a reporting unit is available, we allocate goodwill based on the relative fair value of the reporting units. When fair value is not available, we utilize an alternative allocation methodology that represents a reasonable proxy for the fair value of the operations being reorganized. For additional information on our segments, see Note 17—Segment Information to our consolidated financial statements in Item 8 of Part II of this report.

We are required to perform impairment tests related to our goodwill annually, or sooner if an indicator of impairment occurs. At October 31, 2019, our international and global accounts segment was comprised of our North America global accounts ("NA GAM"), Europe, Middle East and Africa region ("EMEA"), Latin America region ("LATAM") and Asia Pacific region ("APAC") reporting units. Our annual impairment assessment date for goodwill is October 31, at which date we assess our reporting units. At October 31, 2019, our reporting units were consumer, small and medium business, enterprise, wholesale, NA GAM, EMEA, LATAM, and APAC.

Our reporting units are not discrete legal entities with discrete full financial statements. Our assets and liabilities are employed in and relate to the operations of multiple reporting units. For each reporting unit, we compare its estimated fair value of equity to its carrying value of equity that we assign to the reporting unit. If the estimated fair value of the reporting unit is equal or greater than the carrying value, we conclude that no impairment exists. If the estimated fair value of the reporting unit is less than the carrying value, we record an impairment equal to the difference. Depending on the facts and circumstances, we typically estimate the fair value of our reporting units by considering either or both of (i) a market approach, which includes the use of multiples of publicly-traded companies whose services are comparable to ours, and (ii) a discounted cash flow method, which is based on the present value of projected cash flows and a terminal value, which represents the expected normalized cash flows of the reporting units beyond the cash flows from the discrete projection period.

At October 31, 2019, we estimated the fair value of our eight above-mentioned reporting units by considering both a market approach and a discounted cash flow method. We reconciled the estimated fair values of the reporting units to our market capitalization as of October 31, 2019 and concluded that the indicated control premium of approximately 44.7% was reasonable based on recent market transactions. As of October 31, 2019, based on our assessment performed with respect to our eight reporting units, the estimated fair value of our equity exceeded our carrying value of equity for our consumer, small and medium business, enterprise, wholesale, NA GAM, EMEA, LATAM, and APAC by 44%, 41%, 53%, 46%, 55%, 5%, 63% and 38%, respectively. Based on our assessments performed, we concluded that the goodwill for our eight reporting units was not impaired as of October 31, 2019.

Both our January 2019 internal reorganization and the decline in our stock price triggered impairment testing in the first quarter of 2019. Consequently, we evaluated our goodwill in January 2019 and again as of March 31, 2019. Because our low stock price was a key trigger for impairment testing in early 2019, we estimated the fair value of our operations using only the market approach. Applying this approach, we utilized company comparisons and analyst reports within the telecommunications industry which have historically supported a range of fair values derived from annualized revenue and EBITDA multiples between 2.1x and 4.9x and 4.9x and 9.8x, respectively. We selected a revenue and EBITDA multiple for each of our reporting units within this range. We reconciled the estimated fair values of the reporting units to our market capitalization as of the date of each of our triggering events during the first quarter and concluded that the indicated control premiums of approximately 4.5% and 4.1% were reasonable based on recent market transactions. In the quarter ended March 31, 2019, based on our assessments performed with respect to the reporting units as described above, we concluded that the estimated fair value of certain of our reporting units was less than our carrying value of equity as of the date of each of our triggering events during the first quarter. As a result, we recorded non-cash, non-tax-deductible goodwill impairment charges aggregating to \$6.5 billion in the quarter ended March 31, 2019.

At October 31, 2018, we estimated the fair value of our then five reporting units, which we determined to be consumer, medium and small business, enterprise, international and global accounts and wholesale and indirect, by considering both a market approach and a discounted cash flow method. We reconciled the estimated fair values of the reporting units to our market capitalization as of October 31, 2018 and concluded that the indicated control premium of approximately 0.1% was reasonable based on recent transactions in the marketplace. As of October 31, 2018, based on our assessment we concluded that the estimated fair value of our consumer reporting unit was less than our carrying value of equity for such unit by approximately \$2.7 billion. As a result, we recorded a non-cash, non-tax deductible goodwill impairment charge of \$2.7 billion for goodwill assigned to our consumer segment during the fourth quarter of 2018.

We believe the estimates, judgments, assumptions and allocation methods used by us are reasonable, but changes in any of them can significantly affect whether we must incur impairment charges, as well as the size of such charges.

For additional information on our goodwill balances by segment, see Note 4—Goodwill, Customer Relationships and Other Intangible Assets to our consolidated financial statements in Item 8 of Part II of this report.

### ***Property, Plant and Equipment***

Property, plant and equipment acquired in connection with our acquisitions was recorded based on its estimated fair value as of its acquisition date, plus the estimated value of any associated legally or contractually required asset retirement obligation. Purchased and constructed property, plant and equipment is recorded at cost, plus the estimated value of any associated legally or contractually required asset retirement obligation. Renewals and betterments of plant and equipment are capitalized while repairs, as well as renewals of minor items, are charged to operating expense. Depreciation of property, plant and equipment is provided on the straight-line method specific unit or group method using class or overall group rates and specific asset life. The group method provides for the recognition of the remaining net investment, less anticipated net salvage value, over the remaining useful life of the assets. This method requires the periodic revision of depreciation rates.

Normal retirements of property, plant and equipment are charged against accumulated depreciation under the group method, with no gain or loss recognized. We depreciate such property on the straight-line method over estimated service lives ranging from 3 to 45 years.

We perform annual internal reviews to evaluate the reasonableness of the depreciable lives for our property, plant and equipment. Our reviews utilize models that take into account actual usage, physical wear and tear, replacement history, assumptions about technology evolution and, in certain instances, actuarially determined probabilities to estimate the remaining life of our asset base.

Due to rapid changes in technology and the competitive environment, determining the estimated economic life of telecommunications plant and equipment requires a significant amount of judgment. We regularly review data on utilization of equipment, asset retirements and salvage values to determine adjustments to our depreciation rates. The effect of a hypothetical one year increase or decrease in the estimated remaining useful lives of our property, plant and equipment would have decreased depreciation expense by approximately \$360 million annually or increased depreciation expense by approximately \$470 million annually, respectively.

### ***Pension and Post-retirement Benefits***

We sponsor a noncontributory qualified defined benefit pension plan (referred to as our qualified pension plan) for a substantial portion of our employees in the United States. In addition to this tax-qualified pension plan, we also maintain several non-qualified pension plans for certain eligible highly compensated employees. We also maintain post-retirement benefit plans that provide health care and life insurance benefits for certain eligible retirees. On November 1, 2017, we assumed Level 3's pension and post-retirement plans, and certain obligations associated with these plans. Due to the insignificant impact of these plans on our consolidated financial statements, we have excluded them from the following pension and post-retirement benefits disclosures for 2019, 2018 and 2017.

In 2019, approximately 60% of the qualified pension plan's January 1, 2019 net actuarial loss balance of \$3.0 billion was subject to amortization as a component of net periodic expense over the average remaining service period of 9 years for participating employees expected to receive benefits for the plan. The other 40% of the qualified pension plan's beginning net actuarial loss balance was treated as indefinitely deferred during 2019. The entire beginning net actuarial loss of \$26 million for the post-retirement benefit plans was treated as indefinitely deferred during 2019.

In 2018, approximately 55% of the qualified pension plan's January 1, 2018 net actuarial loss balance of \$2.9 billion was subject to amortization as a component of net periodic expense over the average remaining service period of participating employees expected to receive benefits, which ranges from 8 to 9 years for the plan. The other 45% of the qualified pension plan's beginning net actuarial loss balance was treated as indefinitely deferred during 2018. The entire beginning net actuarial loss of \$248 million for the post-retirement benefit plans was treated as indefinitely deferred during 2018.

In 2017, approximately 58% of the qualified pension plan's January 1, 2017 net actuarial loss balance of \$3.1 billion was subject to amortization as a component of net periodic expense over the average remaining service period of participating employees expected to receive benefits, which ranges from 9 to 10 years for the plan. The other 42% of the qualified pension plan's beginning net actuarial loss balance was treated as indefinitely deferred during 2017. The entire beginning net actuarial loss of \$137 million for the post-retirement benefit plans was treated as indefinitely deferred during 2017.

In computing our pension and post-retirement health care and life insurance benefit obligations, our most significant assumptions are the discount rate and mortality rates. In computing our periodic pension and post-retirement benefit expense, our most significant assumptions are the discount rate and the expected rate of return on plan assets.

The discount rate for each plan is the rate at which we believe we could effectively settle the plan's benefit obligations as of the end of the year. We selected each plan's discount rate based on a cash flow matching analysis using hypothetical yield curves from U.S. corporate bonds rated high quality and projections of the future benefit payments that constitute the projected benefit obligation for the plans. This process establishes the uniform discount rate that produces the same present value of the estimated future benefit payments as is generated by discounting each year's benefit payments by a spot rate applicable to that year. The spot rates used in this process are derived from a yield curve created from yields on the 60th to 90th percentile of U.S. high quality bonds.

Mortality rates help predict the expected life of plan participants and are based on historical demographic studies by the Society of Actuaries ("SOA"). The SOA publishes new mortality rates (mortality tables and projection scales) on a regular basis which reflect updates to projected life expectancies in North America. Historically, we have adopted the new projection tables immediately after publication. In 2019, we adopted the revised mortality tables and projection scale released by the SOA, which decreased the projected benefit obligation of our benefit plans by approximately \$4 million. The change in the projected benefit obligation of our benefit plans was recognized as part of the net actuarial loss and is included in accumulated other comprehensive loss, a portion of which is subject to amortization over the remaining estimated life of plan participants, which was approximately 16 years as of December 31, 2019.

The expected rate of return on plan assets is the long-term rate of return we expect to earn on the plans' assets in the future, net of administrative expenses paid from plan assets. The rate of return is determined by the strategic allocation of plan assets and the long-term risk and return forecast for each asset class. The forecasts for each asset class are generated primarily from an analysis of the long-term expectations of various third-party investment management organizations to which we then add a factor of 50 basis points to reflect the benefit we expect to result from our active management of the assets. The expected rate of return on plan assets is reviewed annually and revised, as necessary, to reflect changes in the financial markets and our investment strategy.

To compute the expected return on pension and post-retirement benefit plan assets, we apply an expected rate of return to the fair value of the pension plan assets and to the fair value of the post-retirement benefit plan assets adjusted for contribution timing and for projected benefit payments to be made from the plan assets. Annual market volatility for these assets (higher or lower than expected return) is reflected in the net actuarial losses.

Changes in any of the above factors could significantly impact operating expenses in the consolidated statements of operations and other comprehensive income (loss) in the consolidated statements of comprehensive income as well as the value of the liability and accumulated other comprehensive loss of stockholders' equity on our consolidated balance sheets.

### ***Loss Contingencies and Litigation Reserves***

We are involved in several material legal proceedings, as described in more detail in Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements in Item 8 of Part II of this report. On a quarterly basis, we assess potential losses in relation to these and other pending or threatened tax and legal matters. For matters not related to income taxes, if a loss is considered probable and the amount can be reasonably estimated, we recognize an expense for the estimated loss. To the extent these estimates are more or less than the actual liability resulting from the resolution of these matters, our earnings will be increased or decreased accordingly. If the differences are material, our consolidated financial statements could be materially impacted.

For matters related to income taxes, if we determine in our judgment that the impact of an uncertain tax position is more likely than not to be sustained upon audit by the relevant taxing authority, then we recognize in our financial statements a benefit for the largest amount that is more likely than not to be sustained. No portion of an uncertain tax position will be recognized if we determine in our judgment that the position has less than a 50% likelihood of being sustained. Though the validity of any tax position is a matter of tax law, the body of statutory, regulatory and interpretive guidance on the application of the law is complex and often ambiguous, particularly in certain of the non-U.S. jurisdictions in which we operate. Because of this, whether a tax position will ultimately be sustained may be uncertain.

### ***Income Taxes***

Our provision for income taxes includes amounts for tax consequences deferred to future periods. We record deferred income tax assets and liabilities reflecting future tax consequences attributable to (i) tax credit carryforwards, (ii) differences between the financial statement carrying value of assets and liabilities and the tax basis of those assets and liabilities and (iii) tax net operating loss carryforwards, or NOLs. Deferred taxes are computed using enacted tax rates expected to apply in the year in which the differences are expected to affect taxable income. The effect on deferred income tax assets and liabilities of a change in tax rate is recognized in earnings in the period that includes the enactment date.

The measurement of deferred taxes often involves the exercise of considerable judgment related to the realization of tax basis. Our deferred tax assets and liabilities reflect our assessment that tax positions taken in filed tax returns and the resulting tax basis are more likely than not to be sustained if they are audited by taxing authorities. Assessing tax rates that we expect to apply and determining the years when the temporary differences are expected to affect taxable income requires judgment about the future apportionment of our income among the states in which we operate. Any changes in our practices or judgments involved in the measurement of deferred tax assets and liabilities could materially impact our financial condition or results of operations.

In connection with recording deferred income tax assets and liabilities, we establish valuation allowances when necessary to reduce deferred income tax assets to amounts that we believe are more likely than not to be realized. We evaluate our deferred tax assets quarterly to determine whether adjustments to our valuation allowance are appropriate in light of changes in facts or circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law. In making this evaluation, we rely on our recent history of pre-tax earnings. We also rely on our forecasts of future earnings and the nature and timing of future deductions and benefits represented by the deferred tax assets, all which involve the exercise of significant judgment. At December 31, 2019, we established a valuation allowance of \$1.3 billion primarily related to foreign and state NOLs, based on our determination that it was more likely than not that these NOLs would expire unused. If forecasts of future earnings and the nature and estimated timing of future deductions and benefits change in the future, we may determine that existing valuation allowances must be updated or new valuation allowances created, any of which could materially impact our financial condition or results of operations. See Note 16—Income Taxes to our consolidated financial statements in Item 8 of Part II of this report for additional information.

## **Liquidity and Capital Resources**

### ***Overview of Sources and Uses of Cash***

We are a holding company that is dependent on the capital resources of our subsidiaries to satisfy our parent company liquidity requirements. Several of our significant operating subsidiaries have borrowed funds either on a standalone basis or as part of a separate restricted group with certain of its subsidiaries or affiliates. The terms of the instruments governing the indebtedness of these borrowers or borrowing groups may restrict our ability to access their accumulated cash. In addition, our ability to access the liquidity of these and other subsidiaries may be limited by tax and legal considerations and other factors.

At December 31, 2019, we held cash and cash equivalents of \$1.7 billion, a significant portion of which was held to redeem debt securities in mid-January 2020. At December 31, 2019, we also had approximately \$1.9 billion of borrowing capacity available under our revolving credit facility. We had approximately \$108 million of cash and cash equivalents outside the United States at December 31, 2019. We currently believe that there are no material restrictions on our ability to repatriate cash and cash equivalents into the United States, and that we may do so without paying or accruing U.S. taxes. We do not currently intend to repatriate to the United States any of our foreign cash and cash equivalents from operating entities outside of Latin America.

Our executive officers and our Board of Directors periodically review our sources and potential uses of cash in connection with our annual budgeting process. Generally speaking, our principal funding source is cash from operating activities, and our principal cash requirements include operating expenses, capital expenditures, income taxes, debt repayments, dividends, periodic stock repurchases, periodic pension contributions and other benefits payments.

Based on our current capital allocation objectives, during 2020 we project expending approximately \$3.6 billion to \$3.9 billion (excluding integration and transformation capital) of cash for capital investment in property, plant and equipment and approximately \$1.1 billion of cash for dividends on our common stock (based on the assumptions described below under "Dividends"). At December 31, 2019, we had debt maturities of \$1.0 billion, scheduled debt principal payments of \$1.3 billion and finance lease and other fixed payments of \$36 million, each due during 2020. Each of the expenditures is described further below.

We will continue to monitor our future sources and uses of cash and anticipate that we will make adjustments to our capital allocation strategies when, as and if determined by our Board of Directors. We typically use our revolving credit facility as a source of liquidity for operating activities and our other cash requirements.

For additional information, see "Risk Factors—Risks Affecting Our Liquidity and Capital Resources".

### Capital Expenditures

We incur capital expenditures on an ongoing basis to expand and improve our service offerings, enhance and modernize our networks and compete effectively in our markets. We evaluate capital expenditure projects based on a variety of factors, including expected strategic impacts (such as forecasted impact on revenue growth, productivity, expenses, service levels and customer retention) and our expected return on investment. The amount of capital investment is influenced by, among other things, demand for our services and products, cash flow generated by operating activities, cash required for other purposes and regulatory considerations (such as our CAF Phase II infrastructure buildout requirements).

Our capital expenditures continue to be focused on enhancing network operating efficiencies and supporting new service developments. For more information on our capital spending, see "Historical Information—Investing Activities" below and Item 1 of Part 1 of this report.

### Debt and Other Financing Arrangements

Subject to market conditions, we expect to continue to issue debt securities from time to time in the future to refinance a substantial portion of our maturing debt, including issuing debt securities of certain of our subsidiaries to refinance their maturing debt to the extent feasible. The availability, interest rate and other terms of any new borrowings will depend on the ratings assigned by credit rating agencies, among other factors.

As of the date of this report, the credit ratings for the senior secured and unsecured debt of CenturyLink, Inc., Qwest Corporation and Level 3 Financing, Inc. were as follows:

Borrower	Moody's Investors Service, Inc.	Standard & Poor's	Fitch Ratings
<b>CenturyLink, Inc.:</b>			
Unsecured	B2	B+	BB
Secured	Ba3	BBB-	BB+
<b>Qwest Corporation:</b>			
Unsecured	Ba2	BBB-	BB+
<b>Level 3 Financing, Inc.</b>			
Unsecured	Ba3	BB	BB
Secured	Ba1	BBB-	BBB-

Our credit ratings are reviewed and adjusted from time to time by the rating agencies. Any future downgrades of the senior unsecured or secured debt ratings of us or our subsidiaries could impact our access to debt capital or further raise our borrowing costs. See "Risk Factors—Risks Affecting our Liquidity and Capital Resources" in Item 1A of Part I of this report.



### ***Net Operating Loss Carryforwards***

As of December 31, 2019, CenturyLink had approximately \$6.2 billion of net operating loss carryforwards. ("NOLs"), which for U.S. federal income tax purposes can be used to offset future taxable income. These NOLs are primarily related to federal NOLs we acquired through the Level 3 acquisition on November 1, 2017 and are subject to limitations under Section 382 of the Internal Revenue Code ("Code") and related U.S. Treasury Department regulations. In the first half of 2019, we entered into and subsequently restated a Section 382 rights agreement designed to safeguard our ability to use those NOLs. Assuming that we can continue using these NOLs in the amounts projected, we expect to significantly reduce our federal cash taxes for the next several years. The amounts of our near-term future tax payments will depend upon many factors, including our future earnings and tax circumstances and results of any corporate tax reform. Based on current laws and our current estimates of 2020 earnings, we estimate our cash income tax liability related to 2020 will be approximately \$100 million.

We cannot assure you that we will be able to use these NOL carryforwards fully. See "Risk Factors—Risks Affecting Our Liquidity and Capital Resources—We cannot assure you, whether, when or in what amounts we will be able to use our net operating loss carryforwards, or when they will be depleted" in Item 1A of Part I of this report.

### ***Dividends***

We currently expect to continue our current practice of paying quarterly cash dividends in respect of our common stock subject to our Board of Directors' discretion to modify or terminate this practice at any time and for any reason without prior notice. Following a reduction announced on February 13, 2019, our current quarterly common stock dividend rate is \$0.25 per share, as approved by our Board of Directors, which we believe is a dividend rate per share which enables us to balance our multiple objectives of managing our business, investing in the business, de-leveraging our balance sheet and returning a substantial portion of our cash to our shareholders. Assuming continued payment during 2020 at this rate of \$0.25 per share, our average total dividend paid each quarter would be approximately \$275 million based on our current number of outstanding shares (assuming no increases or decreases in the number of shares, except in connection with the vesting of currently outstanding equity awards). See Risk Factors—Risks Affecting Our Business" in Item 1A of Part I of this report.

### ***Revolving Facilities and Other Debt Instruments***

To substantially fund our acquisition of Level 3, on June 19, 2017, one of our affiliates entered into a credit agreement (the "2017 CenturyLink Credit Agreement") providing initially for \$10.2 billion in senior secured credit facilities, consisting initially of a \$2.0 billion revolving credit facility (which replaced our 2012 credit facility upon consummation of the Level 3 acquisition) and approximately \$7.9 billion of term loan facilities. On November 1, 2017, CenturyLink, Inc., among other things, assumed all rights and obligations under the 2017 CenturyLink Credit Agreement. On January 29, 2018, the 2017 CenturyLink Credit Agreement was amended to increase the borrowing capacity of the new revolving credit facility from \$2.0 billion to \$2.2 billion, and to increase the borrowing capacity under one of the term loan tranches by \$132 million. On January 31, 2020, the 2017 CenturyLink Credit Agreement was amended and restated to, among other things, extend the debt maturities of the facilities, to lower interest rates payable thereunder, and to amend the amounts owed under each of the facilities. For additional information, see (i) Note 7—Long-Term Debt and Credit Facilities to our consolidated financial statements in Item 8 of Part II of this report and (ii) our current reports on Form 8-K filed with the SEC on June 20, 2017, November 1, 2017 and January 31, 2020.

In addition to its indebtedness under the 2017 CenturyLink Credit Agreement, CenturyLink is indebted under its outstanding senior notes, and several of its subsidiaries are indebted under separate credit facilities or senior notes. For information on the terms and conditions of these other debt instruments of ours and our subsidiaries, including financial and operating covenants, see Note 7—Long-Term Debt and Credit Facilities to our consolidated financial statements in Item 8 of Part II of this report.

## Future Contractual Obligations

The following table summarizes our estimated future contractual obligations as of December 31, 2019:

	2020	2021	2022	2023	2024	2025 and thereafter	Total
(Dollars in millions)							
Long-term debt <sup>(1)(2)</sup>	\$ 2,300	2,478	4,224	2,096	1,973	21,968	35,039
Interest on long-term debt and finance leases <sup>(2)</sup>	1,819	1,749	1,565	1,378	1,229	10,952	18,692
Operating leases	460	361	308	265	194	686	2,274
Right-of-way agreements	174	75	72	63	52	464	900
Purchase commitments <sup>(3)</sup>	247	183	78	48	37	173	766
Post-retirement benefit obligation <sup>(4)</sup>	73	70	66	62	58	430	759
Non-qualified pension obligations <sup>(4)</sup>	5	4	4	4	4	16	37
Asset retirement obligations	23	22	19	14	18	101	197
Total future contractual obligations <sup>(5)</sup>	\$ 5,101	4,942	6,336	3,930	3,565	34,790	58,664

(1) Includes current maturities and finance lease obligations, but excludes unamortized discounts and premiums, net, and unamortized debt issuance costs.

(2) Actual principal and interest paid in all years may differ due to future refinancing of outstanding debt or issuance of new debt. Interest on our floating rate debt was calculated for all years using the rates effective at December 31, 2019. See Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements in Item 8 of Part II of this report for additional information regarding the future commitments for finance leases related to our dark fiber operations.

(3) We have various long-term, non-cancelable purchase commitments for advertising and promotion services, including advertising and marketing at sports arenas and other venues and events. We also have purchase commitments with third-party vendors for operating, installation and maintenance services for facilities. In addition, we have service-related commitments with various vendors for data processing, technical and software support services. Future payments under certain service contracts will vary depending on our actual usage. In the table above, we estimated payments for these service contracts based on estimates of the level of services we expect to receive.

(4) Reflects only the portion of total obligation that is contractual in nature. See Note 5 below.

(5) The table is limited solely to contractual payment obligations and does not include:

- contingent liabilities;
- our open purchase orders as of December 31, 2019. These purchase orders are generally issued at fair value, and are generally cancelable without penalty;
- other long-term liabilities, such as accruals for legal matters and other taxes that are not contractual obligations by nature. We cannot determine with any degree of reliability the years in which these liabilities might ultimately settle;
- cash funding requirements for qualified pension benefits payable to certain eligible current and future retirees. Benefits paid by our qualified pension plan are paid through a trust. Cash funding requirements for this trust are not included in this table as we are not able to reliably estimate required contributions to this trust. Our funding projections are discussed further below;
- certain post-retirement benefits payable to certain eligible current and future retirees. Not all of our post-retirement benefit obligation amount is a contractual obligation and only the portion that we believe is a contractual obligation is reported in the table. See additional information on our benefits plans in Note 11—Employee Benefits to our consolidated financial statements in Item 8 of Part II of this report;
- contract termination fees. These fees are non-recurring payments, the timing and payment of which, if any, is uncertain. In the ordinary course of business and to optimize our cost structure, we enter into contracts with terms greater than one year to use the network facilities of other carriers and to purchase other goods and services. Our contracts to use other carriers' network facilities generally have no minimum volume requirements and pricing is based upon volumes and usage. In the normal course of business, we do not believe payment of these fees is likely;
- service level commitments to our customers, the violation of which typically results in service credits rather than cash payments; and
- potential indemnification obligations to counterparties in certain agreements entered into in the normal course of business. The nature and terms of these arrangements vary.

For additional information on our obligations, see the notes to our consolidated financial statements in Item 8 of Part II of this report.

## ***Pension and Post-retirement Benefit Obligations***

We are subject to material obligations under our existing defined benefit pension plans and post-retirement benefit plans. At December 31, 2019, the accounting unfunded status of our qualified and non-qualified defined benefit pension plans and our qualified post-retirement benefit plans was \$1.8 billion and \$3.0 billion, respectively. See Note 11—Employee Benefits to our consolidated financial statements in Item 8 of Part II of this report for additional information about our pension and post-retirement benefit arrangements.

Benefits paid by our qualified pension plan are paid through a trust that holds all of the plan's assets. Based on current laws and circumstances, we do not expect any contributions to be required for our qualified pension plan during 2020. The amount of required contributions to our qualified pension plan in 2021 and beyond will depend on a variety of factors, most of which are beyond our control, including earnings on plan investments, prevailing interest rates, demographic experience, changes in plan benefits and changes in funding laws and regulations. We occasionally make voluntary contributions in addition to required contributions. We last made a voluntary contribution to the trust for our qualified pension plan during 2018. Based on current circumstances, we do not anticipate making a voluntary contribution to the trust for our qualified pension plan in 2020.

Substantially all of our post-retirement health care and life insurance benefits plans are unfunded. Several trusts hold assets that have been used to help cover the health care costs of certain retirees. As of December 31, 2019, assets in the post-retirement trusts had been substantially depleted and had a fair value of only \$13 million (a portion of which was comprised of investments with restricted liquidity), which has significantly limited our ability to continue paying benefits from the trusts. Benefits not paid from the trusts are expected to be paid directly by us with available cash. As described further in Note 11—Employee Benefits to our consolidated financial statements in Item 8 of Part II of this report, aggregate benefits paid by us under these plans (net of participant contributions and direct subsidy receipts) were \$241 million, \$249 million and \$237 million for the years ended December 31, 2019, 2018 and 2017, respectively, while the amounts paid from the trust were \$4 million, \$4 million and \$31 million, respectively. For additional information on our expected future benefits payments for our post-retirement benefit plans, please see Note 11—Employee Benefits to our consolidated financial statements in Item 8 of Part II in this report.

For 2019, our expected annual long-term rates of return were 6.5% and 4% for the pension plan trust assets and post-retirement plans' trust assets based on the assets held and net of expected fees and administrative costs. For 2020, our expected annual long-term rates of return on these assets are 6% and 4%, respectively. However, actual returns could be substantially different.

## ***Connect America Fund***

As a result of accepting CAF Phase II support payments, we are receiving substantial support payments under a program that will soon lapse. Moreover, we must meet certain specified infrastructure buildout requirements in 33 states. In order to meet these specified infrastructure buildout requirements, we may be obligated to make substantial capital expenditures. See "Capital Expenditures" above.

For additional information on the FCC's CAF program and a proposed replacement program, see "Business—Regulation" in Item 1 of Part I of this report and see "Risk Factors—Risks Affecting Our Liquidity and Capital Resources" in Item 1A of Part I of this report.

## Historical Information

The following tables summarize our consolidated cash flow activities:

	Years Ended December 31,		Increase /
	2019	2018	(Decrease)
	(Dollars in millions)		
Net cash provided by operating activities	\$ 6,680	7,032	(352)
Net cash used in investing activities	(3,570)	(3,078)	492
Net cash used in financing activities	(1,911)	(4,023)	(2,112)

	Years Ended December 31,		Increase /
	2018	2017	(Decrease)
	(Dollars in millions)		
Net cash provided by operating activities	\$ 7,032	3,878	3,154
Net cash used in investing activities	(3,078)	(8,871)	(5,793)
Net cash (used in) provided by financing activities	(4,023)	5,356	9,379

### Operating Activities

Net cash provided by operating activities decreased by \$352 million for the year ended December 31, 2019 as compared to the year ended December 31, 2018 primarily due to an increase in net loss after adjusting for non-cash items, a decrease in accounts payable and other noncurrent liabilities and an increase to prepaid assets partially offset by a decrease in retirement benefit contributions. Net cash provided by operating activities increased by \$3.2 billion for the year ended December 31, 2018 as compared to the year ended December 31, 2017 primarily due to \$2.4 billion in cash generated by Level 3 in addition to a positive variance in net (loss) income after adjusting for non-cash items for impairment of goodwill and other assets and depreciation, deferred income taxes and tax refunds of \$674 million received in 2018, partially offset with a pension funding contribution of \$500 million. Cash provided by operating activities is subject to variability period over period as a result of the timing of the collection of receivables and payments related to interest expense, accounts payable, payroll and bonuses. For additional information about our operating results, see "Results of Operations" above.

### Investing Activities

Net cash used in investing activities increased by \$492 million for the year ended December 31, 2019 as compared to the year ended December 31, 2018 primarily due to increased capital expenditures on property, plant and equipment partially offset by decreased proceeds from the sale of property, plant and equipment and other assets. Net cash used in investing activities decreased by \$5.8 billion for the year ended December 31, 2018 as compared to the year ended December 31, 2017. The change in investing activities is primarily due to cash paid for the acquisition of Level 3 on November 1, 2017, which was partially offset with the cash proceeds from the May 2017 sale of a portion of our data centers and colocation business.

### Financing Activities

Net cash used in financing activities decreased by \$2.1 billion for the year ended December 31, 2019 as compared to the year ended December 31, 2018 primarily due to net proceeds from the issuance of long-term debt and the decrease in dividends paid partially offset by higher levels of payments on our long-term debt and revolving line of credit. Net cash used in financing activities increased by \$9.4 billion for the year ended December 31, 2018 as compared to the year ended December 31, 2017 primarily due cash received from net proceeds from issuance of new debt in 2017 relating to the acquisition of Level 3.

See Note 7—Long-Term Debt and Credit Facilities to our consolidated financial statements in Item 8 of Part II of this report, for information regarding indebtedness incurred or repaid by CenturyLink or its affiliates on our outstanding debt securities.

## **Other Matters**

We have cash management arrangements with certain of our principal subsidiaries, in which substantial portions of the subsidiaries' cash is regularly advanced to us. Although we periodically repay these advances to fund the subsidiaries' cash requirements throughout the year, at any given point in time we may owe a substantial sum to our subsidiaries under these advances, which, in accordance with generally accepted accounting principles, are eliminated in consolidation and therefore not recognized on our consolidated balance sheets.

We also are involved in various legal proceedings that could substantially impact our financial position. See Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements in Item 8 of Part II of this report for the current status of such legal proceedings.

## **Market Risk**

As of December 31, 2019, we are exposed to market risk from changes in interest rates on our variable rate long-term debt obligations and fluctuations in certain foreign currencies. We seek to maintain a favorable mix of fixed and variable rate debt in an effort to limit interest costs and cash flow volatility resulting from changes in rates.

Management periodically reviews our exposure to interest rate fluctuations and periodically implements strategies to manage the exposure. From time to time, we have used derivative instruments to (i) lock-in or swap our exposure to changing variable interest rates for fixed interest rates or (ii) to swap obligations to pay fixed interest rates for variable interest rates. We have established policies and procedures for risk assessment and the approval, reporting and monitoring of derivative instrument activities. As of December 31, 2019, we did not hold or issue derivative financial instruments for trading or speculative purposes.

In February 2019, we executed swap transactions that reduced our exposure to floating rates with respect to \$2.5 billion principal amount of floating rate debt. In June 2019, we executed swap transactions that reduced our exposure to floating rates with respect to \$1.5 billion principal amount of floating rate debt. See Note 15—Derivative Financial Instruments to our consolidated financial statements in Item 1 of Part I of this report for additional disclosure regarding our hedging arrangements.

As of December 31, 2019, we had approximately \$11.2 billion floating rate debt potentially subject to the London Inter-Bank Offered Rate (LIBOR), \$4.0 billion of which was subject to the above-described hedging arrangements. A hypothetical increase of 100 basis points in LIBOR relating to our \$7.2 billion of unhedged floating rate debt would, among other things, decrease our annual pre-tax earnings by approximately \$72 million.

We conduct a portion of our business in currencies other than the U.S. dollar, the currency in which our consolidated financial statements are reported. Accordingly, our operating results could be adversely affected by foreign currency exchange rate volatility relative to the U.S. dollar. Our European subsidiaries and certain Latin American subsidiaries use the local currency as their functional currency, as the majority of their revenue and purchases are transacted in their local currencies. Certain Latin American countries previously designated as highly inflationary economies use the U.S. dollar as their functional currency. Although we continue to evaluate strategies to mitigate risks related to the effect of fluctuations in currency exchange rates, we will likely recognize gains or losses from international transactions. Changes in foreign currency rates could adversely affect our operating results.

Certain shortcomings are inherent in the method of analysis presented in the computation of exposures to market risks. Actual values may differ materially from those disclosed by us from time to time if market conditions vary from the assumptions used in the analyses performed. These analyses only incorporate the risk exposures that existed at December 31, 2019.

## **Off-Balance Sheet Arrangements**

As of the date of this report, we have no special purpose or limited purpose entities that provide off-balance sheet financing, liquidity, or market or credit risk support and we do not engage in leasing, hedging or other similar activities that expose us to any significant liabilities that are not (i) reflected on the face of the consolidated financial statements, (ii) disclosed in Note 19—Commitments, Contingencies and Other Items to our consolidated financial statements in Item 8 of Part II of this report, or in the Future Contractual Obligations table included in this Item 7 of Part II above, or (iii) discussed under the heading "Market Risk" above.

## **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

The information in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Market Risk" in Item 7 of Part II of this report is incorporated herein by reference.

## ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

### Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors  
CenturyLink, Inc.:

#### *Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated balance sheets of CenturyLink, Inc. and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive (loss) income, cash flows, and stockholders' equity for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, 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), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 28, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

#### *Change in Accounting Principle*

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for leases as of January 1, 2019 due to the adoption of Accounting Standards Codification Topic 842, Leases.

#### *Basis for Opinion*

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

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

#### *Critical Audit Matters*

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

### *Testing of revenue*

As discussed in Notes 1 and 5 to the 2019 consolidated financial statements, the Company recorded \$22.4 billion of operating revenues. The processing and recording of revenue is reliant upon multiple information technology (IT) systems used to process large volumes of customer billing data.

We identified the testing of revenue as a critical audit matter due to the large volume of data and the number and complexity of the revenue accounting systems. Specialized skills and knowledge were needed to test the IT systems used for the processing and recording of revenue.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls related to the processing and recording of revenue, including manual and automated controls over the IT systems used for the processing and recording of revenue. For a selection of transactions, we compared the amount of revenue recorded to a combination of Company internal data, executed contracts, and other relevant and reliable third-party data. In addition, we involved IT professionals with specialized skills and knowledge who assisted in the identification and testing of certain IT systems, including the design of audit procedures, used by the Company for the processing and recording of revenue.

### *Assessment of the goodwill impairment charge*

As discussed in Notes 1 and 4 to the consolidated financial statements, the Company recorded goodwill impairment charges aggregating to \$6.5 billion during 2019. The Company used the market multiples approach to estimate the fair value of the reporting units. The Company recorded impairment charges equal to the amount by which the carrying value of each reporting unit exceeded its fair value.

We identified the assessment of the Company's impairment charges recorded in 2019 as a critical audit matter. Subjective auditor judgment was required in assessing the market multiple assumptions for revenue and EBITDA used to estimate the fair value of the reporting units. The evaluation of these assumptions was challenging due to the subjective nature of the assumptions. Additionally, differences in judgment used to determine these assumptions could have a significant effect on each reporting unit's estimated fair value and the resulting impairment charges.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's process to estimate each reporting unit's fair value, including controls related to the determination of the market multiple assumptions for revenue and EBITDA for each reporting unit. We involved a valuation professional with specialized skill and knowledge, who assisted in

a) comparing the selected market multiples for revenue and EBITDA for each reporting unit based on their relative revenue growth and EBITDA margin and b) reconciling the fair value of the reporting units to the Company's total fair value.

### *Assessment of the Company's annual impairment testing related to the carrying value of goodwill*

As discussed in Notes 1 and 4 to the consolidated financial statements, the goodwill balance at December 31, 2019 was \$21.5 billion. On the annual goodwill impairment assessment date, the Company tested the carrying value of goodwill for impairment by considering both a discounted cash flow method and a market multiples approach to estimate the fair value of the reporting units.

We identified the assessment of the Company's annual impairment testing related to the carrying value of goodwill as a critical audit matter because subjective auditor judgment was required in performing procedures over certain assumptions used to estimate the fair value of the reporting units. Those assumptions included: projected revenues, long term growth rate (LTGR), and market multiples for revenue and EBITDA. The evaluation of these assumptions was challenging due to the subjective nature of the assumptions. Additionally, differences in judgment used to determine these assumptions could have a significant effect on each reporting unit's estimated fair value.



The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's process to estimate each reporting unit's fair value, including controls related to the development of revenue projections, and the determination of the LTGR and the market multiples for revenue and EBITDA for each reporting unit. We performed sensitivity analyses over the projected revenue assumption to assess the impact on the Company's estimate of the fair value of each reporting unit. We compared the Company's revenue projection to the Company's historic revenue trends. We assessed the Company's ability to accurately project revenues by comparing the Company's historical revenue projections to actual results. We involved a valuation professional with specialized skill and knowledge, who assisted in: a) comparing the selected revenue and EBITDA market multiples to peer companies' results; and b) comparing the selected LTGR for each reporting unit to the Company's historic trends and growth expectations developed using publicly available industry and analyst reports.

*Assessment of the estimate of the fair value of private fund interests valued using net asset value*

As discussed in Notes 1 and 11 to the consolidated financial statements, the fair value of pension plan assets at December 31, 2019 was \$10.5 billion. Of this amount, the fair value of \$3.9 billion represents private fund interests, which were estimated by the Company using net asset value (NAV). Valuation inputs for these private fund interests are generally based on assumptions and other information not observable in the market.

We identified the assessment of the estimate of the fair value of private fund interests estimated using NAV as a critical audit matter because auditor judgment was required in the application and performance of procedures to assess their fair value.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's process to monitor and record the estimated fair value of the pension plan assets. For a selection of private fund interests, we compared the rates of return to relevant, publicly available market indices and we compared the estimated fair values of NAV to confirmations with third parties. We compared the Company's previous estimates of fair value of NAV to the NAVs audited by third parties for a selection of private fund interests to assess the Company's process to accurately estimate fair value. We involved valuation professionals with specialized skill and knowledge who assisted in our risk assessment and the design of procedures performed for private fund interests. With respect to private fund interest selections for testing, the valuation professionals assessed the procedures performed and the results of our procedures.

/s/ KPMG LLP

We have served as the Company's auditor since 1977.

Denver, Colorado  
February 28, 2020

## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors CenturyLink, Inc.:

### *Opinion on Internal Control Over Financial Reporting*

We have audited CenturyLink, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive (loss) income, cash flows, and stockholders' equity for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements), and our report dated February 28, 2020 expressed an unqualified opinion on those consolidated financial statements.

### *Basis for Opinion*

The Company'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 Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company'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 the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our 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 of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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/ KPMG LLP

Denver, Colorado  
February 28, 2020

**CENTURYLINK, INC.**

**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions, except per share amounts and shares in thousands)		
OPERATING REVENUE	\$ 22,401	23,443	17,656
OPERATING EXPENSES			
Cost of services and products (exclusive of depreciation and amortization)	10,077	10,862	8,203
Selling, general and administrative	3,715	4,165	3,508
Depreciation and amortization	4,829	5,120	3,936
Goodwill impairment	6,506	2,726	—
Total operating expenses	25,127	22,873	15,647
OPERATING (LOSS) INCOME	(2,726)	570	2,009
OTHER (EXPENSE) INCOME			
Interest expense	(2,021)	(2,177)	(1,481)
Other (loss) income, net	(19)	44	12
Total other expense, net	(2,040)	(2,133)	(1,469)
(LOSS) INCOME BEFORE INCOME TAX EXPENSE	(4,766)	(1,563)	540
Income tax expense (benefit)	503	170	(849)
NET (LOSS) INCOME	\$ (5,269)	(1,733)	1,389
BASIC AND DILUTED (LOSS) EARNINGS PER COMMON SHARE			
BASIC	\$ (4.92)	(1.63)	2.21
DILUTED	\$ (4.92)	(1.63)	2.21
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING			
BASIC	1,071,441	1,065,866	627,808
DILUTED	1,071,441	1,065,866	628,693

See accompanying notes to consolidated financial statements.

**CENTURYLINK, INC.**

CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
NET (LOSS) INCOME	\$ (5,269)	(1,733)	1,389
OTHER COMPREHENSIVE (LOSS) INCOME:			
Items related to employee benefit plans:			
Change in net actuarial gain (loss), net of \$60, (\$45) and (\$60) tax	(195)	133	83
Change in net prior service credit, net of (\$4), (\$3) and (\$4) tax	13	9	8
Unrealized holding loss on interest rate swaps, net of \$12 tax	(39)	—	—
Foreign currency translation adjustment and other, net of (\$6), \$50 and (\$17) tax	2	(201)	31
Other comprehensive (loss) income	(219)	(59)	122
COMPREHENSIVE (LOSS) INCOME	\$ (5,488)	(1,792)	1,511

See accompanying notes to consolidated financial statements.

## CENTURYLINK, INC.

## CONSOLIDATED BALANCE SHEETS

	As of December 31,	
	2019	2018
	(Dollars in millions and shares in thousands)	
<u>ASSETS</u>		
CURRENT ASSETS		
Cash and cash equivalents	\$ 1,690	488
Restricted cash - current	3	4
Accounts receivable, less allowance of \$106 and \$142	2,259	2,398
Assets held for sale	8	12
Other	808	918
Total current assets	4,768	3,820
Property, plant and equipment, net of accumulated depreciation of \$29,346 and \$26,859	26,079	26,408
GOODWILL AND OTHER ASSETS		
Goodwill	21,534	28,031
Operating lease assets	1,686	—
Restricted cash	24	26
Customer relationships, net	7,596	8,911
Other intangible assets, net	1,971	1,868
Other, net	1,084	1,192
Total goodwill and other assets	33,895	40,028
TOTAL ASSETS	\$ 64,742	70,256
<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>		
CURRENT LIABILITIES		
Current maturities of long-term debt	\$ 2,300	652
Accounts payable	1,724	1,933
Accrued expenses and other liabilities		
Salaries and benefits	1,037	1,104
Income and other taxes	311	337
Current operating lease liabilities	416	—
Interest	280	316
Other	386	357
Advance billings and customer deposits	804	832
Total current liabilities	7,258	5,531
LONG-TERM DEBT	32,394	35,409
DEFERRED CREDITS AND OTHER LIABILITIES		
Deferred income taxes, net	2,918	2,527
Benefit plan obligations, net	4,594	4,319
Noncurrent operating lease liabilities	1,342	—
Other	2,766	2,642
Total deferred credits and other liabilities	11,620	9,488
COMMITMENTS AND CONTINGENCIES (Note 19)		
STOCKHOLDERS' EQUITY		
Preferred stock — non-redeemable, \$25 par value, authorized 2,000 and 2,000 shares, issued and outstanding 7 and 7 shares	—	—
Common stock, \$1.00 par value, authorized 2,200,000 and 1,600,000 shares, issued and outstanding 1,090,058 and 1,080,167 shares	1,090	1,080
Additional paid-in capital	21,874	22,852
Accumulated other comprehensive loss	(2,680)	(2,461)
Accumulated deficit	(6,814)	(1,643)
Total stockholders' equity	13,470	19,828
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 64,742	70,256



**CENTURYLINK, INC.**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
OPERATING ACTIVITIES			
Net (loss) income	\$ (5,269)	(1,733)	1,389
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation and amortization	4,829	5,120	3,936
Impairment of goodwill and other assets	6,506	2,746	—
Deferred income taxes	440	522	(931)
Loss on the sale of data centers and colocation business	—	—	82
Provision for uncollectible accounts	145	153	176
Net (gain) loss on early retirement and modification of debt	(72)	7	5
Share-based compensation	162	186	111
Changes in current assets and liabilities:			
Accounts receivable	(5)	25	31
Accounts payable	(261)	124	(123)
Accrued income and other taxes	20	75	54
Other current assets and liabilities, net	(32)	127	(614)
Retirement benefits	(12)	(667)	(202)
Changes in other noncurrent assets and liabilities, net	245	329	(174)
Other, net	(16)	18	138
Net cash provided by operating activities	6,680	7,032	3,878
INVESTING ACTIVITIES			
Capitalized expenditures	(3,628)	(3,175)	(3,106)
Cash paid for Level 3 acquisition, net of \$2.3 billion cash acquired	—	—	(7,289)
Proceeds from sale of property, plant and equipment and other assets	93	158	1,529
Other, net	(35)	(61)	(5)
Net cash used in investing activities	(3,570)	(3,078)	(8,871)
FINANCING ACTIVITIES			
Net proceeds from issuance of long-term debt	3,707	130	8,398
Proceeds from financing obligation (Note 3)	—	—	356
Payments of long-term debt	(4,157)	(1,936)	(1,963)
Net proceeds (payments) on credit facility and revolving line of credit	(300)	145	35
Dividends paid	(1,100)	(2,312)	(1,453)
Other, net	(61)	(50)	(17)
Net cash (used in) provided by financing activities	(1,911)	(4,023)	5,356
Net increase (decrease) in cash, cash equivalents and restricted cash	1,199	(69)	363
Cash, cash equivalents and restricted cash at beginning of period	518	587	224
Cash, cash equivalents and restricted cash at end of period	\$ 1,717	518	587
Supplemental cash flow information:			
Income taxes received (paid), net	\$ 34	674	(392)
Interest paid (net of capitalized interest of \$72, \$53 and \$78)	\$ (2,028)	(2,138)	(1,401)
Cash, cash equivalents and restricted cash:			
Cash and cash equivalents	\$ 1,690	488	551
Restricted cash - current	3	4	5
Restricted cash - noncurrent	24	26	31
Total	\$ 1,717	518	587

See accompanying notes to consolidated financial statements.





## CENTURYLINK, INC.

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions except per share amounts)		
COMMON STOCK			
Balance at beginning of period	\$ 1,080	1,069	547
Issuance of common stock to acquire Level 3, including replacement of Level 3's share-based compensation awards	—	—	517
Issuance of common stock through dividend reinvestment, incentive and benefit plans	10	11	5
Balance at end of period	1,090	1,080	1,069
ADDITIONAL PAID-IN CAPITAL			
Balance at beginning of period	22,852	23,314	14,970
Issuance of common stock to acquire Level 3, including replacement of Level 3's share-based compensation awards	—	(2)	9,462
Shares withheld to satisfy tax withholdings	(37)	(56)	(20)
Share-based compensation and other, net	163	187	79
Dividends declared	(1,104)	(586)	(1,177)
Acquisition of additional minority interest in a subsidiary	—	(5)	—
Balance at end of period	21,874	22,852	23,314
ACCUMULATED OTHER COMPREHENSIVE LOSS			
Balance at beginning of period	(2,461)	(1,995)	(2,117)
Cumulative effect of adoption of ASU 2018-02, <i>Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income</i>	—	(407)	—
Other comprehensive (loss) income	(219)	(59)	122
Balance at end of period	(2,680)	(2,461)	(1,995)
RETAINED EARNINGS (ACCUMULATED DEFICIT)			
Balance at beginning of period	(1,643)	1,103	(1)
Net (loss) income	(5,269)	(1,733)	1,389
Cumulative effect of adoption of ASU 2016-02, Leases, net of (\$37) tax	96	—	—
Cumulative effect of adoption of ASU 2018-02, <i>Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income</i>	—	407	—
Cumulative net effect of adoption of ASU 2014-09, Revenue from Contracts with Customers, net of \$—, (\$119) and \$— tax	—	338	—
Cumulative effect of adoption of ASU 2016-09, <i>Improvements to Employee Share-Based Payment Accounting</i>	—	—	3
Dividends declared	2	(1,758)	(288)
Balance at end of period	(6,814)	(1,643)	1,103
TOTAL STOCKHOLDERS' EQUITY	\$ 13,470	19,828	23,491
DIVIDENDS DECLARED PER COMMON SHARE	\$ 1.00	2.16	2.16

See accompanying notes to consolidated financial statements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

*References in the Notes to "CenturyLink," "we," "us", the "Company", and "our" refer to CenturyLink, Inc. and its consolidated subsidiaries, unless the content otherwise requires and except in Note 6, where such references refer solely to CenturyLink, Inc. References in the Notes to "Level 3" refer to Level 3 Parent, LLC and its predecessor, Level 3 Communications, Inc., which we acquired on November 1, 2017.*

**(1) Background and Summary of Significant Accounting Policies****General**

We are an international facilities-based communications company engaged primarily in providing a broad array of integrated services to our business and residential customers.

On November 1, 2017, we acquired Level 3 in a cash and stock transaction. See Note 2—Acquisition of Level 3 for additional information. On May 1, 2017, we sold a portion of our data centers and colocation business to a consortium of private equity purchasers for a combination of cash and equity. See Note 3—Sale of Data Centers and Colocation Business for additional information.

**Basis of Presentation**

The accompanying consolidated financial statements include our accounts and the accounts of our subsidiaries in which we have a controlling interest. These subsidiaries include Level 3 on and after November 1, 2017. Intercompany amounts and transactions with our consolidated subsidiaries have been eliminated. In connection with our acquisition of Level 3, we acquired its deconsolidated Venezuela subsidiary and due to exchange restrictions and other conditions we have assigned no value to this subsidiary's assets. Additionally, we have excluded this subsidiary from our consolidated financial statements.

To simplify the overall presentation of our consolidated financial statements, we report immaterial amounts attributable to noncontrolling interests in certain of our subsidiaries as follows: (i) income attributable to noncontrolling interests in other income, net, (ii) equity attributable to noncontrolling interests in additional paid-in capital and (iii) cash flows attributable to noncontrolling interests in other, net financing activities.

We reclassified certain prior period amounts to conform to the current period presentation, including the categorization of our revenue and our segment reporting for 2019, 2018 and 2017. See Note 17—Segment Information for additional information. These changes had no impact on total operating revenue, total operating expenses or net (loss) income for any period.

**Operating Expenses**

Our current definitions of operating expenses are as follows:

- *Cost of services and products (exclusive of depreciation and amortization)* are expenses incurred in providing products and services to our customers. These expenses include: employee-related expenses directly attributable to operating and maintaining our network (such as salaries, wages, benefits and professional fees); facilities expenses (which include third-party telecommunications expenses we incur for using other carriers' networks to provide services to our customers); rents and utilities expenses; equipment sales expenses (such as data integration and modem expenses); costs owed to universal service funds (which are federal and state funds that are established to promote the availability of communications services to all consumers at reasonable and affordable rates, among other things, and to which we are often required to contribute); and other expenses directly related to our operations; and

- *Selling, general and administrative expenses* are corporate overhead and other operating expenses. These expenses include: employee-related expenses (such as salaries, wages, internal commissions, benefits and professional fees) directly attributable to selling products or services and employee-related expenses for administrative functions; marketing and advertising; property and other operating taxes and fees; external commissions; litigation expenses associated with general matters; bad debt expense; and other selling, general and administrative expenses.

These expense classifications may not be comparable to those of other companies.

## **Summary of Significant Accounting Policies**

### **Use of Estimates**

Our consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles. These accounting principles require us to make certain estimates, judgments and assumptions. We believe that the estimates, judgments and assumptions we make when accounting for specific items and matters, including, but not limited to, revenue recognition, revenue reserves, network access costs, network access cost dispute reserves, pension plan assets, long-term contracts, customer retention patterns, allowance for doubtful accounts, depreciation, amortization, asset valuations, internal labor capitalization rates, recoverability of assets (including deferred tax assets), impairment assessments, pension, post-retirement and other post-employment benefits, taxes, certain liabilities and other provisions and contingencies, are reasonable, based on information available at the time they are made. These estimates, judgments and assumptions can materially affect the reported amounts of assets, liabilities and components of stockholders' equity as of the dates of the consolidated balance sheets, as well as the reported amounts of revenue, expenses and components of cash flows during the periods presented in our other consolidated financial statements. We also make estimates in our assessments of potential losses in relation to threatened or pending tax and legal matters. See Note 16—Income Taxes and Note 19—Commitments, Contingencies and Other Items for additional information.

For matters not related to income taxes, if a loss is considered probable and the amount can be reasonably estimated, we recognize an expense for the estimated loss. If we have the potential to recover a portion of the estimated loss from a third party, we make a separate assessment of recoverability and reduce the estimated loss if recovery is also deemed probable.

For matters related to income taxes, if we determine that the impact of an uncertain tax position is more likely than not to be sustained upon audit by the relevant taxing authority, then we recognize a benefit for the largest amount that is more likely than not to be sustained. No portion of an uncertain tax position will be recognized if the position has less than a 50% likelihood of being sustained. Interest is recognized on the amount of unrecognized benefit from uncertain tax positions.

For all of these and other matters, actual results could differ materially from our estimates.

### **Revenue Recognition**

We earn most of our consolidated revenue from contracts with customers, primarily through the provision of communications and other services. Revenue from contracts with customers is accounted for under Accounting Standards Codification ("ASC") 606. We also earn revenue from leasing arrangements (primarily fiber capacity agreements) and governmental subsidy payments, neither of which are accounted for under ASC 606.

Revenue is recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to receive in exchange for those goods or services. Revenue is recognized based on the following five-step model:

- Identification of the contract with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price;

- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, we satisfy a performance obligation.

We provide an array of communications services to business and residential customers, including local voice, VPN, Ethernet, data, broadband, private line (including special access), network access, transport, voice, information technology, video and other ancillary services. We provide these services to a wide range of businesses, including global/international, enterprise, wholesale, government, small and medium business customers. Certain contracts also include the sale of equipment, which is not significant to our business.

We recognize revenue for services when we provide the applicable service or when control is transferred. Recognition of certain payments received in advance of services being provided is deferred. These advance payments include certain activation and certain installation charges. If the activation and installation charges are not separate performance obligations, we recognize them as revenue over the actual or expected contract term using historical experience, which ranges from one year to five years depending on the service. In most cases, termination fees or other fees on existing contracts that are negotiated in conjunction with new contracts are deferred and recognized over the new contract term.

For access services, we generally bill fixed monthly charges one month in advance to customers and recognize revenue as service is provided over the contract term in alignment with the customer's receipt of service. For usage and other ancillary services, we generally bill in arrears and recognize revenue as usage or delivery occurs.

In certain cases, customers may be permitted to modify their contracts. We evaluate the change in scope or price to identify whether the modification should be treated as a separate contract, whether the modification is a termination of the existing contract and creation of a new contract, or if it is a change to the existing contract.

Customer contracts are evaluated to determine whether the performance obligations are separable. If the performance obligations are deemed separable and separate earnings processes exist, the total transaction price that we expect to receive with the customer is allocated to each performance obligation based on its relative standalone selling price. The revenue associated with each performance obligation is then recognized as earned.

We periodically sell optical capacity on our network. These transactions are structured as indefeasible rights of use, commonly referred to as IRUs, which are the exclusive right to use a specified amount of capacity or fiber for a specified term, typically 10 to 20 years. In most cases, we account for the cash consideration received on transfers of optical capacity as ASC 606 revenue which is adjusted for the time value of money and is recognized ratably over the term of the agreement. Cash consideration received on transfers of dark fiber is accounted for as non-ASC 606 lease revenue, which we also recognize ratably over the term of the agreement. We do not recognize revenue on any contemporaneous exchanges of our optical capacity assets for other non-owned optical capacity assets.

In connection with offering products and services provided to the end user by third-party vendors, we review the relationship between us, the vendor and the end user to assess whether revenue should be reported on a gross or net basis. In assessing whether revenue should be reported on a gross or net basis, we consider whether we act as a principal in the transaction and control the goods and services used to fulfill the performance obligations associated with the transaction.

We have service level commitments pursuant to contracts with certain of our customers. To the extent that such service levels are not achieved or are otherwise disputed due to performance or service issues or other service interruptions or conditions, we will estimate the amount of credits to be issued and record a corresponding reduction to revenue in the period that the service level commitment was not met.

Customer payments are made based on billing schedules included in our customer contracts, which is typically on a monthly basis.

We defer (or capitalize) incremental contract acquisition and fulfillment costs and recognize (or amortize) such costs over the average contract life. Our deferred contract costs for our customers have average amortization periods of approximately 30 months for consumer and up to 49 months for business. These deferred costs are monitored every period to reflect any significant change in assumptions.

See Note 5—Revenue Recognition for additional information.

#### **USF Surcharges, Gross Receipts Taxes and Other Surcharges**

In determining whether to include in our revenue and expenses the taxes and surcharges collected from customers and remitted to government authorities, including USF surcharges, sales, use, value added and some excise taxes, we assess, among other things, whether we are the primary obligor or principal taxpayer for the taxes assessed in each jurisdiction where we do business. In jurisdictions where we determine that we are the principal taxpayer, we record the surcharges on a gross basis and include them in our revenue and costs of services and products. In jurisdictions where we determine that we are merely a collection agent for the government authority, we record the taxes on a net basis and do not include them in our revenue and costs of services and products.

#### **Advertising Costs**

Costs related to advertising are expensed as incurred and included in selling, general and administrative expenses in our consolidated statements of operations. Our advertising expense was \$62 million, \$98 million and \$218 million for the years ended December 31, 2019, 2018 and 2017, respectively.

#### **Legal Costs**

In the normal course of our business, we incur costs to hire and retain external legal counsel to advise us on regulatory, litigation and other matters. We expense these costs as the related services are received.

#### **Income Taxes**

We file a consolidated federal income tax return with our eligible subsidiaries. The provision for income taxes consists of an amount for taxes currently payable, an amount for tax consequences deferred to future periods and adjustments to our liabilities for uncertain tax positions. We record deferred income tax assets and liabilities reflecting future tax consequences attributable to tax net operating loss carryforwards ("NOLs"), tax credit carryforwards and differences between the financial statement carrying value of assets and liabilities and the tax basis of those assets and liabilities. Deferred taxes are computed using enacted tax rates expected to apply in the year in which the differences are expected to affect taxable income. The effect on deferred income tax assets and liabilities of a change in tax rate is recognized in earnings in the period that includes the enactment date.

We establish valuation allowances when necessary to reduce deferred income tax assets to the amounts that we believe are more likely than not to be recovered. Each quarter we evaluate the need to retain all or a portion of the valuation allowance on our deferred tax assets. See Note 16—Income Taxes for additional information.

#### **Cash and Cash Equivalents**

Cash and cash equivalents include highly liquid investments that are readily convertible into cash and are not subject to significant risk from fluctuations in interest rates. As a result, the value at which cash and cash equivalents are reported in our consolidated financial statements approximates their fair value. In evaluating investments for classification as cash equivalents, we require that individual securities have original maturities of ninety days or less and that individual investment funds have dollar-weighted average maturities of ninety days or less. To preserve capital and maintain liquidity, we invest with financial institutions we deem to be of sound financial condition and in high quality and relatively risk-free investment products. Our cash investment policy limits the concentration of investments with specific financial institutions or among certain products and includes criteria related to credit worthiness of any particular financial institution.

Book overdrafts occur when checks have been issued but have not been presented to our controlled disbursement bank accounts for payment. Disbursement bank accounts allow us to delay funding of issued checks until the checks are presented for payment. Until the issued checks are presented for payment, the book overdrafts are included in accounts payable on our consolidated balance sheet. This activity is included in the operating activities section in our consolidated statements of cash flows.

### **Restricted Cash**

Restricted cash consists primarily of cash and investments that serve to collateralize our outstanding letters of credit and certain performance and operating obligations. Restricted cash and securities are recorded as current or non-current assets in the consolidated balance sheets depending on the duration of the restriction and the purpose for which the restriction exists. Restricted securities are stated at cost which approximates fair value as of December 31, 2019 and 2018.

### **Accounts Receivable and Allowance for Doubtful Accounts**

Accounts receivable are recognized based upon the amount due from customers for the services provided or at cost for purchased and other receivables less an allowance for doubtful accounts. The allowance for doubtful accounts receivable reflects our best estimate of probable losses inherent in our receivable portfolio determined on the basis of historical experience, specific allowances for known troubled accounts and other currently available evidence. We generally consider our accounts past due if they are outstanding over 30 days. Our collection process varies by the customer segment, amount of the receivable, and our evaluation of the customer's credit risk. Our past due accounts are written off against our allowance for doubtful accounts when collection is considered to be not probable. Any recoveries of accounts previously written off are generally recognized as a reduction in bad debt expense in the period received. The carrying value of accounts receivable net of the allowance for doubtful accounts approximates fair value. Accounts receivable balances acquired in a business combination are recorded at fair value for all balances receivable at the acquisition date and at the invoiced amount for those amounts invoiced after the acquisition date.

### **Property, Plant and Equipment**

We record property, plant and equipment acquired in connection with our acquisitions based on its estimated fair value as of its acquisition date plus the estimated value of any associated legally or contractually required retirement obligations. We record purchased and constructed property, plant and equipment at cost, plus the estimated value of any associated legally or contractually required retirement obligations. The majority of our property, plant and equipment is depreciated using the straight-line group method, but certain of our assets are depreciated using the straight-line method over their estimated useful lives of the specific asset. Under the straight-line group method, assets dedicated to providing telecommunications services (which comprise the majority of our property, plant and equipment) that have similar physical characteristics, use and expected useful lives are pooled for purposes of depreciation and tracking. The equal life group procedure is used to establish each pool's average remaining useful life. Generally, under the straight-line group method, when an asset is sold or retired in the course of normal business activities, the cost is deducted from property, plant and equipment and charged to accumulated depreciation without recognition of a gain or loss. A gain or loss is recognized in our consolidated statements of operations only if a disposal is unusual. Leasehold improvements are amortized over the shorter of the useful lives of the assets or the expected lease term. Expenditures for maintenance and repairs are expensed as incurred. Interest is capitalized during the construction phase of network and other internal-use capital projects. Employee-related costs for construction of network and other internal use assets are also capitalized during the construction phase. Property, plant and equipment supplies used internally are carried at average cost, except for significant individual items for which cost is based on specific identification.

We perform annual internal reviews to evaluate the reasonableness of the depreciable lives for our property, plant and equipment. Our reviews utilize models that take into account actual usage, physical wear and tear, replacement history, assumptions about technology evolution and, in certain instances, actuarially determined probabilities to estimate the remaining useful life of our asset base. Our remaining useful life assessments assess the possible loss in service value of assets that may precede the physical retirement. Assets shared among many customers may lose service value as those customers reduce their use of the asset. However, the asset is not retired until all customers no longer utilize the asset and we determine there is no alternative use for the asset.

We have asset retirement obligations associated with the legally or contractually required removal of a limited group of property, plant and equipment assets from leased properties and the disposal of certain hazardous materials present in our owned properties. When an asset retirement obligation is identified, usually in association with the acquisition of the asset, we record the fair value of the obligation as a liability. The fair value of the obligation is also capitalized as property, plant and equipment and then amortized over the estimated remaining useful life of the associated asset. Where the removal obligation is not legally binding, the net cost to remove assets is expensed in the period in which the costs are actually incurred.

We review long-lived tangible assets for impairment whenever facts and circumstances indicate that the carrying amounts of the assets may not be recoverable. For assessment purposes, long-lived assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities, absent a material change in operations. An impairment loss is recognized only if the carrying amount of the asset group is not recoverable and exceeds its estimated fair value. Recoverability of the asset group to be held and used is assessed by comparing the carrying amount of the asset group to the estimated undiscounted future net cash flows expected to be generated by the asset group. If the asset group's carrying value is not recoverable, we recognize an impairment charge for the amount by which the carrying amount of the asset group exceeds its estimated fair value.

### **Goodwill, Customer Relationships and Other Intangible Assets**

Intangible assets arising from business combinations, such as goodwill, customer relationships, capitalized software, trademarks and trade names, are initially recorded at estimated fair value. We amortize customer relationships primarily over an estimated life of 7 to 15 years, using either the sum-of-years-digits or the straight-line methods, depending on the type of customer. We amortize capitalized software using the straight-line method primarily over estimated lives ranging up to 7 years. We amortize our other intangible assets using the sum-of-years-digits or straight-line method over an estimated life of 4 to 20 years. Other intangible assets not arising from business combinations are initially recorded at cost. Where there are no legal, regulatory, contractual or other factors that would reasonably limit the useful life of an intangible asset, we classify the intangible asset as indefinite-lived and such intangible assets are not amortized.

Internally used software, whether purchased or developed by us, is capitalized and amortized using the straight-line method over its estimated useful life. We have capitalized certain costs associated with software such as costs of employees devoting time to the projects and external direct costs for materials and services. Costs associated with software to be used for internal purposes are expensed until the point at which the project has reached the development stage. Subsequent additions, modifications or upgrades to internal-use software are capitalized only to the extent that they allow the software to perform a task it previously did not perform. Software maintenance, data conversion and training costs are expensed in the period in which they are incurred. We review the remaining economic lives of our capitalized software annually. Capitalized software is included in other intangible assets, net, in our consolidated balance sheets.

Our long-lived intangible assets, other than goodwill, with indefinite lives are assessed for impairment annually, or, under certain circumstances, more frequently, such as when events or changes in circumstances indicate there may be an impairment. These assets are carried at the estimated fair value at the time of acquisition and assets not acquired in acquisitions are recorded at historical cost. However, if their estimated fair value is less than the carrying amount, we recognize an impairment charge for the amount by which the carrying amount of these assets exceeds their estimated fair value.

We are required to assess goodwill for impairment at least annually, or more frequently, if an event occurs or circumstances change that would indicate an impairment may have occurred. We are required to write-down the value of goodwill in periods in which the recorded carrying value of equity exceeds the fair value of equity. Our reporting units are not discrete legal entities with discrete full financial statements. Therefore, the equity carrying value and future cash flows are assessed each time a goodwill impairment assessment is performed on a reporting unit. To do so, we assign our assets, liabilities and cash flows to reporting units using reasonable and consistent allocation methodologies, which entail various estimates, judgments and assumptions. We believe these estimates, judgments and assumptions to be reasonable, but changes in any of these can significantly affect each reporting unit's equity carrying value and future cash flows utilized for our goodwill impairment assessment.



We are required to reassign goodwill to reporting units whenever reorganizations of our internal reporting structure changes the composition of our reporting units. Goodwill is reassigned to the reporting units using a relative fair value approach. When the fair value of a reporting unit is available, we allocate goodwill based on the relative fair value of the reporting units. When fair value is not available, we utilize an alternative allocation methodology that represents a reasonable proxy for the fair value of the operations being reorganized.

For more information, see Note 4—Goodwill, Customer Relationships and Other Intangible Assets.

### **Derivatives and Hedging**

We may use derivative instruments to hedge exposure to interest rate risks arising from fluctuation in interest rates. We account for derivative instruments in accordance with ASC 815, *Derivatives and Hedging*, which establishes accounting and reporting standards for derivative instruments. We do not use derivative financial instruments for speculative purposes.

Derivatives are recognized in the consolidated balance sheets at their fair values. When we become a party to a derivative instrument and intend to apply hedge accounting, we formally document the hedge relationship and the risk management objective for undertaking the hedge which includes designating the instrument for financial reporting purposes as a fair value hedge, a cash flow hedge, or a net investment hedge.

We entered into five variable-to-fixed interest rate swap agreements during the first quarter 2019 and six variable-to-fixed interest rate swap agreements during the second quarter 2019, which we designated as cash-flow hedges. We evaluate the effectiveness of these hedges qualitatively on a quarterly basis. The change in the fair value of the interest rate swaps is reflected in Accumulated Other Comprehensive Loss (“AOCI”) and is subsequently reclassified into earnings in the period the hedged transaction affects earnings, by virtue of qualifying as effective cash flow hedges. For more information see Note 15—Derivative Financial Instruments.

### **Pension and Post-Retirement Benefits**

We recognize the funded status of our defined benefit and post-retirement plans as an asset or a liability on our consolidated balance sheet. Each year's actuarial gains or losses are a component of our other comprehensive income (loss), which is then included in our accumulated other comprehensive loss. Pension and post-retirement benefit expenses are recognized over the period in which the employee renders service and becomes eligible to receive benefits. We make significant assumptions (including the discount rate, expected rate of return on plan assets, mortality and health care trend rates) in computing the pension and post-retirement benefits expense and obligations. Note 11—Employee Benefits for additional information.

### **Foreign Currency**

Local currencies of foreign subsidiaries are the functional currencies for financial reporting purposes except for certain foreign subsidiaries, primarily in Latin America. For operations outside the United States that have functional currencies other than the U.S. dollar, assets and liabilities are translated to U.S. dollars at period-end exchange rates, and revenue, expenses and cash flows are translated using average monthly exchange rates. A significant portion of our non-United States subsidiaries use either the British pound, the Euro or the Brazilian Real as their functional currency, each of which experienced significant fluctuations against the U.S. dollar during the years ended December 31, 2019, 2018 and 2017. Foreign currency translation gains and losses are recognized as a component of accumulated other comprehensive loss in stockholders' equity and in the consolidated statements of comprehensive income (loss) in accordance with accounting guidance for foreign currency translation. We consider the majority of our investments in our foreign subsidiaries to be long-term in nature. Our foreign currency transaction gains (losses), including where transactions with our non-United States subsidiaries are not considered to be long-term in nature, are included within other income, net on the consolidated statements of operations.

### **Common Stock**

At December 31, 2019, we had 17 million shares authorized for future issuance under our equity incentive plans.

## Preferred Stock

Holders of outstanding CenturyLink, Inc. preferred stock are entitled to receive cumulative dividends, receive preferential distributions equal to \$25 per share plus unpaid dividends upon CenturyLink, Inc.'s liquidation and vote as a single class with the holders of common stock.

## Section 382 Rights Plan

During the first half of 2019, we adopted and subsequently restated a Section 382 Rights Plan to protect our U.S. federal net operating loss carryforwards from certain Internal Revenue Code Section 382 limitations. Under the plan, one preferred stock purchase right was distributed for each share of our outstanding common stock as of the close of business on February 25, 2019, and those rights currently trade in tandem with the common stock until they expire or detach under the plan. This plan was designed to deter trading that would result in a change of control (as defined in Code Section 382), and therefore protect our ability to use our historical federal net operating losses in the future.

## Dividends

The declaration and payment of dividends is at the discretion of our Board of Directors.

## Recently Adopted Accounting Pronouncements

During 2019, we adopted Accounting Standards Update ("ASU") 2016-02, "Leases (ASC 842)". During 2018, we adopted ASU 2018-14, "Compensation-Retirement Benefits-Defined Benefit Plans-General: Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans", ASU 2018-02, "Income Statement-Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income" and ASU 2014-09, "Revenue from Contracts with Customers". During 2017, we adopted ASU 2017-04, "Simplifying the Test for Goodwill Impairment."

Each of these is described further below.

## Leases

We adopted Accounting Standards Update ("ASU") 2016-02, "Leases (ASC 842)", as of January 1, 2019, using the non-comparative transition option pursuant to ASU 2018-11. Therefore, we have not restated comparative period financial information for the effects of ASC 842, and we will not make the new required lease disclosures for comparative periods beginning before January 1, 2019. Instead, we recognized ASC 842's cumulative effect transition adjustment (discussed below) as of January 1, 2019. In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things (i) allowed us to carry forward the historical lease classification; (ii) did not require us to reassess whether any expired or existing contracts are or contain leases under the new definition of a lease; and (iii) did not require us to reassess whether previously capitalized initial direct costs for any existing leases would qualify for capitalization under ASC 842. We also elected the practical expedient related to land easements, allowing us to carry forward our accounting treatment for land easements on existing agreements. We did not elect the hindsight practical expedient regarding the likelihood of exercising a lessee purchase option or assessing any impairment of right-of-use assets for existing leases.

On March 5, 2019, the Financial Accounting Standards Board ("FASB") issued ASU 2019-01, "Leases (ASC 842): Codification Improvements", effective for public companies for fiscal years beginning after December 15, 2019. The new ASU aligns the guidance in ASC 842 for determining fair value of the underlying asset by lessors that are not manufacturers or dealers, with that of existing guidance. As a result, the fair value of the underlying asset at lease commencement is its cost, reflecting any volume or trade discounts that may apply. However, if there has been a significant lapse of time between when the underlying asset is acquired and when the lease commences, the definition of *fair value* (in ASC 820, "Fair Value Measurement") should be applied. More importantly, the ASU also exempts both lessees and lessors from having to provide certain interim disclosures in the fiscal year in which a company adopts the new leases standard. Early adoption permits public companies to adopt concurrent with the transition to ASC 842 on leases. We adopted ASU 2019-01 as of January 1, 2019.

Adoption of the new standards resulted in the recording of operating lease assets and operating lease liabilities of approximately \$2.1 billion and \$2.2 billion, respectively, as of January 1, 2019. The difference is driven principally by the netting of our existing real estate restructure reserve against the corresponding operating lease right of use asset. In addition, we recorded a \$96 million cumulative adjustment (net of tax) to accumulated deficit as of January 1, 2019, for the impact of the new accounting standards. The adjustment to accumulated deficit was driven by the derecognition of our prior failed sale leaseback transaction discussed in Note 3—Sale of Data Centers and Colocation Business. Our financial position for reporting periods beginning on or after January 1, 2019 is presented under the new guidance, as discussed above, while prior period amounts are not adjusted and continue to be reported in accordance with previous guidance. The standards did not materially impact our consolidated net earnings or our cash flows in the year ended December 31, 2019.

### **Retirement Benefits**

In August 2018, the FASB issued ASU 2018-14, "*Compensation-Retirement Benefits-Defined Benefit Plans-General: Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans*" ("ASU 2018-14"). ASU 2018-14 eliminates requirements for certain disclosures that are not considered cost beneficial, clarifies certain required disclosures and adds additional disclosures under defined benefit pension plans and other postretirement plans. We adopted this guidance during the fourth quarter 2018. The adoption of ASU 2018-14 did not have a material impact to our consolidated financial statements.

### **Comprehensive Loss**

In February 2018, the FASB issued ASU 2018-02 which provides an option to reclassify stranded tax effects within accumulated other comprehensive loss to retained earnings in each period in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act (the "Act") (or portion thereof) is recorded. If an entity elects to reclassify the income tax effects of the Act, the amount of that reclassification shall include the effect of the change in the U.S. federal corporate income tax rate on the gross deferred tax amounts and related valuation allowances, if any, at the date of enactment of the Act related to items remaining in accumulated other comprehensive loss. The effect of the change in the U.S. federal corporate income tax rate on gross valuation allowances that were originally charged to income from continuing operations shall not be included. ASU 2018-02 is effective January 1, 2019, but early adoption is permitted and should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Act is recognized. We early adopted and applied ASU 2018-02 in the first quarter of 2018. The adoption of ASU 2018-02 resulted in a \$407 million increase to retained earnings and in accumulated other comprehensive loss. See Note 22—Accumulated Other Comprehensive Loss for additional information.

### **Revenue Recognition**

In May 2014, the FASB issued ASU 2014-09 which replaces virtually all existing generally accepted accounting principles on revenue recognition with a principles-based approach for determining revenue recognition using a new five step model. The core principle of ASU 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 also includes new accounting principles related to the deferral and amortization of contract acquisition and fulfillment costs.

We adopted the new revenue recognition standard under the modified retrospective transition method. During the year ended December 31, 2018, we recorded a cumulative catch-up adjustment that increased our retained earnings by \$338 million, net of \$119 million of income taxes.

See Note 5—Revenue Recognition for additional information.

## Goodwill Impairment

In January 2017, the FASB issued ASU 2017-04, "*Simplifying the Test for Goodwill Impairment*" ("ASU 2017-04"). ASU 2017-04 simplifies the impairment testing for goodwill by changing the measurement for goodwill impairment. Under prior rules, we were required to compute the fair value of goodwill to measure the impairment amount if the carrying value of a reporting unit exceeds its fair value. Under ASU 2017-04, the goodwill impairment charge will equal the excess of the reporting unit carrying value above its fair value, limited to the amount of goodwill assigned to the reporting unit.

We elected to early adopt the provisions of ASU 2017-04 as of October 1, 2018. We applied ASU 2017-04 to determine the impairment of \$6.5 billion recorded during the first quarter of 2019 and \$2.7 billion recorded during the fourth quarter of 2018. See Note 4 - Goodwill, Customer Relationships and Other Intangible Assets for additional information.

## Recently Issued Accounting Pronouncements

### Financial Instruments

In June 2016, the FASB issued ASU 2016-13, "*Measurement of Credit Losses on Financial Instruments*". The primary impact of ASU 2016-13 for us is a change in the model for the recognition of credit losses related to our financial instruments from an incurred loss model, which recognized credit losses only if it was probable that a loss had been incurred, to an expected loss model, which requires our management team to estimate the total credit losses expected on the portfolio of financial instruments.

We are in the process of implementing the model for the recognition of credit losses related to our financial instruments, new processes and internal controls to assist us in the application of the new standard. The cumulative effect of initially applying the new standard on January 1, 2020 will not be material.

## (2) Acquisition of Level 3

On November 1, 2017, CenturyLink acquired Level 3 through successive merger transactions, including a merger of Level 3 with and into a merger subsidiary, which survived such merger as our indirect wholly-owned subsidiary under the name of Level 3 Parent, LLC. We entered into this acquisition to, among other things, realize certain strategic benefits, including enhanced financial and operational scale, market diversification and an enhanced combined network. As a result of the acquisition, Level 3 shareholders received \$26.50 per share in cash and 1.4286 shares of CenturyLink common stock, with cash paid in lieu of fractional shares, for each outstanding share of Level 3 common stock they owned at closing, subject to certain limited exceptions. We issued this consideration with respect to all of the outstanding common stock of Level 3, except for a limited number of shares held by dissenting common shareholders. Upon closing, CenturyLink shareholders owned approximately 51% and former Level 3 shareholders owned approximately 49% of the combined company.

In addition, each outstanding Level 3 restricted stock unit award granted prior to April 1, 2014 or granted to an outside director of Level 3 was converted into \$26.50 in cash and 1.4286 shares of CenturyLink common stock (and cash in lieu of fractional shares) with respect to each Level 3 share covered by such award (the "Converted RSU Awards"). Each outstanding Level 3 restricted stock unit award granted on or after April 1, 2014 (other than those granted to outside directors of Level 3) was converted into a CenturyLink restricted stock unit award using a conversion ratio of 2.8386 to 1 as determined in accordance with a formula set forth in the merger agreement ("the Continuing RSU Awards"). See Note 12—Share-based Compensation for further details on these share-based compensation awards.

The aggregate consideration of \$19.6 billion is based on:

- the 517.3 million shares of CenturyLink's common stock (including those issued in connection with the Converted RSU Awards) issued to consummate the acquisition and the closing stock price of CenturyLink common stock at October 31, 2017 of \$18.99;
- a combination of (i) the cash consideration of \$26.50 per share on the 362.1 million common shares of Level 3 issued and outstanding as of October 31, 2017, (ii) the cash consideration of \$1 million paid on the Converted RSUs awards; and (iii) the estimated value of \$136 million the Continuing RSU Awards,

which represents the pre-combination portion of Level 3's share-based compensation awards replaced by CenturyLink;

- \$60 million for the dissenting common shares issued and outstanding as of October 31, 2017; and
- our assumption at closing of approximately \$10.6 billion of Level 3's long-term debt.

The aggregate cash payments required to be paid on or about the closing date were funded with the proceeds of \$7.945 billion of term loans and \$400 million of funds borrowed under our revolving credit facility together with other available funds, which included \$1.825 billion borrowed from Level 3 Parent, LLC. For additional information regarding CenturyLink's financing of the Level 3 acquisition see Note 7—Long-Term Debt and Credit Facilities.

We recognized the assets and liabilities of Level 3 based on the fair value of the acquired tangible and intangible assets and assumed liabilities of Level 3 as of November 1, 2017, the consummation date of the acquisition, with the excess aggregate consideration recorded as goodwill. The estimation of such fair values and the estimation of lives of depreciable tangible assets and amortizable intangible assets required significant judgment. We completed our final fair value determination during the fourth quarter of 2018, which differed from those reflected in our consolidated financial statements at December 31, 2017.

In connection with receiving approval from the U.S. Department of Justice to complete the Level 3 acquisition we agreed to divest certain Level 3 network assets. All of those assets were sold by December 31, 2018. The proceeds from these sales were included in the proceeds from sale of property, plant and equipment in our consolidated statements of cash flows. No gain or loss was recognized with these transactions.

As of October 31, 2018, the aggregate consideration exceeded the aggregate estimated fair value of the acquired assets and assumed liabilities by \$11.2 billion, which we have recognized as goodwill. The goodwill is attributable to strategic benefits, including enhanced financial and operational scale, market diversification and leveraged combined networks that we expect to realize. None of the goodwill associated with this acquisition is deductible for income tax purposes.

The following is our assignment of the aggregate consideration:

	Adjusted November 1, 2017		Adjusted November 1, 2017
	Balance as of December 31, 2017	Purchase Price Adjustments	Balance as of October 31, 2018
	(Dollars in millions)		
Cash, accounts receivable and other current assets <sup>(1)</sup>	\$ 3,317	(26)	3,291
Property, plant and equipment	9,311	157	9,468
Identifiable intangible assets <sup>(2)</sup>			
Customer relationships	8,964	(533)	8,431
Other	391	(13)	378
Other noncurrent assets	782	216	998
Current liabilities, excluding current maturities of long-term debt	(1,461)	(32)	(1,493)
Current maturities of long-term debt	(7)	—	(7)
Long-term debt	(10,888)	—	(10,888)
Deferred revenue and other liabilities	(1,629)	(114)	(1,743)
Goodwill	10,837	340	11,177
Total estimated aggregate consideration	\$ 19,617	(5)	19,612

(1) Includes accounts receivable, which had a gross contractual value of \$884 million on November 1, 2017 and October 31, 2018.

(2) The weighted-average amortization period for the acquired intangible assets is approximately 12.0 years.

On the acquisition date, we assumed Level 3's contingencies. For more information on our contingencies, see Note 19—Commitments, Contingencies and Other Items.

#### Acquisition-Related Expenses

We have incurred acquisition-related expenses related to our acquisition of Level 3. The table below summarizes our acquisition-related expenses, which consist of integration and transformation-related expenses, including severance and retention compensation expenses, and transaction-related expenses:

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Transaction-related expenses	\$ —	2	174
Integration and transformation-related expenses	234	391	97
Total acquisition-related expenses	\$ 234	393	271

At December 31, 2019, we had incurred cumulative acquisition-related expenses of \$950 million for Level 3. The total amounts of these expenses are included in our selling, general and administrative expenses.

Level 3 incurred transaction-related expenses of \$47 million on the date of acquisition. This amount is not included in our results of operations.

### (3) Sale of Data Centers and Colocation Business

On May 1, 2017, we sold a portion of our data centers and colocation business to a consortium led by BC Partners, Inc. and Medina Capital in exchange for cash and a minority stake in the limited partnership that owns the consortium's newly-formed global secure infrastructure company, Cyxtera Technologies ("Cyxtera").

At the closing of this sale, we received pre-tax cash proceeds of \$1.8 billion, and we valued our minority stake at \$150 million, which was based upon the total amount of equity contributions to the limited partnership on the date made. We classified our investment in the limited partnership in other assets on our consolidated balance sheets as of December 31, 2019 and December 31, 2018. Due to the sale and related restructuring actions we have taken regarding certain subsidiaries involved in the data centers and colocation business, we estimated a cumulative current tax impact relating to the sale totaling \$65 million, \$18 million of which was accrued in 2016 and \$47 million of which was accrued in 2017.

In connection with our sale of the data centers and colocation business to Cyxtera, we agreed to lease back from Cyxtera a portion of the data center space to provide data hosting services to our customers. Because we have continuing involvement in the business through our minority stake in Cyxtera's parent, we did not meet the requirements for a sale-leaseback transaction as described in ASC 840-40, *Leases - Sale-Leaseback Transactions*. Under the failed-sale-leaseback accounting model, we were deemed under GAAP to still own certain real estate assets sold to Cyxtera, which we continued, through December 31, 2018 to reflect on our consolidated balance sheet and depreciate over the assets' remaining useful life. Through such date, we also treated a certain amount of the pre-tax cash proceeds from the sale of the assets as though it were the result of a financing obligation on our consolidated balance sheet, and our consolidated results of operations included imputed revenue associated with the portion of the real estate assets that we did not lease back and imputed interest expense on the financing obligation. A portion of the rent payments under our leaseback arrangement with Cyxtera were recognized as a reduction of the financing obligation, resulting in lower recognized rent expense than the amounts actually paid each period.

The failed-sale-leaseback accounting treatment had the following effects on our consolidated results of operations for the years ended December 31, 2018 and 2017:

	Positive (Negative) Impact to Net Income	
	December 31,	
	2018	2017
	(Dollars in millions)	
Increase in revenue	\$ 74	49
Decrease in cost of sales	22	15
Increase in loss on sale of business included in selling, general and administrative expense	—	(102)
Increase in depreciation expense (one-time)	—	(44)
Increase in depreciation expense (ongoing)	(69)	(47)
Increase in interest expense	(55)	(39)
Decrease in income tax expense	7	65
Decrease in net income	\$ (21)	(103)

After factoring in the costs to sell the data centers and colocation business, excluding the impact from the failed-sale-leaseback accounting treatment, the sale resulted in a \$20 million gain as a result of the aggregate value of the proceeds we received exceeding the carrying value of the assets sold and liabilities assumed. Based on the fair market values of the failed-sale-leaseback assets, the failed-sale-leaseback accounting treatment resulted in a loss of \$102 million as a result of the requirement to treat a certain amount of the pre-tax cash proceeds from the sale of the assets as though it were the result of a financing obligation. The combined net loss of \$82 million was included in selling, general and administrative expenses in our consolidated statement of operations for the year ended December 31, 2017.

Effective November 3, 2016, which is the date we entered into the agreement to sell a portion of our data centers and colocation business, we ceased recording depreciation of the property, plant and equipment to be sold and amortization of the business's intangible assets in accordance with applicable accounting rules. Otherwise, we estimate that we would have recorded additional depreciation and amortization expense of \$67 million from January 1, 2017 through May 1, 2017.

Upon adopting ASU 2016-02, accounting for the failed sale leaseback is no longer applicable based on our facts and circumstances, and the real estate assets and corresponding financing obligation were derecognized from our consolidated financial statements. Please see "Leases" (ASU 2016-02) in Note 1—Background and Summary of Significant Accounting Policies for additional information on the impact the new lease standard will have on the accounting for the failed-sale-leaseback.

#### (4) Goodwill, Customer Relationships and Other Intangible Assets

Goodwill, customer relationships and other intangible assets consisted of the following:

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Goodwill	\$ 21,534	28,031
Customer relationships, less accumulated amortization of \$9,809 and \$8,492	\$ 7,596	8,911
Indefinite-life intangible assets	\$ 269	269
Other intangible assets subject to amortization:		
Capitalized software, less accumulated amortization of \$2,957 and \$2,616	\$ 1,599	1,468
Trade names, less accumulated amortization of \$91 and \$61	103	131
Total other intangible assets, net	\$ 1,971	1,868

Our goodwill was derived from numerous acquisitions where the purchase price exceeded the fair value of the net assets acquired (including the acquisition described in Note 2—Acquisition of Level 3). As of December 31, 2019, the weighted average remaining useful lives of the intangible assets were approximately 8 years in total, approximately 9 years for customer relationships, 4 years for capitalized software and 3 years for trade names.

Total amortization expense for intangible assets for the years ended December 31, 2019, 2018 and 2017 was \$1.7 billion, \$1.8 billion and \$1.2 billion, respectively. As of December 31, 2019, the gross carrying amount of goodwill, customer relationships, indefinite-life and other intangible assets was \$44.0 billion.

We estimate that total amortization expense for intangible assets for the years ending December 31, 2020 through 2024 will be as follows:

	(Dollars in millions)
2020	\$ 1,674
2021	1,258
2022	1,037
2023	886
2024	828



We assess our goodwill and other indefinite-lived intangible assets for impairment annually, or, under certain circumstances, more frequently, such as when events or changes in circumstances indicate there may be impairment. We are required to write down the value of goodwill only when our assessment determines the carrying value of equity of any of our reporting units exceeds its fair value. At October 31, 2019, our international and global accounts segment was comprised of our North America global accounts ("NA GAM"), Europe, Middle East and Africa region ("EMEA"), Latin America region ("LATAM") and Asia Pacific region ("APAC") reporting units. Our annual impairment assessment date for goodwill is October 31, at which date we assess our reporting units. At October 31, 2019 our reporting units were consumer, small and medium business, enterprise, wholesale, NA GAM, EMEA, LATAM and APAC. Our annual impairment assessment date for indefinite-lived intangible assets other than goodwill is December 31.

Our reporting units are not discrete legal entities with discrete full financial statements. Our assets and liabilities are employed in and relate to the operations of multiple reporting units. For each reporting unit, we compare its estimated fair value of equity to its carrying value of equity that we assign to the reporting unit. If the estimated fair value of the reporting unit is greater than the carrying value, we conclude that no impairment exists. If the estimated fair value of the reporting unit is less than the carrying value, we record an impairment equal to the excess amount. Depending on the facts and circumstances, we typically estimate the fair value of our reporting units by considering either or both of (i) a market approach, which includes the use of multiples of publicly-traded companies whose services are comparable to ours, and (ii) a discounted cash flow method, which is based on the present value of projected cash flows and a terminal value, which represents the expected normalized cash flows of the reporting units beyond the cash flows from the discrete projection period.

At October 31, 2019, we estimated the fair value of our eight above-mentioned reporting units by considering both a market approach and a discounted cash flow method. We reconciled the estimated fair values of the reporting units to our market capitalization as of October 31, 2019 and concluded that the indicated control premium of approximately 44.7% was reasonable based on recent market transactions. As of October 31, 2019, based on our assessment performed with respect to our eight reporting units, the estimated fair value of our equity exceeded our carrying value of equity for our consumer, small and medium business, enterprise, wholesale, NA GAM, EMEA, LATAM, and APAC reporting units by 44%, 41%, 53%, 46%, 55%, 5%, 63% and 38%, respectively. Based on our assessments performed, we concluded that the goodwill for our eight reporting units was not impaired as of October 31, 2019.

Both our January 2019 internal reorganization and the decline in our stock price triggered impairment testing in the first quarter of 2019. Because our low stock price was a key trigger for impairment testing during the first quarter of 2019, we estimated the fair value of our operations in such quarter using only the market approach. Applying this approach, we utilized company comparisons and analyst reports within the telecommunications industry which have historically supported a range of fair values derived from annualized revenue and EBITDA (earnings before interest, taxes, depreciation and amortization) multiples between 2.1x and 4.9x and 4.9x and 9.8x, respectively. We selected a revenue and EBITDA multiple for each of our reporting units within this range. We reconciled the estimated fair values of the reporting units to our market capitalization as of the date of each of our triggering events during the first quarter of 2019 and concluded that the indicated control premium of approximately 4.5% and 4.1% was reasonable based on recent market transactions. In the quarter ended March 31, 2019, based on our assessments performed with respect to the reporting units as described above, we concluded that the estimated fair value of certain of our reporting units was less than our carrying value of equity as of the date of each of our triggering events during the first quarter. As a result, we recorded non-cash, non-tax-deductible goodwill impairment charges aggregating to \$6.5 billion in the quarter ended March 31, 2019. See the table below for the impairment charges by segment.

The market multiples approach that we used in the quarter ended March 31, 2019 incorporated significant estimates and assumptions related to the forecasted results for the remainder of the year, including revenues, expenses, and the achievement of certain cost synergies. In developing the market multiple, we also considered observed trends of our industry participants. Our assessment included many qualitative factors that required significant judgment. Alternative interpretations of these factors could have resulted in different conclusions regarding the size of our impairments.

At October 31, 2018, we estimated the fair value of our then five reporting units which were consumer, medium and small business, enterprise, international and global accounts, and wholesale and indirect by considering both a market approach and a discounted cash flow method. We reconciled the estimated fair values of the reporting units to our market capitalization as of October 31, 2018 and concluded that the indicated control premium of approximately 0.1% was reasonable based on recent market transactions. As of October 31, 2018, based on our assessment performed with respect to these reporting units as described above, we concluded that the estimated fair value of our consumer reporting unit was less than our carrying value of equity by approximately \$2.7 billion. As a result, we recorded a non-cash, non-tax-deductible goodwill impairment charge of \$2.7 billion for goodwill assigned to our consumer reporting unit during the fourth quarter of 2018. In addition, based on our assessments performed, we concluded that the goodwill for our four remaining reporting units was not impaired as of October 31, 2018.

We completed our qualitative assessment of our indefinite-lived intangible assets other than goodwill as of December 31, 2019 and 2018 and concluded it is more likely than not that our indefinite-lived intangible assets are not impaired; thus, no impairment charge for these assets was recorded in 2019 or 2018.

The following tables show the rollforward of goodwill assigned to our reportable segments from December 31, 2017 through December 31, 2019.

	Business	Consumer	Total
	(Dollars in millions)		
As of December 31, 2017 <sup>(1)</sup>	\$ 20,197	10,278	30,475
Purchase accounting and other adjustments <sup>(2)(3)</sup>	250	32	282
Impairment	—	(2,726)	(2,726)
As of December 31, 2018	\$ 20,447	7,584	28,031

(1) Goodwill is net of accumulated impairment losses of \$1.1 billion that related to our former hosting segment now included in our business segment.

(2) We allocated \$32 million of Level 3 goodwill to consumer as we expect the consumer segment to benefit from synergies resulting from the business combination.

(3) Includes \$58 million decrease due to effect of foreign currency exchange rate change.

	International and Global Accounts	Enterprise	Small and Medium Business	Wholesale	Consumer	Total
	(Dollars in millions)					
As of January 1, 2019	\$ 3,595	5,222	5,193	6,437	7,584	28,031
January 2019 reorganization	—	987	(1,038)	395	(344)	—
Effect of foreign currency rate change and other	9	—	—	—	—	9
Impairments	(934)	(1,471)	(896)	(3,019)	(186)	(6,506)
As of December 31, 2019	\$ 2,670	4,738	3,259	3,813	7,054	21,534

For additional information on our segments, see Note 17—Segment Information.

## (5) Revenue Recognition

The following tables present our reported results under ASC 606 and a reconciliation to results using the historical accounting method:

	Year Ended December 31, 2018		
	Reported Balances	Impact of ASC 606	ASC 605 Historical Adjusted Balances
			(Dollars in millions, except per share amounts and shares in thousands)
Operating revenue	\$ 23,443	39	23,482
Cost of services and products (exclusive of depreciation and amortization)	10,862	22	10,884
Selling, general and administrative	4,165	71	4,236
Interest expense	2,177	(9)	2,168
Income tax expense	170	(12)	158
Net loss	(1,733)	(33)	(1,766)
BASIC AND DILUTED LOSS PER COMMON SHARE			
BASIC	\$ (1.63)	(0.03)	(1.66)
DILUTED	\$ (1.63)	(0.03)	(1.66)
WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING			
BASIC	1,065,866	—	1,065,866
DILUTED	1,065,866	—	1,065,866

### *Reconciliation of Total Revenue to Revenue from Contracts with Customers*

The following tables provide disaggregation of revenue from contracts with customers based on reporting segments and service offerings for the years ended December 31, 2019 and 2018. It also shows the amount of revenue that is not subject to ASC 606, but is instead governed by other accounting standards.

	Year Ended December 31, 2019		
	Total Revenue	Adjustments for Non-ASC 606 Revenue <sup>(9)</sup>	Total Revenue from Contracts with Customers
	(Dollars in millions)		
International and Global Accounts			
IP and Data Services <sup>(1)</sup>	\$ 1,676	—	1,676
Transport and Infrastructure <sup>(2)</sup>	1,318	(365)	953
Voice and Collaboration <sup>(3)</sup>	377	—	377
IT and Managed Services <sup>(4)</sup>	225	—	225
Total International and Global Accounts Segment Revenue	3,596	(365)	3,231
Enterprise			
IP and Data Services <sup>(1)</sup>	2,763	—	2,763
Transport and Infrastructure <sup>(2)</sup>	1,545	(134)	1,411
Voice and Collaboration <sup>(3)</sup>	1,567	—	1,567
IT and Managed Services <sup>(4)</sup>	258	—	258
Total Enterprise Segment Revenue	6,133	(134)	5,999
Small and Medium Business			
IP and Data Services <sup>(1)</sup>	1,184	—	1,184
Transport and Infrastructure <sup>(2)</sup>	420	(36)	384
Voice and Collaboration <sup>(3)</sup>	1,306	—	1,306
IT and Managed Services <sup>(4)</sup>	46	—	46
Total Small and Medium Business Segment Revenue	2,956	(36)	2,920
Wholesale			
IP and Data Services <sup>(1)</sup>	1,377	—	1,377
Transport and Infrastructure <sup>(2)</sup>	1,920	(545)	1,375
Voice and Collaboration <sup>(3)</sup>	771	—	771
IT and Managed Services <sup>(4)</sup>	6	—	6
Total Wholesale Business Segment Revenue	4,074	(545)	3,529
Consumer			
Broadband <sup>(5)</sup>	2,876	(215)	2,661
Voice <sup>(6)</sup>	1,881	—	1,881
Regulatory <sup>(7)</sup>	634	(634)	—
Other <sup>(8)</sup>	251	(24)	227
Total Consumer Segment Revenue	5,642	(873)	4,769
Total revenue			
	\$ 22,401	(1,953)	20,448
Timing of revenue			
Goods and services transferred at a point in time			\$ 221
Services performed over time			20,227
Total revenue from contracts with customers			\$ 20,448

	Year Ended December 31, 2018		
	Total Revenue	Adjustments for Non-ASC 606 Revenue <sup>(9)</sup>	Total Revenue from Contracts with Customers
	(Dollars in millions)		
International and Global Accounts			
IP and Data Services <sup>(1)</sup>	\$ 1,728	—	1,728
Transport and Infrastructure <sup>(2)</sup>	1,276	(83)	1,193
Voice and Collaboration <sup>(3)</sup>	387	—	387
IT and Managed Services <sup>(4)</sup>	262	—	262
Total International and Global Accounts Segment Revenue	3,653	(83)	3,570
Enterprise			
IP and Data Services <sup>(1)</sup>	2,673	—	2,673
Transport and Infrastructure <sup>(2)</sup>	1,550	(43)	1,507
Voice and Collaboration <sup>(3)</sup>	1,607	—	1,607
IT and Managed Services <sup>(4)</sup>	303	—	303
Total Enterprise Segment Revenue	6,133	(43)	6,090
Small and Medium Business			
IP and Data Services <sup>(1)</sup>	1,178	—	1,178
Transport and Infrastructure <sup>(2)</sup>	471	(40)	431
Voice and Collaboration <sup>(3)</sup>	1,443	—	1,443
IT and Managed Services <sup>(4)</sup>	52	—	52
Total Small and Medium Business Segment Revenue	3,144	(40)	3,104
Wholesale			
IP and Data Services <sup>(1)</sup>	1,382	—	1,382
Transport and Infrastructure <sup>(2)</sup>	2,136	(397)	1,739
Voice and Collaboration <sup>(3)</sup>	872	—	872
IT and Managed Services <sup>(4)</sup>	7	—	7
Total Wholesale Business Segment Revenue	4,397	(397)	4,000
Consumer			
Broadband <sup>(5)</sup>	2,822	(213)	2,609
Voice <sup>(6)</sup>	2,173	—	2,173
Regulatory <sup>(7)</sup>	729	(729)	—
Other <sup>(8)</sup>	392	(33)	359
Total Consumer Segment Revenue	6,116	(975)	5,141
Total revenue	\$ 23,443	(1,538)	21,905
Timing of revenue			
Goods and services transferred at a point in time		\$	230
Services performed over time			21,675
Total revenue from contracts with customers		\$	21,905

- (1) Includes primarily VPN data network, Ethernet, IP, content delivery and other ancillary services.
- (2) Includes wavelengths, private line, dark fiber services, colocation and data center services, including cloud, hosting and application management solutions, professional services and other ancillary services.
- (3) Includes local, long-distance voice, including wholesale voice, and other ancillary services, as well as VoIP services.
- (4) Includes information technology services and managed services, which may be purchased in conjunction with our other network services.
- (5) Includes high speed, fiber-based and lower speed DSL broadband services.
- (6) Includes local and long-distance services.
- (7) Includes (i) CAF, USF and other support payments designed to reimburse us for various costs related to certain telecommunications services and (ii) other operating revenue from the leasing and subleasing of space.
- (8) Includes retail video services (including our linear TV services), professional services and other ancillary services.
- (9) Includes regulatory revenue, lease revenue, sublease rental income, revenue from fiber capacity lease arrangements and failed sale leaseback income in 2018, which are not within the scope of ASC 606.

### *Customer Receivables and Contract Balances*

The following table provides balances of customer receivables, contract assets and contract liabilities as of December 31, 2019 and December 31, 2018:

	December 31, 2019	December 31, 2018
	(Dollars in millions)	
Customer receivables <sup>(1)</sup>	\$ 2,194	2,346
Contract liabilities	1,028	860
Contract assets	130	140

- (1) Gross customer receivables of \$2.3 billion and \$2.5 billion, net of allowance for doubtful accounts of \$94 million and \$132 million, at December 31, 2019 and December 31, 2018, respectively.

Contract liabilities are consideration we have received from our customers or billed in advance of providing goods or services promised in the future. We defer recognizing this consideration as revenue until we have satisfied the related performance obligation to the customer. Contract liabilities include recurring services billed one month in advance and installation and maintenance charges that are deferred and recognized over the actual or expected contract term, which typically ranges from one to five years depending on the service. Contract liabilities are included within deferred revenue in our consolidated balance sheet. During the years ended December 31, 2019 and December 31, 2018, we recognized \$630 million and \$295 million, respectively, of revenue that was included in contract liabilities as of January 1, 2019 and January 1, 2018, respectively.

### *Performance Obligations*

As of December 31, 2019, our estimated revenue expected to be recognized in the future related to performance obligations associated with customer contracts that are unsatisfied (or partially satisfied) is approximately \$6.0 billion. We expect to recognize approximately 92% of this revenue through 2022, with the balance recognized thereafter.

We do not disclose the value of unsatisfied performance obligations for contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed (for example, uncommitted usage or non-recurring charges associated with professional or technical services to be completed), or contracts that are classified as leasing arrangements that are not subject to ASC 606.

## Contract Costs

The following table provides changes in our contract acquisition costs and fulfillment costs:

	Year Ended December 31, 2019	
	Acquisition Costs	Fulfillment Costs
	(Dollars in millions)	
Beginning of period balance	\$ 322	187
Costs incurred	208	158
Amortization	(204)	(124)
End of period balance	\$ 326	221

  

	Year Ended December 31, 2018	
	Acquisition Costs	Fulfillment Costs
	(Dollars in millions)	
Beginning of period balance	\$ 268	133
Costs incurred	226	146
Amortization	(172)	(92)
End of period balance	\$ 322	187

Acquisition costs include commission fees paid to employees as a result of obtaining contracts. Fulfillment costs include third party and internal costs associated with the provision, installation and activation of telecommunications services to customers, including labor and materials consumed for these activities.

Deferred acquisition and fulfillment costs are amortized based on the transfer of services on a straight-line basis over the average customer life of 30 months for consumer customers and 12 to 60 months for business customers and amortized fulfillment costs are included in cost of services and products and amortized acquisition costs are included in selling, general and administrative expenses in our consolidated statements of operations. The amount of these deferred costs that are anticipated to be amortized in the next twelve months are included in other current assets on our consolidated balance sheets. The amount of deferred costs expected to be amortized beyond the next twelve months is included in other non-current assets on our consolidated balance sheets. Deferred acquisition and fulfillment costs are assessed for impairment on an annual basis.

## (6) Leases

Our financial position for reporting periods beginning on or after January 1, 2019 is presented under the new accounting guidance, while prior periods amounts are not adjusted and continue to be reported in accordance with previous guidance, as discussed in Note 1— Background and Summary of Significant Accounting Policies.

We primarily lease various office facilities, switching and colocation facilities, equipment and dark fiber. Leases with an initial term of 12 months or less are not recorded on the balance sheet; we recognize lease expense for these leases on a straight-line basis over the lease term.

We determine if an arrangement is a lease at inception and whether that lease meets the classification criteria of a finance or operating lease. Lease-related assets, or right-of-use assets, are recognized at the lease commencement date at amounts equal to the respective lease liabilities. Lease-related liabilities are recognized at the present value of the remaining contractual fixed lease payments, discounted using our incremental borrowing rates. As part of the present value calculation for the lease liabilities, we use an incremental borrowing rate as the rates implicit in the leases are not readily determinable. The incremental borrowing rates used for lease accounting are based on our unsecured rates, adjusted to approximate the rates at which we could borrow on a collateralized basis over a term similar to the recognized lease term. We apply the incremental borrowing rates to lease components using a portfolio approach based upon the length of the lease term and the reporting entity in which the lease resides. Operating lease expense is recognized on a straight-line basis over the lease term, while variable lease payments are expensed as incurred.

Some of our lease arrangements contain lease components (including fixed payments, such as rent, real estate taxes and insurance costs) and non-lease components (including common-area maintenance costs). We generally account for each component separately based on the estimated standalone price of each component. For colocation leases, we account for the lease and non-lease components as a single lease component.

Many of our lease agreements contain renewal options; however, we do not recognize right-of-use assets or lease liabilities for renewal periods unless it is determined that we are reasonably certain of renewing the lease at inception or when a triggering event occurs. Certain leases also include options to purchase the leased property. The depreciable life of assets and leasehold improvements are limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain to be exercised. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Lease expense consisted of the following:

	Year Ended December 31, 2019
	(Dollars in millions)
Operating and short-term lease cost	\$ 677
Finance lease cost:	
Amortization of right-of-use assets	44
Interest on lease liability	12
Total finance lease cost	56
Total lease cost	\$ 733

CenturyLink leases various equipment, office facilities, retail outlets, switching facilities and other network sites. These leases, with few exceptions, provide for renewal options and escalations that are either fixed or based on the consumer price index. Any rent abatements, along with rent escalations, are included in the computation of rent expense calculated on a straight-line basis over the lease term. The lease term for most leases includes the initial non-cancelable term plus any term under renewal options that are reasonably assured. For the years ended December 31, 2019, 2018 and 2017, our gross rental expense was \$733 million, \$875 million and \$550 million, respectively. We also received sublease rental income for the years ended December 31, 2019, 2018 and 2017 of \$24 million, \$21 million and \$13 million, respectively.



Supplemental consolidated balance sheet information and other information related to leases:

		December 31
		2019
Leases (Dollars in millions)	Classification on the Balance Sheet	
<b>Assets</b>		
Operating lease assets	Operating lease assets	\$ 1,686
Finance lease assets	Property, plant and equipment, net of accumulated depreciation	252
Total leased assets		\$ 1,938
<b>Liabilities</b>		
<b>Current</b>		
Operating	Current operating lease liabilities	\$ 416
Finance	Current portion of long-term debt	35
<b>Noncurrent</b>		
Operating	Noncurrent operating lease liabilities	1,342
Finance	Long-term debt	185
Total lease liabilities		\$ 1,978
<b>Weighted-average remaining lease term (years)</b>		
Operating leases		7.2
Finance leases		11.3
<b>Weighted-average discount rate</b>		
Operating leases		6.46%
Finance leases		5.47%

Supplemental consolidated cash flow statement information related to leases:

		Year Ended December 31, 2019
		(Dollars in millions)
<b>Cash paid for amounts included in the measurement of lease liabilities:</b>		
Operating cash flows from operating leases	\$	665
Operating cash flows from finance leases		14
Financing cash flows from finance leases		32
<b>Supplemental lease cash flow disclosures</b>		
Operating lease right-of-use assets obtained in exchange for new operating lease liabilities	\$	358
Right-of-use assets obtained in exchange for new finance lease liabilities	\$	14

As of December 31, 2019, maturities of lease liabilities were as follows:

	Operating Leases	Finance Leases
	(Dollars in millions)	
2020	\$ 460	47
2021	361	28
2022	308	22
2023	265	22
2024	194	21
Thereafter	686	170
Total lease payments	2,274	310
Less: interest	(516)	(90)
Total	\$ 1,758	220
Less: current portion	(416)	(35)
Long-term portion	\$ 1,342	185

As of December 31, 2019, we had no material operating or finance leases that had not yet commenced.

### Operating Lease Income

CenturyLink leases various IRUs, office facilities, switching facilities and other network sites to third parties under operating leases. Lease and sublease income are included in operating revenue in the consolidated statements of operations.

For the years ended December 31, 2019, 2018 and 2017, our gross rental income was \$1.4 billion, \$882 million and \$766 million, respectively, which represents 6%, 4% and 4% respectively, of our operating revenue for the years ended December 31, 2019, 2018 and 2017.

### Disclosures under ASC 840

We adopted ASU 2016-02 on January 1, 2019 as noted above, and as required, the following disclosure is provided for periods prior to adoption.

The future annual minimum payments under capital lease agreements as of December 31, 2018 were as follows:

	Capital Lease Obligations
	(Dollars in millions)
2019	\$ 51
2020	36
2021	23
2022	21
2023	20
2024 and thereafter	183
Total minimum payments	334
Less: amount representing interest and executory costs	(100)
Present value of minimum payments	234
Less: current portion	(38)
Long-term portion	\$ 196

At December 31, 2018, our future rental commitments for operating leases were as follows:

	<b>Operating Leases</b>	
	<b>(Dollars in millions)</b>	
2019	\$	675
2020		443
2021		355
2022		279
2023		241
2024 and thereafter		969
Total future minimum payments <sup>(1)</sup>	\$	2,962

(1) Minimum payments have not been reduced by minimum sublease rentals of \$101 million due in the future under non-cancelable subleases.

## (7) Long-Term Debt and Credit Facilities

The following chart reflects the consolidated long-term debt of CenturyLink, Inc. and its subsidiaries as of the dates indicated below, including unamortized discounts and premiums and unamortized debt issuance costs, but excluding intercompany debt and the impact of the debt refinancing transactions described under "Subsequent Events":

	Interest Rates <sup>(1)</sup>	Maturities	As of December 31,	
			2019	2018
			(Dollars in millions)	
<b>Senior Secured Debt:</b> <sup>(2)</sup>				
<i>CenturyLink, Inc.</i>				
Revolving Credit Facility	4.495%	2022	\$ 250	550
Term Loan A <sup>(3)</sup>	LIBOR + 2.75%	2022	1,536	1,622
Term Loan A-1 <sup>(3)</sup>	LIBOR + 2.75%	2022	333	351
Term Loan B <sup>(3)</sup>	LIBOR + 2.75%	2025	5,880	5,940
<i>Subsidiaries:</i>				
<i>Level 3 Financing, Inc.</i>				
Tranche B 2024 Term Loan <sup>(4)</sup>	LIBOR + 2.25%	2024	—	4,611
Tranche B 2027 Term Loan <sup>(5)</sup>	LIBOR + 1.75%	2027	3,111	—
Senior notes	3.400% - 3.875%	2027 - 2029	1,500	—
<i>Embarq Corporation subsidiaries</i>				
First mortgage bonds	7.125% - 8.375%	2023 - 2025	138	138
<b>Senior Notes and Other Debt:</b>				
<i>CenturyLink, Inc.</i>				
Senior notes	5.125% - 7.65%	2019 - 2042	8,696	8,036
<i>Subsidiaries:</i>				
<i>Level 3 Financing, Inc.</i>				
Senior notes	4.625% - 6.125%	2021 - 2027	5,515	5,315
<i>Level 3 Parent, LLC</i>				
Senior notes	5.750%	2022	—	600
<i>Qwest Corporation</i>				
Senior notes	6.125% - 7.750%	2021 - 2057	5,956	5,956
Term loan <sup>(6)</sup>	LIBOR + 2.00%	2025	100	100
<i>Qwest Capital Funding, Inc.</i>				
Senior notes	6.875% - 7.750%	2021 - 2031	352	697
<i>Embarq Corporation and subsidiary</i>				
Senior note	7.995%	2036	1,450	1,485
Other	9.000%	2019	—	150
<b>Finance lease and other obligations</b>	Various	Various	222	801
Unamortized (discounts) premiums and other, net			(52)	(8)
Unamortized debt issuance costs			(293)	(283)
Total long-term debt			34,694	36,061
Less current maturities			(2,300)	(652)
Long-term debt, excluding current maturities			\$ 32,394	35,409

(1) As of December 31, 2019. See "Subsequent Events" for a discussion of certain changes to CenturyLink's senior secured debt in early 2020.

- (2) See the remainder of this Note for a description of certain parent or subsidiary guarantees and liens securing this debt.
- (3) CenturyLink, Inc.'s Term Loans A, A-1, and B had interest rates of 4.549% and 5.272% as of December 31, 2019 and December 31, 2018, respectively.
- (4) The Tranche B 2024 Term Loan had an interest rate of 4.754% as of December 31, 2018.
- (5) The Tranche B 2027 Term Loan had an interest rate of 3.549% as of December 31, 2019.
- (6) Qwest Corporation's Term Loan had an interest rate of 3.800% as of December 31, 2019 and 4.530% as of December 31, 2018.

#### ***Debt of CenturyLink, Inc. and its Subsidiaries***

At December 31, 2019, most of our outstanding consolidated debt had been incurred by CenturyLink, Inc. or one of the following four other primary borrowers or "borrowing groups," each of which has borrowed funds either on a standalone basis or as part of a separate restricted group with certain of its subsidiaries:

- Qwest Corporation;
- Qwest Capital Funding, Inc. (including its parent guarantor, Qwest Communications International Inc.);
- Embarq Corporation; and
- Level 3 Financing, Inc. (including its parent guarantor Level 3 Parent, LLC).

Each of these borrowers or borrowing groups has entered into one or more credit agreements with certain financial institutions or other institutional lenders, or issued senior notes. Certain of these debt instruments are described further below.

#### ***CenturyLink Credit Agreement***

In connection with financing its acquisition of Level 3 on November 1, 2017, CenturyLink, Inc. caused its wholly-owned subsidiary, CenturyLink Escrow, LLC, to enter into a credit agreement on June 19, 2017 (the "2017 CenturyLink Credit Agreement") with, among others, Bank of America, N.A., as administrative agent and collateral agent, providing for \$10.245 billion in senior secured credit facilities (the "2017 Senior Secured Credit Facilities") at December 31, 2019. As amended in early 2018, these facilities consisted of the following:

- a \$2.168 billion revolving credit facility ("2017 Revolving Credit Facility"), with 18 lenders;
- a \$1.707 billion senior secured Term Loan A credit facility, with 18 lenders;
- a \$370 million senior secured Term Loan A-1 credit facility with CoBank, ACB; and
- a \$6.0 billion senior secured Term Loan "B" credit facility.

At December 31, 2019, loans under the Term Loan A and A-1 facilities and the 2017 Revolving Credit Facility bore interest at a rate equal to, at our option, the London Interbank Offered Rate ("LIBOR") or the alternative base rate (each as defined in the 2017 CenturyLink Credit Agreement) plus an applicable margin between 2.25% to 3.00% per annum for LIBOR loans and 1.25% to 2.00% per annum for alternative base rate loans, depending on our then current total leverage ratio. Since November 1, 2017, borrowings under the Term Loan B facility have borne interest at LIBOR plus 2.75% per annum. Loans under each of the term loan facilities require certain specified quarterly amortization payments and certain specified mandatory prepayments in connection with certain asset sales and debt issuances and out of excess cash flow, among other things, subject in each case to certain significant exceptions.

At December 31, 2019, the 2017 Revolving Credit Facility and borrowings under the Term Loan A and A-1 facilities were scheduled to mature on November 1, 2022, and borrowings under the Term Loan B facility were scheduled to mature on January 31, 2025.

All of CenturyLink, Inc.'s obligations under the 2017 Senior Secured Credit Facilities are guaranteed by certain of its subsidiaries. The guarantees by certain of those guarantors are secured by a first priority security interest in substantially all assets (including certain subsidiaries stock) directly owned by them, subject to certain exceptions and limitations.

A portion of the 2017 Revolving Credit Facility in an amount not to exceed \$100 million is available for swingline loans, and a portion in an amount not to exceed \$400 million is available for the issuance of letters of credit.

CenturyLink, Inc. is permitted under the 2017 CenturyLink Credit Agreement to request certain incremental borrowings subject to the satisfaction of various conditions and to certain other limitations. Any incremental borrowings would be subject to the same terms and conditions under the 2017 CenturyLink Credit Agreement.

Changes to Agreement, as described further under "Subsequent Events," in January 2020 we effected certain refinancing transactions that among other things, changed the maturity dates of the 2017 Senior Secured Credit Facilities, lowered the interest rates payable thereunder, and changed the allocations of amounts owed under each of the facilities.

### ***Term Loans and Certain Other Debt of Subsidiaries***

#### **Qwest Corporation**

In 2015, Qwest Corporation entered into a variable rate term loan in the amount of \$100 million with CoBank, ACB. The outstanding unpaid principal amount of this term loan plus any accrued and unpaid interest is due on February 20, 2025. Interest is paid at least quarterly based upon either the London Interbank Offered Rate ("LIBOR") or the base rate (as defined in the credit agreement) plus an applicable margin between 1.50% to 2.50% per annum for LIBOR loans and 0.50% to 1.50% per annum for base rate loans depending on Qwest Corporation's then current senior unsecured long-term debt rating. At both December 31, 2019 and 2018, the outstanding principal balance on this term loan was \$100 million.

#### **Level 3 Financing, Inc.**

At December 31, 2019, Level 3 Financing, Inc. owed \$3.111 billion, under the Tranche B 2027 Term Loan, which matures on March 1, 2027. The Tranche B 2027 Term Loan carries an interest rate, in the case of base rate borrowings, equal to (i) the greater of the Prime Rate, the Federal Funds Effective Rate plus 50 basis points, or LIBOR plus 100 basis points (with all such terms and calculations as defined or further specified in the credit agreement) plus (ii) 0.75% per annum. Any Eurodollar borrowings under the Tranche B 2027 Term Loan bear interest at LIBOR plus 1.75% per annum.

The Tranche B 2027 Term Loan requires certain specified mandatory prepayments in connection with certain asset sales and other transactions, subject to certain significant exceptions. The obligations of Level 3 Financing, Inc. under the Tranche B 2027 Term Loan are, subject to certain exceptions, secured by certain assets of Level 3 Parent, LLC and certain of its material domestic telecommunication subsidiaries. Also, Level 3 Parent, LLC and certain of its subsidiaries have guaranteed the obligations of Level 3 Financing, Inc. under the Tranche B 2027 Term Loan.

The net proceeds from the Tranche B 2027 Term Loan, together with the net proceeds from a concurrent offering of senior secured notes of Level 3 Financing, Inc., were used to pre-pay in full Level 3 Financing's predecessor Tranche B 2024 Term Loan.

#### **Embarq Subsidiaries**

At December 31, 2019 and 2018, one of our Embarq subsidiaries had outstanding first mortgage bonds. These first mortgage bonds are secured by substantially all of the property, plant and equipment of the issuing subsidiary.

## ***Revolving Letters of Credit***

We use various financial instruments in the normal course of business. These instruments include letters of credit, which are conditional commitments issued on our behalf in accordance with specified terms and conditions. CenturyLink, Inc. maintains an uncommitted \$225 million revolving letter of credit facility separate from the letter of credit facility included in the 2017 Revolving Credit Facility noted above. Letters of credit issued under this facility are backed by credit enhancements in the form of secured guarantees issued by certain of our subsidiaries. As of December 31, 2019 and 2018, our outstanding letters of credit under this credit facility totaled \$82 million and \$97 million, respectively.

As of December 31, 2019, Level 3 Parent, LLC had outstanding letters of credit or other similar obligations of approximately \$23 million, of which \$18 million was collateralized by cash that is reflected on the consolidated balance sheets as restricted cash. As of December 31, 2018, Level 3 Parent, LLC had outstanding letters of credit or other similar obligations of approximately \$30 million of which \$24 million was collateralized by cash that is reflected on the consolidated balance sheets as restricted cash.

## ***Senior Notes***

CenturyLink, Inc., Level 3 Financing, Inc., Qwest Corporation, Qwest Capital Funding, Inc. and Embarq Corporation have each issued unsecured senior notes, and Level 3 Financing has issued secured senior notes, that were outstanding as of December 31, 2019. All of these notes carry fixed interest rates and all principal is due on the notes' respective maturity dates, which rates and maturity dates are summarized in the table above. None of the senior notes issued by CenturyLink that were outstanding as of December 31, 2019 are guaranteed by any of its subsidiaries. The senior notes issued by Level 3 Financing, Inc. are guaranteed by its parent, Level 3 Parent, LLC and one or more of its affiliates. The senior notes issued by Qwest Capital Funding, Inc. are guaranteed by its parent, Qwest Communications International Inc. Except for a limited number of senior notes issued by Qwest Corporation, the issuer generally can redeem the notes, at its option, in whole or in part, (i) pursuant to a fixed schedule of pre-established redemption prices, (ii) pursuant to a "make whole" redemption price or (iii) under certain other specified limited conditions. Under certain circumstances in connection with a "change of control" of CenturyLink, Inc., it will be required to make an offer to repurchase each series of these senior notes (other than two of its older series of notes) at a price of 101% of the principal amount redeemed, plus accrued and unpaid interest. Also, under certain circumstances in connection with a "change of control" of Level 3 Parent, LLC or Level 3 Financing, Inc., Level 3 Financing will be required to make an offer to repurchase each series of its outstanding senior notes at a price of 101% of the principal amount redeemed, plus accrued and unpaid interest.

## ***New Issuances***

On December 16, 2019, CenturyLink, Inc. issued \$1.250 billion of 5.125% Senior Notes due 2026. The proceeds from the offering were primarily used to fully redeem on January 15, 2020 the \$1.1 billion of senior notes of Qwest Corporation described under "Subsequent Events—Redemption."

On November 29, 2019, Level 3 Financing, Inc. issued \$750 million of 3.400% Senior Secured Notes due 2027 and \$750 million of 3.875% Senior Secured Notes due 2029. The proceeds from the offering together with cash on hand were primarily used to redeem a portion of the \$4.611 billion Tranche B 2024 Term Loan that was repaid on November 29, 2019. On November 29, 2019, Level 3 Financing, Inc. entered into an amendment to its credit agreement to incur \$3.111 billion in aggregate borrowings under the agreement through the Tranche B 2027 Term Loan discussed above.

On September 25, 2019, Level 3 Financing, Inc. issued \$1.0 billion of 4.625% Senior Notes due 2027. The proceeds from the offering together with cash on hand were used to redeem, during the fourth quarter of 2019, all \$240 million outstanding principal amount of Level 3 Financing, Inc.'s 6.125% Senior Notes due 2021, all \$600 million outstanding principal amount of Level 3 Parent, LLC's 5.75% Senior Notes due 2022 and \$160 million of Level 3 Financing, Inc.'s \$1 billion outstanding principal amount of 5.375% Senior Notes due 2022.

## **Repayments**

### **2019**

Including the redemptions noted above under "New Issuances", during 2019, CenturyLink and its affiliates repurchased approximately \$3.6 billion of their respective debt securities, which primarily included approximately \$2.3 billion of Level 3 Financing, Inc. senior notes and term loan, \$600 million of Level 3 Parent, LLC senior notes, \$345 million of Qwest Capital Funding senior notes, \$340 million of CenturyLink, Inc. senior notes, which resulted in an aggregate net gain of \$72 million. Additionally, during the period CenturyLink paid \$398 million of its maturing senior notes and \$164 million of amortization payments under its term loans.

### **2018**

During 2018, CenturyLink and its affiliates redeemed approximately \$1.7 billion in debt securities, which primarily included approximately \$1.3 billion of Qwest Corporation senior notes and \$174 million of Qwest Capital Financing senior notes.

## **Long-Term Debt Maturities**

Set forth below is the aggregate principal amount of our long-term debt (excluding unamortized discounts and premiums, net and unamortized debt issuance costs) maturing during the following years as of December 31, 2019:

	(Dollars in millions)
2020	\$ 2,300
2021	2,478
2022	4,224
2023	2,096
2024	1,973
2025 and thereafter	21,968
Total long-term debt	\$ 35,039

## **Interest Expense**

Interest expense includes interest on total long-term debt. The following table presents the amount of gross interest expense, net of capitalized interest:

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Interest expense:			
Gross interest expense	\$ 2,093	2,230	1,559
Capitalized interest	(72)	(53)	(78)
Total interest expense	\$ 2,021	2,177	1,481



## **Covenants**

### **CenturyLink, Inc.**

With respect to the Term Loan A and A-1 facilities and the 2017 Revolving Credit Facility, the 2017 CenturyLink Credit Agreement requires us to maintain (i) a maximum total leverage ratio of not more than 4.75 to 1.00 and (ii) a minimum consolidated interest coverage ratio of at least 2.00 to 1.00, with such ratios being determined and calculated in the manner described in the 2017 CenturyLink Credit Agreement.

The 2017 Senior Secured Credit Facilities contain various representations and warranties and extensive affirmative and negative covenants. Such covenants include, among other things and subject to certain significant exceptions, restrictions on our ability to declare or pay dividends, repurchase stock, repay certain other indebtedness, create liens, incur additional indebtedness, make investments, engage in transactions with its affiliates, dispose of assets and merge or consolidate with any other person.

The senior notes of CenturyLink, Inc. were issued under base indentures dated March 31, 1994 or December 16, 2019. These indentures restrict our ability to (i) incur, issue or create liens upon the property of CenturyLink, Inc. and (ii) consolidate with or merge into, or transfer or lease all or substantially all of our assets to any other party. The indentures do not contain any provisions that restrict the issuance of new securities in the event of a material adverse change to us. However, as indicated above under "Senior Notes", CenturyLink, Inc. will be required to offer to purchase certain of its long-term debt securities issued under this indenture under certain circumstances in connection with a "change of control" of CenturyLink, Inc.

### **Level 3 Companies**

The term loan, senior secured notes and senior unsecured notes of Level 3 Financing, Inc. contain various representations and extensive affirmative and negative covenants. Such covenants include, among other things and subject to certain significant exceptions, restrictions on their ability to declare or pay dividends, repay certain other indebtedness, create liens, incur additional indebtedness, make investments, engage in transactions with their affiliates, dispose of assets and merge or consolidate with any other person. Also, as indicated above under "Senior Notes", Level 3 Financing, Inc. will be required to offer to repurchase or repay certain of its long-term debt under certain circumstances in connection with a "change of control" of Level 3 Financing or Level 3 Parent, LLC.

### **Qwest Companies**

Under its term loan, Qwest Corporation must maintain a debt to EBITDA (earnings before interest, taxes, depreciation and amortization, as defined in such term loan documentation) ratio of not more than 2.85:1.0, as of the last day of each fiscal quarter for the four quarters then ended. The term loan also contains a negative pledge covenant, which generally requires Qwest Corporation to secure equally and ratably any advances under the term loan if it pledges assets or permit liens on its property for the benefit of other debtholders.

The senior notes of Qwest Corporation were issued under indentures dated April 15, 1990 and October 15, 1999. These indentures contain restrictions on the incurrence of liens and the consummation of certain transactions substantially similar to the above-described covenants in CenturyLink's 1994 and 2019 indentures (but contain no mandatory repurchase provisions). The senior notes of Qwest Capital Funding, Inc. were issued under an indenture dated June 29, 1998 containing terms substantially similar to those set forth in Qwest Corporation's indentures.

### **Embarq**

Embarq's senior note was issued pursuant to an indenture dated as of May 17, 2006. While Embarq is generally prohibited from creating liens on its property unless its senior notes are secured equally and ratably, Embarq can create liens on its property without equally and ratably securing its senior notes so long as the sum of all indebtedness so secured does not exceed 15% of Embarq's consolidated net tangible assets. The indenture also contains restrictions on the consummation of certain transactions substantially similar to CenturyLink, Inc.'s above-described covenants (but without mandatory repurchase provision), as well as certain customary covenants to maintain properties and pay all taxes and lawful claims.

## **Impact of Covenants**

The debt covenants applicable to CenturyLink, Inc. and its subsidiaries could materially adversely affect their ability to operate or expand their respective businesses, to pursue strategic transactions, or to otherwise pursue their plans and strategies. The covenants of the Level 3 companies may significantly restrict the ability of CenturyLink, Inc. to receive cash from the Level 3 companies, to distribute cash from the Level 3 companies to other of CenturyLink, Inc.'s affiliated entities, or to enter into other transactions among CenturyLink, Inc.'s wholly-owned entities.

Certain of the debt instruments of CenturyLink, Inc. and its subsidiaries contain cross payment default or cross acceleration provisions. When present, these provisions could have a wider impact on liquidity than might otherwise arise from a default or acceleration of a single debt instrument.

The ability of CenturyLink, Inc. and its subsidiaries to comply with the financial covenants in their respective debt instruments could be adversely impacted by a wide variety of events, including unforeseen contingencies, many of which are beyond their control.

## **Compliance**

At December 31, 2019, CenturyLink, Inc. believes it and its subsidiaries were in compliance with the provisions and financial covenants contained in their respective material debt agreements in all material respects.

## **Guarantees**

CenturyLink, Inc. does not guarantee the debt of any unaffiliated parties, but, as noted above, as of December 31, 2019 certain of its largest subsidiaries guaranteed (i) its debt and letters of credit outstanding under its 2017 CenturyLink Credit Agreement and its \$225 million revolving letter of credit facility and (ii) the outstanding term loans or senior notes issued by certain other subsidiaries. As further noted above, several of the subsidiaries guaranteeing these obligations have pledged substantially all of their assets to secure their respective guarantees.

## **Subsequent Events**

### ***Amended and Restated Credit Agreement***

On January 31, 2020, CenturyLink, Inc. amended and restated its 2017 CenturyLink Credit Agreement (as so amended and restated, the "Amended Credit Agreement"). Coupled with CenturyLink's prepayment on January 24, 2020 of \$1.25 billion of indebtedness outstanding under its Term Loan B facility (using principally the net proceeds from its below-described sale the same day of \$1.25 billion of its 4.000% Senior Secured Notes due 2027), the Amended Credit Agreement currently provides for approximately \$8.699 billion in senior secured credit facilities, consisting of an approximately \$1.166 billion Term Loan A credit facility, a \$333 million Term Loan A-1 credit facility, a \$5.0 billion Term Loan B credit facility and a \$2.2 billion revolving credit facility (collectively, the "Amended Senior Secured Credit Facilities").

The Amended Credit Agreement, among other things, (i) extended the maturity date of (a) the Term Loan A, Term Loan A-1 and Revolving Credit facilities from November 1, 2022 to January 31, 2025 and (b) the Term Loan B facility from January 31, 2025 to March 15, 2027, and (ii) lowered the interest rate applicable to loans made under each of the Amended Senior Secured Credit Facilities. As so amended, (i) loans under the Term Loan A, Term Loan A-1 and Revolving Credit facilities will bear interest at a rate equal to, at CenturyLink's option, the Eurodollar rate or the alternative base rate (each as defined in the Amended Credit Agreement) plus an applicable margin between 1.50% to 2.25% per annum for Eurodollar loans and 0.50% to 1.25% per annum for alternative base rate loans, depending on CenturyLink's then current total leverage ratio, and (ii) loans under the Term Loan B facility will bear interest at the rate equal to, at CenturyLink's option, the Eurodollar rate plus 2.25% per annum or the alternative base rate plus 1.25% per annum. The subsidiary guarantor and collateral provisions and the financial covenants contained in the Amended Credit Agreement are unchanged from the 2017 CenturyLink Credit Agreement.

## New Bond Issuance

On January 24, 2020, CenturyLink issued \$1.25 billion aggregate principal amount of its 4.000% Senior Secured Notes due 2027 (the “2027 Notes”). CenturyLink used the net proceeds from this offering to repay a portion of the outstanding indebtedness under its Term Loan B facility. The 2027 Notes are unconditionally guaranteed by each of CenturyLink’s domestic subsidiaries that guarantees CenturyLink’s Amended Credit Agreement, subject to the receipt of certain regulatory approvals and various exceptions and limitations. While the 2027 Notes are not secured by any of the assets of CenturyLink, certain of the note guarantees are secured by a first priority security interest in substantially all of the assets of such guarantors (including the stock of certain of their respective subsidiaries), which assets also secure obligations under the Amended Credit Agreement on a pari passu basis.

## Redemption

On January 15, 2020, Qwest Corporation fully redeemed all \$850 million aggregate principal amount of its outstanding 6.875% senior notes due 2033 and all \$250 million aggregate principal amount of its outstanding 7.125% senior notes due 2043.

## (8) Accounts Receivable

The following table presents details of our accounts receivable balances:

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Trade and purchased receivables	\$ 1,971	2,094
Earned and unbilled receivables	374	425
Other	20	21
Total accounts receivable	2,365	2,540
Less: allowance for doubtful accounts	(106)	(142)
Accounts receivable, less allowance	\$ 2,259	2,398

We are exposed to concentrations of credit risk from residential and business customers. We generally do not require collateral to secure our receivable balances. We have agreements with other communications service providers whereby we agree to bill and collect on their behalf for services rendered by those providers to our customers within our local service area. We purchase accounts receivable from other communications service providers primarily on a recourse basis and include these amounts in our accounts receivable balance. We have not experienced any significant loss associated with these purchased receivables.

The following table presents details of our allowance for doubtful accounts:

	Beginning Balance	Additions	Deductions	Ending Balance
	(Dollars in millions)			
2019	\$ 142	145	(181)	106
2018	164	153	(175)	142
2017	178	176	(190)	164

## (9) Property, Plant and Equipment

Net property, plant and equipment is composed of the following:

	Depreciable Lives	As of December 31,	
		2019	2018
(Dollars in millions)			
Land	N/A	\$ 867	871
Fiber, conduit and other outside plant <sup>(1)</sup>	15-45 years	24,666	23,936
Central office and other network electronics <sup>(2)</sup>	3-10 years	19,608	18,736
Support assets <sup>(3)</sup>	3-30 years	7,984	8,020
Construction in progress <sup>(4)</sup>	N/A	2,300	1,704
Gross property, plant and equipment		55,425	53,267
Accumulated depreciation		(29,346)	(26,859)
Net property, plant and equipment		\$ 26,079	26,408

(1) Fiber, conduit and other outside plant consists of fiber and metallic cable, conduit, poles and other supporting structures.

(2) Central office and other network electronics consists of circuit and packet switches, routers, transmission electronics and electronics providing service to customers.

(3) Support assets consist of buildings, cable landing stations, data centers, computers and other administrative and support equipment.

(4) Construction in progress includes inventory held for construction and property of the aforementioned categories that has not been placed in service as it is still under construction.

We recorded depreciation expense of \$3.1 billion, \$3.3 billion and \$2.7 billion for the years ended December 31, 2019, 2018 and 2017, respectively.

### Asset Retirement Obligations

At December 31, 2019, our asset retirement obligations balance was primarily related to estimated future costs of removing equipment from leased properties and estimated future costs of properly disposing of asbestos and other hazardous materials upon remodeling or demolishing buildings. Asset retirement obligations are included in other long-term liabilities on our consolidated balance sheets.

As of the Level 3 acquisition date, we recorded liabilities to reflect our fair values of Level 3's asset retirement obligations. Our fair value estimates were determined using the discounted cash flow method.

The following table provides asset retirement obligation activity:

	Years Ended December 31,		
	2019	2018	2017
(Dollars in millions)			
Balance at beginning of year	\$ 190	115	95
Accretion expense	11	10	6
Liabilities assumed in acquisition of Level 3 <sup>(1)</sup>	—	58	45
Liabilities settled	(14)	(14)	(3)
Liabilities transferred to Cyxtera	—	—	(20)
Change in estimate	10	21	(8)
Balance at end of year	\$ 197	190	115

(1) The liabilities assumed during 2018 relate to purchase price adjustments during the year.

The 2019, 2018 and 2017 change in estimates are offset against gross property, plant and equipment.

## (10) Severance and Leased Real Estate

Periodically, we reduce our workforce and accrue liabilities for the related severance costs. These workforce reductions result primarily from increased competitive pressures, cost reduction initiatives, automation and other process improvements and reduced workload demands due to reduced demand for certain services.

We report severance liabilities within accrued expenses and other liabilities - salaries and benefits in our consolidated balance sheets and report severance expenses in selling, general and administrative expenses in our consolidated statements of operations. As described in Note 17—Segment Information, we do not allocate these severance expenses to our segments.

Under prior GAAP, we had previously recognized liabilities to reflect our estimates of the fair values of the existing lease obligations for real estate which we have ceased using, net of estimated sublease rentals. In accordance with transitional guidance under the new lease standard (ASC 842), the existing lease obligation of \$110 million as of January 1, 2019 has been netted against the operating lease right of use assets at adoption. For additional information, see Note 6—Leases to our consolidated financial statements in Item 1 of Part I of this report.

Changes in our accrued liabilities for severance expenses were as follows:

	<b>Severance</b>	
	<b>(Dollars in millions)</b>	
Balance at December 31, 2017	\$	33
Accrued to expense		205
Payments, net		(151)
Balance at December 31, 2018		87
Accrued to expense		89
Payments, net		(87)
Balance at December 31, 2019	\$	89

## (11) Employee Benefits

### *Pension, Post-Retirement and Other Post-Employment Benefits*

We sponsor various defined benefit pension plans (qualified and non-qualified) which, in the aggregate, cover a substantial portion of our employees including legacy CenturyLink, legacy Qwest Communications International Inc. ("Qwest") and legacy Embarq employees. Pension benefits for participants of the CenturyLink Combined Pension Plan ("Combined Pension Plan") who are represented by a collective bargaining agreement are based on negotiated schedules. All other participants' pension benefits are based on each individual participant's years of service and compensation. We also maintain non-qualified pension plans for certain current and former highly compensated employees. We maintain post-retirement benefit plans that provide health care and life insurance benefits for certain eligible retirees. We also provide other post-employment benefits for certain eligible former employees. We use a December 31 measurement date for all our plans.

### **Pension Benefits**

In connection with the acquisition of Level 3 Communications, Inc. on November 1, 2017, we assumed defined benefit pension plans sponsored by various Level 3 companies for their employees. Based on a valuation analysis, we recognized a \$20 million liability on November 1, 2017 for the unfunded status of the Level 3 pension plans. The net unfunded status recognized on our balance sheets at December 31, 2019 and 2018 was \$18 million and \$11 million, respectively, representing liabilities of \$140 million and \$144 million, and assets of \$122 million and \$133 million, respectively. Due to the insignificant impact of these pension plans on our consolidated financial statements, we have predominantly excluded them from the remaining employee benefit disclosures in this Note.

United States funding laws require a company with a pension shortfall to fund the annual cost of benefits earned in addition to a seven-year amortization of the shortfall. Our funding policy for our Combined Pension Plan is to make contributions with the objective of accumulating ample assets to pay all qualified pension benefits when due under the terms of the plan. The accounting unfunded status of the Combined Pension Plan was \$1.7 billion and \$1.6 billion as of December 31, 2019 and 2018, respectively.

We made no voluntary cash contributions to the Combined Pension Plan in 2019 and \$500 million in 2018 and paid \$5 million of benefits directly to participants of our non-qualified pension plans in both 2019 and 2018. Based on current laws and circumstances, we do not believe we are required to make any contributions to the Combined Pension Plan in 2020, nor do we currently expect to make a voluntary contribution to the trust for the Combined Pension Plan in 2020. We estimate that in 2020 we will pay \$5 million of benefits directly to participants of our non-qualified pension plans.

As previously mentioned, we sponsor unfunded non-qualified pension plans for certain current and former highly-compensated employees. The net unfunded status of our non-qualified pension plans was \$51 million and \$52 million for the years ended December 31, 2019 and 2018, respectively. Due to the insignificant impact of these pension plans on our consolidated financial statements, we have predominantly excluded them from the remaining employee benefit disclosures in this Note.

### **Post-Retirement Benefits**

In connection with our acquisition of Level 3 Communications, Inc. on November 1, 2017, we assumed post-retirement benefit plans sponsored by Level 3 Communications, L.L.C. and Continental Level 3, Inc. for certain of its current and former employees. Based on a valuation analysis, we recognized less than \$1 million in liability for the unfunded status of Level 3's post-retirement benefit plans. Though largely unfunded, these post-retirement plans, in the aggregate, are immaterial to our consolidated financial statements. Due to the insignificant amount of these post-retirement plans, we have predominantly excluded them from the remaining employee benefit disclosures in this Note.

Our post-retirement benefit plans provide post-retirement benefits to qualified retirees and allow (i) eligible employees retiring before certain dates to receive benefits at no or reduced cost and (ii) eligible employees retiring after certain dates to receive benefits on a shared cost basis. The post-retirement benefits not paid by the trusts are funded by us and we expect to continue funding these post-retirement obligations as benefits are paid. The accounting unfunded status of our qualified post-retirement benefit plan was \$3.0 billion as of December 31, 2019 and 2018.

Assets in the post-retirement trusts were substantially depleted as of December 31, 2016; as of December 31, 2019 the Company ceased to pay certain post-retirement benefits through the trusts. No contributions were made to the post-retirement trusts in 2019 nor 2018. Starting in 2020, benefits will be paid directly by us with available cash. In 2019, we paid \$245 million of post-retirement benefits, net of participant contributions and direct subsidies. In 2020, we currently expect to pay directly \$236 million of post-retirement benefits, net of participant contributions and direct subsidies. The decrease in anticipated post-retirement benefit payments is the result of a 3% decrease in plan participants receiving benefits as of December 31, 2019.

We expect our health care cost trend rate to range from 5.0% to 6.5% in 2020 and grading to 4.50% by 2025. Our post-retirement benefit cost, for certain eligible legacy Qwest retirees and certain eligible legacy CenturyLink retirees, is capped at a set dollar amount. Therefore, those health care benefit obligations are not subject to increasing health care trends after the effective date of the caps.

## Expected Cash Flows

The Combined Pension Plan payments, post-retirement health care benefit payments and premiums, and life insurance premium payments are either distributed from plan assets or paid by us. The estimated benefit payments provided below are based on actuarial assumptions using the demographics of the employee and retiree populations and have been reduced by estimated participant contributions.

	Combined Pension Plan	Post-Retirement Benefit Plans	Medicare Part D Subsidy Receipts
	(Dollars in millions)		
Estimated future benefit payments:			
2020	\$ 971	242	(6)
2021	921	238	(6)
2022	893	232	(6)
2023	868	226	(5)
2024	842	219	(5)
2025 - 2029	3,813	986	(20)

## Net Periodic Benefit Expense

We utilize a full yield curve approach in connection with estimating the service and interest components of net periodic benefit expense by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flow.

The actuarial assumptions used to compute the net periodic benefit expense for our Combined Pension Plan and post-retirement benefit plans are based upon information available as of the beginning of the year, as presented in the following table.

	Combined Pension Plan			Post-Retirement Benefit Plans		
	2019	2018	2017	2019	2018	2017
Actuarial assumptions at beginning of year:						
Discount rate	3.94% - 4.44%	3.14% - 3.69%	3.25% - 4.14%	3.84%- 4.38%	4.26%	3.90%
Rate of compensation increase	3.25%	3.25%	3.25%	N/A	N/A	N/A
Expected long-term rate of return on plan assets <sup>(1)</sup>	6.50%	6.50%	6.50%	4.00%	4.00%	5.00%
Initial health care cost trend rate	N/A	N/A	N/A	6.50% / 5.00%	7.00% / 5.00%	7.00% / 5.00%
Ultimate health care cost trend rate	N/A	N/A	N/A	4.50%	4.50%	4.50%
Year ultimate trend rate is reached	N/A	N/A	N/A	2025	2025	2025

N/A - Not applicable

(1) Rates are presented net of projected fees and administrative costs.

Net periodic benefit (income) expense for our combined pension plan includes the following components:

Combined Pension Plan Years Ended December 31,			
	2019	2018	2017
	(Dollars in millions)		
Service cost	\$ 56	66	63
Interest cost	436	392	409
Expected return on plan assets	(618)	(685)	(666)
Special termination benefits charge	6	15	—
Recognition of prior service credit	(8)	(8)	(8)
Recognition of actuarial loss	223	178	204
Net periodic pension benefit (income) expense	\$ 95	(42)	2

Net periodic benefit expense for our post-retirement benefit plans includes the following components:

Post-Retirement Plans Years Ended December 31,			
	2019	2018	2017
	(Dollars in millions)		
Service cost	\$ 15	18	18
Interest cost	110	97	100
Expected return on plan assets	(1)	(1)	(2)
Recognition of prior service cost	16	20	20
Net periodic post-retirement benefit expense	\$ 140	134	136

We report service costs for our Combined Pension Plan and post-retirement benefit plans in cost of services and products and selling, general and administrative expenses in our consolidated statements of operations for the years ended December 31, 2019, 2018 and 2017. Additionally, a portion of the service cost is also allocated to certain assets under construction, which are capitalized and reflected as part of property, plant and equipment in our consolidated balance sheets. The remaining components of net periodic benefit expense (income) are reported in other income, net in our consolidated statements of operations. As a result of ongoing efforts to reduce our workforce, we recognized a one-time charge in 2019 of \$6 million and in 2018 of \$15 million for special termination benefit enhancements paid to certain eligible employees upon voluntary retirement.

### Benefit Obligations

The actuarial assumptions used to compute the funded status for the plans are based upon information available as of December 31, 2019 and 2018 and are as follows:

	Combined Pension Plan		Post-Retirement Benefit Plans	
	December 31,		December 31,	
	2019	2018	2019	2018
Actuarial assumptions at end of year:				
Discount rate	3.25%	4.29%	3.22%	4.26%
Rate of compensation increase	3.25%	3.25%	N/A	N/A
Initial health care cost trend rate	N/A	N/A	6.50% / 5.00%	7.00% / 5.00%
Ultimate health care cost trend rate	N/A	N/A	4.50%	4.50%
Year ultimate trend rate is reached	N/A	N/A	2025	2025

N/A - Not applicable



In 2019, 2018 and 2017, we adopted the revised mortality tables and projection scales released by the Society of Actuaries, which decreased the projected benefit obligation of our benefit plans by \$4 million, \$38 million and \$113 million, respectively. The change in the projected benefit obligation of our benefit plans was recognized as part of the net actuarial (gain) loss and is included in accumulated other comprehensive loss, a portion of which is subject to amortization over the remaining estimated life of plan participants, which was approximately 16 years as of December 31, 2019.

The following tables summarize the change in the benefit obligations for the Combined Pension Plan and post-retirement benefit plans:

Combined Pension Plan Years Ended December 31,			
	2019	2018	2017
	(Dollars in millions)		
Change in benefit obligation			
Benefit obligation at beginning of year	\$ 11,594	13,064	13,244
Service cost	56	66	63
Interest cost	436	392	409
Plan amendments	(9)	—	—
Special termination benefits charge	6	15	—
Actuarial (gain) loss	1,249	(765)	586
Benefits paid from plan assets	(1,115)	(1,178)	(1,238)
Benefit obligation at end of year	\$ 12,217	11,594	13,064

Post-Retirement Benefit Plans Years Ended December 31,			
	2019	2018	2017
	(Dollars in millions)		
Change in benefit obligation			
Benefit obligation at beginning of year	\$ 2,977	3,375	3,413
Service cost	15	18	18
Interest cost	110	97	100
Participant contributions	52	54	54
Direct subsidy receipts	7	8	7
Plan Amendment	—	(36)	—
Actuarial (gain) loss	180	(224)	112
Benefits paid by company	(300)	(311)	(298)
Benefits paid from plan assets	(4)	(4)	(31)
Benefit obligation at end of year	\$ 3,037	2,977	3,375

Our aggregate benefit obligation as of December 31, 2019, 2018 and 2017 was \$15.3 billion, \$14.8 billion and \$16.5 billion, respectively.

### Plan Assets

We maintain plan assets for our Combined Pension Plan and certain post-retirement benefit plans. The following tables summarize the change in the fair value of plan assets for the Combined Pension Plan and post-retirement benefit plans:

Combined Pension Plan Years Ended December 31,			
	2019	2018	2017
(Dollars in millions)			
Change in plan assets			
Fair value of plan assets at beginning of year	\$ 10,033	11,060	10,892
Return on plan assets	1,575	(349)	1,306
Employer contributions	—	500	100
Benefits paid from plan assets	(1,115)	(1,178)	(1,238)
Fair value of plan assets at end of year	<u>\$ 10,493</u>	<u>10,033</u>	<u>11,060</u>

Post-Retirement Benefit Plans Years Ended December 31,			
	2019	2018	2017
(Dollars in millions)			
Change in plan assets			
Fair value of plan assets at beginning of year	\$ 18	23	53
Return on plan assets	(1)	(1)	1
Benefits paid from plan assets	(4)	(4)	(31)
Fair value of plan assets at end of year	<u>\$ 13</u>	<u>18</u>	<u>23</u>

The expected rate of return on plan assets is the long-term rate of return we expect to earn on the plans' assets, net of administrative expenses paid from plan assets. It is determined annually based on the strategic asset allocation and the long-term risk and return forecast for each asset class.

**Combined Pension Plan:** Our investment objective for the qualified pension plan assets is to achieve an attractive risk-adjusted return over time that will provide for the payment of benefits and minimize the risk of large losses. We employ a liability-aware investment strategy designed to reduce the volatility of pension assets relative to pension liabilities. This strategy is evaluated frequently and is expected to evolve over time with changes in the funded status and other factors. Approximately 50% of plan assets is targeted to long-duration investment grade bonds and interest rate sensitive derivatives and 50% is targeted to diversified equity, fixed income and private market investments that are expected to outperform the liability with moderate funded status risk. At the beginning of 2020, our expected annual long-term rate of return on pension assets before consideration of administrative expenses is assumed to be 6.5%. Administrative expenses, including projected PBGC (Pension Benefit Guaranty Corporation) premiums reduce the annual long-term expected return net of administrative expenses to 6.0%.

The short term and long-term interest crediting rates during 2019 for cash balance components of the Combined Pension Plan were 2.25% and 4.00%, respectively.

**Post-Retirement Benefit Plans:** At the beginning of 2020, our expected annual long-term rate of return on post-retirement benefit plan assets is assumed to be 4.0%.

**Permitted investments:** Plan assets are managed consistent with the restrictions set forth by the Employee Retirement Income Security Act of 1974, as amended.

**Fair Value Measurements:** Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between independent and knowledgeable parties who are willing and able to transact for an asset or liability at the measurement date. We use valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs when determining fair value and then we rank the estimated values based on the reliability of the inputs used following the fair value hierarchy set forth by the FASB. For additional information on the fair value hierarchy, see Note 14—Fair Value of Financial Instruments.

At December 31, 2019, we used the following valuation techniques to measure fair value for assets. There were no changes to these methodologies during 2019:

- Level 1—Assets were valued using the closing price reported in the active market in which the individual security was traded.
- Level 2—Assets were valued using quoted prices in markets that are not active, broker dealer quotations, and other methods by which all significant inputs were observable at the measurement date.
- Level 3—Assets were valued using unobservable inputs in which little or no market data exists as reported by the respective institutions at the measurement date.

The plans' assets are invested in various asset categories utilizing multiple strategies and investment managers. Interests in commingled funds are fair valued using a practical expedient to the net asset value ("NAV") per unit (or its equivalent) of each fund. The NAV reported by the fund manager is based on the market value of the underlying investments owned by each fund, minus its liabilities, divided by the number of shares outstanding. Commingled funds can be redeemed at NAV, with a frequency that includes, daily, monthly, quarterly, semi-annually and annually. These commingled funds include redemption notice periods between same day and 270 days. Investments in private funds, primarily limited partnerships, represent long-term commitments with a fixed maturity date and are also valued at NAV. The plan has unfunded commitments related to certain private fund investments, which in aggregate are not material to the plan. Valuation inputs for these private fund interests are generally based on assumptions and other information not observable in the market. The assumptions and valuation methodologies of the pricing vendors, account managers, fund managers and partnerships are monitored and evaluated for reasonableness. Underlying investments held in funds are aggregated and are classified based on the fund mandate. Investments held in separate accounts are individually classified.

The tables below present the fair value of plan assets by category and the input levels used to determine those fair values at December 31, 2019. It is important to note that the asset allocations do not include market exposures that are gained with derivatives. Investments include dividend and interest receivables, pending trades and accrued expenses.

	Fair Value of Combined Pension Plan Assets at December 31, 2019			
	Level 1	Level 2	Level 3	Total
	(Dollars in millions)			
<b>Assets</b>				
Investment grade bonds (a)	\$ 828	3,197	—	\$ 4,025
High yield bonds (b)	—	232	5	237
Emerging market bonds (c)	203	84	—	287
U.S. stocks (d)	756	3	1	760
Non-U.S. stocks (e)	592	—	—	592
Private debt (h)	—	—	16	16
Multi-asset strategies (l)	257	—	—	257
Repurchase agreements (n)	—	39	—	39
Cash equivalents and short-term investments (o)	—	433	—	433
Total investments, excluding investments valued at NAV	\$ 2,636	3,988	22	6,646
<b>Liabilities</b>				
Derivatives (m)	\$ 1	(18)	—	(17)
Investments valued at NAV				3,864
Total pension plan assets				\$ 10,493

Fair Value of Post-Retirement Plan Assets at December 31, 2019				
	Level 1	Level 2	Level 3	Total
(Dollars in millions)				
Total investments, excluding investments valued at NAV	\$ —	—	—	—
Investments valued at NAV				13
Total post-retirement plan assets				\$ 13

The tables below present the fair value of plan assets by category and the input levels used to determine those fair values at December 31, 2018. It is important to note that the asset allocations do not include market exposures that are gained with derivatives. Investments include dividend and interest receivable, pending trades and accrued expenses.

Fair Value of Combined Pension Plan Assets at December 31, 2018				
	Level 1	Level 2	Level 3	Total
(Dollars in millions)				
Investment grade bonds (a)	\$ 458	1,393	—	\$ 1,851
High yield bonds (b)	—	277	7	284
Emerging market bonds (c)	151	181	—	332
U.S. stocks (d)	764	2	2	768
Non-U.S. stocks (e)	601	—	—	601
Private debt (h)	—	—	15	15
Multi-asset strategies (l)	342	—	—	342
Derivatives (m)	7	(2)	—	5
Cash equivalents and short-term investments (o)	3	907	—	910
Total investments, excluding investments valued at NAV	\$ 2,326	2,758	24	5,108
Investments valued at NAV				4,925
Total pension plan assets				\$ 10,033

Fair Value of Post-Retirement Plan Assets at December 31, 2018				
	Level 1	Level 2	Level 3	Total
(Dollars in millions)				
Total investments, excluding investments valued at NAV	\$ —	—	—	—
Investments valued at NAV				18
Total post-retirement plan assets				\$ 18

The table below presents the fair value of plan assets valued at NAV by category for our pension and post-retirement plans at December 31, 2019 and 2018.

	Fair Value of Plan Assets Valued at NAV			
	Combined Pension Plan at		Post-Retirement Benefit Plans at	
	December 31,		December 31,	
	2019	2018	2019	2018
	(Dollars in millions)			
Investment grade bonds (a)	\$ 211	109	—	—
High yield bonds (b)	39	388	—	—
U.S. stocks (d)	169	150	—	—
Non-U.S. stocks (e)	467	500	—	—
Emerging market stocks (f)	92	75	—	—
Private equity (g)	322	347	4	6
Private debt (h)	483	452	—	1
Market neutral hedge funds (i)	433	746	—	—
Directional hedge funds (j)	443	512	—	—
Real estate (k)	635	821	—	—
Multi-asset strategies (l)	449	763	—	—
Cash equivalents and short-term investments (o)	121	62	9	11
Total investments valued at NAV	\$ 3,864	4,925	13	18

Below is an overview of the asset categories, the underlying strategies and valuation inputs used to value the assets in the preceding tables:

(a) *Investment grade bonds* represent investments in fixed income securities as well as commingled bond funds comprised of U.S. Treasury securities, agencies, corporate bonds, mortgage-backed securities, asset-backed securities and commercial mortgage-backed securities. Treasury securities are valued at the bid price reported in the active market in which the security is traded and are classified as Level 1. The valuation inputs of other investment grade bonds primarily utilize observable market information and are based on a spread to U.S. Treasury securities and consider yields available on comparable securities of issuers with similar credit ratings. The primary observable inputs include references to the new issue market for similar securities, the secondary trading markets and dealer quotes. Option adjusted spread models are utilized to evaluate securities such as asset backed securities that have early redemption features. These securities are classified as Level 2. NAV funds' underlying investments in this category are valued using the same inputs.

(b) *High yield bonds* represent investments in below investment grade fixed income securities as well as commingled high yield bond funds. The valuation inputs for the securities primarily utilize observable market information and are based on a spread to U.S. Treasury securities and consider yields available on comparable securities of issuers with similar credit ratings. These securities are primarily classified as Level 2. Securities whose valuation inputs are not based on observable market information are classified as Level 3. NAV funds' underlying investments in this category are valued using the same inputs.

(c) *Emerging market bonds* represent investments in securities issued by governments and other entities located in developing countries as well as registered mutual funds and commingled emerging market bond funds. The valuation inputs for the securities utilize observable market information and are primarily based on dealer quotes or a spread relative to the local government bonds. The registered mutual fund is classified as Level 1 while individual securities are primarily classified as Level 2.

(d) *U.S. stocks* represent investments in stocks of U.S. based companies as well as commingled U.S. stock funds. The valuation inputs for U.S. stocks are based on the last published price reported on the major stock market on which the securities are traded and are primarily classified as Level 1. Securities that are not actively traded but can be directly or indirectly observable are classified as Level 2. Securities whose valuation inputs are not based on observable market information are classified as Level 3. NAV funds' underlying investments in this category are valued using the same inputs.

(e) *Non-U.S. stocks* represent investments in stocks of companies based in developed countries outside the U.S. as well as commingled funds. The valuation inputs for non-U.S. stocks are based on the last published price reported on the major stock market on which the securities are traded and are primarily classified as Level 1. NAV funds' underlying investments in this category are valued using the same inputs.

(f) *Emerging market stocks* represent investments in commingled funds comprised of stocks of companies located in developing markets. NAV funds' underlying investments in this category are valued using the same inputs.

(g) *Private equity* represents non-public investments in domestic and foreign buy out and venture capital funds. Private equity funds are primarily structured as limited partnerships and are valued according to the valuation policy of each partnership, subject to prevailing accounting and other regulatory guidelines. The partnerships are valued at NAV using valuation methodologies that consider a range of factors, including but not limited to the price at which investments were acquired, the nature of the investments, market conditions, trading values on comparable public securities, current and projected operating performance, and financing transactions subsequent to the acquisition of the investments. These valuation methodologies involve a significant degree of judgment.

(h) *Private debt* represents non-public investments in distressed or mezzanine debt funds and pension group insurance contracts. Pension group insurance contracts are valued based on actuarial assumptions and are classified as Level 3. Mezzanine debt instruments are debt instruments that are subordinated to other debt issues and may include embedded equity instruments such as warrants. Private debt funds are primarily structured as limited partnerships and are valued at NAV according to the valuation policy of each partnership, subject to prevailing accounting and other regulatory guidelines. The valuation of underlying fund investments is based on factors including the issuer's current and projected credit worthiness, the security's terms, reference to the securities of comparable companies, and other market factors. These valuation methodologies involve a significant degree of judgment.

(i) *Market neutral hedge funds* hold investments in a diversified mix of instruments that are intended in combination to exhibit low correlations to market fluctuations. These investments are typically combined with futures to achieve uncorrelated excess returns over various markets. Hedge funds are valued at NAV based on the market value of the underlying investments which include publicly traded equity and fixed income securities and privately negotiated debt securities.

(j) *Directional hedge funds*—This asset category represents investments that may exhibit somewhat higher correlations to market fluctuations than the market neutral hedge funds. Investments in hedge funds include both direct investments and investments in diversified funds of funds. Hedge funds are valued at NAV based on the market value of the underlying investments which include publicly traded equity and fixed income securities and privately negotiated debt securities.

(k) *Real estate* represents investments in commingled funds and limited partnerships that invest in a diversified portfolio of real estate properties. These investments are valued at NAV according to the valuation policy of each fund or partnership, subject to prevailing accounting and other regulatory guidelines. The valuation inputs of the underlying properties are generally based on third-party appraisals that use comparable sales or a projection of future cash flows to determine fair value.

(l) *Multi-asset strategies* represent broadly diversified strategies that have the flexibility to tactically adjust exposures to different asset classes through time. This asset category includes investments in a registered mutual fund which is classified as Level 1 and may include commingled funds which are valued at NAV based on the market value of the underlying investments.

(m) *Derivatives* include exchange traded futures contracts which are classified as Level 1, as well as privately negotiated over the counter swaps and options that are valued based on the change in interest rates or a specific market index and are classified as Level 2. The market values represent gains or losses that occur due to fluctuations in interest rates, foreign currency exchange rates, security prices, or other factors.

(n) *Repurchase Agreements* includes contracts where the security owner sells a security with the agreement to buy it back at a future date and price. Agreements are valued based on expected settlement terms and are classified as Level 2.

(o) *Cash equivalents and short-term investments* represent investments that are used in conjunction with derivatives positions or are used to provide liquidity for the payment of benefits or other purposes. The valuation inputs of securities are based on a spread to U.S. Treasury Bills, the Federal Funds Rate, or London Interbank Offered Rate and consider yields available on comparable securities of issuers with similar credit ratings and are primarily classified as Level 2. The commingled funds are valued at NAV based on the market value of the underlying investments using the same valuation inputs described above.

*Derivative instruments:* Derivative instruments are used to reduce risk as well as provide return. The gross notional exposure of the derivative instruments directly held by the pension benefit plan is shown below. The notional amount of the derivatives corresponds to market exposure but does not represent an actual cash investment. Our post-retirement plans were not invested in derivative instruments for the years ended December 31, 2019 or 2018.

	Gross Notional Exposure		
	Combined Pension Plan		
	Years Ended December 31,		
	2019	2018	
	(Dollars in millions)		
<u>Derivative instruments:</u>			
Exchange-traded U.S. equity futures	\$	184	300
Exchange-traded Treasury and other interest rate futures		1,253	3,901
Exchange-traded EURO futures		10	—
Interest rate swaps		44	83
Credit default swaps		205	66
Index swaps		2,058	—
Foreign exchange forwards		508	295
Options		146	192

*Concentrations of Risk:* Investments, in general, are exposed to various risks, such as significant world events, interest rate, credit, foreign currency and overall market volatility risk. These risks are managed by broadly diversifying assets across numerous asset classes and strategies with differing expected returns, volatilities and correlations. Risk is also broadly diversified across numerous market sectors and individual companies. Financial instruments that potentially subject the plans to concentrations of counterparty risk consist principally of investment contracts with high quality financial institutions. These investment contracts are typically collateralized obligations and/or are actively managed, limiting the amount of counterparty exposure to any one financial institution. Although the investments are well diversified, the value of plan assets could change materially depending upon the overall market volatility, which could affect the funded status of the plans.

The table below presents a rollforward of the pension plan assets valued using Level 3 inputs:

Combined Pension Plan Assets Valued Using Level 3 Inputs						
	High Yield Bonds	Emerging Market Bonds	U.S. Stocks	Private Debt	Cash	Total
(Dollars in millions)						
Balance at December 31, 2017	\$ 7	1	3	15	1	27
Acquisitions (dispositions)	—	—	(2)	—	(1)	(3)
Actual return on plan assets	—	(1)	1	—	—	—
Balance at December 31, 2018	7	—	2	15	—	24
Acquisitions (dispositions)	(2)	—	—	1	—	(1)
Actual return on plan assets	—	—	(1)	—	—	(1)
Balance at December 31, 2019	\$ 5	—	1	16	—	22

Certain gains and losses are allocated between assets sold during the year and assets still held at year-end based on transactions and changes in valuations that occurred during the year. These allocations also impact our calculation of net acquisitions and dispositions.

For the year ended December 31, 2019, the investment program produced actual gains on qualified pension and post-retirement plan assets of \$1.6 billion as compared to expected returns of \$619 million for a difference of \$1.0 billion. For the year ended December 31, 2018, the investment program produced actual losses on qualified pension and post-retirement plan assets of \$350 million as compared to the expected returns of \$686 million for a difference of \$1.0 billion. The short-term annual returns on plan assets will almost always be different from the expected long-term returns and the plans could experience net gains or losses, due primarily to the volatility occurring in the financial markets during any given year.

#### Unfunded Status

The following table presents the unfunded status of the Combined Pension Plan and post-retirement benefit plans:

	Combined Pension Plan		Post-Retirement Benefit Plans	
	Years Ended December 31,		Years Ended December 31,	
	2019	2018	2019	2018
(Dollars in millions)				
Benefit obligation	\$ (12,217)	(11,594)	(3,037)	(2,977)
Fair value of plan assets	10,493	10,033	13	18
Unfunded status	(1,724)	(1,561)	(3,024)	(2,959)
Current portion of unfunded status	—	—	(224)	(252)
Non-current portion of unfunded status	\$ (1,724)	(1,561)	(2,800)	(2,707)

The current portion of our post-retirement benefit obligations is recorded on our consolidated balance sheets in accrued expenses and other current liabilities-salaries and benefits.



## Accumulated Other Comprehensive Loss-Recognition and Deferrals

The following table presents cumulative items not recognized as a component of net periodic benefits expense as of December 31, 2018, items recognized as a component of net periodic benefits expense in 2019, additional items deferred during 2019 and cumulative items not recognized as a component of net periodic benefits expense as of December 31, 2019. The items not recognized as a component of net periodic benefits expense have been recorded on our consolidated balance sheets in accumulated other comprehensive loss:

As of and for the Years Ended December 31,					
	2018	Recognition of Net Periodic Benefits Expense	Deferrals	Net Change in AOCL	2019
(Dollars in millions)					
Accumulated other comprehensive loss:					
Pension plans:					
Net actuarial (loss) gain	\$ (2,973)	224	(297)	(73)	(3,046)
Prior service benefit (cost)	46	(8)	9	1	47
Deferred income tax benefit (expense)	754	(53)	69	16	770
Total pension plans	(2,173)	163	(219)	(56)	(2,229)
Post-retirement benefit plans:					
Net actuarial (loss) gain	7	—	(182)	(182)	(175)
Prior service (cost) benefit	(87)	16	—	16	(71)
Deferred income tax benefit (expense)	22	(4)	44	40	62
Total post-retirement benefit plans	(58)	12	(138)	(126)	(184)
Total accumulated other comprehensive loss	\$ (2,231)	175	(357)	(182)	(2,413)

The following table presents cumulative items not recognized as a component of net periodic benefits expense as of December 31, 2017, items recognized as a component of net periodic benefits expense in 2018, additional items deferred during 2018 and cumulative items not recognized as a component of net periodic benefits expense as of December 31, 2017. The items not recognized as a component of net periodic benefits expense have been recorded on our consolidated balance sheets in accumulated other comprehensive loss:

As of and for the Years Ended December 31,					
	2017	Recognition of Net Periodic Benefits Expense	Deferrals	Net Change in AOCL	2018
(Dollars in millions)					
Accumulated other comprehensive loss:					
Pension plans:					
Net actuarial (loss) gain	\$ (2,892)	179	(260)	(81)	(2,973)
Prior service benefit (cost)	54	(8)	—	(8)	46
Deferred income tax benefit (expense) <sup>(1)</sup>	1,107	(418)	65	(353)	754
Total pension plans	(1,731)	(247)	(195)	(442)	(2,173)
Post-retirement benefit plans:					
Net actuarial (loss) gain	(250)	—	257	257	7
Prior service (cost) benefit	(107)	20	—	20	(87)
Deferred income tax benefit (expense) <sup>(2)</sup>	122	(37)	(63)	(100)	22
Total post-retirement benefit plans	(235)	(17)	194	177	(58)
Total accumulated other comprehensive loss	\$ (1,966)	(264)	(1)	(265)	(2,231)

(1) Amounts currently recognized in net periodic benefits expense include \$375 million of benefit arising from the adoption of ASU 2018-02. See Note 1— Background and Summary of Significant Accounting Policies for further detail.

(2) Amounts currently recognized in net periodic benefits expense include \$32 million arising from the adoption of ASU 2018-02. See Note 1— Background and Summary of Significant Accounting Policies for further detail.

### **Medicare Prescription Drug, Improvement and Modernization Act of 2003**

We sponsor post-retirement health care plans with several benefit options that provide prescription drug benefits that we deem actuarially equivalent to or exceeding Medicare Part D. We recognize the impact of the federal subsidy received under the Medicare Prescription Drug, Improvement and Modernization Act of 2003 in the calculation of our post-retirement benefit obligation and net periodic post-retirement benefit expense.

### **Other Benefit Plans**

#### **Health Care and Life Insurance**

We provide health care and life insurance benefits to essentially all of our active employees. We are largely self-funded for the cost of the health care plan. Our health care benefit expense for current employees was \$381 million, \$434 million and \$341 million for the years ended December 31, 2019, 2018 and 2017, respectively. Union-represented employee benefits are based on negotiated collective bargaining agreements. Employees contributed \$148 million, \$142 million, \$128 million for the years ended December 31, 2019, 2018 and 2017, respectively. Our group basic life insurance plans are fully insured and the premiums are paid by us.

## **401(k) Plans**

We sponsor qualified defined contribution plans covering substantially all of our employees. Under these plans, employees may contribute a percentage of their annual compensation up to certain maximums, as defined by the plans and by the Internal Revenue Service ("IRS"). Currently, we match a percentage of employee contributions in cash. At December 31, 2019 and 2018, the assets of the plans included approximately 11 million shares and 12 million shares, respectively, of our common stock all of which were the result of the combination of previous employer match and participant directed contributions. We recognized expenses related to these plans of \$113 million, \$93 million and \$77 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Upon the November 1, 2017 closing of our acquisition of Level 3, we assumed various defined contribution plans covering substantially all eligible employees of Level 3. On December 31, 2017, we merged the Level 3 Communications, Inc. 401(k) Plan into the CenturyLink Dollar & Sense 401(k) Plan. The resulting plan covers substantially all eligible non-represented employees of the combined company in the US.

## **Deferred Compensation Plans**

We sponsored non-qualified deferred compensation plans for various groups that included certain of our current and former highly compensated employees. The value of liabilities related to these plans was not significant.

## **(12) Share-based Compensation**

We maintain an equity incentive program that allows our Board of Directors (through its Compensation Committee or our Chief Executive Officer as its delegate) to grant incentives to certain employees and outside directors in one or more forms, including: incentive and non-qualified stock options, stock appreciation rights, restricted stock awards, restricted stock units and market and performance shares. Stock options generally expire ten years from the date of grant.

### ***Acquisition of Level 3***

As discussed in Note 2—Acquisition of Level 3, upon the November 1, 2017 acquisition of Level 3, and pursuant to the terms of the merger agreement, we assumed certain of Level 3's share-based compensation awards, which were converted to settle in shares of CenturyLink common stock. Specifically:

- each outstanding Level 3 restricted stock unit award granted prior to April 1, 2014 or granted to an outside director of Level 3 was converted into \$26.50 in cash and 1.4286 shares of our common stock (and cash in lieu of fractional shares) with respect to each Level 3 share covered by such award (the "Converted RSU Awards"); and
- each outstanding Level 3 restricted stock unit award granted on or after April 1, 2014 (other than these granted to outside directors of Level 3) was converted into a CenturyLink restricted stock unit award using a conversion ratio of 2.8386 to 1 as determined in accordance with a formula set forth in the merger agreement (the "Continuing RSU Awards").

The aggregate fair value of the replaced Level 3 awards was \$239 million, of which \$103 million was attributable to service performed prior to the acquisition date and was included in the cost of the acquisition. The fair value of CenturyLink shares was determined based on the \$18.99 closing price of our common stock on November 1, 2017. The remaining \$136 million of the preliminary aggregate fair value of the replaced Level 3 awards was attributable to post-acquisition period and was recognized as compensation expense, net of estimated forfeitures, over the remaining 1 to 2 year vesting period.

## Stock Options

The following table summarizes activity involving stock option awards for the year ended December 31, 2019:

	Number of Options (in thousands)	Weighted- Average Exercise Price
Outstanding and Exercisable at December 31, 2018	543	\$ 27.46
Exercised	(6)	11.38
Forfeited/Expired	(68)	24.78
Outstanding and Exercisable at December 31, 2019	469	28.04

The aggregate intrinsic value of our options outstanding and exercisable at December 31, 2019 was less than \$1 million. The weighted-average remaining contractual term for such options was 0.18 years.

During 2019, we received net cash proceeds of less than \$1 million in connection with our option exercises. The tax benefit realized from these exercises was less than \$1 million. The total intrinsic value of options exercised for the years ended December 31, 2019, 2018 and 2017, was less than \$1 million each year.

## Restricted Stock Awards and Restricted Stock Unit Awards

For equity based restricted stock and restricted stock unit awards that contain only service conditions for vesting (time-based awards), we calculate the award fair value based on the closing price of CenturyLink common stock on the accounting grant date. We also grant equity-based awards that contain service conditions as well as additional market or performance conditions. For awards having both service and market conditions, the award fair value is calculated using Monte-Carlo simulations. Awards with service as well as market or performance conditions specify a target number of shares for the award, although each recipient ultimately has the opportunity to receive between 0% and 200% of the target number of shares. For awards with service and market conditions, the percentage received is based on our total shareholder return over the three-year service period versus that of selected peer companies. For awards with service and performance conditions, the percentage received depends upon the attainment of one or more financial performance targets during the two- or three-year service period.

The following table summarizes activity involving restricted stock and restricted stock unit awards for the year ended December 31, 2019:

	Number of Shares (in thousands)	Weighted- Average Grant Date Fair Value
Non-vested at December 31, 2018	17,059	\$ 19.65
Granted <sup>(1)</sup>	9,780	12.41
Vested	(9,038)	19.54
Forfeited	(1,757)	18.62
Non-vested at December 31, 2019	16,044	15.42

(1) Shares granted whose related performance conditions were not finalized at December 31, 2019, were excluded from this figure.

During 2018, we granted 9.7 million shares of restricted stock and restricted stock unit awards at a weighted-average price of \$17.02. During 2017, we granted 5.2 million shares of restricted stock and restricted stock unit awards at a weighted-average price of \$22.02. The total fair value of restricted stock that vested during 2019, 2018 and 2017, was \$118 million, \$169 million and \$60 million, respectively.

## Compensation Expense and Tax Benefit

We recognize compensation expense related to our market and performance share-based awards with graded vesting that only have a service condition on a straight-line basis over the requisite service period for the entire award. Total compensation expense for all share-based payment arrangements for the years ended December 31, 2019, 2018 and 2017, was \$162 million, \$186 million and \$111 million, respectively. Our tax benefit recognized in the consolidated statements of operations for our share-based payment arrangements for the years ended December 31, 2019, 2018 and 2017, was \$39 million, \$46 million and \$28 million, respectively. At December 31, 2019, there was \$190 million of total unrecognized compensation expense related to our share-based payment arrangements, which we expect to recognize over a weighted-average period of 1.6 years.

### (13) (Loss) Earnings Per Common Share

Basic and diluted (loss) earnings per common share for the years ended December 31, 2019, 2018 and 2017 were calculated as follows:

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions, except per share amounts, shares in thousands)		
Loss income (Numerator):			
Net (loss) income	\$ (5,269)	(1,733)	1,389
Net (loss) income applicable to common stock for computing basic earnings per common share	(5,269)	(1,733)	1,389
Net (loss) income as adjusted for purposes of computing diluted earnings per common share	\$ (5,269)	(1,733)	1,389
Shares (Denominator):			
Weighted average number of shares:			
Outstanding during period	1,088,730	1,078,409	635,576
Non-vested restricted stock	(17,289)	(12,543)	(7,768)
Weighted average shares outstanding for computing basic earnings per common share	1,071,441	1,065,866	627,808
Incremental common shares attributable to dilutive securities:			
Shares issuable under convertible securities	—	—	10
Shares issuable under incentive compensation plans	—	—	875
Number of shares as adjusted for purposes of computing diluted (loss) earnings per common share	1,071,441	1,065,866	628,693
Basic (loss) earnings per common share	\$ (4.92)	(1.63)	2.21
Diluted (loss) earnings per common share <sup>(1)</sup>	\$ (4.92)	(1.63)	2.21

<sup>(1)</sup> For the year ended December 31, 2019 and December 31, 2018, we excluded from the calculation of diluted loss per share 3.0 million shares and 4.6 million shares, respectively, potentially issuable under incentive compensation plans or convertible securities, as their effect, if included, would have been anti-dilutive.

Our calculation of diluted (loss) earnings per common share excludes shares of common stock that are issuable upon exercise of stock options when the exercise price is greater than the average market price of our common stock. We also exclude unvested restricted stock awards that are antidilutive as a result of unrecognized compensation cost. Such shares were 6.8 million, 2.7 million and 4.7 million for 2019, 2018 and 2017, respectively.

#### (14) Fair Value of Financial Instruments

Our financial instruments consist of cash, cash equivalents and restricted cash, accounts receivable, accounts payable and long-term debt, excluding finance lease and other obligations. Due to their short-term nature, the carrying amounts of our cash, cash equivalents and restricted cash, accounts receivable and accounts payable approximate their fair values.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between independent and knowledgeable parties who are willing and able to transact for an asset or liability at the measurement date. We use valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs when determining fair value and then we rank the estimated values based on the reliability of the inputs used following the fair value hierarchy set forth by the FASB.

We determined the fair values of our long-term debt, including the current portion, based on quoted market prices where available or, if not available, based on discounted future cash flows using current market interest rates.

The three input levels in the hierarchy of fair value measurements are defined by the FASB generally as follows:

Input Level	Description of Input
Level 1	Observable inputs such as quoted market prices in active markets.
Level 2	Inputs other than quoted prices in active markets that are either directly or indirectly observable.
Level 3	Unobservable inputs in which little or no market data exists.

The following table presents the carrying amounts and estimated fair values of our long-term debt, excluding finance lease and other obligations, as well as the input level used to determine the fair values indicated below:

		As of December 31, 2019		As of December 31, 2018	
	Input Level	Carrying Amount	Fair Value	Carrying Amount	Fair Value
(Dollars in millions)					
Liabilities-Long-term debt, excluding finance lease and other obligations	2	\$ 34,472	35,737	35,260	32,915
Interest rate swap contracts (see Note 15)	2	51	51	—	—

#### (15) Derivative Financial Instruments

From time to time, CenturyLink, Inc. uses derivative financial instruments, primarily interest rate swaps, to manage our exposure to fluctuations in interest rates. Our primary objective in managing interest rate risk is to decrease the volatility of our earnings and cash flows affected by changes in the underlying rates. We have floating rate long-term debt (see Note 7—Long-Term Debt and Credit Facilities of this report). These obligations expose us to variability in interest payments due to changes in interest rates. If interest rates increase, interest expense increases. Conversely, if interest rates decrease, interest expense also decreases. We have designated our currently outstanding interest rate swap agreements as cash flow hedges. As described further below, under these hedges, we receive variable-rate amounts from a counterparty in exchange for us making fixed-rate payments over the lives of the agreements without exchange of the underlying notional amount. The change in the fair value of the interest rate swap agreements is reflected in AOCI and, as described below, is subsequently reclassified into earnings in the period that the hedged transaction affects earnings by virtue of qualifying as effective cash flow hedges. We do not use derivative financial instruments for speculative purposes.

In February 2019, we entered into five variable-to-fixed interest rate swap agreements to hedge the interest payments on \$2.5 billion notional amount of floating rate debt. The five interest rate swap agreements are with different counterparties; one for \$700 million and the other four for \$450 million each. The transactions were effective beginning March 31, 2019 and mature March 31, 2022. Under the terms of these interest rate swap transactions, we receive interest payments based on one month floating LIBOR terms and pay interest at the fixed rate of 2.48%.

In June 2019, we entered into six variable-to-fixed interest rate swap agreements to hedge the interest payments on \$1.5 billion notional amount of floating rate debt. The six interest rate swap agreements are with different counterparties for \$250 million each. The transactions were effective beginning June 30, 2019 and mature June 30, 2022. Under the terms of these interest rate swap transactions, we receive interest payments based on one month floating LIBOR terms and pay interest at the fixed rate of 1.58%.

We evaluate the effectiveness of all of our February 2019 and June 2019 hedges qualitatively on a quarterly basis and both qualified as effective hedge relationships at December 31, 2019.

CenturyLink, Inc. is exposed to credit related losses in the event of non-performance by counterparties. The counterparties to any of the financial derivatives we enter into are major institutions with investment grade credit ratings. We evaluate counterparty credit risk before entering into any hedge transaction and continue to closely monitor the financial market and the risk that our counterparties will default on their obligations as part of our quarterly qualitative effectiveness evaluation.

Amounts accumulated in AOCI related to derivatives are indirectly recognized in earnings as periodic settlement payments are made throughout the term of the swaps.

The table below presents the fair value of our derivative financial instruments as well as their classification on the consolidated balance sheet at December 31, 2019 as follows (in millions):

Derivatives designated as	Liability Derivatives	
	December 31, 2019	
	Balance Sheet Location	Fair Value
Cash flow hedging contracts	Other current and noncurrent liabilities	\$ 51

The amount of losses recognized in AOCI consists of the following (in millions):

Derivatives designated as hedging instruments	2019
Cash flow hedging contracts	
Year Ended December 31, 2019	\$ 51

Amounts currently included in AOCI will be reflected as earnings prior to the settlement of these cash flow hedging contracts in 2022. We estimate that \$22 million of net losses on the interest rate swaps (based on the estimated LIBOR curve as of December 31, 2019) will be reflected as earnings within the next twelve months.

## (16) Income Taxes

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was signed into law. The Act reduces the U.S. corporate income tax rate from a maximum of 35% to 21% for all corporations, effective January 1, 2018, and makes certain changes to U.S. taxation of income earned by foreign subsidiaries, capital expenditures, interest expense and various other items.

As a result of the reduction in the U.S. corporate income tax rate from 35% to 21%, we re-measured our net deferred tax liabilities at December 31, 2017 and recognized a provisional tax benefit of approximately \$1.1 billion in our consolidated statement of operations for the year ended December 31, 2017. As a result of finalizing our provisional amount recorded in 2017, we recorded a reduction to this amount for purchase price accounting adjustments resulting from the Level 3 acquisition and the tax reform impact on those adjustments of \$92 million in 2018.

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Income tax expense (benefit) was as follows:			
Federal			
Current	\$ 7	(576)	82
Deferred	376	734	(988)
State			
Current	15	(22)	21
Deferred	81	52	16
Foreign			
Current	35	36	22
Deferred	(11)	(54)	(2)
Total income tax expense (benefit)	\$ 503	170	(849)

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Income tax (benefit) expense was allocated as follows:			
Income tax (benefit) expense in the consolidated statements of operations:			
Attributable to income	\$ 503	170	(849)
Stockholders' equity:			
Compensation expense for tax purposes in excess of amounts recognized for financial reporting purposes	—	—	—
Tax effect of the change in accumulated other comprehensive loss	(62)	(2)	81

The following is a reconciliation from the statutory federal income tax rate to our effective income tax rate:

	Years Ended December 31,		
	2019	2018	2017
	(Percentage of pre-tax income)		
Statutory federal income tax rate	21.0 %	21.0 %	35.0 %
State income taxes, net of federal income tax benefit	(1.6)%	(1.5)%	3.9 %
Impairment of goodwill	(28.6)%	(36.6)%	— %
Change in liability for unrecognized tax position	(0.2)%	1.3 %	1.0 %
Tax reform	— %	(5.9)%	(209.8)%
Net foreign income taxes	(0.5)%	1.8 %	(0.7)%
Foreign dividend paid to a domestic parent company	— %	— %	0.2 %
Research and development credits	0.1 %	0.9 %	(1.4)%
Tax impact on sale of data centers and colocation business	— %	— %	5.0 %
Tax benefit of net operating loss carryback	— %	9.1 %	— %
Level 3 acquisition transaction costs	— %	— %	6.0 %
Other, net	(0.8)%	(1.0)%	3.6 %
Effective income tax rate	(10.6)%	(10.9)%	(157.2)%



The effective tax rates for the years ended December 31, 2019 and December 31, 2018 include a \$1.4 billion and a \$572 million unfavorable impact of non-deductible goodwill impairments, respectively. Additionally, the effective tax rate for the year ended December 31, 2018 reflects a \$92 million unfavorable impact due to finalizing the impacts of tax reform. Partially offsetting these amounts is a \$142 million benefit generated by a loss carryback to 2016. The effective tax rate for the year ended December 31, 2017 reflects the benefit of approximately \$1.1 billion from the re-measurement of deferred taxes as noted above, a \$27 million tax expense related to the sale of our colocation business and \$32 million tax impact of non-deductible transaction costs related to the Level 3 acquisition.

The tax effects of temporary differences that gave rise to significant portions of the deferred tax assets and deferred tax liabilities were as follows:

	<b>As of December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(Dollars in millions)</b>	
<b>Deferred tax assets</b>		
Post-retirement and pension benefit costs	\$ 1,169	1,111
Net operating loss carryforwards	3,167	3,445
Other employee benefits	134	162
Other	577	553
Gross deferred tax assets	5,047	5,271
Less valuation allowance	(1,319)	(1,331)
Net deferred tax assets	3,728	3,940
<b>Deferred tax liabilities</b>		
Property, plant and equipment, primarily due to depreciation differences	(3,489)	(3,011)
Goodwill and other intangible assets	(3,019)	(3,303)
Other	—	(23)
Gross deferred tax liabilities	(6,508)	(6,337)
Net deferred tax liability	\$ (2,780)	(2,397)

Of the \$2.8 billion and \$2.4 billion net deferred tax liability at December 31, 2019 and 2018, respectively, \$2.9 billion and \$2.5 billion is reflected as a long-term liability and \$118 million and \$131 million is reflected as a net noncurrent deferred tax asset at December 31, 2019 and 2018, respectively.

At December 31, 2019, we had federal NOLs of \$6.2 billion, net of limitations of Section 382 of the Internal Revenue Code ("Section 382") and uncertain tax positions, for U.S. federal income tax purposes. If unused, the NOLs will expire between 2022 and 2037. The U.S. federal net operating loss carryforwards expire as follows:

<b>Expiring December 31,</b>	<b>Amount (Dollars in millions)</b>
2022	\$ 177
2023	614
2024	1,403
2025	1,042
2026	1,525
2027	375
2028	637
2029	645
2030	668
2031	733
2032	348
2033	238
2037	2,973
NOLs per return	11,378
Uncertain tax positions	(5,183)
Financial NOLs	\$ 6,195

At December 31, 2019 we had state net operating loss carryforwards of \$18 billion (net of uncertain tax positions). We also had foreign NOL carryforwards of \$6 billion. Our acquisitions of Level 3, Qwest and SAVVIS, Inc. caused "ownership changes" within the meaning of Section 382 for the acquired companies. As a result, our ability to use these NOLs and tax credits are subject to annual limits imposed by Section 382. Despite this, we expect to use substantially all of these tax attributes to reduce our future federal tax liabilities, although the timing of that use will depend upon our future earnings and future tax circumstances.

We establish valuation allowances when necessary to reduce the deferred tax assets to amounts we expect to realize. As of December 31, 2019, a valuation allowance of \$1.3 billion was established as it is more likely than not that this amount of net operating loss, capital loss and tax credit carryforwards will not be utilized prior to expiration. Our valuation allowance at December 31, 2019 and 2018 is primarily related to foreign and state NOL carryforwards. This valuation allowance decreased by \$12 million during 2019, primarily due to the impact of foreign exchange rate adjustments and state law changes.

A reconciliation of the change in our gross unrecognized tax benefits (excluding both interest and any related federal benefit) from January 1 to December 31 for 2019 and 2018 is as follows:

	2019	2018
	(Dollars in millions)	
Unrecognized tax benefits at beginning of year	\$ 1,587	40
Increase in tax positions of the current year netted against deferred tax assets	11	—
Increase in tax positions of prior periods netted against deferred tax assets	6	1,353
Decrease in tax positions of the current year netted against deferred tax assets	(49)	(15)
Decrease in tax positions of prior periods netted against deferred tax assets	(19)	—
Increase in tax positions taken in the current year	5	4
Increase in tax positions taken in the prior year	10	211
Decrease due to payments/settlements	(8)	(1)
Decrease from the lapse of statute of limitations	—	(2)
Decrease due to the reversal of tax positions taken in a prior year	(5)	(3)
Unrecognized tax benefits at end of year	\$ 1,538	1,587

The total amount (including both interest and any related federal benefit) of unrecognized tax benefits that, if recognized, would impact the effective income tax rate was \$259 million and \$256 million at December 31, 2019 and 2018, respectively.

Our policy is to reflect interest expense associated with unrecognized tax benefits in income tax expense. We had accrued interest (presented before related tax benefits) of approximately \$15 million and \$17 million at December 31, 2019 and 2018, respectively.

We, or at least one of our subsidiaries, file income tax returns in the U.S. federal jurisdiction and various states and foreign jurisdictions. With few exceptions, we are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for years before 2002. The Internal Revenue Service and state and local taxing authorities reserve the right to audit any period where net operating loss carryforwards are available.

Based on our current assessment of various factors, including (i) the potential outcomes of these ongoing examinations, (ii) the expiration of statute of limitations for specific jurisdictions, (iii) the negotiated settlement of certain disputed issues, and (iv) the administrative practices of applicable taxing jurisdictions, it is reasonably possible that the related unrecognized tax benefits for uncertain tax positions previously taken may decrease by up to \$3 million within the next 12 months. The actual amount of such decrease, if any, will depend on several future developments and events, many of which are outside our control.

## (17) Segment Information

As described in more detail below, our segments are managed based on the direct costs of providing services to their customers and the associated selling, general and administrative costs (primarily salaries and commissions). Shared costs that were previously reported in segments are managed separately and included in "Operations and Other", in the tables below. We reclassified certain prior period amounts to conform to the current period presentation.

At December 31, 2019, we had the following five reportable segments:

- *International and Global Accounts Management ("IGAM") Segment.* Under our IGAM segment, we provide our products and services to approximately 200 global enterprise customers and to enterprises and carriers in three operating regions: Europe Middle East and Africa, Latin America and Asia Pacific;
- *Enterprise Segment.* Under our enterprise segment, we provide our products and services to large and regional domestic and global enterprises, as well as public sector, which includes the U.S. Federal government, state and local governments and research and education institutions;

- *Small and Medium Business ("SMB") Segment.* Under our SMB segment, we provide our products and services to small and medium businesses directly and through our indirect channel partners; and
- *Wholesale Segment.* Under our wholesale segment, we provide our products and services to a wide range of other communication providers across the wireline, wireless, cable, voice and data center sectors. Our wholesale customers range from large global telecom providers to small regional providers; and
- *Consumer Segment.* Under our consumer segment, we provide our products and services to residential customers. Additionally, Universal Service Fund ("USF") federal and state support payments, Connect America Fund ("CAF") federal support revenue, and other revenue from leasing and subleasing including prior year rental income associated with the 2017 failed-sale-leaseback are reported in our consumer segment as regulatory revenue.

### ***Product and Service Categories***

We categorize our products and services revenue among the following four categories for our International and Global Accounts Management, Enterprise, Small and Medium Business and Wholesale segments:

- *IP and Data Services*, which includes primarily VPN data networks, Ethernet, IP, content delivery and other ancillary services;
- *Transport and Infrastructure*, which includes wavelengths, dark fiber, private line, colocation and data center services, including cloud, hosting and application management solutions, professional services and other ancillary services;
- *Voice and Collaboration*, which includes primarily local and long-distance voice, including wholesale voice, and other ancillary services, as well as VoIP services; and
- *IT and Managed Services*, which includes information technology services and managed services, which may be purchased in conjunction with our other network services.

We categorize our products and services revenue among the following four categories for our Consumer segment:

- *Broadband*, which includes high-speed, fiber based and lower speed DSL broadband services;
- *Voice*, which includes local and long-distance services;
- *Regulatory Revenue*, which consists of (i) CAF, USF and other support payments designed to reimburse us for various costs related to certain telecommunications services and (ii) other operating revenue from the leasing and subleasing of space; and
- *Other*, which includes retail video services (including our linear and TV services), professional services and other ancillary services.

The following tables summarize our segment results for 2019, 2018 and 2017 based on the segment categorization we were operating under at December 31, 2019.

Year Ended December 31, 2019								
	International and Global Accounts	Enterprise	Small and Medium Business	Wholesale	Consumer	Total Segments	Operations and Other	Total
(Dollars in millions)								
Revenue:								
IP and Data Services	\$ 1,676	2,763	1,184	1,377	—	7,000	—	7,000
Transport and Infrastructure	1,318	1,545	420	1,920	—	5,203	—	5,203
Voice and Collaboration	377	1,567	1,306	771	—	4,021	—	4,021
IT and Managed Services	225	258	46	6	—	535	—	535
Broadband	—	—	—	—	2,876	2,876	—	2,876
Voice	—	—	—	—	1,881	1,881	—	1,881
Regulatory	—	—	—	—	634	634	—	634
Other	—	—	—	—	251	251	—	251
Total Revenue	3,596	6,133	2,956	4,074	5,642	22,401	—	22,401
Expenses:								
Cost of services and products	1,044	2,088	606	567	313	4,618	5,459	10,077
Selling, general and administrative	266	555	480	80	415	1,796	1,919	3,715
Less: share-based compensation	—	—	—	—	—	—	(162)	(162)
Total expense	1,310	2,643	1,086	647	728	6,414	7,216	13,630
Total adjusted EBITDA	\$ 2,286	3,490	1,870	3,427	4,914	15,987	(7,216)	8,771

Year Ended December 31, 2018								
	International and Global Accounts	Enterprise	Small and Medium Business	Wholesale	Consumer	Total Segments	Operations and Other	Total
(Dollars in millions)								
Revenue:								
IP and Data Services	\$ 1,728	2,673	1,178	1,382	—	6,961	—	6,961
Transport and Infrastructure	1,276	1,550	471	2,136	—	5,433	—	5,433
Voice and Collaboration	387	1,607	1,443	872	—	4,309	—	4,309
IT and Managed Services	262	303	52	7	—	624	—	624
Broadband	—	—	—	—	2,822	2,822	—	2,822
Voice	—	—	—	—	2,173	2,173	—	2,173
Regulatory	—	—	—	—	729	729	—	729
Other	—	—	—	—	392	392	—	392
Total Revenue	3,653	6,133	3,144	4,397	6,116	23,443	—	23,443
Expenses:								
Cost of services and products	1,056	2,038	614	645	500	4,853	6,009	10,862
Selling, general and administrative	256	573	517	86	511	1,943	2,222	4,165
Less: share-based compensation	—	—	—	—	—	—	(186)	(186)
Total expense	1,312	2,611	1,131	731	1,011	6,796	8,045	14,841
Total adjusted EBITDA	\$ 2,341	3,522	2,013	3,666	5,105	16,647	(8,045)	8,602

Year Ended December 31, 2017								
	International and Global Accounts	Enterprise	Small and Medium Business	Wholesale	Consumer	Total Segments	Operations and Other	Total
(Dollars in millions)								
Revenue:								
IP and Data Services	\$ 528	1,515	634	916	—	3,593	1	3,594
Transport and Infrastructure	406	1,116	419	1,530	—	3,471	192	3,663
Voice and Collaboration	176	1,245	1,314	569	—	3,304	—	3,304
IT and Managed Services	272	310	51	11	—	644	—	644
Broadband	—	—	—	—	2,698	2,698	—	2,698
Voice	—	—	—	—	2,531	2,531	—	2,531
Regulatory	—	—	—	—	731	731	—	731
Other	—	—	—	—	491	491	—	491
Total Revenue	1,382	4,186	2,418	3,026	6,451	17,463	193	17,656
Expenses:								
Cost of services and products	457	1,365	389	413	620	3,244	4,959	8,203
Selling, general and administrative	104	365	448	47	695	1,659	1,849	3,508
Less: share-based compensation	—	—	—	—	—	—	(111)	(111)
Total expense	561	1,730	837	460	1,315	4,903	6,697	11,600
Total adjusted EBITDA	\$ 821	2,456	1,581	2,566	5,136	12,560	(6,504)	6,056

We recognize revenue in our consolidated statements of operations for certain USF surcharges and transaction taxes that we bill to our customers. Our consolidated statements of operations also reflect the offsetting expense for the amounts we remit to the government agencies. The USF surcharges are assigned to the products and services categories based on the underlying revenue. We also act as a collection agent for certain other USF and transaction taxes that we are required by government agencies to bill our customers, for which we do not record any revenue or expense because we only act as a pass-through agent.

The following table provides the amount of USF surcharges and transaction taxes:

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
USF surcharges and transaction taxes	\$ 1,002	952	601

## Revenue and Expenses

Our segment revenue includes all revenue from our five segments as described in more detail above. Our segment revenue is based upon each customer's classification. We report our segment revenue based upon all services provided to that segment's customers. Our segment expenses include specific cost of service expenses incurred as a direct result of providing services and products to segment customers, along with selling, general and administrative expenses that are directly associated with specific segment customers or activities.

The following items are excluded from our segment results, because they are centrally managed and not monitored by or reported to our CODM by segment:

- Network expenses not incurred as a direct result of providing services and products to segment customers;
- centrally managed expenses such as Operations, Finance, Human Resources, Legal, Marketing, Product Management and IT, which are reported as "Operations and Other";
- depreciation and amortization expense or impairments;
- interest expense, because we manage our financing on a consolidated basis and have not allocated assets or debt to specific segments;
- stock-based compensation; and
- other income and expense items are not monitored as a part of our segment operations.

The following table reconciles total segment adjusted EBITDA to net (loss) income for the years ended December 31, 2019, 2018 and 2017:

	Years Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Total segment adjusted EBITDA	\$ 15,987	16,647	12,560
Depreciation and amortization	(4,829)	(5,120)	(3,936)
Goodwill impairment	(6,506)	(2,726)	—
Other operating expenses	(7,216)	(8,045)	(6,504)
Share-based compensation	(162)	(186)	(111)
Operating (loss) income	(2,726)	570	2,009
Total other expense, net	(2,040)	(2,133)	(1,469)
(Loss) income before income taxes	(4,766)	(1,563)	540
Income tax expense (benefit)	503	170	(849)
Net (loss) income	\$ (5,269)	(1,733)	1,389

We do not have any single customer that provides more than 10% of our consolidated total operating revenue.

The assets we hold outside of the U.S. represent less than 10% of our total assets. Revenue from sources outside of the U.S. is responsible for less than 10% of our total operating revenue.



**(18) Quarterly Financial Data (Unaudited)**

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
(Dollars in millions, except per share amounts)					
<b>2019</b>					
Operating revenue	\$ 5,647	5,578	5,606	5,570	22,401
Operating (loss) income	(5,499)	976	950	847	(2,726)
Net (loss) income	(6,165)	371	302	223	(5,269)
Basic (loss) earnings per common share	(5.77)	0.35	0.28	0.21	(4.92)
Diluted (loss) earnings per common share	(5.77)	0.35	0.28	0.21	(4.92)
<b>2018</b>					
Operating revenue	\$ 5,945	5,902	5,818	5,778	23,443
Operating income (loss)	750	767	894	(1,841)	570
Net income (loss)	115	292	272	(2,412)	(1,733)
Basic earnings (loss) per common share	0.11	0.27	0.25	(2.26)	(1.63)
Diluted earnings (loss) per common share	0.11	0.27	0.25	(2.26)	(1.63)

During the first quarter of 2019, we recorded a non-cash, non-tax-deductible goodwill impairment charge of \$6.5 billion for goodwill, see Note 4—Goodwill, Customer Relationships and Other Intangible Assets for further details.

During the fourth quarter of 2018, we recorded a non-cash, non-tax-deductible goodwill impairment charge of \$2.7 billion for goodwill see Note 4—Goodwill, Customer Relationships and Other Intangible Assets for further details.

During the first quarter of 2018, we recognized \$71 million of expenses related to our acquisition of Level 3 followed by acquisition-related expenses of \$162 million, \$43 million and \$117 million in the second, third and fourth quarters of 2018, respectively. During 2019, we recognized expenses related to our acquisition of Level 3 of \$34 million, \$39 million, \$38 million and \$123 million in the first, second, third and fourth quarters of 2019, respectively.

**(19) Commitments, Contingencies and Other Items**

We are subject to various claims, legal proceedings and other contingent liabilities, including the matters described below, which individually or in the aggregate could materially affect our financial condition, future results of operations or cash flows. As a matter of course, we are prepared to both litigate these matters to judgment as needed, as well as to evaluate and consider reasonable settlement opportunities.

Irrespective of its merits, litigation may be both lengthy and disruptive to our operations and could cause significant expenditure and diversion of management attention. We review our litigation accrual liabilities on a quarterly basis, but in accordance with applicable accounting guidelines only establish accrual liabilities when losses are deemed probable and reasonably estimable and only revise previously-established accrual liabilities when warranted by changes in circumstances, in each case based on then-available information. As such, as of any given date we could have exposure to losses under proceedings as to which no liability has been accrued or as to which the accrued liability is inadequate. Amounts accrued for our litigation and non-income tax contingencies at December 31, 2019 and December 31, 2018 aggregated to approximately \$180 million and \$123 million, respectively, and are included in other current liabilities and other liabilities in our consolidated balance sheet as of such date. The establishment of an accrual does not mean that actual funds have been set aside to satisfy a given contingency. Thus, the resolution of a particular contingency for the amount accrued could have no effect on our results of operations but nonetheless could have an adverse effect on our cash flows.

In this Note, when we refer to a class action as "putative" it is because a class has been alleged, but not certified in that matter.

#### *Shareholder Class Action Suit*

CenturyLink and certain CenturyLink board members and officers were named as defendants in a putative shareholder class action lawsuit filed on June 12, 2018 in the Boulder County District Court of the state of Colorado, captioned Houser et al. v. CenturyLink, et al. The complaint asserts claims on behalf of a putative class of former Level 3 shareholders who became CenturyLink shareholders as a result of our acquisition of Level 3. It alleges that the proxy statement provided to the Level 3 shareholders failed to disclose various material information of several kinds, including information about strategic revenue, customer loss rates, and customer account issues, among other items. The complaint seeks damages, costs and fees, rescission, rescissory damages, and other equitable relief.

#### *Switched Access Disputes*

Subsidiaries of CenturyLink, Inc. are among hundreds of companies involved in an industry-wide dispute, raised in nearly 100 federal lawsuits (filed between 2014 and 2016) that have been consolidated in the United States District Court for the Northern District of Texas for pretrial procedures. The disputes relate to switched access charges that local exchange carriers ("LECs") collect from interexchange carriers ("IXCs") for IXCs' use of LEC's access services. In the lawsuits, IXCs, including Sprint Communications Company L.P. ("Sprint") and various affiliates of Verizon Communications Inc. ("Verizon"), assert that federal and state laws bar LECs from collecting access charges when IXCs exchange certain types of calls between mobile and wireline devices that are routed through an IXC. Some of these IXCs have asserted claims seeking refunds of payments for access charges previously paid and relief from future access charges.

In November 2015, the federal court agreed with the LECs and rejected the IXCs' contention that federal law prohibits these particular access charges. Final judgments have been entered in the consolidated lawsuits and the IXCs are pursuing an appeal. Separately, some of the defendants, including CenturyLink's LECs, have petitioned the FCC to address these issues on an industry-wide basis.

Our subsidiaries include both IXCs and LECs which respectively pay and assess significant amounts of the charges in question. The outcome of these disputes and lawsuits, as well as any related regulatory proceedings that could ensue, are currently not predictable.

#### *State Tax Suits*

Since 2012, a number of Missouri municipalities have asserted claims in the Circuit Court of St. Louis County, Missouri, alleging that we and several of our subsidiaries have underpaid taxes. These municipalities are seeking, among other things, declaratory relief regarding the application of business license and gross receipts taxes and back taxes from 2007 to the present, plus penalties and interest. In a February 2017 ruling in connection with one of these pending cases, the court entered an order awarding plaintiffs \$4 million and broadening the tax base on a going-forward basis. We appealed that decision to the Missouri Supreme Court. In December 2019, it affirmed the circuit court's order in some respects and reversed it in others, remanding the case to the circuit court for further proceedings. The Missouri Supreme Court's decision will reduce our exposure in the case. In a June 2017 ruling in connection with another one of these pending cases, the circuit court made findings in a non-final ruling which, if not overturned or modified in light of the Missouri Supreme Court's decision, will result in a tax liability to us well in excess of the contingent liability we have established. In due course, we plan to appeal that decision. We continue to vigorously defend against these claims.

#### *Billing Practices Suits*

In June 2017, a former employee filed an employment lawsuit against us claiming that she was wrongfully terminated for alleging that we charged some of our retail customers for products and services they did not authorize. Starting shortly thereafter and continuing since then, and based in part on the allegations made by the former employee, several legal proceedings have been filed.

In June 2017, *McLeod v. CenturyLink*, a putative consumer class action, was filed against us in the U.S. District Court for the Central District of California alleging that we charged some of our retail customers for products and services they did not authorize. A number of other complaints asserting similar claims were filed in other federal and state courts. The lawsuits assert claims including fraud, unfair competition, and unjust enrichment. Also in June 2017, *Craig v. CenturyLink, Inc., et al.*, a putative securities investor class action, was filed in U.S. District Court for the Southern District of New York, alleging that we failed to disclose material information regarding improper sales practices, and asserting federal securities law claims. A number of other cases asserting similar claims have also been filed.

Beginning June 2017, we also received several shareholder derivative demands addressing related topics. In August 2017, the Board of Directors formed a special litigation committee of outside directors to address the allegations of impropriety contained in the shareholder derivative demands. In April 2018, the special litigation committee concluded its review of the derivative demands and declined to take further action. Since then, derivative cases were filed. Two of these cases, *Castagna v. Post* and *Pinsly v. Post*, were filed in Louisiana state court in the Fourth Judicial District Court for the Parish of Ouachita. The remaining derivative cases were filed in federal court in Louisiana and Minnesota. These cases have been brought on behalf of CenturyLink against certain current and former officers and directors of the Company and seek damages for alleged breaches of fiduciary duties.

The consumer putative class actions, the securities investor putative class actions, and the federal derivative actions have been transferred to the U.S. District Court for the District of Minnesota for coordinated and consolidated pretrial proceedings as *In Re: CenturyLink Sales Practices and Securities Litigation*. Subject to confirmatory discovery and court approval, we have agreed to settle the consumer putative class actions for payments of \$15.5 million to compensate class members and of up to \$3.5 million for administrative costs. We accrued for those amounts during the second quarter of 2019. Certain class members may elect to opt out of the class settlement and pursue the resolution of their individual claims against us on these issues through various dispute resolution processes, including individual arbitration. One law firm claims to represent more than 22,000 potential class members. To the extent that a substantial number of class members, including many of the law firm's alleged clients, meet the contractual requirements to arbitrate, elect to opt out of the settlement (or otherwise successfully exclude their individual claims), and actually pursue arbitrations, the Company could incur a material amount of filing and other arbitrations fees in relation to the administration of those claims.

In July 2017, the Minnesota state attorney general filed *State of Minnesota v. CenturyTel Broadband Services LLC, et al.* in the Anoka County Minnesota District Court, alleging claims of fraud and deceptive trade practices relating to improper consumer sales practices.

We have engaged in discussions regarding potential resolutions of these claims with a number of state attorneys general, and have entered into agreements settling the Minnesota suit and certain of the consumer practices claims asserted by state attorneys general. While we do not agree with allegations raised in these matters, we have been willing to consider reasonable settlements where appropriate.

In 2019, we recorded a charge of approximately \$71 million with respect to the above-described settlements and other consumer litigation related matters.

#### *Locate Service Investigations*

In June 2019, Minnesota and Arizona initiated investigations related to the timeliness of responses by certain of our vendors to requests for marking the location of underground telecommunications facilities. We and our subsidiaries are cooperating with the investigations.

#### *Peruvian Tax Litigation*

In 2005, the Peruvian tax authorities ("SUNAT") issued tax assessments against one of our Peruvian subsidiaries asserting \$26 million, of additional income tax withholding and value-added taxes ("VAT"), penalties and interest for calendar years 2001 and 2002 on the basis that the Peruvian subsidiary incorrectly documented its importations. After taking into account the developments described below, as well as the accrued interest and foreign exchange effects, we believe the total amount of our exposure is \$7 million at December 31, 2019.

We challenged the assessments via administrative and then judicial review processes. In October 2011, the highest administrative review tribunal (the Tribunal) decided the central issue underlying the 2002 assessments in

SUNAT's favor. We appealed the Tribunal's decision to the first judicial level, which decided the central issue in favor of Level 3. SUNAT and we filed cross-appeals with the court of appeal. In May 2017, the court of appeal issued a decision reversing the first judicial level. In June 2017, we filed an appeal of the decision to the Supreme Court of Justice, the final judicial level. Oral argument was held before the Supreme Court of Justice in October 2018. A decision on this case is pending.

In October 2013, the Tribunal decided the central issue underlying the 2001 assessments in SUNAT's favor. We appealed that decision to the first judicial level in Peru, which decided the central issue in favor of SUNAT. In June 2017, we filed an appeal with the court of appeal. In November 2017, the court of appeals issued a decision affirming the first judicial level and we filed an appeal of the decision to the Supreme Court of Justice. Oral argument was held before the Supreme Court of Justice in June 2019. A decision on this case is pending.

#### *Brazilian Tax Claims*

In December 2004, March 2009, April 2009 and July 2014, the São Paulo state tax authorities issued tax assessments against one of our Brazilian subsidiaries for the Tax on Distribution of Goods and Services ("ICMS") with respect to revenue from leasing certain assets (in the case of the December 2004, March 2009 and July 2014 assessments) and revenue from the provision of Internet access services (in the case of the April 2009 and July 2014 assessments), by treating such activities as the provision of communications services, to which the ICMS tax applies. In September 2002, July 2009 and May 2012, the Rio de Janeiro state tax authorities issued tax assessments to the same Brazilian subsidiary on similar issues.

We have filed objections to these assessments, arguing that the lease of assets and the provision of Internet access are not communication services subject to ICMS. The objections to the September 2002, December, 2004 and March 2009 assessments were rejected by the respective state administrative courts, and we have appealed those decisions to the judicial courts. In October 2012 and June 2014, we received favorable rulings from the lower court on the December 2004 and March 2009 assessments regarding equipment leasing, but those rulings are subject to appeal by the state. No ruling has been obtained with respect to the September 2002 assessment. The objections to the April and July 2009 and May 2012 assessments are still pending final administrative decisions. The July 2014 assessment was confirmed during the fourth quarter of 2014 at the first administrative level, and we appealed this decision to the second administrative level.

We are vigorously contesting all such assessments in both states and, in particular, view the assessment of ICMS on revenue from equipment leasing to be without merit. These assessments, if upheld, could result in a loss of up to \$37 million at December 31, 2019 in excess of the accruals established for these matters.

#### *Qui Tam Action*

Level 3 was notified in late 2017 of a qui tam action pending against Level 3 Communications, Inc. and others in the United States District Court for the Eastern District of Virginia, captioned United States of America ex rel., Stephen Bishop v. Level 3 Communications, Inc. et al. The original qui tam complaint and an amended complaint were filed under seal on November 26, 2013 and June 16, 2014, respectively. The court unsealed the complaints on October 26, 2017.

The amended complaint alleges that Level 3, principally through two former employees, submitted false claims and made false statements to the government in connection with two government contracts. The relator seeks damages in this lawsuit of approximately \$50 million, subject to trebling, plus statutory penalties, pre-and-post judgment interest, and attorney's fees. The case is currently stayed.

Level 3 is evaluating its defenses to the claims. At this time, Level 3 does not believe it is probable Level 3 will incur a material loss. If, contrary to its expectations, the plaintiff prevails in this matter and proves damages at or near \$50 million, and is successful in having those damages trebled, the outcome could have a material adverse effect on our results of operations in the period in which a liability is recognized and on our cash flows for the period in which any damages are paid.

Several people, including two former Level 3 employees were indicted in the United States District Court for the Eastern District of Virginia on October 3, 2017, and charged with, among other things, accepting kickbacks from a subcontractor, who was also indicted, for work to be performed under a prime government contract. Of the two former employees, one entered into a plea agreement, and the other is deceased. Level 3 is fully cooperating in the government's investigations in this matter.

### ***Other Proceedings, Disputes and Contingencies***

From time to time, we are involved in other proceedings incidental to our business, including patent infringement allegations, administrative hearings of state public utility commissions relating primarily to our rates or services, actions relating to employee claims, various tax issues, environmental law issues, grievance hearings before labor regulatory agencies and miscellaneous third party tort actions.

We are currently defending several patent infringement lawsuits asserted against us by non-practicing entities, many of which are seeking substantial recoveries. These cases have progressed to various stages and one or more may go to trial during 2020 if they are not otherwise resolved. Where applicable, we are seeking full or partial indemnification from our vendors and suppliers. As with all litigation, we are vigorously defending these actions and, as a matter of course, are prepared to litigate these matters to judgment, as well as to evaluate and consider all reasonable settlement opportunities.

We are subject to various foreign, federal, state and local environmental protection and health and safety laws. From time to time, we are subject to judicial and administrative proceedings brought by various governmental authorities under these laws. Several such proceedings are currently pending, but none is reasonably expected to exceed \$100,000 in fines and penalties.

The outcome of these other proceedings described under this heading is not predictable. However, based on current circumstances, we do not believe that the ultimate resolution of these other proceedings, after considering available defenses and any insurance coverage or indemnification rights, will have a material adverse effect on us.

The ultimate outcome of the above-described matters may differ materially from the outcomes anticipated, estimated, projected or implied by us in certain of our statements appearing above in this Note, and proceedings currently viewed as immaterial by us may ultimately materially impact us.

### ***Environmental Contingencies***

In connection with our largely historical operations, we have responded to or been notified of potential environmental liability at approximately 200 properties. We are engaged in addressing or have liquidated environmental liabilities at many of those properties. We could potentially be held liable, jointly, or severally, and without regard to fault, for the costs of investigation and remediation of these sites. The discovery of additional environmental liabilities or changes in existing environmental requirements could have a material adverse effect on our business.

### ***Right-of-Way***

At December 31, 2019, our future rental commitments for Right-of-Way agreements were as follows:

	<b>Right-of-Way Agreements</b>	
	<b>(Dollars in millions)</b>	
2020	\$	174
2021		75
2022		72
2023		63
2024		52
2025 and thereafter		464
Total future minimum payments	\$	900

## Purchase Commitments

We have several commitments primarily for marketing activities and support services from a variety of vendors to be used in the ordinary course of business totaling \$766 million at December 31, 2019. Of this amount, we expect to purchase \$247 million in 2020, \$261 million in 2021 through 2022, \$85 million in 2023 through 2024 and \$173 million in 2025 and thereafter. These amounts do not represent our entire anticipated purchases in the future, but represent only those items for which we were contractually committed as of December 31, 2019.

## (20) Other Financial Information

### Other Current Assets

The following table presents details of other current assets in our consolidated balance sheets:

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Prepaid expenses	\$ 274	307
Income tax receivable	35	82
Materials, supplies and inventory	105	120
Contract assets	42	52
Contract acquisition costs	178	167
Contract fulfillment costs	115	82
Other	59	108
Total other current assets	\$ 808	918

### Selected Current Liabilities

Current liabilities reflected in our consolidated balance sheets include accounts payable and other current liabilities as follows:

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Accounts payable	\$ 1,724	1,933
Other current liabilities:		
Accrued rent	\$ 75	45
Legal contingencies	88	30
Other	223	282
Total other current liabilities	\$ 386	357

Included in accounts payable at December 31, 2019 and 2018, were (i) \$106 million and \$86 million, respectively, representing book overdrafts and (ii) \$469 million and \$434 million, respectively, associated with capital expenditures.

## (21) Labor Union Contracts

As of December 31, 2019, approximately 25% of our employees were members of various bargaining units represented by the Communication Workers of America ("CWA") and the International Brotherhood of Electrical Workers ("IBEW"). We believe that relations with our employees continue to be generally good. There were no employees subject to collective bargaining agreements that expired prior to December 31, 2019. Approximately 9% of our represented employees are subject to collective bargaining agreements that are scheduled to expire in 2020.

**(22) Accumulated Other Comprehensive Loss****Information Relating to 2019**

The table below summarizes changes in accumulated other comprehensive loss recorded on our consolidated balance sheet by component for the year ended December 31, 2019:

	Pension Plans	Post-Retirement Benefit Plans	Foreign Currency Translation Adjustment and Other	Interest Rate Swap	Total
(Dollars in millions)					
Balance at December 31, 2018	\$ (2,173)	(58)	(230)	—	(2,461)
Other comprehensive loss before reclassifications	(219)	(138)	2	(41)	(396)
Amounts reclassified from accumulated other comprehensive loss	163	12	—	2	177
Net current-period other comprehensive (loss) income	(56)	(126)	2	(39)	(219)
Balance at December 31, 2019	<u>\$ (2,229)</u>	<u>(184)</u>	<u>(228)</u>	<u>(39)</u>	<u>(2,680)</u>

The table below presents further information about our reclassifications out of accumulated other comprehensive loss by component for the year ended December 31, 2019:

Year Ended December 31, 2019	(Decrease) Increase in Net Loss	Affected Line Item in Consolidated Statement of Operations
(Dollars in millions)		
Amounts reclassified from accumulated other comprehensive loss <sup>(1)</sup>		
Interest rate swap	\$ 2	Interest expense
Net actuarial loss	224	Other income, net
Prior service cost	8	Other income, net
Total before tax	234	
Income tax benefit	(57)	Income tax expense (benefit)
Net of tax	<u>\$ 177</u>	

(1) See Note 11—Employee Benefits for additional information on our net periodic benefit (expense) income related to our pension and post-retirement plans.

## Information Relating to 2018

The table below summarizes changes in accumulated other comprehensive loss recorded on our consolidated balance sheet by component for the year ended December 31, 2018:

	Pension Plans	Post-Retirement Benefit Plans	Foreign Currency Translation Adjustment and Other	Total
(Dollars in millions)				
Balance at December 31, 2017	\$ (1,731)	(235)	(29)	(1,995)
Other comprehensive income (loss) before reclassifications	(195)	194	(201)	(202)
Amounts reclassified from accumulated other comprehensive loss	128	15	—	143
Net current-period other comprehensive income (loss)	(67)	209	(201)	(59)
Cumulative effect of adoption of ASU 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income	\$ (375)	(32)	—	(407)
Balance at December 31, 2018	\$ (2,173)	(58)	(230)	(2,461)

The table below presents further information about our reclassifications out of accumulated other comprehensive loss by component for the year ended December 31, 2018:

Year Ended December 31, 2018	(Decrease) Increase in Net Loss	Affected Line Item in Consolidated Statement of Operations
(Dollars in millions)		
Amortization of pension & post-retirement plans <sup>(1)</sup>		
Net actuarial loss	\$ 178	Other income, net
Prior service cost	12	Other income, net
Total before tax	190	
Income tax benefit	(47)	Income tax expense (benefit)
Net of tax	\$ 143	

(1) See Note 11—Employee Benefits for additional information on our net periodic benefit (expense) income related to our pension and post-retirement plans.



## (23) Dividends

Our Board of Directors declared the following dividends payable in 2019 and 2018:

Date Declared	Record Date	Dividend Per Share	Total Amount (in millions)	Payment Date
November 21, 2019	12/2/2019	\$ 0.250	\$ 273	12/13/2019
August 22, 2019	9/2/2019	0.250	273	9/13/2019
May 23, 2019	6/3/2019	0.250	274	6/14/2019
March 1, 2019	3/12/2019	0.250	273	3/22/2019
November 14, 2018	11/26/2018	0.540	586	12/7/2018
August 21, 2018	8/31/2018	0.540	584	9/14/2018
May 23, 2018	6/4/2018	0.540	588	6/15/2018
February 21, 2018	3/5/2018	0.540	586	3/16/2018

The declaration of dividends is solely at the discretion of our Board of Directors, which may change or terminate our dividend practice at any time for any reason without prior notice. On February 27, 2020, our Board of Directors declared a quarterly cash dividend of \$0.25 per share.

## ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

## ITEM 9A. CONTROLS AND PROCEDURES

### Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934 (the “Exchange Act”)) designed to provide reasonable assurance that the information required to be disclosed by the Company in the reports that it files or furnishes under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. These include controls and procedures designed to ensure that this information is accumulated and communicated to the Company’s management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Management, with the participation of our Chief Executive Officer, Jeff K. Storey, and our Executive Vice President and Chief Financial Officer, Indraneel Dev, evaluated the effectiveness of the Company’s disclosure controls and procedures as of December 31, 2019. Based on this evaluation, the Company’s Chief Executive Officer and Chief Financial Officer concluded that the Company’s disclosure controls and procedures were effective, as of December 31, 2019, in providing reasonable assurance that the information required to be disclosed by us in this report was accumulated and communicated in the manner provided above.

### Remediation Actions

As previously described in Part II, Item 9A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, we (i) had two material weaknesses as of December 31, 2018 and (ii) promptly began implementing remediation plans in early 2019 to address both of those material weaknesses. During the second quarter of 2019, we remediated our material weakness related to the ineffective design and operation of process level internal controls over the fair value measurement of certain assets acquired and liabilities assumed from Level 3 in late 2017. Additionally, during the fourth quarter of 2019, we remediated our material weakness related to the ineffective design and operation of certain process level internal controls over the existence and accuracy of revenue transactions. The measures taken to remediate the material weakness associated with revenue transactions are described in further detail in the “Changes in Internal Control Over Financial Reporting” section immediately below.

## Changes in Internal Control Over Financial Reporting

During the quarter ended December 31, 2019, we completed the design and implementation of new internal controls, and strengthened existing process level internal controls, in response to the material weakness identified in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 related to the ineffective design and operation of certain process level internal controls over the existence and accuracy of revenue transactions, as described below:

- We conducted a risk assessment to identify and assess changes needed to our financial reporting and process level controls related to the existence and accuracy of revenue transactions. Based on the results of that assessment, we designed, documented and implemented new process level internal controls and strengthened existing process level internal controls over the existence and accuracy of revenue transactions for areas in which we deemed there was a reasonable possibility of material misstatement of financial statement items related to revenue transactions.
- We expanded the scope of our existing internal controls over revenue transactions to include “upstream” controls in the areas of contract quoting, order entry, provisioning, mediation, rating, and pricing, as well as the underlying applications that support these processes and internal controls.
- We strengthened existing internal controls in our billing and revenue reporting processes to reduce the risk of failure in the effectiveness of upstream controls.
- We completed an evaluation of the operating effectiveness of our newly-designed or strengthened internal controls over the existence and accuracy of revenue transactions, including an assessment of potential financial and reporting impacts, and concluded the deficiencies of such controls would not result in a reasonable possibility of material misstatement of financial statement items related to revenue transactions.

Based on these activities, management has concluded that these remediation activities have addressed the material weakness related to the existence and accuracy of revenue transactions and believes that the design and operation of these controls address the related risks of material misstatement to revenue and related financial statement line items and disclosures.

Other than the remediation efforts described above, there have been no changes in the Company’s internal control over financial reporting (as defined in Rules 13a-15(f) of the Exchange Act) that occurred during the fourth quarter of 2019 that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

## Inherent Limitations of Internal Controls

The effectiveness of our or any system of disclosure controls and procedures is subject to certain limitations, including the exercise of judgment in designing, implementing and evaluating the controls and procedures, the assumptions used in identifying the likelihood of future events and the inability to eliminate misconduct completely. As a result, there can be no assurance that our disclosure controls and procedures will detect all errors or fraud. By their nature, our or any system of disclosure controls and procedures can provide only reasonable assurance regarding management’s control objectives.

## **Internal Control Over Financial Reporting**

### *Management's Report on Internal Control over Financial Reporting*

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act), 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 in the United States. Under the supervision and with the participation of management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on our evaluation under the framework of COSO, management concluded that our internal control over financial reporting was effective at December 31, 2019. The effectiveness of our internal control over financial reporting at December 31, 2019 has been audited by KPMG LLP, as stated in their report. See the Report of Independent Registered Public Accounting Firm on our internal control over financial reporting in Item 8, which is incorporated herein by reference.

### *Management's Report on the Consolidated Financial Statements*

Management has prepared and is responsible for the integrity and objectivity of our consolidated financial statements for the year ended December 31, 2019. The consolidated financial statements included in this report have been prepared in accordance with accounting principles generally accepted in the United States and necessarily include amounts determined using our best judgments and estimates.

Our consolidated financial statements have been audited by KPMG LLP, an independent registered public accounting firm, who have expressed their opinion with respect to the fairness of the consolidated financial statements. Their audit was conducted in accordance with standards of the Public Company Accounting Oversight Board (United States).

## **ITEM 9B. OTHER INFORMATION**

None.

## **PART III**

## **ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by Item 10 is incorporated by reference to the Proxy Statement.

## **ITEM 11. EXECUTIVE COMPENSATION**

The information required by Item 11 is incorporated by reference to the Proxy Statement.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS****Equity Compensation Plan Information**

The following table provides information as of December 31, 2019 about our equity compensation plans under which Common Shares are authorized for issuance:

	<b>Number of securities to be issued upon exercise of outstanding options and rights (a)</b>	<b>Weighted-average exercise price of outstanding options and rights (b)</b>	<b>Number of securities remaining available for future issuance under plans (excluding securities reflected in column (a)) (c)</b>
Equity compensation plans approved by shareholders	8,821,040 <sup>(1)</sup>	\$ — <sup>(2)</sup>	18,784,622
Equity compensation plans not approved by shareholders <sup>(3)</sup>	3,424,930	28.04 <sup>(2)</sup>	—
<b>Totals</b>	<b>12,245,970 <sup>(1)</sup></b>	<b>\$ 28.04 <sup>(2)</sup></b>	<b>18,784,622</b>

(1) These amounts include restricted stock units, some of which represent the difference between the number of shares of restricted stock subject to market conditions granted at target and the maximum possible payout for these awards. Depending on performance, the actual share payout of these awards may range between 0-200% of target.

(2) The amounts in column (a) include restricted stock units, which do not have an exercise price. Consequently, those awards were excluded from the calculation of this exercise price.

(3) These amounts represent common shares to be issued upon exercise of options that were assumed in connection with certain acquisitions. This also includes restricted stock units outstanding under Legacy Level 3 Plan. In connection with our merger with Level 3, we also assumed certain awards then-outstanding under other predecessor plans of Level 3.

The balance of the information required by Item 12 is incorporated by reference to the Proxy Statement.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE**

The information required by Item 13 is incorporated by reference to the Proxy Statement.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by Item 14 is incorporated by reference to the Proxy Statement.

## PART IV

### ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Exhibits identified in parentheses below are on file with the SEC and are incorporated herein by reference. All other exhibits are provided as part of this electronic submission.

Exhibit Number	Description
3.1	<a href="#">Composite Amended and Restated Articles of Incorporation of CenturyLink, Inc., as amended through May 22, 2019 (incorporated by reference to Exhibit 3.1 to CenturyLink, Inc.'s Quarterly Report on Form 10-Q (File No. 001-07784) filed with the Securities and Exchange Commission on August 8, 2019).</a>
3.2	<a href="#">Bylaws of CenturyLink, Inc., as amended and restated through August 24, 2017 (incorporated by reference to Exhibit 3.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on August 24, 2017).</a>
4.1*	<a href="#">Description of CenturyLink, Inc.'s securities registered under Section 12 of the Securities Exchange Act of 1934, as amended.</a>
4.2	<a href="#">Form of common stock certificate (incorporated by reference to Exhibit 4.10 to CenturyLink, Inc.'s Registration Statement on Form S-3 filed with the Securities and Exchange Commission on March 2, 2012 (Registration No. 333-179888)).</a>
4.3	<a href="#">Amended and Restated Section 382 Rights Agreement by and between CenturyLink, Inc. and Computershare Trust Company, N.A., dated as of May 9, 2019 (incorporated by reference to Appendix C set forth in CenturyLink's Schedule 14A (File No. 001-07784) filed with the Securities and Exchange Commission on May 10, 2019).</a>
4.4	Instruments relating to CenturyLink, Inc.'s Senior Secured Credit Facilities. <ul style="list-style-type: none"><li>a. <a href="#">Restatement Agreement, dated as of January 31, 2020, by and among CenturyLink, Inc., as Borrower, Bank of America, N.A., as Administrative Agent and Collateral Agent, and the other lenders named therein (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on January 31, 2020).</a></li><li>b. <a href="#">Amended and Restated Credit Agreement, dated as of January 31, 2020, by and among CenturyLink, Inc., as Borrower, Bank of America, N.A. as Administrative Agent and Collateral Agent, and the other lenders, agents, arrangers and bookrunners named therein (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on January 31, 2020).</a></li></ul>
4.5	Instruments relating to CenturyLink, Inc.'s public senior debt. <sup>(1)</sup> <ul style="list-style-type: none"><li>a. <a href="#">Indenture, dated as of March 31, 1994, by and between Century Telephone Enterprises, Inc. (currently named CenturyLink, Inc.) and Regions Bank (successor-in-interest to First American Bank &amp; Trust of Louisiana), as Trustee (incorporated by reference to Exhibit 4.4(a) to CenturyLink's Annual Report on Form 10-K (File No. 001-07784) for the year ended December 31, 2014 filed with the Securities and Exchange Commission on February 24, 2015).</a><ul style="list-style-type: none"><li>(i). Form of 7.2% Senior Notes, Series D, due 2025 (incorporated by reference to Exhibit 4.27 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1995 (File No. 001-07784) filed with the Securities and Exchange Commission on March 18, 1996).</li><li>(ii). Form of 6.875% Debentures, Series G, due 2028, (incorporated by reference to Exhibit 4.9 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1997 (File No. 001-07784) filed with the Securities and Exchange Commission on March 16, 1998).</li></ul></li><li>b. <a href="#">Fifth Supplemental Indenture, dated as of September 21, 2009, by and between CenturyTel, Inc. (currently named CenturyLink, Inc.) and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 7.60% Senior Notes, Series P, due 2039 and 6.15% Senior Notes, Series Q, due 2019 (incorporated by reference to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on September 22, 2009).</a></li></ul>

Exhibit Number	Description
	(i). <a href="#"><u>Form of 7.60% Senior Notes, Series P, due 2039 and 6.15% Senior Notes, Series Q, due 2019 (incorporated by reference to Exhibit A to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on September 22, 2009).</u></a>
c.	<a href="#"><u>Sixth Supplemental Indenture, dated as of June 16, 2011, by and between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 6.45% Senior Notes, Series S, due 2021 (incorporated by reference to Exhibit 4.2 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on June 16, 2011).</u></a>
	(i). <a href="#"><u>Form of 6.45% Senior Notes, Series S, due 2021 (incorporated by reference to Exhibit A to Exhibit 4.2 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on June 16, 2011).</u></a>
d.	<a href="#"><u>Seventh Supplemental Indenture, dated as of March 12, 2012, by and between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 5.80% Senior Notes, Series T, due 2022 and 7.65% Senior Notes, Series U, due 2042 (incorporated by reference to Exhibit 4.1 to CenturyLink's Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on March 12, 2012).</u></a>
	(i). <a href="#"><u>Form of 5.80% Senior Notes, Series T, due 2022 and 7.65% Senior Notes, Series U, due 2042 (incorporated by reference to Exhibit A to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on March 12, 2012).</u></a>
e.	<a href="#"><u>Eighth Supplemental Indenture, dated as of March 21, 2013, by and between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 5.625% Senior Notes, Series V, due 2020 (incorporated by reference to Exhibit 4.1 to CenturyLink's Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on March 21, 2013).</u></a>
	(i). <a href="#"><u>Form of 5.625% Senior Notes, Series V, due 2020 (incorporated by reference to Exhibit A to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on March 21, 2013).</u></a>
f.	<a href="#"><u>Ninth Supplemental Indenture, dated as of November 27, 2013, by and between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 6.75% Senior Notes, Series W, due 2023 (incorporated by reference to Exhibit 4.1 to CenturyLink's Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on November 27, 2013).</u></a>
	(i). <a href="#"><u>Form of 6.75% Senior Notes, Series W, due 2023 (incorporated by reference to Exhibit A to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on November 27, 2013).</u></a>
g.	<a href="#"><u>Tenth Supplemental Indenture, dated as of March 19, 2015, by and between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 5.625% Senior Notes, Series X, due 2025 (incorporated by reference to Exhibit 4.2 to CenturyLink's Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on March 19, 2015).</u></a>
	(i). <a href="#"><u>Form of 5.625% Senior Notes, Series X, due 2025 (incorporated by reference to Exhibit A to Exhibit 4.2 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on March 19, 2015).</u></a>
h.	<a href="#"><u>Eleventh Supplemental Indenture, dated as of April 6, 2016, by and between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 7.5% Senior Notes, Series Y, due 2024 (incorporated by reference to Exhibit 4.2 to CenturyLink's Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on April 6, 2016).</u></a>
	(i). <a href="#"><u>Form of 7.5% Senior Notes, Series Y, due 2024 (incorporated by reference to Exhibit A to Exhibit 4.2 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on April 6, 2016).</u></a>

Exhibit Number	Description
	<ul style="list-style-type: none"> <li>i. <a href="#"><u>Indenture, dated December 16, 2019, between CenturyLink, Inc. and Regions Bank, as Trustee (incorporated by reference to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on December 16, 2019).</u></a></li> <li>(i). <a href="#"><u>First Supplemental Indenture, dated December 16, 2019, between CenturyLink, Inc. and Regions Bank, as Trustee, designating and outlining the terms and conditions of CenturyLink's 5.125% Senior Notes due 2026 (incorporated by reference to Exhibit 4.2 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on December 16, 2019).</u></a></li> <li>j. <a href="#"><u>Indenture, dated January 24, 2020, between CenturyLink, Inc. and Wells Fargo Bank, National Association, as Trustee and Notes Collateral Agent, designating and outlining the terms and conditions of CenturyLink's 4.000% Senior Secured Notes due 2027 (incorporated by reference to Exhibit 4.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on January 24, 2020).</u></a></li> </ul>
4.6	<p>Instruments relating to indebtedness of Qwest Communications International, Inc. and its subsidiaries.<sup>(1)</sup></p> <ul style="list-style-type: none"> <li>a. <a href="#"><u>Indenture, dated as of April 15, 1990, by and between The Mountain States Telephone and Telegraph Company (currently named Qwest Corporation) and The First National Bank of Chicago (incorporated by reference to Exhibit 4.2 to Qwest Corporation's Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 001-03040) filed with the Securities and Exchange Commission on January 13, 2004).</u></a> <ul style="list-style-type: none"> <li>(i). <a href="#"><u>First Supplemental Indenture, dated as of April 16, 1991, by and between U S WEST Communications, Inc. (currently named Qwest Corporation) and The First National Bank of Chicago (incorporated by reference to Exhibit 4.3 to Qwest Corporation's Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 001-03040) filed with the Securities and Exchange Commission on January 13, 2004).</u></a></li> </ul> </li> <li>b. <a href="#"><u>Indenture, dated as of April 15, 1990, by and between Northwestern Bell Telephone Company (predecessor to Qwest Corporation) and The First National Bank of Chicago (incorporated by reference to Exhibit 4.5(b) to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2012 (File No. 001-07784) filed with the Securities and Exchange Commission on May 10, 2012).</u></a> <ul style="list-style-type: none"> <li>(i). <a href="#"><u>First Supplemental Indenture, dated as of April 16, 1991, by and between U S WEST Communications, Inc. (currently named Qwest Corporation) and The First National Bank of Chicago (incorporated by reference to Exhibit 4.3 to Qwest Corporation's Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 001-03040) filed with the Securities and Exchange Commission on January 13, 2004).</u></a></li> </ul> </li> <li>c. Indenture, dated as of June 29, 1998, by and among U S WEST Capital Funding, Inc. (currently named Qwest Capital Funding, Inc.), U S WEST, Inc. (predecessor to Qwest Communications International Inc.) and The First National Bank of Chicago, as trustee (incorporated by reference to Exhibit 4(a) to U S WEST, Inc.'s Current Report on Form 8-K (File No. 001-14087) filed with the Securities and Exchange Commission on November 18, 1998). <ul style="list-style-type: none"> <li>(i). <a href="#"><u>First Supplemental Indenture, dated as of June 30, 2000, by and among U S WEST Capital Funding, Inc. (currently named Qwest Capital Funding, Inc.), U S WEST, Inc. (predecessor to Qwest Communications International Inc.) and Bank One Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.10 to Qwest Communications International Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2000 (File No. 001-15577) filed with the Securities and Exchange Commission on August 11, 2000).</u></a></li> </ul> </li> <li>d. <a href="#"><u>Indenture, dated as of October 15, 1999, by and between US West Communications, Inc. (currently named Qwest Corporation) and Bank One Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4(b) to Qwest Corporation's Annual Report on Form 10-K for the year ended December 31, 1999 (File No. 001-03040) filed with the Securities and Exchange Commission on March 3, 2000).</u></a></li> </ul>

Exhibit Number	Description
	<ul style="list-style-type: none"> <li>(i). <a href="#"><u>Ninth Supplemental Indenture, dated as of October 4, 2011, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest Corporation's 6.75% Notes due 2021 (incorporated by reference to Exhibit 4.1 to Qwest Corporation's Current Report on Form 8-K (File No. 001-03040) filed with the Securities and Exchange Commission on October 4, 2011).</u></a></li> <li>(ii). <a href="#"><u>Twelfth Supplemental Indenture, dated as of May 23, 2013, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest Corporation's 6.125% Notes due 2053 (incorporated by reference to Exhibit 4.13 to Qwest Corporation's Form 8-A (File No. 001-03040) filed with the Securities and Exchange Commission on May 22, 2013).</u></a></li> <li>(iii). <a href="#"><u>Thirteenth Supplemental Indenture, dated as of September 29, 2014, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest Corporation's 6.875% Notes due 2054 (incorporated by reference to Exhibit 4.14 to Qwest Corporation's Form 8-A (File No. 001-03040) filed with the Securities and Exchange Commission on September 26, 2014).</u></a></li> <li>(iv). <a href="#"><u>Fourteenth Supplemental Indenture, dated as of September 21, 2015, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest Corporation's 6.625% Notes due 2054 (incorporated by reference to Exhibit 4.15 to Qwest Corporation's Form 8-A (File No. 001-03040) filed with the Securities and Exchange Commission on September 21, 2015).</u></a></li> <li>(v). <a href="#"><u>Fifteenth Supplemental Indenture, dated as of January 29, 2016, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest Corporation's 7.000% Notes due 2056 (incorporated by reference to Exhibit 4.16 to Qwest Corporation's Form 8-A (File No. 001-03040) filed with the Securities and Exchange Commission on January 29, 2016).</u></a></li> <li>(vi). <a href="#"><u>Sixteenth Supplemental Indenture, dated as of August 22, 2016, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest 6.500% Notes due 2056 (incorporated by reference to Exhibit 4.17 to Qwest Corporation's Form 8-A (File No. 001-03040) filed with Securities and Exchange Commission on August 22, 2016).</u></a></li> <li>(vii). <a href="#"><u>Seventeenth Supplemental Indenture dated as of April 27, 2017, by and between Qwest Corporation and U.S. Bank National Association, designating and outlining the terms and conditions of Qwest Corporation's 6.750% Notes due 2057 (incorporated by reference to Exhibit 4.18 to Qwest Corporation's Form 8-A (File No. 03040) filed with the Securities and Exchange Commission on April 27, 2017).</u></a></li> </ul>
e.	<a href="#"><u>Credit Agreement, dated as of February 20, 2015, by and among Qwest Corporation, the several lenders from time to time parties thereto, and CoBank, ACB, as administrative agent (incorporated by reference to Exhibit 4.5 to Qwest Corporation's Annual Report on Form 10-K for the year ended December 31, 2014 (File No. 001-03040) filed with the Securities and Exchange Commission on February 27, 2015).</u></a>
4.7	Instruments relating to indebtedness of Embarq Corporation. <sup>(1)</sup>
a.	<a href="#"><u>Indenture, dated as of May 17, 2006, by and between Embarq Corporation and J.P. Morgan Trust Company, National Association, a national banking association, as trustee (incorporated by reference to Exhibit 4.1 to Embarq Corporation's Current Report on Form 8-K (File No. 001-32732) filed with the Securities and Exchange Commission on May 18, 2006).</u></a>
b.	<a href="#"><u>7.995% Global Note due 2036 of Embarq Corporation (incorporated by reference to Exhibit 4.4 to Embarq Corporation's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 001-32372) filed with the Securities and Exchange Commission on March 9, 2007).</u></a>
4.8	Instruments relating to indebtedness of Level 3 Communications, Inc. and its subsidiaries. <sup>(1)</sup>
a.	<a href="#"><u>Indenture, dated as of August 12, 2014, by and between Level 3 Escrow II, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee, designating and outlining the terms and conditions of Level 3 Escrow II, Inc.'s 5.375% Senior Notes due 2022 of Level 3 Escrow II, Inc. (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on August 14, 2014).</u></a>



Exhibit Number	Description
	<p>(i). <a href="#"><u>Securities Assumption Supplemental Indenture, dated as of October 31, 2014, by and between Level 3 Escrow II, Inc., Level 3 Financing, Inc., Level 3 Communications, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s unconditional assumption of all of Level 3 Escrow II, Inc.'s obligations under the 5.375% Senior Notes due 2022 (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 5, 2014).</u></a></p> <p>(ii). <a href="#"><u>Supplemental Indenture, dated as of October 31, 2013, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the subordination in any bankruptcy, liquidation or winding up proceeding of the guarantee by Level 3 Communications, LLC of the 5.375% Senior Notes due 2022 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.3 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 5, 2014).</u></a></p> <p>(iii). <a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of August 12, 2014, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2022 (incorporated by reference to Exhibit 4.6 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 28, 2016).</u></a></p> <p>(iv). <a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, among Level 3 Communications, LLC as guarantor, Level 3 Communications, Inc., as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of August 12, 2014, designating and outlining the terms and conditions of Level 3 Financing Inc.'s 5.375% Senior Notes due 2022 (incorporated by reference to Exhibit 4.6 to Level 3 Communications, Inc.'s Current Report on Form 8-K (file no. 001-35134) dated November 28, 2016).</u></a></p> <p>b. <a href="#"><u>Indenture, dated as of January 29, 2015, by and between Level 3 Communications, Inc., as Guarantor, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.625% Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on January 30, 2015).</u></a></p> <p>(i). <a href="#"><u>Supplemental Indenture, dated as of June 3, 2015, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, designating and outlining the terms and conditions of Level 3 Communications, LLC's unconditioned, unsecured guarantee of the 5.625% Senior Notes due 2023 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on June 4, 2015).</u></a></p> <p>(ii). <a href="#"><u>Supplemental Indenture, dated as of June 3, 2015, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the subordination in any bankruptcy, liquidation or winding up proceeding of the guarantee by Level 3 Communications, LLC of the 5.625% Senior Notes due 2023 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on June 4, 2015).</u></a></p>

Exhibit Number	Description
	<p>(iii). <a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of January 29, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.625% Senior Notes due 2023 (incorporated by reference to Exhibit 4.5 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 28, 2016).</u></a></p> <p>(iv). <a href="#"><u>Supplemental Indenture, dated as of November 1, 2017, among Level 3 Communications, Inc. as guarantor, Level 3 Financing, Inc., as issuer, Level 3 Parent, LLC (f/k/a WWG Merger Sub LLC) and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of January 29, 2015 designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.625% Senior Notes due 2023 (incorporated by reference to Exhibit 4.5 to Level 3 Communications, Inc.'s Current Report on Form 8-K (file no. 001-35134) dated November 1, 2017).</u></a></p>
c.	<p><a href="#"><u>Indenture, dated as of April 28, 2015, by and between Level 3 Communications, Inc., as Guarantor, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.125% Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on April 30, 2015).</u></a></p> <p>(i). <a href="#"><u>Supplemental Indenture, dated as of September 1, 2015, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, designating and outlining the terms and conditions of Level 3 Communications, LLC's unconditioned, unsecured guarantee of the 5.125% Senior Notes due 2023 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 2, 2015).</u></a></p> <p>(ii). <a href="#"><u>Supplemental Indenture, dated as of September 1, 2015, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the subordination in any bankruptcy, liquidation or winding up proceeding of the guarantee by Level 3 Communications, LLC of the 5.125% Senior Notes due 2023 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.3 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 2, 2015).</u></a></p> <p>(iii). <a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of April 28, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.125% Senior Notes due 2023 (incorporated by reference to Exhibit 4.3 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 28, 2016).</u></a></p> <p>(iv). <a href="#"><u>Supplemental Indenture, dated as of November 1, 2017, among Level 3 Communications, Inc. as guarantor, Level 3 Financing, Inc., as issuer, Level 3 Parent, LLC (f/k/a WWG Merger Sub LLC) and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of April 28, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2025 (incorporated by reference to Exhibit 4.4 to Level 3 Communications, Inc.'s Current Report on Form 8-K (file no. 001-35134) dated November 1, 2017).</u></a></p>
d.	<p><a href="#"><u>Indenture, dated as of April 28, 2015, by and between Level 3 Communications, Inc., as Guarantor, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2025 (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on April 30, 2015).</u></a></p>

Exhibit Number	Description
(i).	<a href="#"><u>Supplemental Indenture, dated as of September 1, 2015, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, designating and outlining the terms and conditions of Level 3 Communications, LLC's unconditioned, unsecured guarantee of the 5.375% Senior Notes due 2025 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 2, 2015).</u></a>
(ii).	<a href="#"><u>Supplemental Indenture, dated as of September 1, 2015, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the subordination in any bankruptcy, liquidation or winding up proceeding of the guarantee by Level 3 Communications, LLC of the 5.375% Senior Notes due 2025 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.4 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 2, 2015).</u></a>
(iii).	<a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of April 28, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2025 (incorporated by reference to Exhibit 4.4 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 28, 2016).</u></a>
(iv).	<a href="#"><u>Supplemental Indenture, dated as of November 1, 2017, among Level 3 Communications, Inc. as guarantor, Level 3 Financing, Inc., as issuer, Level 3 Parent, LLC (f/k/a WWG Merger Sub LLC) and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of April 28, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.125% Senior Notes due 2023 (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K (file no. 001-35134) dated November 1, 2017).</u></a>
e.	<a href="#"><u>Indenture, dated as of November 13, 2015, by and between Level 3 Communications, Inc., as Guarantor, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2024 (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 13, 2015).</u></a>
(i).	<a href="#"><u>Supplemental Indenture, dated as of February 8, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, designating and outlining the terms and conditions of Level 3 Communications, LLC's unconditioned, unsecured guarantee of the 5.375% Senior Notes due 2024 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on February 8, 2016).</u></a>
(ii).	<a href="#"><u>Supplemental Indenture, dated as of February 8, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the subordination in any bankruptcy, liquidation or winding up proceeding of the guarantee by Level 3 Communications, LLC of the 5.375% Senior Notes due 2024 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on February 8, 2016).</u></a>

Exhibit Number	Description
	<p>(iii). <a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of November 13, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2024 (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 28, 2016).</u></a></p> <p>(iv). <a href="#"><u>Supplemental Indenture, dated as of November 1, 2017, among Level 3 Communications, Inc. as guarantor, Level 3 Financing, Inc., as issuer, Level 3 Parent, LLC (f/k/a WWG Merger Sub LLC) and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of November 13, 2015, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.375% Senior Notes due 2024 (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (file no. 001-35134) filed with the Securities and Exchange Commission on November 1, 2017).</u></a></p>
f.	<p><a href="#"><u>Indenture, dated as of March 22, 2016, by and between Level 3 Communications, Inc., as Guarantor, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.25% Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on March 22, 2016).</u></a></p> <p>(i). <a href="#"><u>Supplemental Indenture, dated as of September 16, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, designating and outlining the terms and conditions of Level 3 Communications, LLC's unconditioned, unsecured guarantee of the 5.25% Senior Notes due 2026 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 16, 2016).</u></a></p> <p>(ii). <a href="#"><u>Supplemental Indenture, dated as of September 16, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to the subordination in any bankruptcy, liquidation or winding up proceeding of the guarantee by Level 3 Communications, LLC of the 5.25% Senior Notes due 2026 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 4.2 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 16, 2016).</u></a></p> <p>(iii). <a href="#"><u>Supplemental Indenture, dated as of November 22, 2016, by and between Level 3 Communications, Inc., as guarantor, Level 3 Communications, LLC, as guarantor, Level 3 Financing, Inc., as issuer, and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of March 22, 2016, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.25% Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on November 28, 2016).</u></a></p> <p>(iv). <a href="#"><u>Supplemental Indenture, dated as of November 1, 2017, among Level 3 Communications, Inc. as guarantor, Level 3 Financing, Inc., as issuer, Level 3 Parent, LLC (f/k/a WWG Merger Sub LLC) and The Bank of New York Mellon Trust Company, N.A., as trustee, amending the Indenture dated as of March 22, 2016, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 5.25% Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 to Level 3 Communications, Inc.'s Current Report on Form 8-K (file no. 001-35134) filed with the Securities and Exchange Commission on November 1, 2017).</u></a></p>
g.	<p><a href="#"><u>Indenture, dated as of September 25, 2019, among Level 3 Parent, LLC, as Guarantor, Level 3 Financing, Inc., as Issuer, and the Bank of New York Mellon Trust Company, N.A., as Trustee, relating to the 4.625% Senior Notes due 2027 of Level 3 Financing, Inc. (incorporated by reference to Exhibit 99.1 to Level 3 Parent, LLC's Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on September 26, 2019).</u></a></p>

Exhibit Number	Description
	<p>h. <a href="#">Indenture, dated as of November 29, 2019, among Level 3 Parent, LLC and the other guarantors party thereto, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee and Notes Collateral Agent, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 3.400% Senior Secured Notes due 2027 (incorporated by reference to Exhibit 10.2 to Level 3 Parent, LLC's Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on December 4, 2019).</a></p> <p>i. <a href="#">Indenture, dated as of November 29, 2019, among Level 3 Parent, LLC and the other guarantors party thereto, Level 3 Financing, Inc., as Issuer, and The Bank of New York Mellon Trust Company, N.A., as Trustee and Notes Collateral Agent, designating and outlining the terms and conditions of Level 3 Financing, Inc.'s 3.875% Senior Secured Notes due 2029 (incorporated by reference to Exhibit 10.3 to Level 3 Parent, LLC's Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on December 4, 2019).</a></p> <p>j. <a href="#">Thirteenth Amendment Agreement to the Amended and Restated Credit Agreement, dated as of November 29, 2019, by and between Level 3 Parent, LLC, Level 3 Financing, Inc., the Lenders party thereto and Merrill Lynch Capital Corporation (incorporated by reference to Exhibit 10.1 to Level 3 Parent, LLC's Current Report on Form 8-K (File No. 001-35134) filed with the Securities and Exchange Commission on December 4, 2019).</a></p>
4.9	<p>Certain intercompany debt instruments.</p> <p>a. <a href="#">Revolving Promissory Note, dated as of April 2, 2012 pursuant to which Embarq Corporation may borrow from an affiliate of CenturyLink, Inc. up to \$2.5 billion on a revolving basis (incorporated by reference to Exhibit 4.7(a) to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2012 (File No. 001-07784) filed with the Securities and Exchange Commission on August 9, 2012), as amended and restated by the Amended and Restated Revolving Promissory Note, dated as of September 30, 2017, by and between Qwest Corporation and an affiliate of CenturyLink, Inc (incorporated by reference to Exhibit 4.9(a) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-00784) filed with the Securities and Exchange Commission on March 11, 2019).</a></p> <p>b. <a href="#">Revolving Promissory Note, dated as of April 18, 2012, pursuant to which Qwest Corporation may borrow from an affiliate of CenturyLink, Inc. up to \$1.0 billion on a revolving basis (incorporated by reference to Exhibit 4.7(b) of CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2012 (File No. 001-07784) filed with the Securities and Exchange Commission on August 9, 2012), as amended and restated by the Amended and Restated Revolving Promissory Note, dated as of September 30, 2017, by and between Qwest Corporation and an affiliate of CenturyLink, Inc (incorporated by reference to Exhibit 4.9(b) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-00784) filed with the Securities and Exchange Commission on March 11, 2019).</a></p> <p>c. <a href="#">Revolving Promissory Note, dated as of September 27, 2012, pursuant to which Qwest Communications International, Inc. may borrow from an affiliate of CenturyLink, Inc. up to \$3.0 billion on a revolving basis (incorporated by reference to Exhibit 4.8 of Qwest Communications International Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2012 (File No. 001-15577) filed with the Securities and Exchange Commission on November 13, 2012), as amended and restated by the Amended and Restated Revolving Promissory Note, dated as of September 30, 2017, by and between Qwest Corporation and an affiliate of CenturyLink, Inc (incorporated by reference to Exhibit 4.9(c) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-00784) filed with the Securities and Exchange Commission on March 11, 2019).</a></p>
10.1+	<p><a href="#">CenturyLink 2011 Equity Incentive Plan, as amended through May 18, 2016 (incorporated by reference to Appendix A of CenturyLink, Inc.'s Proxy Statement dated April 1, 2016 as filed with the Securities and Exchange Commission on Schedule 14A (File No. 001-07784).</a></p> <p>(i). <a href="#">Form of Restricted Stock Agreement for executive officers used for annual recurring grants since May 2013 (incorporated by reference to Exhibit 10.2(i) (iii) to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2013 (File No. 001-07784) filed with the Securities and Exchange Commission on August 8, 2013).</a></p>

Exhibit Number	Description
	<ul style="list-style-type: none"> <li>(ii). <a href="#"><u>Form of Restricted Stock Agreement for annual time-based equity grants to certain executive officers in 2018 (not including Jeffrey K. Storey) (incorporated by reference to Exhibit 10.1(v) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-07784) filed with the SEC on March 11, 2019).</u></a></li> <li>(iii). <a href="#"><u>Form of Restricted Stock Agreement for annual performance-based equity grants to certain executive officers in 2018 (not including Jeffrey K. Storey) (incorporated by reference to Exhibit 10.1(vi) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-07784) filed with the SEC on March 11, 2019).</u></a></li> </ul>
10.2+	<p><a href="#"><u>CenturyLink 2018 Equity Incentive Plan (incorporated by reference to Appendix A to CenturyLink, Inc.'s Proxy Statement dated April 9, 2018, as filed with the Securities and Exchange Commission on Schedule 14A (File No. 001-07784)).</u></a></p> <ul style="list-style-type: none"> <li>(i). <a href="#"><u>Form of Restricted Stock Agreement for annual equity grants to non-management directors in 2018 (incorporated by reference to Exhibit 10.1A to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2018 (File No. 001-07784) filed with the SEC on August 9, 2018).</u></a></li> <li>(ii). <a href="#"><u>Form of RSU Agreement for annual time-based equity grant to Jeffrey K. Storey on May 23, 2018 (incorporated by reference to Exhibit 10.1B to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2018 (File No. 001-07784) filed with the SEC on August 9, 2018).</u></a></li> <li>(iii). <a href="#"><u>Form of RSU Agreement for annual performance-based equity grant to Jeffrey K. Storey on May 23, 2018 (incorporated by reference to Exhibit 10.1C to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2018 (File No. 001-07784) filed with the SEC on August 9, 2018).</u></a></li> <li>(iv). <a href="#"><u>Restricted Stock Agreement for time-based portion of 2018 promotion equity grant to Jeffrey K. Storey on May 23, 2018 (incorporated by reference to Exhibit 10.1D to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2018 (File No. 001-07784) filed with the SEC on August 9, 2018).</u></a></li> <li>(v). <a href="#"><u>Restricted Stock Agreement for performance-based portion of 2018 promotion equity grant to Jeffrey K. Storey on May 23, 2018 (incorporated by reference to Exhibit 10.1E to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2018 (File No. 001-07784) filed with the SEC on August 9, 2018).</u></a></li> </ul>
10.3+	<a href="#"><u>Supplemental Dollars &amp; Sense Plan, 2014 Restatement, effective January 1, 2014 (incorporated by reference to Exhibit 10.3 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-07784) filed with the Securities and Exchange Commission on March 11, 2019).</u></a>
10.4+	<a href="#"><u>Supplemental Defined Benefit Pension Plan, effective as of January 1, 2012 (incorporated by reference to Exhibit 10.5 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011 (File No. 001-07784) filed with the Securities and Exchange Commission on February 28, 2012).</u></a>
10.5+	<a href="#"><u>2015 Executive Officer Short-Term Incentive Program (incorporated by reference to Appendix A to CenturyLink's Proxy Statement dated April 3, 2015, as filed with the Securities and Exchange Commission on Form 14A (File No. 001-07784)).</u></a>



<b>Exhibit Number</b>	<b>Description</b>
10.6+	<a href="#"><u>Key Employee Incentive Compensation Plan, dated as of January 1, 1984, as amended and restated as of November 16, 1995 (incorporated by reference to Exhibit 10.1(f) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1995 (File No. 001-07784) filed with the Securities and Exchange Commission on March 18, 1996) and amendment thereto dated as of November 21, 1996 (incorporated by reference to Exhibit 10.1(f) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1996 (File No. 001-07784) filed with the Securities and Exchange Commission on March 17, 1997), amendment thereto dated as of February 25, 1997 (incorporated by reference to Exhibit 10.2 to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 1997 (File No. 001-07784) filed with the Securities and Exchange Commission on May 8, 1997), amendment thereto dated as of April 25, 2001 (incorporated by reference to Exhibit 10.2 to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2001 (File No. 001-07784) filed with the Securities and Exchange Commission on May 15, 2001), amendment thereto dated as of April 17, 2000 (incorporated by reference to Exhibit 10.3(a) to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2001 (File No. 001-07784) filed with the Securities and Exchange Commission on March 15, 2002) and amendment thereto dated as of February 27, 2007 (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended June 30, 2007 (File No. 001-07784) filed with the Securities and Exchange Commission on August 8, 2007).</u></a>
10.7+	<a href="#"><u>Form of Indemnification Agreement entered into between CenturyLink, Inc. and each of its directors as of February 24, 2016 (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on February 29, 2016).</u></a>
10.8+	<a href="#"><u>Form of Indemnification Agreement entered into between CenturyLink, Inc. and each of its officers as of February 24, 2016 (incorporated by reference to Exhibit 10.2 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on February 29, 2016).</u></a>
10.9+	<a href="#"><u>Change of Control Agreement, by and between Jeffrey K. Storey and CenturyLink, Inc. (incorporated by reference to Exhibit 10.9 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-07784) filed with the SEC on March 11, 2019).</u></a>
10.10+	<a href="#"><u>Form of Change of Control Agreement, effective January 1, 2011 between CenturyLink, Inc. and each of its other executive officers (incorporated by reference to Exhibit 10.12 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2010 (File No. 001-07784) filed with the Securities and Exchange Commission on March 1, 2011).</u></a>
10.11+	<a href="#"><u>Amended and Restated CenturyLink Executive Severance Plan, effective October 10, 2017 (including, as Exhibit E thereto, the Legacy Level 3 Key Executive Severance Plan, as assumed by CenturyLink, Inc. effective November 1, 2017 (covering certain Legacy Level 3 employees through October 31, 2019))(incorporated by reference to Exhibit 10.12 to CenturyLink, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-07784) filed with the SEC on March 11, 2019).</u></a>
10.12+	<a href="#"><u>Amended and Restated CenturyLink, Inc. Bonus Life Insurance Plan for Executive Officers, dated as of April 3, 2008 (incorporated by reference to Exhibit 10.4 to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2008 (File No. 001-07784) filed with the Securities and Exchange Commission on May 7, 2008) and First Amendment thereto (incorporated by reference to Exhibit 10.13 to CenturyLink, Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2010 (File No. 001-07784) filed with the Securities and Exchange Commission on November 5, 2010).</u></a>
10.13+	<a href="#"><u>Offer letter between CenturyLink, Inc. and Jeffrey K. Storey, effective May 23, 2018 (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784), filed with the SEC on May 25, 2018, which amended, restated and superseded the offer letter between CenturyLink, Inc. and Jeffrey K. Storey, effective April 27, 2017 (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on November 1, 2017).</u></a>
10.14+	<a href="#"><u>Offer letter between CenturyLink, Inc. and Indraneel Dev, effective November 6, 2018 (incorporated by reference to Exhibit 10.1 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the SEC on November 7, 2018).</u></a>

Exhibit Number	Description
10.15+	<a href="#"><u>Legacy Qwest Deferred Compensation Plan for Nonemployee Directors, as amended and restated, Amendment to Deferred Compensation Plan for Nonemployee Directors (incorporated by reference to Exhibit 10.2 to Qwest Communications International Inc.'s Current Report on Form 8-K (File No. 001-15577) filed with the Securities and Exchange Commission on December 16, 2005 and Exhibit 10.8 to Qwest Communication International Inc.'s Quarterly Report on Form 10-Q for the period ended September 30, 2008 (File No. 001-15577) filed with the Securities and Exchange Commission on October 29, 2008) and Amendment No. 2011-1 to Deferred Compensation Plan for Nonemployee Directors (incorporated by reference to Exhibit 10.15(c) to CenturyLink, Inc.'s Annual Report for the year ended December 31, 2011 (File No. 001-07784) filed with the Securities and Exchange Commission on February 28, 2012).</u></a>
10.16+	<a href="#"><u>Level 3 Communications, Inc. Stock Incentive Plan, as amended and restated through October 31, 2017 (incorporated by reference to Exhibit 10.3 to CenturyLink, Inc.'s Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on November 1, 2017)</u></a>
10.17	<a href="#"><u>Shareholder Rights Agreement, dated as of October 31, 2016, by and between CenturyLink, Inc. and STT Crossing Ltd. (incorporated by reference to Exhibit 10.2 to CenturyLink's Current Report on Form 8-K (File No. 001-07784) filed with the Securities and Exchange Commission on November 3, 2016); as amended by the Assignment and Assumption Agreement, dated as of February 5, 2018, by and among STT Crossing Ltd., Everitt Investments Pte.Ltd., Aranda Investments Pte.Ltd., and CenturyLink, Inc. (incorporated by reference to Exhibit 99.3 to Amendment No. 1 to a statement of beneficial ownership of common shares of CenturyLink, Inc. on Schedule 13D filed with the SEC by Singapore Technologies Telemedia Pte. Ltd. on February 7, 2018)</u></a>
21*	<a href="#"><u>Subsidiaries of CenturyLink, Inc.</u></a>
23*	<a href="#"><u>Independent Registered Public Accounting Firm Consent.</u></a>
31.1*	<a href="#"><u>Certification of the Chief Executive Officer of CenturyLink, Inc. furnished pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u></a>
31.2*	<a href="#"><u>Certification of the Chief Financial Officer of CenturyLink, Inc. furnished pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u></a>
32.1*	<a href="#"><u>Certification of the Chief Executive Officer of CenturyLink, Inc. pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u></a>
32.2*	<a href="#"><u>Certification of the Chief Financial Officer of CenturyLink, Inc. pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u></a>
101*	Financial statements from the annual report on Form 10-K of CenturyLink, Inc. for the period ended December 31, 2019, formatted in Inline XBRL: (i) the Consolidated Statements of Operations, (ii) the Consolidated Statements of Comprehensive Income (Loss), (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Stockholders' Equity and (vi) the Notes to Consolidated Financial Statements.
104*	Cover page formatted as Inline XBRL and contained in Exhibit 101.
*	Exhibit filed herewith.
+	Indicates a management contract or compensatory plan or arrangement.

(1) Certain of the items in Sections 4.5, 4.6, 4.7 and 4.8 (i) omit supplemental indentures or other instruments governing debt that has been retired, or (ii) refer to trustees who may have been replaced, acquired or affected by similar changes. In accordance with applicable rules of the SEC, copies of certain instruments defining the rights of holders of certain of our long-term debt are not filed herewith.



**ITEM 16. SUMMARY OF BUSINESS AND FINANCIAL INFORMATION**

Not applicable.

## SIGNATURES

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

Date: February 28, 2020

By:

**CenturyLink, Inc.**

/s/ Eric J. Mortensen

Eric J. Mortensen

Senior Vice President - Controller (Principal Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this annual report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

<u>/s/ Jeff K. Storey</u>	Chief Executive Officer and Director	February 28, 2020
Jeff K. Storey		
<u>/s/ Harvey Perry</u>	Chairman of the Board	February 28, 2020
Harvey Perry		
<u>/s/ W. Bruce Hanks</u>	Vice Chairman of the Board	February 28, 2020
W. Bruce Hanks		
<u>/s/ Indraneel Dev</u>	Executive Vice President and Chief Financial Officer	February 28, 2020
Indraneel Dev		
<u>/s/ Eric J. Mortensen</u>	Senior Vice President - Controller (Principal Accounting Officer)	February 28, 2020
Eric J. Mortensen		
<u>/s/ Martha H. Bejar</u>	Director	February 28, 2020
Martha H. Bejar		
<u>/s/ Virginia Boulet</u>	Director	February 28, 2020
Virginia Boulet		
<u>/s/ Peter C. Brown</u>	Director	February 28, 2020
Peter C. Brown		
<u>/s/ Kevin P. Chilton</u>	Director	February 28, 2020
Kevin P. Chilton		
<u>/s/ Steven T. Clontz</u>	Director	February 28, 2020
Steven T. Clontz		
<u>/s/ T. Michael Glenn</u>	Director	February 28, 2020
T. Michael Glenn		
<u>/s/ Hal Jones</u>	Director	February 28, 2020
Hal Jones		
<u>/s/ Mary L. Landrieu</u>	Director	February 28, 2020
Mary L. Landrieu		

/s/ Glen F. Post, III	Director	February 28, 2020
Glen F. Post, III		
/s/ Michael J. Roberts	Director	February 28, 2020
Michael J. Roberts		
/s/ Laurie A. Siegel	Director	February 28, 2020
Laurie A. Siegel		

**DESCRIPTION OF THE REGISTRANT'S SECURITIES  
REGISTERED PURSUANT TO SECTION 12 OF THE  
SECURITIES EXCHANGE ACT OF 1934**

**December 31, 2019**

CenturyLink, Inc. ("CenturyLink", the "Company", "we" or "us") has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934 (as amended, the "Exchange Act"): (i) Common Stock, par value \$1.00 per share ("Common Stock"), and (ii) Series CC Junior Participating Preferred Stock Purchase Rights ("Purchase Rights"). Each of the Company's securities registered under Section 12 of the Exchange Act are listed on The New York Stock Exchange.

**DESCRIPTION OF COMMON STOCK**

The following is a summary description of the rights of the holders of the Common Stock and related provisions of the Company's Articles of Incorporation, as amended and restated (the "Articles"), and bylaws, as amended and restated (the "Bylaws"), and applicable Louisiana law. This summary is intended to provide a general description only, does not purport to be complete and is qualified in its entirety by reference to, and should be read in conjunction with, the Articles, Bylaws and applicable Louisiana law.

**General**

CenturyLink is currently authorized under its Articles to issue an aggregate 2.202 billion shares of capital stock, consisting of 2.200 billion shares of Common Stock, \$1.00 par value per share, and 2 million shares of preferred stock, \$25.00 par value per share. All of the outstanding capital stock of the Company is fully paid and non-assessable.

**Dividends**

Holders of our Common Stock are entitled to receive dividends when, as and if declared by our board of directors, out of funds legally available therefor, subject to the preferences applicable to any outstanding preferred stock.

**No Preemptive, Redemption or Conversion Rights**

The Common Stock is not redeemable, is not subject to sinking fund provisions, does not have any conversion rights and is not subject to call. Holders of shares of Common Stock have no preemptive rights to maintain their percentage of ownership in future offerings or sales of stock of CenturyLink.

**Voting Rights**

Under the Articles, each share of Common Stock entitles the holder thereof to one vote per share in all elections of directors and on all other matters duly submitted to shareholders for their vote or consent. Holders of our Common Stock do not have cumulative voting rights.

**Liquidation, Dissolution or Similar Rights**

In the event we liquidate, dissolve or wind up our affairs, holders of our Common Stock would be entitled to receive ratably all of our assets remaining after satisfying the preferences of our creditors and the holders of any outstanding preferred stock.

**Certain Provisions Affecting Takeovers**

Provisions of the Articles and Bylaws may delay or discourage transactions involving an actual or potential change of control in the Company or its management, including transactions in which shareholders might otherwise receive a premium for their shares, or transactions that its shareholders might otherwise deem to be in their best interests. Among other things:

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- Our Articles provide that shareholder action may only be taken at an annual or special meeting of shareholders, and may not be taken by written consent of the shareholders.
- Under our Articles, the shareholders may remove any director or the entire board of directors, only for cause, at any meeting of the shareholders called for such purpose, by the affirmative vote of (i) a majority of the total voting power of all shareholders and (ii) at any time there is a related person (as defined in the Articles), a majority of the total voting power of all shareholders other than the related person, voting as a separate group.
- Pursuant to our Articles, vacancies on our board may be filled only by the board of directors by a vote of both a majority of the directors then in office and a majority of the continuing directors (as defined in the Articles) voting as a separate group.
- Under our Articles, the number of authorized directors may not be increased or decreased without, among other things, the approval of both 80% of the directors then in office and a majority of the continuing directors voting as a separate group.
- Our Articles contain “fair price” provisions designed to provide supermajority vote and other safeguards for our shareholders when related persons attempt to effect a business combination with us, unless the business combination is approved in advance by the directors or satisfies various minimum price, consideration and procedural requirements, in each case as set forth in the Articles.
- Our board of directors is required by our Articles to consider particular factors enumerated therein when evaluating a business combination, tender or exchange offer or a proposal by another person to make a tender or exchange offer.
- Our Bylaws establish an advance notice procedure with regard to the nomination, other than by or at the direction of our board of directors, of candidates for election as directors and with regard to other matters to be brought before a meeting of our shareholders.
- Various provisions of our Articles may not be amended except upon the affirmative vote of both 80% of the total voting power of all shareholders and two-thirds of the total voting power of shareholders, other than a related person, present or represented at a shareholders’ meeting, voting as a separate group.
- Our Bylaws may be adopted, amended or repealed and new bylaws may be adopted by either a majority of our directors and a majority of our continuing directors, voting as a separate group or the holders of at least 80% of the total voting power of all shareholders and two-thirds of the total voting power of shareholders, other than a related person, present or duly represented at a shareholders’ meeting, voting as a separate group.
- Our board of directors is authorized, without action of the shareholders, to issue (i) additional shares of Common Stock, subject to certain limitations under the New York Stock Exchange listing standards and the Louisiana Business Corporation Act, and (ii) additional shares of preferred stock with rights and preferences designated by the board of directors, which could include terms adversely affecting the rights of holders of the Common Stock.

#### **Additional Information**

As of December 31, 2019, CenturyLink had outstanding 7,018 shares of 5% Cumulative Convertible Series L Preferred Stock that entitles the holders to certain preferential liquidation and other rights and to cast one vote per share, together with holders of the Common Stock, on all matters duly submitted to a vote of shareholders. For additional information on the matters summarized above, see our Registration Statement on Form 8-A/A filed with the U.S. Securities and Exchange Commission (the “SEC”) on March 2, 2015. Our Articles and Bylaws are filed as exhibits to our accompanying Annual Report on Form 10-K.

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## **DESCRIPTION OF Series CC Junior Participating PREFERRED STOCK PURCHASE RIGHTS**

### **General**

On February 13, 2019, we entered into a Section 382 Rights Agreement by and between CenturyLink and Computershare, Inc., as rights agent (the "Rights Agent"). On May 9, 2019, CenturyLink and the Rights Agent amended and restated the Section 382 Rights Agreement (as so amended and restated, the "NOL Rights Plan"). We adopted the NOL Rights Plan to diminish the risk that we could experience an "ownership change" as defined under Section 382 of the Internal Revenue Code of 1986 (as amended, the "Code"), which could substantially limit our ability to use our net operating loss carryover (collectively, the "NOLs") to reduce anticipated future tax liabilities.

Pursuant to the NOL Rights Plan, the Company's board of directors declared a dividend of one preferred share purchase right (each, a "Right") for each outstanding share of Common Stock. The dividend was distributed to shareholders of record as of the close of business on February 25, 2019. On May 22, 2019, CenturyLink's shareholders ratified the NOL Rights Plan.

The following is a summary description of the Rights and the other material terms and conditions of the NOL Rights Plan. This summary is intended to provide a general description only, does not purport to be complete and is qualified in its entirety by reference to, and should be read in conjunction with, the complete text of the NOL Rights Plan. All capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in the NOL Rights Plan.

### **Applicability of NOL Rights Plan**

Under the NOL Rights Plan, each share of our Common Stock carries with it one Right until the Distribution Date (as defined below) or the earlier expiration of the Rights, as described below. Shareholders who owned 4.9% or more of the outstanding Common Stock as of the close of business on February 13, 2019, will not trigger the Rights so long as they do not (i) acquire additional shares of Common Stock representing one-half of one percent (0.5%) or more of the shares of Common Stock outstanding at the time of such acquisition or (ii) fall under 4.9% ownership of Common Stock and then re-acquire shares that in the aggregate equal 4.9% or more of the Common Stock. A person will not trigger the Rights solely as a result of any transaction that the board of directors determines, in its sole discretion, is an exempt transaction for purposes of triggering the Rights. STT Crossing Ltd. and its Affiliates and Associates will be exempt shareholders for the purposes of the NOL Rights Plan, unless and until STT Crossing Ltd. (or any Affiliates of STT Crossing Ltd.) acquires any Common Stock other than (x) in a transaction that is permitted under Section 4 of the Stockholder Rights Agreement, dated as of October 31, 2016, by and among the Company and STT Crossing Ltd. (as amended, the "Shareholder Rights Agreement") or (y) any transfers of Common Stock or other Company equity interests between or among STT Crossing Ltd. and its Affiliates. Subject to certain limitations, a person to whom STT Crossing Ltd. transfers any amount of Common Stock pursuant to and as permitted by Section 4.2 of the Shareholder Rights Agreement will be exempt for purposes of the NOL Rights Plan, unless and until such person (or any Affiliates or Associates of such person) acquires any additional Common Stock.

The Company's board of directors may, in its sole discretion prior to the Distribution Date, exempt any person or group for purposes of the NOL Rights Plan if it determines the acquisition by such person or group will not jeopardize tax benefits or is otherwise in the Company's best interests. Any person that acquires shares of Common Stock in violation of these limitations is known as an "Acquiring Person." Notwithstanding the foregoing, a Person shall not be an "Acquiring Person" if the Independent Directors (as defined in the NOL Rights Plan) determines at any time that a Person who would otherwise be an "Acquiring Person" has become such without intending to become an "Acquiring Person," and such Person divests as promptly as practicable (or within such period of time as the Independent Directors determine is reasonable) a sufficient number of shares of Common Stock of the Company so that such Person would no longer be an "Acquiring Person," as defined pursuant to the NOL Rights Plan.

### **The Rights**

From the record date of February 25, 2019 until the Distribution Date or earlier expiration of the Rights, the Rights will trade with, and be inseparable from, the Common Stock. New Rights will also accompany any new shares of Common Stock that are issued after February 13, 2019, until the Distribution Date or earlier expiration of the Rights.

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## **Exercise Price**

Each Right will allow its holder to purchase from the Company one ten-thousandth of a share of Series CC Junior Participating Preferred Stock ("Preferred Share") for \$28, subject to adjustment (the "Exercise Price"), once the Rights become exercisable. This fraction of a Preferred Share will give the stockholder approximately the same dividend, voting and liquidation rights as would one share of Common Stock. Prior to exercise, each Right does not give its holder any dividend, voting or liquidation rights.

## **Exercisability**

The Rights will not be exercisable until 10 business days (as may be extended in the discretion of the Independent Directors) after the public announcement that a person or group has become an Acquiring Person unless the NOL rights Plan is theretofore terminated or the Rights are theretofore redeemed (as described below).

We refer to the date when the Rights become exercisable as the "Distribution Date." Until that date or earlier expiration of the Rights, the Common Stock certificates will also evidence the Rights, and any transfer of shares of Common Stock will constitute a transfer of Rights. After that date, the Rights will separate from the Common Stock and be evidenced by book-entry credits or by Rights certificates that we will mail to all eligible holders of Common Stock. Any Rights held by an Acquiring Person, or any Affiliates or Associates of the Acquiring Person, are void and may not be exercised.

## **Consequences of a Person or Group Becoming an Acquiring Person**

If a person or group becomes an Acquiring Person, all holders of Rights except the Acquiring Person, or any Affiliates or Associates of the Acquiring Person, may, upon payment of the Exercise Price, purchase shares of our Common Stock with a market value of twice the Exercise Price, based on the "current per share market price" of the Common Stock (as defined in the NOL Rights Plan) on the date of the acquisition that resulted in such person or group becoming an Acquiring Person.

## **Exchange**

After a person or group becomes an Acquiring Person, our Independent Directors in their sole discretion may extinguish the Rights by exchanging one share of Common Stock or an equivalent security for each Right, other than Rights held by the Acquiring Person or any Affiliates or Associates of the Acquiring Person.

## **Preferred Share Provisions**

Each one ten-thousandth of a Preferred Share, if issued:

- will not be redeemable;
- will entitle holders to dividends equal to the dividends, if any, paid on one share of Common Stock;
- will entitle holders upon liquidation either to receive \$1.00 per share or an amount equal to the payment made on one share of Common Stock, whichever is greater;
- will vote together with the Common Stock as one class on all matters submitted to a vote of shareholders of the Company and will have the same voting power as one share of Common Stock, except as otherwise provided by law; and
- will entitle holders to a per share payment equal to the payment made on one share of Common Stock, if shares of our Common Stock are exchanged via merger, consolidation, or a similar transaction.

The value of one ten-thousandth interest in a Preferred Share is expected to approximate the value of one share of Common Stock.

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**Expiration**

The Rights will expire on the earliest of (i) December 1, 2020, (ii) the time at which the Rights are redeemed, (iii) the time at which the Rights are exchanged, or (iv) the time at which the Company's board of directors makes certain specified determinations that the NOLs are no longer necessary or in the best interests of the Company and its shareholders.

**Redemption**

Our board of directors may redeem the Rights for \$0.0001 per Right at any time before the Distribution Date. If our board of directors redeems any Rights, it must redeem all of the Rights. Once the Rights are redeemed, the only right of the holders of Rights will be to receive the redemption price of \$0.0001 per Right. The redemption price will be adjusted if we have a stock split or stock dividends of our Common Stock.

**Anti-Dilution Provisions**

Our board of directors may adjust the Exercise Price, the number of Preferred Shares issuable per Right and the number of outstanding Rights to prevent dilution that may occur from a stock dividend, a stock split or a reclassification of the Preferred Shares or Common Stock.

**Amendments**

The terms of the NOL Rights Plan may be amended by our board of directors without the consent of the holders of the Rights. After the Distribution Date, our board of directors may not amend the agreement in a way that adversely affects holders of the Rights (other than an Acquiring Person, or an Affiliate or Associate of an Acquiring Person).

**Additional Information**

For additional information on the NOL Rights Plan, see our Registration Statement on Form 8-A filed with the SEC on March 11, 2019. The NOL Rights Plan and the Shareholder Rights Agreement are filed as exhibits to our accompanying Annual Report on Form 10-K.

**CENTURYLINK, INC.**  
**SUBSIDIARIES OF THE REGISTRANT**  
**AS OF DECEMBER 31, 2019**

<b>Subsidiary</b>	<b>State of incorporation or formation</b>
Actel, LLC	Delaware
Bloomington Telephone Company, Inc.	Michigan
Century Cellunet International, Inc.	Louisiana
Cellunet of India Limited	Mauritius
Century Telephone of West Virginia, Inc.	West Virginia
CenturyLink – Clarke M. Williams Foundation	Colorado
CenturyLink Communications, LLC	Delaware
Cognilytics Software and Consulting Private Limited	India
Qwest International Services Corporation	Delaware
CenturyLink do Brasil Participações Ltda.	Brazil
CenturyLink Comunicações Ltda.	Brazil
SAVVIS do Brasil Ltda.	Brazil
Savvis Telecomunicações Ltda.	Brazil
Qwest Transoceanic, Inc.	Delaware
Qwest Communications International Ltd.	United Kingdom
CenturyLink Limited	United Kingdom
CenturyLink Austria GmbH	Austria
Qwest Holdings, BV	Netherlands
CenturyLink Belgium Sprl	Belgium
Qwest France SAS	France
Qwest Germany GmbH	Germany
Qwest Netherlands BV	Netherlands
Qwest Peru S.R.L.	Peru
Qwest Telecommunications Asia, Limited	Hong Kong
Qwest Australia Pty Limited	Australia
CenturyLink Technology Australia Pty Ltd	Australia
CenturyLink Corporation Japan	Japan
Qwest Communications Korea, Limited	Korea
Qwest Hong Kong Telecommunications, Limited	Hong Kong
CenturyLink Technology Singapore Pte. Ltd.	Singapore
Qwest Taiwan Telecommunications, Limited	Taiwan
SEAL Consulting, Inc.	New Jersey
CenturyLink Europe B.V.	Netherlands
CenturyLink Europe B.V., M., The Netherlands, filial Sweden	Sweden
CenturyLink Europe B.V., Sucursal en España	Spain
CenturyLink France S.A.S.	France
CenturyLink Italia S.r.l.	Italy
CenturyLink Philippines, Inc.	Philippines
CenturyLink Poland Sp Zo.o.	Poland
CenturyLink Switzerland A.G.	Switzerland

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
CenturyLink Taiwan Limited	Taiwan
CenturyLink Technology Hong Kong Limited	Hong Kong
CenturyLink - Colocation Entity Limited	Hong Kong
CenturyLink IT Consulting (Shanghai) Co., Ltd.	China
Digital Savvis HK JV Limited	British VI
Digital Savvis HK Holding 1 Limited	British VI
Digital Savvis Investment Management HK Limited	Hong Kong
Digital Savvis Management Subsidiary Limited	Hong Kong
CenturyLink Technology Malaysia Sdn. Bhd.	Malaysia
CenturyLink (Thailand) Limited	Thailand
CenturyLink Canada, Inc.	Canada
SAVVIS Argentina S.A.	Argentina
SAVVIS Communications Chile, S.A.	Chile
SAVVIS Federal Systems, Inc.	Delaware
SAVVIS Communications International, Inc.	Delaware
CenturyLink Korea Limited	Korea
SAVVIS Communications Private Limited	India
SAVVIS Mexico, S.A. de C.V.	Mexico
CenturyLink of Louisiana, LLC	Louisiana
CenturyTel of Adamsville, Inc.	Tennessee
CenturyTel of Arkansas, Inc.	Arkansas
CenturyTel Broadband Services, LLC	Louisiana
CenturyTel TeleVideo, Inc.	Wisconsin
CenturyTel/Teleview of Wisconsin, Inc.	Wisconsin
Qwest Broadband Services, Inc.	Delaware
CenturyTel Broadband Wireless, LLC	Louisiana
CenturyTel of Central Indiana, Inc.	Indiana
CenturyTel of Chester, Inc.	Iowa
CenturyTel of Claiborne, Inc.	Tennessee
CenturyTel Holdings, Inc.	Louisiana
Century Marketing Solutions, LLC	Louisiana
CenturyTel Arkansas Holdings, Inc.	Arkansas
CenturyTel of Central Arkansas, LLC	Louisiana
CenturyTel of Northwest Arkansas, LLC	Louisiana
CenturyTel Holdings Alabama, Inc.	Alabama
CenturyTel of Alabama, LLC	Louisiana
CenturyTel Holdings Missouri, Inc.	Missouri
CenturyTel of Missouri, LLC	Louisiana
CenturyTel Investments of Texas, Inc.	Delaware
CenturyTel of the Northwest, Inc.	Washington
Brown Equipment Corp.	Nevada
Carter Company, Inc.	Hawaii
Cascade Autovon Company	Washington
CenturyTel/Cable Layers, Inc.	Wisconsin

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
CenturyTel of Central Wisconsin, LLC	Delaware
CenturyTel of Colorado, Inc.	Colorado
CenturyTel of Eagle, Inc.	Colorado
CenturyTel of Eastern Oregon, Inc.	Oregon
CenturyTel Entertainment, Inc.	Washington
CenturyTel of Fairwater-Brandon-Alto, LLC	Delaware
CenturyTel of Forestville, LLC	Delaware
CenturyTel of the Gem State, Inc.	Idaho
CenturyTel of Inter Island, Inc.	Washington
CenturyTel of Larsen-Readfield, LLC	Delaware
CenturyTel of the Midwest-Kendall, LLC	Delaware
CenturyTel of the Midwest-Wisconsin, LLC	Delaware
CenturyTel of Minnesota, Inc.	Minnesota
CenturyTel of Monroe County, LLC	Delaware
CenturyTel of Montana, Inc.	Oregon
CenturyTel of Northern Wisconsin, LLC	Delaware
CenturyTel of Northwest Wisconsin, LLC	Delaware
CenturyTel of Oregon, Inc.	Oregon
CenturyTel of Paradise, Inc.	Washington
CenturyTel of Cowiche, Inc.	Washington
CenturyTel of Postville, Inc.	Iowa
CenturyTel of Southern Wisconsin, LLC	Delaware
CenturyTel of the Southwest, Inc.	New Mexico
CenturyTel Telecom Service, Inc.	Washington
CenturyTel Telephone Utilities, Inc.	Washington
CenturyTel of Upper Michigan, Inc.	Michigan
CenturyTel of Washington, Inc.	Washington
CenturyTel/WORLDDVOX, Inc.	Oregon
CenturyTel of Wyoming, Inc.	Wyoming
Eagle Valley Communications Corporation	Colorado
International Communications Holdings, Inc.	Delaware
Pacific Telecom, Inc.	Oregon
PTI Communications of Ketchikan, Inc.	Alaska
PTI Communications of Minnesota, Inc.	Minnesota
PTI Transponders, Inc.	Oregon
Universal Manufacturing Corp.	Wisconsin
CenturyTel of Idaho, Inc.	Delaware
CenturyTel Internet Holdings, Inc.	Louisiana
centurytel.com, LLC	Louisiana
CenturyTel Investments, LLC	Louisiana
CenturyTel of Michigan, Inc.	Michigan
CenturyTel Midwest - Michigan, Inc.	Michigan
CenturyTel Mobile Communications, Inc.	Louisiana
CenturyTel of Mountain Home, Inc.	Arkansas

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
CenturyTel of North Mississippi, Inc.	Mississippi
CenturyTel of Northern Michigan, Inc.	Michigan
CenturyTel of Odon, Inc.	Indiana
CenturyTel of Ohio, Inc.	Ohio
CenturyTel of Ooltewah-Collegedale, Inc.	Tennessee
CenturyTel of Port Aransas, Inc.	Texas
CenturyTel of Redfield, Inc.	Arkansas
CenturyTel SM Telecorp, Inc.	Texas
CenturyTel Telecommunications, Inc.	Texas
CenturyTel of San Marcos, Inc.	Texas
CenturyTel San Marcos Investments, LLC	Delaware
CenturyTel Security Systems, Inc.	Louisiana
CenturyTel Service Group, LLC	Louisiana
CenturyTel of South Arkansas, Inc.	Arkansas
CenturyTel Supply Group, Inc.	Louisiana
CenturyTel/Tele-Max, Inc.	Texas
CenturyTel of Lake Dallas, Inc.	Texas
CenturyTel Web Solutions, LLC	Louisiana
CenturyTel of Wisconsin, LLC	Louisiana
Embarq Corporation	Delaware
Carolina Telephone and Telegraph Company LLC	North Carolina
NOCUTS, Inc.	Pennsylvania
SC One Company	Kansas
Centel Corporation	Kansas
Centel Capital Corporation	Delaware
Centel-Texas, Inc.	Texas
Central Telephone Company of Texas	Texas
EQ Central Texas Equipment LLC	Texas
Central Telephone Company	Delaware
Central Telephone Company of Virginia	Virginia
Embarq Florida, Inc.	Florida
The Winter Park Telephone Company	Florida
CenturyLink Intellectual Property LLC	Delaware
Embarq Directory Trademark Company, LLC	Delaware
CenturyLink Public Communications, Inc.	Florida
CenturyLink Sales Solutions, Inc.	Delaware
Embarq, Inc.	Kansas
Embarq Capital Corporation	Delaware
SC Seven Company	Kansas
Embarq Interactive Holdings LLC	Delaware
Embarq Interactive Markets LLC	Delaware
Embarq Management Company	Delaware
Embarq Mid-Atlantic Management Services Company	North Carolina
Embarq Minnesota, Inc.	Minnesota

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
Embarq Missouri, Inc.	Missouri
SC Eight Company	Kansas
Embarq Network Company LLC	Delaware
EQ Equipment Leasing, Inc.	Delaware
United Telephone Company of the Carolinas LLC	South Carolina
SC Two Company	Kansas
United Telephone Company of Eastern Kansas	Delaware
United Telephone Company of Florida	Florida
United Telephone Company of Indiana, Inc.	Indiana
SC Four Company	Kansas
United Telephone Company of Kansas	Kansas
Embarq Midwest Management Services Company	Kansas
United Teleservices, Inc.	Kansas
United Telephone Company of New Jersey, Inc.	New Jersey
United Telephone Company of the Northwest	Oregon
United Telephone Company of Ohio	Ohio
SC Five Company	Kansas
United Telephone Company of Pennsylvania LLC, The	Pennsylvania
SC Six Company	Kansas
Valley Network Partnership	Virginia
United Telephone Company of Southcentral Kansas	Arkansas
United Telephone Company of Texas, Inc.	Texas
EQ United Texas Equipment LLC	Texas
United Telephone Company of the West	Delaware
United Telephone Southeast LLC	Virginia
SC Three Company	Kansas
Hillsboro Telephone Company, Inc.	Wisconsin
Lafayette MSA Limited Partnership	Delaware
Madison River Communications Corp.	Delaware
Gallatin River Holdings L.L.C.	Delaware
Gallatin River Communications L.L.C.	Delaware
Madison River Finance Corp.	Delaware
Madison River Holdings LLC	Delaware
Madison River LTD Funding LLC	Delaware
Coastal Utilities, Inc.	Georgia
Gulf Coast Services, LLC	Alabama
Gulf Telephone Company, LLC	Alabama
Madison River Management LLC	Delaware
Mehtel, Inc.	North Carolina
Qwest Communications International, Inc.	Delaware
EUnet International Limited	United Kingdom
Qwest Capital Funding, Inc.	Colorado
Qwest Europe LLC	Delaware
Qwest Services Corporation	Colorado

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
CenturyLink Investment Management Company	Colorado
Qwest Corporation	Colorado
1200 Landmark Center Condominium Association, Inc.	Nebraska
Qwest Database Services, Inc.	Colorado
Qwest India Holdings, LLC	Delaware
CenturyLink Technologies India Private Limited	India
Seal Infotech Private Limited	India
The El Paso County Telephone Company	Colorado
MoveARoo, LLC	Delaware
Qwest Dex Holdings, Inc.	Delaware
Qwest Government Services, Inc.	Colorado
Qwest Wireless, L.L.C.	Delaware
SkyComm Technologies Corporation	Delaware
Spectra Communications Group, LLC	Delaware
TelUSA Holdings, LLC	Delaware
Telephone USA of Wisconsin, LLC	Delaware
Western Re, Inc.	Louisiana
Wildcat Holdco LLC	Delaware
Level 3 Parent, LLC	Delaware
Legend Circle Holdings, Inc.	Delaware
Eldorado Acquisition Two, Inc.	Delaware
Level 3 EON, LLC	Delaware
Level 3 Financing, Inc.	Delaware
Level 3 Holdings, Inc.	Delaware
Continental Holdings, Inc.	Wyoming
KMI Continental Lignite, Inc.	Delaware
Continental Level 3, Inc.	Delaware
Continental Mineral Sales, Inc.	Delaware
CCC Canada Holding, Inc.	Delaware
AmSoft Information Services Limited	Mauritius
Level 3 International Services Limited	Delaware
CenturyLink Communications Denmark Aps	Denmark
Level 3 Communications Austria GmbH	Austria
BTE Equipment, LLC	Delaware
Level 3 Communications Canada Co.	Nova Scotia
Level 3 Communications, LLC	Delaware
Global Crossing Americas Solutions, LLC	Delaware
Global Crossing Americas Solutions, Inc.	Puerto Rico Branch
CenturyLink Latin American Solutions, LLC	Delaware
Level 3 Communications of Virginia, Inc.	Virginia
XCOM Technologies of New York, Inc.	New York
IP Networks, Inc.	Delaware
TelCove Operations, LLC	Delaware
TelCove of Pennsylvania, LLC	Delaware

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
WiiTel Communications (Cayman) Limited	Cayman Islands
WiiTel International Telecom (Chile) Limited	Cayman Islands
Williams Comunicaciones Chile Limitada	Chile
WiiTel Communications Network, Inc.	Canada
WiiTel Communications, LLC	Delaware
WiiTel Communications Pty Limited	Australia
Vyvx, LLC	Delaware
FTV Communications, LLC	Delaware
Broadwing, LLC	Delaware
ACME Grating Ventures, L.L.C.	Delaware
Broadwing Communications, LLC	Delaware
Corvis Gratings Company	Nova Scotia, Canada
Corvis Canada, Inc.	Quebec, Canada
Global Crossing North American Holdings, Inc.	Delaware
Global Crossing North America, Inc.	New York
Global Crossing Telecommunications, Inc.	Michigan
Global Crossing Local Services, Inc.	Michigan
Global Crossing Telemanagement VA, LLC	Virginia
Central Host, Inc.	California
Level 3 Enhanced Services, LLC	Delaware
Level 3 Telecom, LLC	Delaware
Level 3 Telecom Holdings, LLC	Delaware
Level 3 Telecom Data Services, LLC	Delaware
Level 3 Telecom of Arizona, LLC	Delaware
Level 3 Telecom of Colorado, LLC	Delaware
Level 3 Telecom of Idaho, LLC	Delaware
Level 3 Telecom of Illinois, LLC	Delaware
Level 3 Telecom of Iowa, LLC	Delaware
Level 3 Telecom of Minnesota, LLC	Delaware
Level 3 Telecom of New Mexico, LLC	Delaware
Level 3 Telecom of Ohio, LLC	Delaware
Level 3 Telecom of Oregon, LLC	Delaware
Level 3 Telecom of South Carolina, LLC	Delaware
Level 3 Telecom of Tennessee, LLC	Delaware
Level 3 Telecom of Texas, LLC	Delaware
Level 3 Telecom of Utah, LLC	Delaware
Level 3 Telecom of Washington, LLC	Delaware
Level 3 Telecom Management Co., LLC	Delaware
Xspedius Management Co. International, LLC	Delaware
Level 3 Telecom of Alabama, LLC	Delaware
Level 3 Telecom of Arkansas, LLC	Delaware
Level 3 Telecom of D.C., LLC	Delaware
Level 3 Telecom of Kansas City, LLC	Delaware
Level 3 Telecom of Kentucky, LLC	Kentucky



<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
Level 3 Telecom of Louisiana, LLC	Delaware
Level 3 Telecom of Maryland, LLC	Delaware
Level 3 Telecom of Mississippi, LLC	Delaware
Level 3 Telecom of Nevada, LLC	Delaware
Level 3 Telecom of Oklahoma, LLC	Delaware
Level 3 Telecom of Virginia, LLC	Virginia
Level 3 Telecom Holdings II, LLC	Delaware
Level 3 Telecom, LP	Delaware
Level 3 Telecom of California, LP	Delaware
Level 3 Telecom of Florida, LP	Delaware
Level 3 Telecom of Georgia, LP	Delaware
Level 3 Telecom of Hawaii, LP	Delaware
Level 3 Telecom of Indiana, LP	Delaware
Level 3 Telecom of New Jersey, LP	Delaware
Level 3 Telecom of New York, LP	Delaware
Level 3 Telecom of North Carolina, LP	Delaware
Level 3 Telecom of Wisconsin, LP	Delaware
Streamroot, Inc.	Delaware
Streamroot SAS	France
Level 3 GC Limited	Bermuda
CenturyLink Communications PEC Luxembourg I S.á.r.l.	Luxembourg
CenturyLink Communications PEC Luxembourg II S.á.r.l.	Luxembourg
CenturyLink Communications PEC Services Europe Limited	Ireland
CenturyLink Communications PEC Services Ireland Limited	Ireland
CenturyLink Communications PEC Ireland Limited	Ireland
Level 3 Communications Hong Kong Limited	Hong Kong
Level 3 Communications Singapore Pte. Ltd.	Singapore
Level 3 Communications Australia Pty Ltd	Australia
Global Crossing International Networks Ltd.	Bermuda
Level 3 Communications St. Croix, Inc.	US Virgin Islands
Century Link Costa Rica, S.R.L.	Costa Rica
SAC Peru S.R.L.	Peru
CenturyLink Panama	Panama
CenturyLink Holding Brasil Ltda.	Brazil
CenturyLink Brasil Comunicações e Serviços Ltda.	Brazil
CenturyLink Communications (IMPSAT) Nederland B.V.	Netherlands
CenturyLink Impsat Holdings I Limited	United Kingdom
CenturyLink Impsat Holdings II Limited	United Kingdom
CTL Mexico Servicios, S. de R. L. de C. V.	Mexico
CTL Mexico Landing S. de R.L.	Mexico
CTL Mexico II, S. de R.L. de C.V.	Mexico
CenturyLinkEcuador S.A.	Ecuador
CenturyLink Telecomunicaciones S.A.	Venezuela
CenturyLink Peru S.A.	Peru

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
CenturyLink Chile S.A.	Chile
CenturyLink Colombia S.A.	Colombia
CenturyLink Participações e Comercial Ltda.	Brazil
CenturyLink Comunicações do Brasil Ltda.	Brazil
Impsat Fiber Networks, LLC	Delaware
CenturyLink Argentina S.A.	Argentina
SAC Argentina Uruguay Branch	Uruguay Branch
Global Crossing International, Ltd.	Bermuda
Level 3 Asia, Inc.	Delaware
Level 3 Communications (Asia Pacific) Ltd.	Hong Kong
Level 3 International, Inc.	Delaware
Level 3 CDN International, Inc.	Delaware
CenturyLink EMEA Holdings Limited	United Kingdom
CenturyLink Communications Europe Limited	United Kingdom
Level Three Telecommunications Kenya	Kenya
CenturyLink Communications UK Limited	United Kingdom
Fibernet UK Limited	United Kingdom
Level 3 Holdings B.V.	Netherlands
CenturyLink Iceland ehf	Netherlands
CenturyLink Communications Bulgaria EOOD	Bulgaria
Level 3 Communications A.B.	Poland
CenturyLink Communications Croatia Usluge d.o.o.	Croatia
Level 3 Communications A.B.	Sweden
CenturyLink Communications Norge AS	Norway
CenturyLink Communications France s.a.r.l.*	France
CenturyLink Hungary Communications Kft.	Hungary
GC Pan European Crossing UK Ltd.	United Kingdom
CenturyLink Communications Italia Srl	Italy
CenturyLink Communications Switzerland AG	Switzerland
CenturyLink Communications España S.A.	Spain
CenturyLink Communications España S.A. Sucursal em Portugal	Portuguese Branch
CenturyLink Communications Telekomünikasyon Hizmetleri Limited Şirketi	Turkey
CenturyLink Communications Germany GmbH	Germany
CenturyLink Communications NL B.V.	Netherlands
Level 3 Communications Japan KK	Japan
CenturyLink Communications NL BV	Greek Branch
Level 3 telekomunikacijski storitve d.o.o.	Slovenia
CenturyLink Communications Isreal Ltd.	Isreal
Level 3 Communications Limited	United Kingdom
CenturyLink Communications Finland Oy	Finland
CenturyLink Communications Belgium SA	Belgium
CenturyLink Communications RS d.o.o. Beograd-Stari Grad	Serbia
CenturyLink Communications Ireland Limited	Ireland
CenturyLink Communications CDN Ireland Limited	Ireland

<b><u>Subsidiary</u></b>	<b>State of incorporation or formation</b>
CenturyLink Communications CZ s.r.o.	Czech Republic
CenturyLink Communications Luxembourg S.a.r.l.	Luxembourg
CenturyLink Communications Estonia OÜ	Estonia
ООО "CenturyLink Communications"	Russia
CenturyLink Communications South Africa (Pty) Limited	South Africa
Level 3 Communications spol. s.r.o.	Slovakia
Level 3 Europe B.V.	Netherlands
CenturyLink Communications Romania S.R.L.	Romania

## Consent of Independent Registered Public Accounting Firm

The Board of Directors  
CenturyLink, Inc.:

We consent to the incorporation by reference in the registration statement (No. 333-227251) on Form S-3, the registration statements (Nos. 333-225154, 333-150157, 333-174571, and 333-221267) on Form S-8, and the registration statement (No. 333-215121) on Form S-4 of CenturyLink, Inc. of our reports dated February 28, 2020, with respect to the consolidated balance sheets of CenturyLink, Inc. as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive (loss) income, cash flows, and stockholders' equity for each of the years in the three-year period ended December 31, 2019, and the related notes, and the effectiveness of internal control over financial reporting as of December 31, 2019, which reports appear in the December 31, 2019 annual report on Form 10-K of CenturyLink, Inc.

Our report on the consolidated financial statements refers to a change in the method of accounting for leases as of January 1, 2019 due to the adoption of Accounting Standards Codification Topic 842, Leases.

/s/ KPMG LLP

Denver, Colorado  
February 28, 2020

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER**

I, Jeff K. Storey, Chief Executive Officer, certify that:

1. I have reviewed this Annual Report on Form 10-K of CenturyLink, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15 (e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors:
  - 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 28, 2020

/s/ Jeff K. Storey

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Jeff K. Storey  
Chief Executive Officer

**CERTIFICATION OF CHIEF FINANCIAL OFFICER**

I, Indraneel Dev, Chief Financial Officer, certify that:

1. I have reviewed this Annual Report on Form 10-K of CenturyLink, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15 (e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors:
  - 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 28, 2020

/s/ Indraneel Dev

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Indraneel Dev  
Executive Vice President and Chief  
Financial Officer

**Certification Pursuant to  
18 U.S.C. Section 1350,  
as Adopted Pursuant to  
Section 906 of the Sarbanes-Oxley Act of 2002**

I, Jeff K. Storey, Chief Executive Officer of CenturyLink, Inc. ("CenturyLink"), certify that, to my knowledge, the Annual Report on Form 10-K for the year ended December 31, 2019 of CenturyLink fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of CenturyLink as of the dates and for the periods covered by such report.

A signed original of this statement has been provided to CenturyLink and will be retained by CenturyLink and furnished to the Securities and Exchange Commission or its staff upon request.

Date: February 28, 2020

/s/ Jeff K. Storey

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Jeff K. Storey  
Chief Executive Officer

**Certification Pursuant to  
18 U.S.C. Section 1350,  
as Adopted Pursuant to  
Section 906 of the Sarbanes-Oxley Act of 2002**

I, Indraneel Dev, Chief Financial Officer of CenturyLink, Inc. ("CenturyLink"), certify that, to my knowledge, the Annual Report on Form 10-K for the year ended December 31, 2019 of CenturyLink fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of CenturyLink as of the dates and for the periods covered by such report.

A signed original of this statement has been provided to CenturyLink and will be retained by CenturyLink and furnished to the Securities and Exchange Commission or its staff upon request.

Date: February 28, 2020

/s/ Indraneel Dev

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Indraneel Dev  
Executive Vice President and Chief  
Financial Officer