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

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [x] For the quarterly period ended March 31, 2019

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

Commission file number 001-14157



# TELEPHONE AND DATA SYSTEMS, INC.

(Exact name of Registrant as specified in its charter)

36-2669023 Delaware (State or other jurisdiction of incorporation or organization) (IRS Employer Identification No.)

#### 30 North LaSalle Street, Suite 4000, Chicago, Illinois 60602

(Address of principal executive offices) (Zip code)

Registrant's telephone number, including area code: (312) 630-1900

Yes

No

[]

		ed to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 t was required to file such reports), and (2) has been subject to such filing	[x]	[]
		very Interactive Data File required to be submitted pursuant to Rule 405 of nat the registrant was required to submit such files).	[x]	[]
		accelerated filer, a non-accelerated filer, a smaller reporting company, or an e		
company. See the definitions of flarge a	accelerated liler, accelerated liler,	smaller reporting company," and "emerging growth company" in Rule 12b-2 of	the Excha	nge Act.
Large accelerated filer	[x]	Accelerated filer	the Excha	nge Act.
. ,	[x]		the Excha	nge Act.

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

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).

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Shares, \$.01 par value	TDS	New York Stock Exchange
6.625% Senior Notes due 2045	TDI	New York Stock Exchange
6.875% Senior Notes due 2059	TDE	New York Stock Exchange
7.000% Senior Notes due 2060	TDJ	New York Stock Exchange
5.875% Senior Notes due 2061	TDA	New York Stock Exchange

The number of shares outstanding of each of the issuer's classes of common stock, as of March 31, 2019, is 106,775,800 Common Shares, \$.01 par value, and 7,286,300 Series A Common Shares, \$.01 par value.

# Telephone and Data Systems, Inc.

# Quarterly Report on Form 10-Q For the Period Ended March 31, 2019

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# Telephone and Data Systems, Inc. Management's Discussion and Analysis of Financial Condition and Results of Operations

#### **Executive Overview**

The following discussion and analysis compares Telephone and Data Systems, Inc.'s (TDS) financial results for the three months ended March 31, 2018. It should be read in conjunction with TDS' interim consolidated financial statements and notes included herein, and with the description of TDS' business, its audited consolidated financial statements and Management's Discussion and Analysis (MD&A) of Financial Condition and Results of Operations included in TDS' Annual Report on Form 10-K (Form 10-K) for the year ended December 31, 2018. Certain numbers included herein are rounded to millions for ease of presentation; however, certain calculated amounts and percentages are determined using the unrounded numbers.

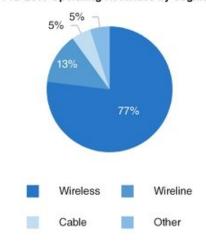
This report contains statements that are not based on historical facts, including the words "believes," "anticipates," "estimates," "expects," "plans," "intends," "projects" and similar expressions. These statements constitute and represent "forward looking statements" as this term is defined in the Private Securities Litigation Reform Act of 1995. Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward looking statements. See Private Securities Litigation Reform Act of 1995 Safe Harbor Cautionary Statement for additional information.

TDS uses certain "non-GAAP financial measures" and each such measure is identified in the MD&A. A discussion of the reason TDS determines these metrics to be useful and a reconciliation of these measures to their most directly comparable measures determined in accordance with accounting principles generally accepted in the United States of America (GAAP) are included in the Supplemental Information Relating to Non-GAAP Financial Measures section within the MD&A of this Form 10-Q Report.

#### General

TDS is a diversified telecommunications company that provides high-quality communications services to approximately 6 million connections nationwide. TDS provides wireless services through its 82% -owned subsidiary, United States Cellular Corporation (U.S. Cellular). TDS also provides wireline and cable services through its wholly-owned subsidiary, TDS Telecommunications LLC (TDS Telecom). TDS' segments operate almost entirely in the United States. See Note 11 — Business Segment Information in the Notes to Consolidated Financial Statements for additional information about TDS' segments.

#### YTD 2019 Operating Revenues by Segment



#### **Table of Contents**

#### **TDS Mission and Strategy**

TDS' mission is to provide outstanding communications services to its customers and meet the needs of its shareholders, its people, and its communities. In pursuing this mission, TDS seeks to grow its businesses, create opportunities for its associates and employees, and build value over the long-term for its shareholders. Across all of its businesses, TDS is focused on providing exceptional customer experiences through best-in-class services and products and superior customer service.

TDS' long-term strategy calls for the majority of its capital to be reinvested in its operating businesses to strengthen their competitive positions and financial performance, while also returning value to TDS shareholders primarily through the payment of a regular quarterly cash dividend.

In 2019, TDS is working to build shareholder value by continuing to execute on its strategies to build strong, competitive businesses providing high-quality, data-focused services and products. Strategic efforts include:

- U.S. Cellular continues to offer economical and competitively priced service plans and devices to its customers, and is focused on increasing revenues
  from sales of related products such as accessories and device protection plans and from new services such as fixed wireless broadband. In addition,
  U.S. Cellular is focused on expanding its solutions available to business and government customers, including a growing suite of connected machineto-machine solutions and software applications across various categories.
- U.S. Cellular continues to devote efforts to enhance its network capabilities. VoLTE technology has been launched successfully in California, lowa,
  Oregon, Washington and Wisconsin, and deployments in several additional operating markets will occur in 2019. VoLTE technology allows customers
  to utilize a 4G LTE network for both voice and data services, and offers enhanced services such as high definition voice and simultaneous voice and
  data sessions. In addition, the deployment of VoLTE technology expands U.S. Cellular's ability to offer roaming services to other wireless carriers.
- U.S. Cellular also is committed to continuous technology innovation and has begun to deploy 5G technology. 5G technology is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed, reliability and low latency.
   U.S. Cellular is working with leading companies in the wireless infrastructure and handset ecosystem to provide rich 5G experiences for customers. In addition, in the markets where U.S. Cellular commercially deploys 5G technology, customers using U.S. Cellular's 4G LTE network will experience increased network speed due to U.S. Cellular's modernization efforts.
- U.S. Cellular assesses its existing wireless interests on an ongoing basis with a goal of improving the competitiveness of its operations and maximizing
  its long-term return on capital. As part of this strategy, U.S. Cellular actively seeks attractive opportunities to acquire wireless spectrum, including
  pursuant to FCC auctions.
- TDS Telecom's Wireline business continues to focus on driving growth in its broadband and video services by investing in fiber deployment inside
  existing markets and in new out-of-territory markets. With support from the FCC's A-CAM program, Wireline will deploy higher speed broadband
  services to more rural areas.
- TDS Telecom's Cable business continues to increase its broadband penetration by making network capacity investments and by offering more advanced services in its markets.
- TDS Telecom's Wireline and Cable businesses are investing in a next generation cloud-based video platform called TDS TV+ to enhance video services

# **Terms Used by TDS**

The following is a list of definitions of certain industry terms that are used throughout this document:

- 4G LTE fourth generation Long-Term Evolution, which is a wireless technology that enables more network capacity for more data per user as well as faster access to data compared to third generation (3G) technology.
- 5G fifth generation wireless technology that is expected to help address customers' growing demand for data services as well as create opportunities for new services requiring high speed and reliability as well as low latency.
- Account represents an individual or business financially responsible for one or multiple associated connections. An account may include a variety of types of connections such as handsets and connected devices.
- Alternative Connect America Cost Model (A-CAM) a USF support mechanism for rate-of-return carriers, which provides revenue support through 2028. This support comes with an obligation to build defined broadband speeds to a certain number of locations.
- Broadband Connections refers to the number of Wireline customers provided high-capacity data circuits via various technologies, including DSL
  and dedicated internet circuit technologies or the Cable billable number of lines into a building for high-speed data services.
- Churn Rate represents the percentage of the connections that disconnect service each month. These rates represent the average monthly churn rate for each respective period.
- Connected Devices non-handset devices that connect directly to the U.S. Cellular network. Connected devices include products such as tablets, wearables, modems, and hotspots.
- **DOCSIS** Data Over Cable Service Interface Specification is an international telecommunications standard that permits the addition of high-bandwidth data transfer to an existing cable TV (CATV) system. DOCSIS 3.1 is a system specification that increases data transmission rates.
- **EBITDA** refers to earnings before interest, taxes, depreciation, amortization and accretion and is used in the non-GAAP metric Adjusted EBITDA throughout this document. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.
- Free Cash Flow non-GAAP metric defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.
- Gross Additions represents the total number of new connections added during the period, without regard to connections that were terminated during that period.
- IPTV Connections represents the number of Wireline customers provided video services using IP networking technology.
- Machine-to-Machine (M2M) technology that involves the transmission of data between networked devices, as well as the performance of actions by
  devices without human intervention. U.S. Cellular sells and supports M2M solutions to customers, provides connectivity for M2M solutions via the U.S.
  Cellular network, and has agreements with device manufacturers and software developers which offer M2M solutions.
- ManagedIP Connections refers to the number of telephone handsets, data lines and IP trunks providing communications using IP networking technology.
- Net Additions represents the total number of new connections added during the period, net of connections that were terminated during that period.
- OIBDA refers to operating income before depreciation, amortization and accretion and is used in the non-GAAP metric Adjusted OIBDA throughout this document. See Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for additional information.
- Partial Economic Areas service areas of certain FCC licenses based on geography.
- Postpaid Average Revenue per Account (Postpaid ARPA) metric which is calculated by dividing total postpaid service revenues by the average number of postpaid accounts and by the number of months in the period.
- Postpaid Average Revenue per User (Postpaid ARPU) metric which is calculated by dividing total postpaid service revenues by the average number of postpaid connections and by the number of months in the period.
- Retail Connections the sum of U.S. Cellular postpaid connections and U.S. Cellular prepaid connections.
- Tax Act refers to comprehensive federal tax legislation enacted on December 22, 2017, which made broad changes to the U.S. tax code. Now titled H.R.1, the Tax Act was originally identified as the Tax Cuts and Jobs Act of 2017.
- Universal Service Fund (USF) a system of telecommunications collected fees and support payments managed by the FCC intended to promote universal access to telecommunications services in the United States.
- U.S. Cellular Connections individual lines of service associated with each device activated by a customer. Connections include all types of devices that connect directly to the U.S. Cellular network.
- Video Connections generally, a home or business receiving video programming counts as one video connection. In counting bulk residential or
  commercial connections, such as an apartment building or a hotel, connections are counted based on the number of units/rooms within the building
  receiving service.
- Voice Connections refers to the individual circuits connecting a customer to Wireline's central office facilities or the Cable billable number of lines
  into a building for voice services.
- VoLTE Voice over Long-Term Evolution is a technology specification that defines the standards and procedures for delivering voice communications and related services over 4G LTE networks.
- Wireline Residential Revenue per Connection is calculated by dividing total Wireline residential revenue by the average number of Wireline residential connections and by the number of months in the period.

# **Results of Operations — TDS Consolidated**

Three	Months	Ended
	March 3	1

		wardi 31,		
	2019		2018	2019 vs. 2018
(Dollars in millions)				
Operating revenues				
U.S. Cellular	\$ 9	66 \$	942	3 %
TDS Telecom	2	30	231	-
All other <sup>1</sup>		61	52	16 %
Total operating revenues	1,2	57	1,225	3 %
Operating expenses				
U.S. Cellular	9	02	877	3 %
TDS Telecom	1	93	205	(6)%
All other <sup>1</sup>		68	63	8 %
Total operating expenses	1,1	63	1,145	2 %
Operating income (loss)				
U.S. Cellular		64	65	(1)%
TDS Telecom		37	25	47 %
All other <sup>1</sup>		(7)	(10)	29 %
Total operating income		94	80	18 %
Investment and other income (expense)				
Equity in earnings of unconsolidated entities		44	38	16 %
Interest and dividend income		9	5	60 %
Interest expense	(	43)	(43)	-
Other, net		_	1	(55)%
Total investment and other income		10	1	N/M
Income before income taxes	1	04	81	29 %
Income tax expense		34	24	41 %
Net income		70	57	24 %
Less: Net income attributable to noncontrolling interests, net of tax		11	18	(40)%
Net income attributable to TDS shareholders	\$	59 \$	39	53 %
Adjusted OIBDA (Non-GAAP) <sup>2</sup>	\$ 3	12 \$	296	5 %
Adjusted EBITDA (Non-GAAP) <sup>2</sup>	\$ 3	65 \$	340	7 %
Capital expenditures	\$ 1	47 \$	115	28 %

N/M - Percentage change not meaningful

Refer to individual segment discussions in this MD&A for additional details on operating revenues and expenses at the segment level.

<sup>1</sup> Consists of corporate and other operations and intercompany eliminations.

<sup>&</sup>lt;sup>2</sup> Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

#### Equity in earnings of unconsolidated entities

Equity in earnings of unconsolidated entities represents TDS' share of net income from entities in which it has a noncontrolling interest and that are accounted for by the equity method. TDS' investment in the Los Angeles SMSA Limited Partnership (LA Partnership) contributed \$21 million and \$19 million for the three months ended March 31, 2019 and 2018, respectively, to Equity in earnings of unconsolidated entities. See Note 7 — Investments in Unconsolidated Entities in the Notes to Consolidated Financial Statements for additional information.

#### Income tax expense

The effective tax rate on Income before income taxes for the three months ended March 31, 2019 and 2018, was 32.6% and 29.7%, respectively. The higher rate in 2019 as compared to 2018 is due primarily to a discrete benefit recorded in the first quarter of 2018 to adjust a provisional estimate made in conjunction with the Tax Act.

#### Net income attributable to noncontrolling interests, net of tax

		inded		
		2019		2018
(Dollars in millions)				
U.S. Cellular noncontrolling public shareholders'	\$	10	\$	8
Noncontrolling shareholders' or partners'		1		10
Net income attributable to noncontrolling interests, net of tax	\$	11	\$	18

Net income attributable to noncontrolling interests, net of tax includes the noncontrolling public shareholders' share of U.S. Cellular's net income and the noncontrolling shareholders' or partners' share of certain U.S. Cellular subsidiaries' net income.

Net income attributable to noncontrolling interests, net of tax decreased during the three months ended March 31, 2019, due primarily to an out-of-period adjustment recorded in the first quarter of 2018. TDS determined that this adjustment was not material to any of the periods impacted. See Note 9 — Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information.



#### **Three Months Ended**

Net income increased due primarily to improved operating results at TDS Telecom, including a gain on the sale of assets and decreased employee expenses.

Adjusted EBITDA increased due primarily to improved results at U.S. Cellular, including a shift to higher-priced service plans and an increase in device protection plan revenues.

<sup>\*</sup>Represents a non-GAAP financial measure. Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

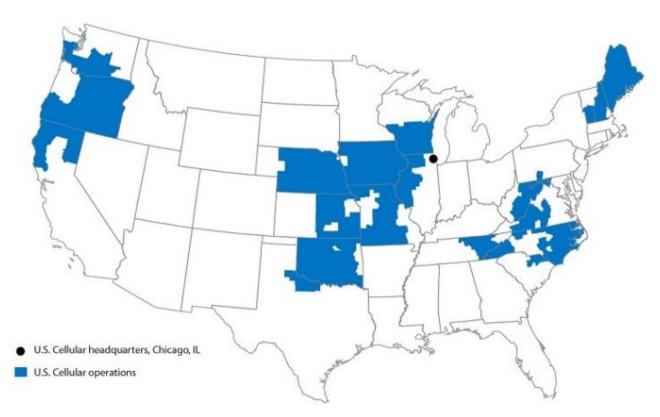


## **U.S. CELLULAR OPERATIONS**

# **Business Overview**

U.S. Cellular owns, operates, and invests in wireless markets throughout the United States. U.S. Cellular is an 82 %-owned subsidiary of TDS. U.S. Cellular's strategy is to attract and retain wireless customers through a value proposition comprised of a high-quality network, outstanding customer service, and competitive devices, plans, and pricing, all provided with a local focus.

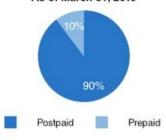
# **OPERATIONS**



- Serves customers with 5.0 million connections including 4.4 million postpaid, 0.5 million prepaid and 0.1 million reseller and other connections
- Operates in 21 states
- Employs approximately 5,500 associates
- 6,537 cell sites including 4,106 owned towers in service

# **Operational Overview**

Retail Connections Composition As of March 31, 2019



As of March 31,	2019	2018
Retail Connections - End of Per	riod	
Postpaid	4,440,000	4,481,000
Prepaid	503,000	525,000
Total	4,943,000	5,006,000

	Q1 2019	Q1 2018	Q1 2019 vs. Q1 2018
Postpaid Activity and Churn			
Gross Additions			
Handsets	102,000	96,000	6%
Connected Devices	35,000	33,000	6%
Total Gross Additions	137,000	129,000	6%
Net (Losses)	<u> </u>		
Handsets	(14,000)	(16,000)	13%
Connected Devices	(18,000)	(21,000)	14%
Total Net (Losses)	(32,000)	(37,000)	14%
Churn	<del></del>		
Handsets	0.99%	0.97%	
Connected Devices	3.08%	2.79%	
Total Churn	1.26%	1.23%	

Postpaid gross additions for the three months ended March 31, 2019 were 137,000, an increase of 8,000 when compared to the same period last year. Gross additions of both handsets and connected devices were higher, with the increase in handsets driven by more aggressive promotions offered in the first quarter of 2019 compared to the prior year. The increase in gross additions was partly offset by higher handset disconnects but drove improved net postpaid activity on a year-over-year basis.

Total postpaid churn increased as heavily discounted tablets sold in connection with various past promotions continue to reach the end of their service contracts, as well as aggressive, industry-wide handset promotional activity.

#### **Postpaid Revenue**

 Three Months Ended March 31,

 2019
 2018

 Average Revenue Per User (ARPU)
 \$ 45.44
 \$ 44.34

 Average Revenue Per Account (ARPA)
 \$ 118.84
 \$ 118.22

Postpaid ARPU and Postpaid ARPA increased for the three months ended March 31, 2019, when compared to the same period last year, due to several factors including: having proportionately more handset connections, which on a per-unit basis contribute more revenue than connected device connections; a shift in mix to higher-priced service plans; and an increase in device protection plan revenues.

# **Financial Overview - U.S. Cellular**

Three Months Ended

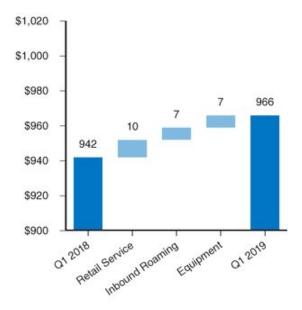
		March 31,			
	2	2019		2018	2019 vs. 2018
(Dollars in millions)					
Retail service	\$	659	\$	649	2 %
Inbound roaming		34		27	22 %
Other		48		48	1 %
Service revenues		741		724	2 %
Equipment sales		225		218	3 %
Total operating revenues		966		942	3 %
System operations (excluding Depreciation, amortization and accretion reported below)		176		179	(1)%
Cost of equipment sold		233		219	7 %
Selling, general and administrative		326		326	_
Depreciation, amortization and accretion		169		159	6 %
(Gain) loss on asset disposals, net		2		1	55 %
(Gain) loss on sale of business and other exit costs, net		(2)		_	N/M
(Gain) loss on license sales and exchanges, net		(2)		(7)	69 %
Total operating expenses		902		877	3 %
Operating income	\$	64	\$	65	(1)%
Net income	\$	58	\$	55	6 %
		231			
Adjusted OIBDA (Non-GAAP) <sup>1</sup>	\$		\$	218	6 %
Adjusted EBITDA (Non-GAAP) 1	<u>\$</u>	281	\$	259	8 %
Capital expenditures	\$	102	\$	70	46 %

N/M - Percentage change not meaningful

<sup>1</sup> Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

#### **Operating Revenues**

Three Months Ended March 31, 2019 and 2018 (Dollars in millions)



#### Service revenues consist of:

- Retail Service Charges for access, airtime, recovery of regulatory costs and value added services, including data services and products
- Inbound Roaming Charges to other wireless carriers whose customers use U.S. Cellular's wireless systems when roaming
- Other Service Amounts received from the Federal USF, tower rental revenues, and miscellaneous other service revenues

#### Equipment revenues consist of:

 Sales of wireless devices and related accessories to new and existing customers, agents, and third-party distributors

#### Key components of changes in the statement of operations line items were as follows:

#### **Total operating revenues**

Retail service revenues increased for the three months ended March 31, 2019, primarily as a result of the increase in Postpaid ARPU as previously discussed in the Operational Overview section.

Inbound roaming revenues increased for the three months ended March 31, 2019, primarily driven by higher data usage, partially offset by lower rates.

Equipment sales revenues increased for the three months ended March 31, 2019, due to an increase in the average revenue per device sold, partially offset by a decrease in the number of devices sold.

#### System operations expenses

System operations expenses decreased for the three months ended March 31, 2019, due to (i) lower customer usage expenses driven primarily by decreased circuit costs and (ii) lower maintenance, utility and cell site rent expenses. Such factors were offset by an increase in roaming expense as a result of higher data roaming usage, partially offset by lower rates.

#### Cost of equipment sold

Cost of equipment sold increased for the three months ended March 31, 2019, due to a higher average cost per device sold, partially offset by a decrease in the number of devices sold.

#### Depreciation, amortization and accretion

Depreciation, amortization, and accretion increased for the three months ended March 31, 2019, due to additional network assets being placed into service and acceleration of depreciation of certain assets due to changes in network technology.



# **TDS TELECOM OPERATIONS**

# **Business Overview**

TDS Telecom operates in two segments: Wireline and Cable. TDS Telecom's business objective is to provide a wide range of communications services to both residential and commercial customers.

## **OPERATIONS**



- Provides broadband, video and voice services to 1.2 million connections in 31 states.
- Employs approximately 2,700 employees.
- · Wireline operates incumbent local exchange carriers (ILEC) and competitive local exchange carriers (CLEC) in 27 states.
- Cable operates primarily in Colorado, New Mexico, Texas, Utah, and Oregon.

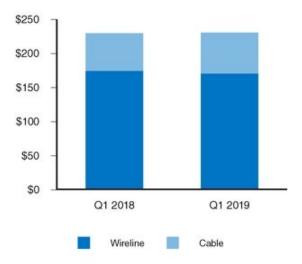
# Financial Overview — TDS Telecom

	Three Months Ended March 31,			ıded
	2019		2018	2019 vs. 2018
(Dollars in millions)				
Operating revenues				
Wireline	\$ 171	\$	175	(3)%
Cable	60		55	8 %
TDS Telecom operating revenues <sup>1</sup>	 230		231	_
Operating expenses				
Wireline	136		149	(9)%
Cable	57		57	1 %
TDS Telecom operating expenses <sup>1</sup>	193		205	(6)%
TDS Telecom operating income	\$ 37	\$	25	47 %
Net income	\$ 31	\$	21	47 %
Adjusted OIBDA (Non-GAAP) <sup>2</sup>	\$ 80	\$	80	1 %
Adjusted EBITDA (Non-GAAP) <sup>2</sup>	\$ 83	\$	81	2 %
Capital expenditures	\$ 42	\$	40	5 %

Numbers may not foot due to rounding.

- 1 Includes eliminations between the Wireline and Cable segments.
- Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.





# **Total operating revenues**

Operating revenues were essentially flat for the three months ended March 31, 2019 . Price increases, Cable broadband and Wireline video connection growth, and higher Wireline support revenue provided through the A-CAM program increased revenues. Wireline wholesale access revenue and legacy voice and commercial products revenues continued to decline.

#### **Total operating expenses**

Operating expenses decreased for the three months ended March 31, 2019, due primarily to a gain on the sale of assets and decreased employee related expenses.



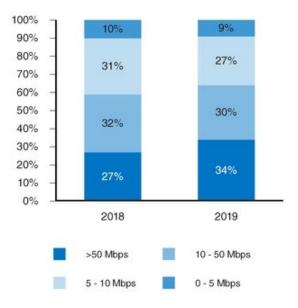
#### WIRELINE OPERATIONS

## **Business Overview**

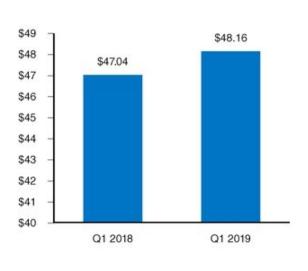
TDS Telecom's Wireline business provides broadband, video and voice services. These services are provided to residential, commercial, and wholesale customers in a mix of rural, small town and suburban markets, with the largest concentration of its customers in the Upper Midwest and the Southeast. TDS Telecom's strategy is to offer its residential customers broadband, video, and voice services through value-added bundling. In its commercial business, TDS Telecom's focus is on small- to medium-sized businesses and its sales efforts emphasize advanced IP-based data and voice services.

# **Operational Overview**





#### Wireline Residential Revenue per Connection



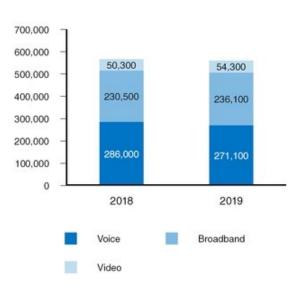
Residential broadband customers are increasingly choosing higher speeds in ILEC markets with 64% choosing speeds of 10 Mbps or greater and 34% choosing speeds of 50 Mbps or greater.

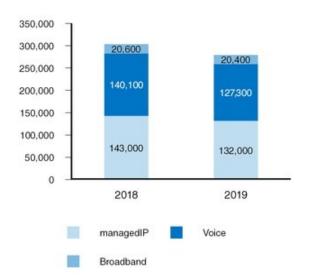
Increases in broadband connections and speeds, and video connection growth drove increases in average residential revenue per connection.

# **Residential Connections**

As of March 31,

# Commercial Connections As of March 31,





Total residential connections decreased by 1% as declines in voice connections outpaced the growth in broadband and video connections.

Total commercial connections decreased by 8% due to declines in connections in CLEC markets.

# Financial Overview — Wireline

		March 31,			
	2	2019		2018	2019 vs. 2018
(Dollars in millions)					
Residential	\$	81	\$	80	1 %
Commercial		43		48	(9)%
Wholesale		46		47	(3)%
Service revenues		170		175	(3)%
Equipment and product sales		_		_	(18)%
Total operating revenues		171		175	(3)%
Cost of services (excluding Depreciation, amortization and accretion reported below)		63		65	(3)%
Cost of equipment and products		_		_	(24)%
Selling, general and administrative		47		47	_
Depreciation, amortization and accretion		34		37	(9)%
(Gain) loss on asset disposals, net		(7)		_	N/M
Total operating expenses		136		149	(9)%

**Three Months Ended** 

34 \$

38

61

29 \$

63 \$

\$ \$

\$

\$

26

28

63

65

29

31 %

33 %

(4)%

(3)%

2 %

Numbers may not foot due to rounding.

Operating income

Capital expenditures

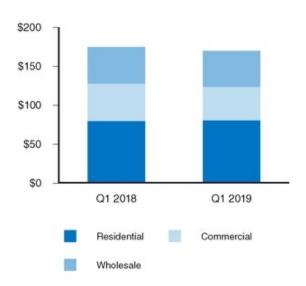
Income before income taxes

Adjusted OIBDA (Non-GAAP) <sup>1</sup>
Adjusted EBITDA (Non-GAAP) <sup>1</sup>

N/M - Percentage change not meaningful

<sup>1</sup> Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.

#### Operating Revenues (Dollars in millions)



#### Residential revenues consist of:

- Broadband services, including fiber-based and other digital, premium and enhanced data services
- IPTV and satellite video services
- Voice services

#### Commercial revenues consist of:

- High-speed and dedicated business internet services
- Voice services

#### Wholesale revenues consist of:

- Network access services primarily to interexchange and wireless carriers for carrying data and voice traffic on TDS Telecom's network
- Federal and State USF support, including A-CAM support

Key components of changes in the statement of operations items were as follows:

#### **Total operating revenues**

Residential revenues increased for the three months ended March 31, 2019, due primarily to growth in video and broadband connections and price increases, partially offset by declines in voice connections. Average voice connections declined 5% while average video connections grew 9%.

Commercial revenues decreased for the three months ended March 31, 2019, due to declining connections mostly in CLEC markets.

Wholesale revenues decreased for the three months ended March 31, 2019, due primarily to decreases in network access services partially offset by additional A-CAM support payments.

#### **Cost of services**

Cost of services decreased for the three months ended March 31, 2019, due to lower employee expenses and decreases in the costs of purchasing unbundled network elements and provisioning circuits, partially offset by increases in programming charges.

#### Depreciation, amortization and accretion

Depreciation, amortization and accretion decreased as certain assets became fully depreciated.

#### (Gain) loss on asset disposals, net

A gain was recorded during the three months ended March 31, 2019, related to the sale of fiber assets in certain CLEC markets.



# **CABLE OPERATIONS**

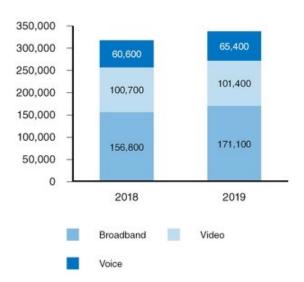
# **Business Overview**

TDS Telecom's Cable strategy is to expand its broadband services and leverage that growth by bundling with video and voice services. TDS Telecom seeks to be the leading provider of broadband services in its targeted markets by leveraging its core competencies in network management and customer focus.

# **Operational Overview**

## **Cable Connections**

As of March 31,



Cable connections grew 6% due primarily to a 9% increase in broadband connections.

# Financial Overview — Cable

Three	Months	Ended
	March 2	4

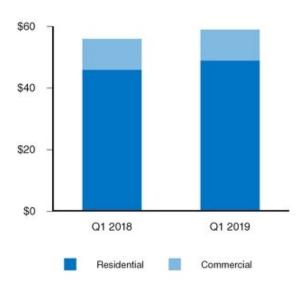
		March 31,				
		019	2018		2019 vs. 2018	
(Dollars in millions)						
Residential	\$	49	\$	46	8 %	
Commercial		10		10	8 %	
Total operating revenues		60		55	8 %	
Cost of services (excluding Depreciation, amortization and accretion reported below)		26		26	_	
Selling, general and administrative		14		13	7 %	
Depreciation, amortization and accretion		17		17	(2)%	
Total operating expenses		57		57	1 %	
			_			
Operating income (loss)	\$	2	\$	(1)	N/M	
Income (loss) before income taxes	\$	3	\$	(1)	N/M	
Adjusted OIBDA (Non-GAAP) <sup>1</sup>	\$	20	\$	16	21 %	
Adjusted EBITDA (Non-GAAP) 1	\$	20	\$	16	22 %	
Capital expenditures	\$	13	\$	11	14 %	

Numbers may not foot due to rounding.

N/M - Percentage change not meaningful

<sup>1</sup> Refer to Supplemental Information Relating to Non-GAAP Financial Measures within this MD&A for a reconciliation of this measure.





#### Residential and Commercial revenues consist of:

- Broadband services, including high-speed internet, security and support services
- Video services including premium programming in HD, multi-room and TV Everywhere offerings
- Voice services

Key components of changes in the statement of operations items were as follows:

# **Total operating revenues**

Residential and commercial revenues both increased for the three months ended March 31, 2019, due to growth in connections and price increases.

#### Selling, general and administrative

Selling, general and administrative expenses increased for the three months ended March 31, 2019, due primarily to increased employee related expenses and advertising.

# **Liquidity and Capital Resources**

#### **Sources of Liquidity**

TDS and its subsidiaries operate capital-intensive businesses. Historically, TDS has used internally-generated funds and also has obtained substantial funds from external sources for general corporate purposes. In the past, TDS' existing cash and investment balances, funds available under its revolving credit and receivables securitization agreements, funds from other financing sources, including a term loan and other long-term debt, and cash flows from operating and certain investing and financing activities, including sales of assets or businesses, provided sufficient liquidity and financial flexibility for TDS to meet its normal day-to-day operating needs and debt service requirements, to finance the build-out and enhancement of markets and to fund acquisitions. There is no assurance that this will be the case in the future. See Market Risk for additional information regarding maturities of long-term debt.

Although TDS currently has a significant cash balance, TDS has incurred negative free cash flow at times in the past and this could occur in the future. However, TDS believes that existing cash and investment balances, funds available under its revolving credit and receivables securitization agreements, and expected cash flows from operating and investing activities will provide sufficient liquidity for TDS to meet its normal day-to-day operating needs and debt service requirements for the coming year.

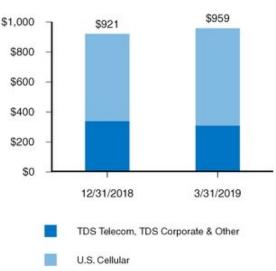
TDS may require substantial additional capital for, among other uses, funding day-to-day operating needs including working capital, acquisitions of providers of cable, wireless or wireline telecommunications services, IT services or other businesses, spectrum license or system acquisitions, capital expenditures, debt service requirements, the repurchase of shares, the payment of dividends, or making additional investments. TDS, through U.S. Cellular, is a qualified bidder for spectrum auctions during 2019 (see Regulatory Matters - Millimeter Wave Spectrum Auctions), and expects capital expenditures in 2019 to be higher than in 2018, due primarily to investments at U.S. Cellular to enhance network speed and capacity and to deploy 5G technology, and increased levels of fiber investments at TDS Telecom. It may be necessary from time to time to increase the size of the existing revolving credit agreements, to put in place new credit agreements, or to obtain other forms of financing in order to fund potential expenditures. TDS' liquidity would be adversely affected if, among other things, TDS is unable to obtain short- or long-term financing on acceptable terms, TDS makes significant spectrum license purchases, TDS makes significant business acquisitions, the LA Partnership discontinues or significantly reduces distributions compared to historical levels, or Federal USF and/or other regulatory support payments decline.

TDS' credit rating currently is sub-investment grade. There can be no assurance that sufficient funds will continue to be available to TDS or its subsidiaries on terms or at prices acceptable to TDS. Insufficient cash flows from operating activities, changes in TDS' credit ratings, defaults of the terms of debt or credit agreements, uncertainty of access to capital, deterioration in the capital markets, reduced regulatory capital at banks which in turn limits their ability to borrow and lend, other changes in the performance of TDS or in market conditions or other factors could limit or restrict the availability of financing on terms and prices acceptable to TDS, which could require TDS to reduce its acquisition, capital expenditure and business development programs, reduce the acquisition of spectrum licenses, and/or reduce or cease share repurchases and/or the payment of dividends. Any of the foregoing developments would have an adverse impact on TDS' businesses, financial condition or results of operations. TDS cannot provide assurance that circumstances that could have a material adverse effect on its liquidity or capital resources will not occur.

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

Cash and cash equivalents include cash and money market investments. The primary objective of TDS' Cash and cash equivalents investment activities is to preserve principal. Cash held by U.S. Cellular is for its operational needs and acquisition, capital expenditure and business development programs. TDS does not have direct access to U.S. Cellular cash unless U.S. Cellular pays a dividend on its common stock. U.S. Cellular has no current intention to pay a dividend to its shareholders.





At March 31, 2019 , TDS' consolidated Cash and cash equivalents totaled \$959 million compared to \$921 million at December 31, 2018 .

The majority of TDS' Cash and cash equivalents is held in bank deposit accounts and in money market funds that purchase only debt issued by the U.S. Treasury or U.S. government agencies across a range of eligible money market investments that may include, but are not limited to, government agency repurchase agreements, government agency debt, U.S. Treasury repurchase agreements, U.S. Treasury debt, and other securities collateralized by U.S. government obligations. TDS monitors the financial viability of the money market funds and believes that the credit risk associated with these investments is low

#### **Financing**

TDS and U.S. Cellular have unsecured revolving credit agreements available for general corporate purposes including acquisitions, spectrum purchases and capital expenditures. These credit agreements mature in May 2023. As of March 31, 2019, there were no outstanding borrowings under the revolving credit agreements, except for letters of credit, and TDS' and U.S. Cellular's unused capacity under their revolving credit agreements was \$400 million and \$298 million, respectively.

In March 2019, U.S. Cellular amended its senior term loan credit agreement in order to reduce the interest rate. There were no significant changes to the maturity date or other key terms of the agreement.

TDS and U.S. Cellular believe they were in compliance with all of the financial covenants and requirements set forth in their revolving credit agreements and the senior term loan credit agreement as of March 31, 2019.

U.S. Cellular, through its subsidiaries, also has a receivables securitization agreement to permit securitized borrowings using its equipment installment plan receivables for general corporate purposes. The unused capacity under this agreement was \$200 million as of March 31, 2019, subject to sufficient collateral to satisfy the asset borrowing base provisions of the agreement. As of March 31, 2019, the USCC Master Note Trust (Trust) held \$78 million of assets available to be pledged as collateral for the receivables securitization agreement. U.S. Cellular believes that it was in compliance with all of the financial covenants and requirements set forth in its receivables securitization agreement as of that date.

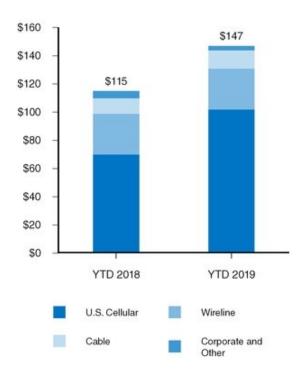
TDS and U.S. Cellular have in place effective shelf registration statements on Form S-3 to issue senior or subordinated debt securities.

Long-term debt payments due for the remainder of 2019 and the next four years are \$204 million, which represent 8% of the total gross long-term debt obligation at March 31, 2019.

#### **Capital Expenditures**

Capital expenditures (i.e., additions to property, plant and equipment and system development expenditures), which include the effects of accruals and capitalized interest, for the three months ended March 31, 2019 and 2018, were as follows:

# Capital Expenditures (Dollars in millions)



U.S. Cellular's capital expenditures for the three months ended March 31, 2019 and 2018, were \$102 million and \$70 million, respectively.

Capital expenditures for the full year 2019 are expected to be between \$625 million and \$725 million . These expenditures are expected to be used principally for the following purposes:

- Enhance and maintain U.S. Cellular's network coverage, including continuing to deploy VoLTE technology in certain markets and providing additional speed and capacity to accommodate increased data usage by current customers;
- Deploy 5G technology; and
- Invest in information technology to support existing and new services and products.

TDS Telecom's capital expenditures for the three months ended March 31, 2019 and 2018, were \$42 million and \$40 million, respectively.

Capital expenditures for the full year 2019 are expected to be between \$300 million and \$350 million. These expenditures are expected to be used principally for the following purposes:

- Expand fiber deployment inside and outside of current footprint;
- Maintain and enhance existing infrastructure including build-out requirements to meet state broadband and A-CAM programs;
- Upgrade broadband capacity and speeds;
- Support success-based spending to sustain IPTV, broadband, and Cable growth; and
- Build TDS TV+, a cloud-based video platform

TDS intends to finance its capital expenditures for 2019 using primarily Cash flows from operating activities, existing cash balances and, if required, its receivables securitization and/or revolving credit agreements.

#### **Acquisitions, Divestitures and Exchanges**

TDS may be engaged from time to time in negotiations (subject to all applicable regulations) relating to the acquisition, divestiture or exchange of companies, properties, wireless spectrum and other possible businesses. In general, TDS may not disclose such transactions until there is a definitive agreement. TDS assesses its business interests on an ongoing basis with a goal of improving the competitiveness of its operations and its long-term return on capital. As part of this strategy, TDS reviews attractive opportunities to acquire additional wireless operating markets and wireless spectrum, including pursuant to FCC auctions; and telecommunications, cable or other possible businesses. TDS also may seek to divest outright or include in exchanges for other interests those interests that are not strategic to its long-term success.

#### **Variable Interest Entities**

TDS consolidates certain "variable interest entities" as defined under GAAP. See Note 9 — Variable Interest Entities in the Notes to Consolidated Financial Statements for additional information related to these variable interest entities. TDS may elect to make additional capital contributions and/or advances to these variable interest entities in future periods in order to fund their operations.

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#### **Common Share Repurchase Programs**

TDS and U.S. Cellular have repurchased their Common Shares and U.S. Cellular expects to continue to repurchase its Common Shares, subject to any available repurchase program. However, there were no share repurchases made under these programs in the three months ended March 31, 2019, or in the year ended December 31, 2018.

As of March 31, 2019, the maximum dollar value of TDS Common Shares that may yet be purchased under TDS' program was \$199 million. For additional information related to the current TDS repurchase authorization, see Unregistered Sales of Equity Securities and Use of Proceeds.

U.S. Cellular also has a share repurchase authorization. As of March 31, 2019, the total cumulative amount of U.S. Cellular Common Shares authorized to be purchased is 5,901,000.

#### **Contractual and Other Obligations**

There were no material changes outside the ordinary course of business between December 31, 2018 and March 31, 2019, to the Contractual and Other Obligations disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations included in TDS' Form 10-K for the year ended December 31, 2018.

Subsequent to March 31, 2019, TDS committed to purchase spectrum licenses in the amount of \$120 million, subject to regulatory approval. This purchase obligation is expected to be paid in 2019.

#### **Off-Balance Sheet Arrangements**

TDS had no transactions, agreements or other contractual arrangements with unconsolidated entities involving "off-balance sheet arrangements," as defined by SEC rules, that had or are reasonably likely to have a material current or future effect on its financial condition, results of operations, liquidity, capital expenditures or capital resources.

# **Consolidated Cash Flow Analysis**

TDS operates a capital- and marketing-intensive business. TDS makes substantial investments to acquire wireless licenses and properties and to construct and upgrade communications networks and facilities as a basis for creating long-term value for shareholders. In recent years, rapid changes in technology and new opportunities have required substantial investments in potentially revenue-enhancing and cost-saving upgrades to TDS' networks. TDS utilizes cash on hand, cash from operating activities, cash proceeds from divestitures and dispositions of investments, and short-term and long-term debt financing to fund its acquisitions (including spectrum licenses), construction costs, operating expenses and share repurchases. Cash flows may fluctuate from quarter to quarter and year to year due to seasonality, the timing of acquisitions and divestitures, capital expenditures and other factors. The following discussion summarizes TDS' cash flow activities for the three months ended March 31, 2019 and 2018.

#### 2019 Commentary

TDS' Cash, cash equivalents and restricted cash increased \$39 million in the first quarter of 2019. Net cash provided by operating activities was \$327 million in 2019 due to net income of \$70 million plus non-cash items of \$238 million and distributions received from unconsolidated entities of \$19 million. The working capital changes had no significant impact on net cash and were primarily influenced by timing of vendor payments and collections of customer and agent receivables, offset by annual employee bonus payments.

Cash flows used for investing activities were \$259 million. Cash paid for additions to property, plant and equipment in 2019 totaled \$155 million. Advance payments for license acquisitions were \$135 million. These were partially offset by Cash received from divestitures and exchanges of \$31 million.

Cash flows used for financing activities were \$29 million, reflecting ordinary activity such as the payment of dividends and the scheduled repayments of debt.

#### 2018 Commentary

TDS' Cash, cash equivalents and restricted cash increased \$161 million in the first quarter of 2018. Net cash provided by operating activities was \$214 million in 2018 due primarily to net income of \$57 million plus non-cash items of \$235 million and distributions received from unconsolidated entities of \$17 million. This was partially offset by changes in working capital items which decreased net cash by \$95 million. The working capital changes were primarily influenced by timing of annual employee bonus, vendor and tax payments, partially offset by collections of customer and agent receivables.

Cash flows used for investing activities were \$36 million. Cash paid for additions to property, plant and equipment in 2018 totaled \$131 million. Cash paid for acquisitions and licenses was \$9 million. This was partially offset by cash received from investments of \$100 million, resulting from the redemption of short-term Treasury bills.

Cash flows used for financing activities were \$17 million, reflecting ordinary activity such as the payment of dividends and the scheduled repayments of debt.

# **Consolidated Balance Sheet Analysis**

The following discussion addresses certain captions in the consolidated balance sheet and changes therein. This discussion is intended to highlight the significant changes and is not intended to fully reconcile the changes. Changes in financial condition during 2019 were as follows:

#### Assets held for sale

Assets held for sale decreased \$ 54 million. Certain sale and exchange agreements that U.S. Cellular entered into in 2018 closed in the first quarter of 2019.

#### Operating lease right-of-use assets

Operating lease right-of-use assets increased \$965 million due to the adoption of Accounting Standards Codification (ASC) 842. See Note 8 — Leases in the Notes to Consolidated Financial Statements for additional information.

#### Other assets and deferred charges

Other assets and deferred charges increased \$ 104 million due primarily to advance payments for license acquisitions.

#### **Accrued compensation**

Accrued compensation decreased \$54 million due primarily to employee bonus payments in March 2019.

#### Short-term operating lease liabilities

Short-term operating lease liabilities increased \$110 million due to the adoption of ASC 842. See Note 8 — Leases in the Notes to Consolidated Financial Statements for additional information.

#### Long-term operating lease liabilities

Long-term operating lease liabilities increased \$929 million due to the adoption of ASC 842. See Note 8 — Leases in the Notes to Consolidated Financial Statements for additional information.

#### Other deferred liabilities and credits

Other deferred liabilities and credits decreased \$95 million due primarily to the adoption of ASC 842. See Note 8 — Leases in the Notes to Consolidated Financial Statements for additional information.

# **Supplemental Information Relating to Non-GAAP Financial Measures**

TDS sometimes uses information derived from consolidated financial information but not presented in its financial statements prepared in accordance with U.S. GAAP to evaluate the performance of its business. Certain of these measures are considered "non-GAAP financial measures" under U.S. Securities and Exchange Commission Rules. Specifically, TDS has referred to the following measures in this Form 10-Q Report:

- FBITDA
- Adjusted EBITDA
- Adjusted OIBDA
- Free cash flow

Following are explanations of each of these measures.

#### EBITDA, Adjusted EBITDA and Adjusted OIBDA

EBITDA, Adjusted EBITDA and Adjusted OIBDA are defined as net income adjusted for the items set forth in the reconciliation below. EBITDA, Adjusted EBITDA and Adjusted OIBDA are not measures of financial performance under GAAP and should not be considered as alternatives to Net income or Cash flows from operating activities, as indicators of cash flows or as measures of liquidity. TDS does not intend to imply that any such items set forth in the reconciliation below are non-recurring, infrequent or unusual; such items may occur in the future.

Adjusted EBITDA is a segment measure reported to the chief operating decision maker for purposes of making decisions about allocating resources to the segments and assessing their performance. See Note 11 — Business Segment Information in the Notes to Consolidated Financial Statements for additional information.

Management uses Adjusted EBITDA and Adjusted OIBDA as measurements of profitability and, therefore, reconciliations to applicable GAAP income measures are deemed appropriate. Management believes Adjusted EBITDA and Adjusted OIBDA are useful measures of TDS' operating results before significant recurring non-cash charges, gains and losses, and other items as presented below as they provide additional relevant and useful information to investors and other users of TDS' financial data in evaluating the effectiveness of its operations and underlying business trends in a manner that is consistent with management's evaluation of business performance. Adjusted EBITDA shows adjusted earnings before interest, taxes, depreciation, amortization and accretion, and gains and losses, while Adjusted OIBDA reduces this measure further to exclude Equity in earnings of unconsolidated entities and Interest and dividend income in order to more effectively show the performance of operating activities excluding investment activities. The following table reconciles EBITDA, Adjusted EBITDA and Adjusted OIBDA to the corresponding GAAP measure, Net income or Income (loss) before income taxes and Operating income (loss). Income tax expense is not provided at the individual segment level for Wireline and Cable. TDS calculates income tax expense (benefit) for TDS Telecom in total.

		onths Ended rch 31,
TDS - CONSOLIDATED	2019	2018
(Dollars in millions)		
Net income (GAAP)	\$ 70	\$ 57
Add back:		
Income tax expense	34	24
Interest expense	43	43
Depreciation, amortization and accretion	227	221
EBITDA (Non-GAAP)	374	345
Add back or deduct:		
(Gain) loss on asset disposals, net	(5)	2
(Gain) loss on sale of business and other exit costs, net	(2)	_
(Gain) loss on license sales and exchanges, net	(2)	(7)
Adjusted EBITDA (Non-GAAP)	365	340
Deduct:		
Equity in earnings of unconsolidated entities	44	38
Interest and dividend income	9	5
Other, net	<del>-</del>	1
Adjusted OIBDA (Non-GAAP)	312	296
Deduct:		
Depreciation, amortization and accretion	227	221
(Gain) loss on asset disposals, net	(5)	2
(Gain) loss on sale of business and other exit costs, net	(2)	_
(Gain) loss on license sales and exchanges, net	(2)	(7)
Operating income (GAAP)	\$ 94	\$ 80

			nths Ended ch 31,	
U.S. CELLULAR	2019		2018	
(Dollars in millions)				
Net income (GAAP)	\$	58	\$ 55	
Add back:				
Income tax expense		27	22	
Interest expense		29	29	
Depreciation, amortization and accretion	1	69	159	
EBITDA (Non-GAAP)	2	83	265	
Add back or deduct:				
(Gain) loss on asset disposals, net		2	1	
(Gain) loss on sale of business and other exit costs, net		(2)	_	
(Gain) loss on license sales and exchanges, net		(2)	(7)	
Adjusted EBITDA (Non-GAAP)	2	81	259	
Deduct:				
Equity in earnings of unconsolidated entities		44	38	
Interest and dividend income		6	4	
Other, net		_	(1)	
Adjusted OIBDA (Non-GAAP)	2	31	218	
Deduct:				
Depreciation, amortization and accretion	1	69	159	
(Gain) loss on asset disposals, net		2	1	
(Gain) loss on sale of business and other exit costs, net		(2)		
(Gain) loss on license sales and exchanges, net		(2)	(7)	
Operating income (GAAP)	\$	64	\$ 65	

	Three	Three Months Ended March 31,			
TDS TELECOM	2019	2018			
(Dollars in millions)					
Net income (GAAP)	\$	31 \$	21		
Add back:					
Income tax expense		10	6		
Depreciation, amortization and accretion		50	54		
EBITDA (Non-GAAP)		90	81		
Add back or deduct:					
(Gain) loss on asset disposals, net		(7)	_		
Adjusted EBITDA (Non-GAAP)		83	81		
Deduct:					
Interest and dividend income		3	1		
Other, net		_	1		
Adjusted OIBDA (Non-GAAP)		80	80		
Deduct:					
Depreciation, amortization and accretion		50	54		
(Gain) loss on asset disposals, net		(7)	_		
Operating income (GAAP)	\$	37 \$	25		

Numbers may not foot due to rounding.

		onths Ended rch 31,	
WIRELINE	2019	2018	
(Dollars in millions)			
Income before income taxes (GAAP)	\$ 38	\$ 28	
Add back:			
Interest expense	(1)	_	
Depreciation, amortization and accretion	34	37	
EBITDA (Non-GAAP)	71	65	
Add back or deduct:			
(Gain) loss on asset disposals, net	(7)	_	
Adjusted EBITDA (Non-GAAP)	63	65	
Deduct:			
Interest and dividend income	3	1	
Other, net	<del>-</del>	1	
Adjusted OIBDA (Non-GAAP)	61	63	
Deduct:			
Depreciation, amortization and accretion	34	37	
(Gain) loss on asset disposals, net	(7)	_	
Operating income (GAAP)	\$ 34	\$ 26	

Numbers may not foot due to rounding.

		Three Months Ended March 31,			
CABLE	2	019	2018		
(Dollars in millions)					
Income (loss) before income taxes (GAAP)	\$	3	\$	(1)	
Add back:					
Depreciation, amortization and accretion		17		17	
EBITDA (Non-GAAP)		20		16	
Add back or deduct:					
(Gain) loss on asset disposals, net		_		_	
Adjusted EBITDA (Non-GAAP)		20		16	
Deduct:					
Interest and dividend income		_		_	
Adjusted OIBDA (Non-GAAP)		20		16	
Deduct:					
Depreciation, amortization and accretion		17		17	
(Gain) loss on asset disposals, net		_		_	
Operating income (loss) (GAAP)	\$	2	\$	(1)	

Numbers may not foot due to rounding.

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#### **Free Cash Flow**

The following table presents Free cash flow, which is defined as Cash flows from operating activities less Cash paid for additions to property, plant and equipment. Free cash flow is a non-GAAP financial measure which TDS believes may be useful to investors and other users of its financial information in evaluating liquidity, specifically, the amount of net cash generated by business operations after deducting Cash paid for additions to property, plant and equipment.

	_	Three Months Ended March 31,		
		2019		2018
(Dollars in millions)				
Cash flows from operating activities (GAAP)	\$	327	\$	214
Less: Cash paid for additions to property, plant and equipment		155		131
Free cash flow (Non-GAAP)	\$	172	\$	83

# **Application of Critical Accounting Policies and Estimates**

TDS prepares its consolidated financial statements in accordance with GAAP. TDS' significant accounting policies are discussed in detail in Note 1 — Summary of Significant Accounting Policies and Recent Accounting Pronouncements and Note 2 — Revenue Recognition in the Notes to Consolidated Financial Statements and TDS' Application of Critical Accounting Policies and Estimates is discussed in detail in Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are included in TDS' Form 10-K for the year ended December 31, 2018.

# **Recent Accounting Pronouncements**

See Note 1 — Basis of Presentation and Note 8 — Leases in the Notes to Consolidated Financial Statements for information on recent accounting pronouncements.

# **Regulatory Matters**

#### **FCC Connect America Fund**

In December 2018, the FCC authorized additional funding for companies that elected Alternative Connect America Model (A–CAM) support. On February 25, 2019, as directed within the order, the Wireline Competition Bureau (the Bureau) released a public notice offering TDS Telecom an additional \$198 million in funding along with additional buildout obligations and extended the term of the revised offer by two years until December 31, 2028, which TDS Telecom accepted. In the second quarter, the Universal Service Administrative Company (USAC) is expected to begin disbursing this revised support following a Bureau public notice authorizing payment to those carriers that accept this revised offer. The offer provides A-CAM support up to \$200 per location which increases annual support under the program to \$82 million, retroactive to January 1, 2019, and extending through 2028.

#### **Millimeter Wave Spectrum Auctions**

At its open meeting on August 2, 2018, the FCC adopted a public notice establishing procedures for two auctions of spectrum licenses in the 28 GHz and 24 GHz bands. The 28 GHz auction (Auction 101) commenced on November 14, 2018 and closed on January 24, 2019. Auction 101 offered two 425 MHz licenses in the 28 GHz band over portions of the United States that do not have incumbent licensees. The 24 GHz auction (Auction 102) commenced on March 14, 2019 and is offering up to seven 100 MHz licenses in the 24 GHz band in Partial Economic Areas covering most of the United States. The initial phase of Auction 102 closed on April 17, 2019, and the FCC has announced that the assignment phase for this auction will commence on May 3, 2019. U.S. Cellular filed applications to participate in both auctions on September 18, 2018, and was announced as a qualified bidder for Auction 101 on October 31, 2018 and as a qualified bidder for Auction 102 on February 27, 2019.

Also, at the open meeting on August 2, 2018, the FCC adopted a Further Notice of Proposed Rulemaking in preparation for an additional Millimeter Wave auction offering licenses in the 37, 39 and 47 GHz bands (Auction 103). On April 12, 2019, the FCC announced that it intends to start Auction 103 on December 10, 2019.

# Private Securities Litigation Reform Act of 1995 Safe Harbor Cautionary Statement

This Form 10-Q, including exhibits, contains statements that are not based on historical facts and represent forward-looking statements, as this term is defined in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, that address activities, events or developments that TDS intends, expects, projects, believes, estimates, plans or anticipates will or may occur in the future are forward-looking statements. The words "believes," "anticipates," "expects," "plans," "intends," "projects" and similar expressions are intended to identify these forward-looking statements, but are not the exclusive means of identifying them. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be significantly different from any future results, events or developments expressed or implied by such forward-looking statements. Such risks, uncertainties and other factors include, but are not limited to, those set forth below, as more fully described under "Risk Factors" in TDS' Form 10-K for the year ended December 31, 2018. Each of the following risks could have a material adverse effect on TDS' business, financial condition or results of operations. However, such factors are not necessarily all of the important factors that could cause actual results, performance or achievements to differ materially from those expressed in, or implied by, the forward-looking statements contained in this document. Other unknown or unpredictable factors also could have material adverse effects on future results, performance or achievements. TDS undertakes no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise. You should carefully consider the Risk Factors in TDS' Form 10-K for the year ended December 31, 2018, the following factors and other information contained in, or incorporated by reference into, this Form 10-Q to unders

- Intense competition in the markets in which TDS operates could adversely affect TDS' revenues or increase its costs to compete.
- A failure by TDS to successfully execute its business strategy (including planned acquisitions, spectrum acquisitions, fiber builds, divestitures and
  exchanges) or allocate resources or capital effectively could have an adverse effect on TDS' business, financial condition or results of operations.
- Uncertainty in TDS' future cash flow and liquidity or the inability to access capital, deterioration in the capital markets, other changes in TDS'
  performance or market conditions, changes in TDS' credit ratings or other factors could limit or restrict the availability of financing on terms and prices
  acceptable to TDS, which could require TDS to reduce its construction, development or acquisition programs, reduce the amount of spectrum licenses
  acquired, and/or reduce or cease share repurchases and/or the payment of dividends.
- TDS has a significant amount of indebtedness which could adversely affect its financial performance and in turn adversely affect its ability to make
  payments on its indebtedness, comply with terms of debt covenants and incur additional debt.
- Changes in roaming practices or other factors could cause TDS' roaming revenues to decline from current levels, roaming expenses to increase from current levels and/or impact TDS' ability to service its customers in geographic areas where TDS does not have its own network, which could have an adverse effect on TDS' business, financial condition or results of operations.
- A failure by TDS to obtain access to adequate radio spectrum to meet current or anticipated future needs and/or to accurately predict future needs for radio spectrum could have an adverse effect on TDS' business, financial condition or results of operations.
- To the extent conducted by the FCC, TDS may participate in FCC auctions for additional spectrum or for funding in certain Universal Service programs
  in the future directly or indirectly and, during certain periods, will be subject to the FCC's anti-collusion rules, which could have an adverse effect on
  TDS
- Failure by TDS to timely or fully comply with any existing applicable legislative and/or regulatory requirements or changes thereto could adversely affect TDS' business, financial condition or results of operations.
- An inability to attract people of outstanding talent throughout all levels of the organization, to develop their potential through education and
  assignments, and to retain them by keeping them engaged, challenged and properly rewarded could have an adverse effect on TDS' business, financial
  condition or results of operations.
- TDS' assets and revenue are concentrated primarily in the U.S. telecommunications industry. Consequently, its operating results may fluctuate based on factors related primarily to conditions in this industry.
- TDS' smaller scale relative to larger competitors that may have greater financial and other resources than TDS could cause TDS to be unable to compete successfully, which could adversely affect its business, financial condition or results of operations.
- Changes in various business factors, including changes in demand, customer preferences and perceptions, price competition, churn from customer switching activity and other factors, could have an adverse effect on TDS' business, financial condition or results of operations.

- Advances or changes in technology could render certain technologies used by TDS obsolete, could put TDS at a competitive disadvantage, could reduce TDS' revenues or could increase its costs of doing business.
- Complexities associated with deploying new technologies present substantial risk and TDS' investments in unproven technologies may not produce the benefits that TDS expects.
- TDS receives regulatory support and is subject to numerous surcharges and fees from federal, state and local governments, and the applicability and the amount of the support and fees are subject to great uncertainty, which could have an adverse effect on TDS' business, financial condition or results of operations.
- Performance under device purchase agreements could have a material adverse impact on TDS' business, financial condition or results of operations.
- Changes in TDS' enterprise value, changes in the market supply or demand for wireless licenses, wireline or cable markets or IT service providers, adverse developments in the businesses or the industries in which TDS is involved and/or other factors could require TDS to recognize impairments in the carrying value of its licenses, goodwill, franchise rights and/or physical assets or require re-evaluation of the indefinite-lived nature of such assets.
- Costs, integration problems or other factors associated with acquisitions, divestitures or exchanges of properties or licenses and/or expansion of TDS' businesses could have an adverse effect on TDS' business, financial condition or results of operations.
- A failure by TDS to complete significant network construction and systems implementation activities as part of its plans to improve the quality, coverage, capabilities and capacity of its network, support and other systems and infrastructure could have an adverse effect on its operations.
- Difficulties involving third parties with which TDS does business, including changes in TDS' relationships with or financial or operational difficulties of key suppliers or independent agents and third party national retailers who market TDS' services, could adversely affect TDS' business, financial condition or results of operations.
- TDS has significant investments in entities that it does not control. Losses in the value of such investments could have an adverse effect on TDS' financial condition or results of operations.
- A failure by TDS to maintain flexible and capable telecommunication networks or information technology, or a material disruption thereof, could have an
  adverse effect on TDS' business, financial condition or results of operations.
- TDS has experienced and, in the future, expects to experience cyber-attacks or other breaches of network or information technology security of varying degrees on a regular basis, which could have an adverse effect on TDS' business, financial condition or results of operations.
- Changes in facts or circumstances, including new or additional information, could require TDS to record adjustments to amounts reflected in the financial statements, which could have an adverse effect on TDS' business, financial condition or results of operations.
- Disruption in credit or other financial markets, a deterioration of U.S. or global economic conditions or other events could, among other things, impede TDS' access to or increase the cost of financing its operating and investment activities and/or result in reduced revenues and lower operating income and cash flows, which would have an adverse effect on TDS' business, financial condition or results of operations.
- Settlements, judgments, restraints on its current or future manner of doing business and/or legal costs resulting from pending and future litigation could have an adverse effect on TDS' business, financial condition or results of operations.
- The possible development of adverse precedent in litigation or conclusions in professional studies to the effect that radio frequency emissions from wireless devices and/or cell sites cause harmful health consequences, including cancer or tumors, or may interfere with various electronic medical devices such as pacemakers, could have an adverse effect on TDS' wireless business, financial condition or results of operations.
- Claims of infringement of intellectual property and proprietary rights of others, primarily involving patent infringement claims, could prevent TDS from using necessary technology to provide products or services or subject TDS to expensive intellectual property litigation or monetary penalties, which could have an adverse effect on TDS' business, financial condition or results of operations.
- Certain matters, such as control by the TDS Voting Trust and provisions in the TDS Restated Certificate of Incorporation, may serve to discourage or make more difficult a change in control of TDS or have other consequences.
- The market price of TDS' Common Shares is subject to fluctuations due to a variety of factors.
- Any of the foregoing events or other events could cause revenues, earnings, capital expenditures and/or any other financial or statistical information to vary from TDS' forward-looking estimates by a material amount.

#### **Risk Factors**

In addition to the information set forth in this Form 10-Q, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in TDS' Annual Report on Form 10-K for the year ended December 31, 2018, which could materially affect TDS' business, financial condition or future results. The risks described in this Form 10-Q and the Form 10-K for the year ended December 31, 2018, may not be the only risks that could affect TDS. Additional unidentified or unrecognized risks and uncertainties could materially adversely affect TDS' business, financial condition and/or operating results. Subject to the foregoing, TDS has not identified for disclosure any material changes to the risk factors as previously disclosed in TDS' Annual Report on Form 10-K for the year ended December 31, 2018.

### **Quantitative and Qualitative Disclosures about Market Risk**

#### **Market Risk**

Refer to the disclosure under Market Risk in TDS' Form 10-K for the year ended December 31, 2018, for additional information, including information regarding required principal payments and the weighted average interest rates related to TDS' Long-term debt. There have been no material changes to such information since December 31, 2018.

See Note 3 — Fair Value Measurements in the Notes to Consolidated Financial Statements for additional information related to the fair value of TDS' Long-term debt as of March 31, 2019 .

#### **Financial Statements**

Diluted weighted average shares outstanding

Diluted earnings per share attributable to TDS shareholders

# Telephone and Data Systems, Inc. Consolidated Statement of Operations (Unaudited)

**Three Months Ended** March 31, 2019 2018 (Dollars and shares in millions, except per share amounts) Operating revenues Service \$ 995 \$ 978 Equipment and product sales 262 247 Total operating revenues 1,257 1,225 Operating expenses Cost of services (excluding Depreciation, amortization and accretion reported below) 284 288 Cost of equipment and products 264 246 Selling, general and administrative 397 395 Depreciation, amortization and accretion 227 221 (Gain) loss on asset disposals, net 2 (5) (Gain) loss on sale of business and other exit costs, net (2) (Gain) loss on license sales and exchanges, net (2)(7) 1,163 1,145 Total operating expenses Operating income 94 80 Investment and other income (expense) Equity in earnings of unconsolidated entities 44 38 5 Interest and dividend income 9 Interest expense (43)(43)Other, net 1 Total investment and other income 10 Income before income taxes 104 81 24 Income tax expense 34 70 57 Net income Less: Net income attributable to noncontrolling interests, net of tax 11 18 39 Net income attributable to TDS shareholders 59 Basic weighted average shares outstanding 114 111 \$ 0.52 0.35 Basic earnings per share attributable to TDS shareholders

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

116

0.50

\$

\$

113

0.34

# Telephone and Data Systems, Inc. Consolidated Statement of Comprehensive Income (Unaudited)

	Th		nths End ch 31,	bet
	2019	)		2018
(Dollars in millions)				
Net income	\$	70	\$	57
Net change in accumulated other comprehensive income				
Change related to retirement plan				
Amounts included in net periodic benefit cost for the period				
Amortization of prior service cost		_		(1)
Comprehensive income		70		56
Less: Net income attributable to noncontrolling interests, net of tax		11		18
Comprehensive income attributable to TDS shareholders	\$	59	\$	38

Cash, cash equivalents and restricted cash

# Telephone and Data Systems, Inc. Consolidated Statement of Cash Flows (Unaudited)

**Three Months Ended** March 31, 2019 2018 (Dollars in millions) Cash flows from operating activities \$ 70 57 Net income Add (deduct) adjustments to reconcile net income to net cash flows from operating activities Depreciation, amortization and accretion 227 221 25 20 Bad debts expense Stock-based compensation expense 13 10 25 26 Deferred income taxes, net Equity in earnings of unconsolidated entities (44)(38)Distributions from unconsolidated entities 19 17 (Gain) loss on asset disposals, net 2 (5) (Gain) loss on sale of business and other exit costs, net (2) (Gain) loss on license sales and exchanges, net (2) (7) Noncash interest 1 Changes in assets and liabilities from operations 28 77 Accounts receivable Equipment installment plans receivable (10)(17)Inventory (15)(8) Accounts payable 46 (32)Customer deposits and deferred revenues 5 (28)Accrued taxes 9 (24)Accrued interest 11 11 Other assets and liabilities (74)(74)327 214 Net cash provided by operating activities Cash flows from investing activities Cash paid for additions to property, plant and equipment (155)(131)Cash paid for acquisitions and licenses (1) (9)Cash received from investments 100 2 Cash paid for investments (1) 31 4 Cash received from divestitures and exchanges Advance payments for license acquisitions (135)(259)(36)Net cash used in investing activities Cash flows from financing activities Repayment of long-term debt (5) (5) TDS Common Shares reissued for benefit plans, net of tax payments (3) 9 2 U.S. Cellular Common Shares reissued for benefit plans, net of tax payments (1) Dividends paid to TDS shareholders (19)(18)Distributions to noncontrolling interests (1) Other financing activities (5) Net cash used in financing activities (29)(17)Net increase in cash, cash equivalents and restricted cash 39 161

Beginning of period	 927	622
End of period	\$ 966	\$ 783

# Telephone and Data Systems, Inc. Consolidated Balance Sheet — Assets (Unaudited)

	March 31, 2019	December 31, 2018
(Dollars in millions)		
Current assets		
Cash and cash equivalents	\$ 959	\$ 921
Short-term investments	17	17
Accounts receivable		
Customers and agents, less allowances of \$70 and \$71, respectively	968	992
Other, less allowances of \$2 and \$2, respectively	99	107
Inventory, net	165	150
Prepaid expenses	91	103
Income taxes receivable	8	12
Other current assets	28	28
Total current assets	2,335	 2,330
Assets held for sale	_	54
Licenses	2,222	2,195
Goodwill	509	509
Other intangible assets, net of accumulated amortization of \$174 and \$168, respectively	247	253
Investments in unconsolidated entities	507	480
Property, plant and equipment		
In service and under construction	12,189	12,074
Less: Accumulated depreciation and amortization	8,907	8,728
Property, plant and equipment, net	3,282	3,346
Operating lease right-of-use assets	965	_
Other assets and deferred charges	720	616
Total assets <sup>1</sup>	\$ 10,787	\$ 9,783

# Telephone and Data Systems, Inc. Consolidated Balance Sheet — Liabilities and Equity (Unaudited)

	Mar	ch 31, 2019	Decemb	per 31, 2018
(Dollars and shares in millions, except per share amounts)				
Current liabilities				
Current portion of long-term debt	\$	21	\$	21
Accounts payable		400		365
Customer deposits and deferred revenues		203		197
Accrued interest		22		11
Accrued taxes		44		44
Accrued compensation		73		127
Short-term operating lease liabilities		110		_
Other current liabilities		92		114
Total current liabilities		965		879
iabilities held for sale		_		1
Deferred liabilities and credits				
Deferred income tax liability, net		665		640
Long-term operating lease liabilities		929		_
Other deferred liabilities and credits		446		541
_ong-term debt, net		2,414		2,418
Commitments and contingencies				
Noncontrolling interests with redemption features		11		11
Equity				
TDS shareholders' equity				
Series A Common and Common Shares				
Authorized 290 shares (25 Series A Common and 265 Common Shares)				
Issued 133 shares (7 Series A Common and 126 Common Shares)				
Outstanding 114 shares (7 Series A Common and 107 Common Shares)				
Par Value (\$.01 per share)		1		1
Capital in excess of par value		2,442		2,432
Treasury shares, at cost, 19 Common Shares		(505)		(519)
Accumulated other comprehensive loss		(10)		(10)
Retained earnings		2,683		2,656
Total TDS shareholders' equity		4,611		4,560
Noncontrolling intercets		746		722
Noncontrolling interests		746		733
Total equity		5,357		5,293
Fotal liabilities and equity <sup>1</sup>	\$	10,787	\$	9,783

<sup>1</sup> The consolidated total assets as of March 31, 2019 and December 31, 2018, include assets held by consolidated variable interest entities (VIEs) of \$895 million and \$848 million, respectively, which are not available to be used to settle the obligations of TDS. The consolidated total liabilities as of March 31, 2019 and December 31,

# Telephone and Data Systems, Inc. Consolidated Statement of Changes in Equity (Unaudited)

**TDS Shareholders** 

					_								
	Co	Series A ommon and Common shares	ex	apital in xcess of ar value	reasury shares	C	Accumulated other omprehensive income (loss)	 etained arnings	s	Total TDS hareholders' equity	N	loncontrolling interests	Total equity
(Dollars in millions)													
December 31, 2018	\$	1	\$	2,432	\$ (519)	\$	(10)	\$ 2,656	\$	4,560	\$	733	\$ 5,293
Net income attributable to TDS shareholders		_		_	_		_	59		59		_	59
Net income attributable to noncontrolling interests classified as equity		_		_	_		_	_		_		11	11
TDS Common and Series A Common share dividends (\$0.165 per share)		_		_	_		_	(19)		(19)		_	(19)
Dividend reinvestment plan		_		_	5		_	(1)		4		_	4
Incentive and compensation plans		_		_	9		_	(12)		(3)		_	(3)
Adjust investment in subsidiaries for repurchases, issuances and other compensation plans		_		6	_		_	_		6		3	9
Stock-based compensation awards		_		4	_		_	_		4		_	4
Distributions to noncontrolling interests		_		_	_		_	_		_		(1)	(1)
March 31, 2019	\$	1	\$	2,442	\$ (505)	\$	(10)	\$ 2,683	\$	4,611	\$	746	\$ 5,357
		•				_			_		-		

# Telephone and Data Systems, Inc. Consolidated Statement of Changes in Equity (Unaudited)

**TDS Shareholders** 

					103	SIII	arenoiders						
	Com	eries A mon and ommon hares	ex	apital in ccess of ar value	Freasury shares		Accumulated other comprehensive income (loss)	 etained arnings	s	Total TDS hareholders' equity	N	oncontrolling interests	Total equity
(Dollars in millions)													
December 31, 2017	\$	1	\$	2,413	\$ (669)	\$	(1)	\$ 2,525	\$	4,269	\$	623	\$ 4,892
Cumulative effect of accounting changes		_		_	_		(1)	165		164		31	195
Net income attributable to TDS shareholders		_		_	_		_	39		39		_	39
Net income attributable to noncontrolling interests classified as equity		_		_	_		_	_		_		8	8
Other comprehensive loss		_		_	_		(1)	_		(1)		_	(1)
TDS Common and Series A Common share dividends (\$0.160 per share)		_		_	_		_	(18)		(18)		_	(18)
Dividend reinvestment plan		_		_	6		_	(4)		2		_	2
Incentive and compensation plans		_		_	20		_	(11)		9		_	9
Adjust investment in subsidiaries for repurchases, issuances and other compensation plans		_		5	_		_	_		5		5	10
Stock-based										<u> </u>		3	- 10
compensation awards		_		3	_		_	_		3		_	3
March 31, 2018	\$	1	\$	2,421	\$ (643)	\$	(3)	\$ 2,696	\$	4,472	\$	667	\$ 5,139
												·	

# Telephone and Data Systems, Inc. Notes to Consolidated Financial Statements

#### Note 1 Basis of Presentation

The accounting policies of Telephone and Data Systems, Inc. (TDS) conform to accounting principles generally accepted in the United States of America (GAAP) as set forth in the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC). Unless otherwise specified, references to accounting provisions and GAAP in these notes refer to the requirements of the FASB ASC. The consolidated financial statements include the accounts of TDS and subsidiaries in which it has a controlling financial interest, including TDS' 82% -owned subsidiary, United States Cellular Corporation (U.S. Cellular) and TDS' wholly-owned subsidiary, TDS Telecommunications LLC (TDS Telecom). In addition, the consolidated financial statements include certain entities in which TDS has a variable interest that require consolidation under GAAP. All material intercompany accounts and transactions have been eliminated.

TDS' business segments reflected in this Quarterly Report on Form 10-Q for the period ended March 31, 2019, are U.S. Cellular, Wireline, and Cable. TDS' non-reportable other business activities are presented as "Corporate, Eliminations and Other", which includes the operations of TDS' wholly-owned hosted and managed services (HMS) subsidiary, which operates under the OneNeck IT Solutions brand, and its wholly-owned subsidiary Suttle-Straus, Inc. (Suttle-Straus). HMS' and Suttle-Straus' financial results were not significant to TDS' operations. All of TDS' segments operate only in the United States, except for HMS, which includes an insignificant foreign operation. See Note 11 — Business Segment Information for summary financial information on each business segment.

The unaudited consolidated financial statements included herein have been prepared by TDS pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and disclosures normally included in annual financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. However, TDS believes that the disclosures included herein are adequate to make the information presented not misleading. Certain numbers included herein are rounded to millions for ease of presentation; however, certain calculated amounts and percentages are determined using the unrounded numbers. These unaudited consolidated financial statements should be read in conjunction with the consolidated financial statements and the notes thereto included in TDS' Annual Report on Form 10-K (Form 10-K) for the year ended December 31, 2018.

The accompanying unaudited consolidated financial statements contain all adjustments (consisting of normal recurring items, unless otherwise disclosed) necessary for the fair statement of TDS' financial position as of March 31, 2019 and December 31, 2018 and its results of operations, comprehensive income, cash flows and changes in equity for the three months ended March 31, 2019 and 2018. These results are not necessarily indicative of the results to be expected for the full year. TDS has not changed its significant accounting and reporting policies from those disclosed in its Form 10-K for the year ended December 31, 2018, except as disclosed in Note 8 — Leases.

#### **Restricted Cash**

TDS presents restricted cash with cash and cash equivalents in the Consolidated Statement of Cash Flows. The following table provides a reconciliation of Cash and cash equivalents and restricted cash reported in the Consolidated Balance Sheet to the total of the amounts in the Consolidated Statement of Cash Flows as of March 31, 2019 and December 31, 2018.

	March	31, 2019	December 31, 2018		
(Dollars in millions)					
Cash and cash equivalents	\$	959	\$	921	
Restricted cash included in Other current assets		7		6	
Cash, cash equivalents and restricted cash in the statement of cash flows	\$	966	\$	927	

#### **Recently Issued Accounting Pronouncements Not Yet Adopted**

In June 2016, the FASB issued Accounting Standards Update 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments* (ASU 2016-13). ASU 2016-13 requires entities to use a new forward-looking, expected loss model to estimate credit losses. It also requires additional disclosure relating to the credit quality of trade and other receivables, including information relating to management's estimate of credit allowances. TDS is required to adopt ASU 2016-13 on January 1, 2020, using the modified retrospective approach. Early adoption is permitted; however, TDS does not intend to adopt early. TDS is evaluating the effects that adoption of ASU 2016-13 will have on its financial position, results of operations and disclosures.

## **Note 2 Revenue Recognition**

#### **Disaggregation of Revenue**

In the following table, revenue is disaggregated by type of service and timing of revenue recognition. Service revenues are recognized over time and Equipment sales are point in time.

					Т	DS Telecom					
Three Months Ended March 31, 2019	U.S. Cellular			Wireline		Cable		TDS Telecom Total <sup>1</sup>		Corporate, minations and Other	Total
(Dollars in millions)											
Revenues from contracts with customers:											
Type of service:											
Retail service	\$	659	\$	_	\$	_	\$	_	\$	_	\$ 659
Inbound roaming		34		_		_		_		_	34
Residential		_		81		49		131		_	131
Commercial		_		43		10		54		_	54
Wholesale		_		45		_		45		_	45
Other service		32		_		_		_		18	50
Service revenues from contracts with customers		725		170		60		229	,	18	973
Equipment and product sales		225		_		_		_		37	262
Total revenues from contracts with customers <sup>2</sup>	\$	950	\$	170	\$	60	\$	230	\$	55	\$ 1,235

Numbers may not foot due to rounding.

					T	DS Telecom					
Three Months Ended March 31, 2018	U.S. Cellular			Wireline		Cable		TDS Telecom Total <sup>1</sup>		Corporate, minations and Other	Total
(Dollars in millions)											
Revenues from contracts with customers:											
Type of service:											
Retail service	\$	649	\$	_	\$	_	\$	_	\$	_	\$ 649
Inbound roaming		27		_		_		_		_	27
Residential		_		80		46		126		_	126
Commercial		_		48		10		57		_	57
Wholesale		_		47		_		47		_	47
Other service		32		_		_		_		18	50
Service revenues from contracts with customers		708		175		55		230		18	956
Equipment and product sales		218		_		_		_		29	247
Total revenues from contracts with customers <sup>2</sup>	\$	926	\$	175	\$	55	\$	230	\$	47	\$ 1,203

Numbers may not foot due to rounding.

<sup>1</sup> TDS Telecom Total includes eliminations between the Wireline and Cable segments.

<sup>2</sup> Revenue line items in this table will not agree to amounts presented in the Consolidated Statement of Operations as the balances do not include all sources of revenues.

#### **Contract Balances**

The accounts receivable balance related to amounts billed and not paid on contracts with customers, net of allowances, is shown in the table below.

	March :	31, 2019	Dec	cember 31, 2018
(Dollars in millions)				
Accounts receivable				
Customer and agents	\$	963	\$	987
Other		71		73
Total 1	\$	1,034	\$	1,060

<sup>1</sup> Accounts receivable line items presented in this table will not agree to amounts presented in the Consolidated Balance Sheet as certain receivables are excluded from these balances.

The following table provides a rollforward of contract assets from contracts with customers, which are recorded in Other current assets and Other assets and deferred charges in the Consolidated Balance Sheet.

	Contra	ct Assets
(Dollars in millions)		
Balance at December 31, 2018	\$	11
Contract additions		5
Reclassified to receivables		(5)
Balance at March 31, 2019	\$	11

The following table provides a rollforward of contract liabilities from contracts with customers, which are recorded in Customer deposits and deferred revenues and Other deferred liabilities and credits in the Consolidated Balance Sheet.

	Contract Liabilities
(Dollars in millions)	
Balance at December 31, 2018	\$ 203
Contract additions	79
Terminated contracts	(2)
Revenue recognized	(70)
Balance at March 31, 2019	\$ 210

#### Transaction price allocated to the remaining performance obligations

The following table includes estimated service revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period. The estimates represent service revenue to be recognized when services are delivered to customers pursuant to service plan contracts and under certain roaming agreements with other carriers. These estimates are based on contracts in place as of March 31, 2019, and may vary from actual results due to future contract modifications. As a practical expedient, revenue related to contracts of less than one year, generally month-to-month contracts, are excluded from these estimates.

		Service Revenue
(Dollars in millions)		
Remainder of 2019	\$	335
2020		157
Thereafter		79
Total	\$	571

TDS has certain contracts at U.S. Cellular and TDS Telecom in which it bills an amount equal to a fixed per-unit price multiplied by a variable quantity (e.g., certain roaming agreements with other carriers). Because TDS invoices for such items in an amount that corresponds directly with the value of the performance completed to date, TDS may recognize revenue in that amount. As a practical expedient, these contracts are excluded from the estimate of future revenues expected to be recognized related to performance obligations that are unsatisfied as of the end of a reporting period.

#### Amounts Collected from Customers and Remitted to Governmental Authorities

TDS records amounts collected from customers and remitted to governmental authorities on a net basis within a liability account if the amount is assessed upon the customer and TDS merely acts as an agent in collecting the amount on behalf of the imposing governmental authority. If the amount is assessed upon TDS, then amounts collected from customers are recorded in Service revenues and amounts remitted to governmental authorities are recorded in Selling, general and administrative expenses in the Consolidated Statement of Operations. The amounts recorded gross in revenues that are billed to customers and remitted to governmental authorities totaled \$17 million and \$23 million for the three months ended March 31, 2019 and 2018, respectively.

#### **Note 3 Fair Value Measurements**

As of March 31, 2019 and December 31, 2018, TDS did not have any material financial or nonfinancial assets or liabilities that were required to be recorded at fair value in its Consolidated Balance Sheet in accordance with GAAP.

The provisions of GAAP establish a fair value hierarchy that contains three levels for inputs used in fair value measurements. Level 1 inputs include quoted market prices for identical assets or liabilities in active markets. Level 2 inputs include quoted market prices for similar assets and liabilities in active markets or quoted market prices for identical assets and liabilities in inactive markets. Level 3 inputs are unobservable. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. A financial instrument's level within the fair value hierarchy is not representative of its expected performance or its overall risk profile and, therefore, Level 3 assets are not necessarily higher risk than Level 2 assets or Level 1 assets.

TDS has applied the provisions of fair value accounting for purposes of computing the fair value of financial instruments for disclosure purposes as displayed below.

	Level within the		March 31, 2019				December 31, 2018			
	Fair Value Hierarchy	Во	Book Value Fair Value		air Value	Book Value		Fair Value		
(Dollars in millions)										
Cash and cash equivalents	1	\$	959	\$	959	\$	921	\$	921	
Short-term investments	1		17		17		17		17	
Long-term debt										
Retail	2		1,753		1,768		1,753		1,596	
Institutional	2		534		585		534		531	
Other	2		179		179		182		182	

The fair values of Cash and cash equivalents and Short-term investments approximate their book values due to the short-term nature of these financial instruments. Long-term debt excludes lease obligations, other installment arrangements, the current portion of Long-term debt and debt financing costs. The fair value of "Retail" Long-term debt was estimated using market prices for TDS' 7.0% Senior Notes, 6.875% Senior Notes, 6.625% Senior Notes and 5.875% Senior Notes, and U.S. Cellular's 7.25% 2063 Senior Notes, 7.25% 2064 Senior Notes and 6.95% Senior Notes. TDS' "Institutional" debt consists of U.S. Cellular's 6.7% Senior Notes which are traded over the counter. TDS' "Other" debt consists of a senior term loan credit agreement and other borrowings with financial institutions. TDS estimated the fair value of its Institutional and Other debt through a discounted cash flow analysis using the interest rates or estimated yield to maturity for each borrowing, which ranged from 4.25% to 7.50% and 5.03% to 8.00% at March 31, 2019 and December 31, 2018, respectively.

### **Note 4 Equipment Installment Plans**

TDS sells devices to customers under equipment installment plans over a specified time period. For certain equipment installment plans, after a specified period of time or amount of payments, the customer may have the right to upgrade to a new device and have the remaining unpaid equipment installment contract balance waived, subject to certain conditions, including trading in the original device in good working condition and signing a new equipment installment contract. TDS values this trade-in right as a guarantee liability. The guarantee liability is initially measured at fair value and is determined based on assumptions including the probability and timing of the customer upgrading to a new device and the fair value of the device being traded-in at the time of trade-in. When a customer exercises the trade-in option, both the outstanding receivable and guarantee liability balances related to the respective device are reduced to zero, and the value of the used device that is received in the transaction is recognized as inventory. If the customer does not exercise the trade-in option at the time of eligibility, TDS begins amortizing the liability and records this amortization as additional equipment revenue. As of March 31, 2019 and December 31, 2018, the guarantee liability related to these plans was \$11 million and is reflected in Customer deposits and deferred revenues in the Consolidated Balance Sheet.

The following table summarizes equipment installment plan receivables as of March 31, 2019 and December 31, 2018.

	Maı	rch 31, 2019	December 31, 2018		
(Dollars in millions)					
Equipment installment plan receivables, gross	\$	975	\$	974	
Allowance for credit losses		(77)		(77)	
Equipment installment plan receivables, net	\$	898	\$	897	
Net balance presented in the Consolidated Balance Sheet as:					
Accounts receivable — Customers and agents (Current portion)	\$	571	\$	560	
Other assets and deferred charges (Non-current portion)		327		337	
Equipment installment plan receivables, net	\$	898	\$	897	

TDS uses various inputs, including internal data, information from credit bureaus and other sources, to evaluate the credit profiles of its customers. From this evaluation, a credit class is assigned to the customer that determines the number of eligible lines, the amount of credit available, and the down payment requirement, if any. Customers assigned to credit classes requiring no down payment represent a lower risk category, whereas those assigned to credit classes requiring a down payment represent a higher risk category. The balance and aging of the equipment installment plan receivables on a gross basis by credit category were as follows:

		March 31, 2019				December 31, 2018						
	Low	er Risk		Higher Risk		Total		Lower Risk		Higher Risk		Total
(Dollars in millions)												
Unbilled	\$	901	\$	13	\$	914	\$	904	\$	17	\$	921
Billed — current		41		1		42		35		1		36
Billed — past due		17		2		19		15		2		17
Equipment installment plan receivables, gross	\$	959	\$	16	\$	975	\$	954	\$	20	\$	974

Activity for the three months ended March 31, 2019 and 2018, in the allowance for credit losses for equipment installment plan receivables was as follows:

	March 31, 2019			March 31, 2018		
(Dollars in millions)						
Allowance for credit losses, beginning of period	\$	77	\$	65		
Bad debts expense		18		14		
Write-offs, net of recoveries		(18)		(13)		
Allowance for credit losses, end of period	\$	77	\$	66		

### Note 5 Earnings Per Share

Basic earnings per share attributable to TDS shareholders is computed by dividing Net income attributable to TDS shareholders by the weighted average number of common shares outstanding during the period. Diluted earnings per share attributable to TDS shareholders is computed by dividing Net income attributable to TDS shareholders by the weighted average number of common shares outstanding during the period adjusted to include the effects of potentially dilutive securities. Potentially dilutive securities primarily include incremental shares issuable upon the exercise of outstanding stock options and the vesting of performance and restricted stock units.

The amounts used in computing earnings per common share and the effects of potentially dilutive securities on the weighted average number of common shares were as follows:

	Three Months Ended March 31,			
	2019	2018		
(Dollars and shares in millions, except per share amounts)				
Basic earnings per share attributable to TDS shareholders:				
Net income attributable to TDS shareholders used in basic earnings per share	\$ 59	\$ 39		
Adjustments to compute diluted earnings:				
Noncontrolling interest adjustment	(1)	_		
Net income attributable to TDS shareholders used in diluted earnings per share	\$ 58	\$ 39		
Weighted average number of shares used in basic earnings per share:				
Common Shares	107	104		
Series A Common Shares	7	7		
Total	114	111		
Effects of dilutive securities	2	2		
Weighted average number of shares used in diluted earnings per share	116	113		
Basic earnings per share attributable to TDS shareholders	\$ 0.52	\$ 0.35		
Diluted earnings per share attributable to TDS shareholders	\$ 0.50	\$ 0.34		

Certain Common Shares issuable upon the exercise of stock options or vesting of performance and restricted stock units were not included in average diluted shares outstanding for the calculation of Diluted earnings per share attributable to TDS shareholders because their effects were antidilutive. The number of such Common Shares excluded was less than 1 million and 4 million for the three months ended March 31, 2019 and 2018, respectively.

## **Note 6 Intangible Assets**

Activity related to Licenses for the three months ended March 31, 2019, is presented below:

	Lic	enses
(Dollars in millions)		
Balance at December 31, 2018	\$	2,195
Acquisitions		1
Exchanges - Licenses received		26
Balance at March 31, 2019	\$	2,222

During 2019, TDS committed to purchase spectrum licenses in the amount of \$249 million, subject to regulatory approval. TDS paid \$135 million of this amount in the three months ended March 31, 2019, and expects to pay substantially all of the remainder in 2019. This advance payment is included in Other assets and deferred charges in the March 31, 2019 Consolidated Balance Sheet.

#### Note 7 Investments in Unconsolidated Entities

Investments in unconsolidated entities consist of amounts invested in entities in which TDS holds a noncontrolling interest.

TDS' Investments in unconsolidated entities are accounted for using either the equity method or measurement alternative method as shown in the table below. The measurement alternative method was elected for investments without readily determinable fair values formerly accounted for under the cost method. The measurement alternative fair value represents cost minus any impairments plus or minus any observable price changes. TDS did not have an impairment or observable price change related to these investments for the three months ended March 31, 2019.

	March :	March 31, 2019		December 31, 2018
(Dollars in millions)				
Equity method investments	\$	485	\$	459
Measurement alternative method investments		22		21
Total investments in unconsolidated entities	\$	507	\$	480

The following table, which is based in part on information provided by third parties, summarizes the combined results of operations of TDS' equity method investments.

	Three Months Ended March 31,					
		2019		2018		
(Dollars in millions)						
Revenues	\$	1,696	\$		1,663	
Operating expenses		1,221			1,213	
Operating income	·	475			450	
Other income (expense), net		(6)			(1)	
Net income	\$	469	\$		449	

#### **Note 8 Leases**

#### **Change in Accounting Policy**

In February 2016, the FASB issued Accounting Standards Update 2016-02, Leases and has since amended the standard with Accounting Standards Updates 2018-01, Leases: Land Easement Practical Expedient for Transition to Topic 842, Accounting Standards Update 2018-10, Codification Improvements to Topic 842, Leases, Accounting Standards Update 2018-11, Leases: Targeted Improvements, and Accounting Standards Update 2018-20, Leases: Narrow-Scope Improvements for Lessors, collectively referred to as ASC 842. This standard replaces the previous lease accounting standard under ASC 840 - Leases and requires lessees to record a right-of-use (ROU) asset and lease liability for the majority of leases. TDS adopted the provisions of ASC 842 on January 1, 2019, using a modified retrospective method. Under this method, TDS elected to apply the new accounting standard only to the most recent period presented, recognizing the cumulative effect of the accounting change, if any, as an adjustment to the beginning balance of retained earnings. Accordingly, prior periods have not been recast to reflect the new accounting standard. The cumulative effect of applying the provisions of ASC 842 had no impact on retained earnings as of January 1, 2019.

TDS elected transitional practical expedients for existing leases which eliminated the requirements to reassess existing lease classification, initial direct costs, and whether contracts contain leases. TDS also elected the practical expedient related to land easements that allows it to carry forward the accounting treatment for pre-existing land easement agreements.

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The cumulative effect of the adoption of ASC 842 on TDS' Consolidated Balance Sheet is presented below.

	Decem	ber 31, 2018	ASC 842 Adjustment	January 1, 2019
(Dollars in millions)				
Prepaid expenses	\$	103 \$	(13)	\$ 90
Operating lease right-of-use assets		_	975	975
Other assets and deferred charges		616	(12)	604
Short-term operating lease liabilities		_	112	112
Other current liabilities		114	(8)	106
Long-term operating lease liabilities		_	949	949
Other deferred liabilities and credits		541	(103)	438

As a result of the adoption of ASC 842, TDS recorded ROU assets and lease liabilities for its operating leases in its Consolidated Balance Sheet as of January 1, 2019. The lease liabilities are calculated as the discounted value of future lease payments. The difference between the lease liabilities and the corresponding ROU assets is a result of various lease prepayments and straight-line expense recognition deferral balances as of December 31, 2018, which were offset against the ROU assets as of January 1, 2019. Finance leases are included in Property, plant and equipment and Long-term debt, net consistent with presentation under prior accounting standards.

#### **Lessee Agreements**

A lease is generally present in a contract if the lessee controls the use of identified property, plant or equipment for a period of time in exchange for consideration. Nearly all of TDS' leases are classified as operating leases, although it does have a small number of finance leases. TDS' most significant leases are for land and tower spaces, network facilities, retail spaces, and offices.

TDS has agreements with both lease and nonlease components, which are accounted for separately. As part of the present value calculation for the lease liabilities, TDS uses 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 TDS' unsecured rates, adjusted to approximate what TDS would have to borrow on a collateralized basis over a similar period of time as the recognized lease term. TDS applies 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. The cost of nonlease components in TDS' lease portfolio (e.g., utilities and common area maintenance) are not typically predetermined at lease commencement and are expensed as incurred at their relative standalone price.

Variable lease expense occurs when, subsequent to the lease commencement, lease payments are made that were not originally included in the lease liability calculation. TDS' variable lease payments are primarily a result of leases with escalations that are tied to an index. The incremental changes due to the index changes are recorded as variable lease expense and are not included in the ROU assets or lease liabilities.

Lease term recognition determines the periods to allocate expense and also has a significant impact on the lease liability and ROU asset calculations. Many of TDS' leases include renewal and early termination options. At lease commencement, the lease terms include options to extend the lease when TDS is reasonably certain that it will exercise the options. The lease terms do not include early termination options unless TDS is reasonably certain to exercise the options. Certain asset classes have similar lease characteristics; therefore, TDS has applied the portfolio approach for lease term recognition for its tower space, retail, and certain ground lease asset classes.

The following table shows the components of lease cost included in the Consolidated Statement of Operations:

	rch 31, 2019
(Dollars in millions)	
Operating lease cost	\$ 43
Variable lease cost	2
Total lease cost	\$ 45

The following table shows supplemental cash flow information related to lease activities:

(Dollars in millions)					
Cash paid for amounts included in the measurement of lease liabilities:					
Operating cash flows from operating leases			\$	41	
ROU assets obtained in exchange for lease obligations:					
Operating leases			\$	25	
Finance leases				7	
The following table shows the classification of TDS' operating and finance lea	ases in its Consolidated Ba	alance Sheet:		March 31, 2019	
(Dollars in millions)				,	
Operating Leases					
Operating lease right-of-use assets			\$	965	
			=		
Short-term operating lease liabilities			\$	110	
Long-term operating lease liabilities			•	929	
Total operating lease liabilities			\$	1,039	
, , , , , , , , , , , , , , , , , , ,			<u> </u>	<u> </u>	
Finance Leases					
Property, plant and equipment			\$	17	
Less: Accumulated depreciation and amortization				4	
Property, plant and equipment, net			\$	13	
Current portion of long-term debt			\$	1	
Long-term debt, net				5	
Total finance lease liabilities			\$	6	
The table below shows a weighted-average analysis for lease term and discovering the state of th	ount rate for all leases:			March 31, 2019	
Operating leases				12 years	
Finance leases				22 years	
				,	
Weighted Average Discount Rate					
Operating leases				4.5%	
Finance leases				6.9%	
The maturities of lease liabilities are as follows:					
		Operating Leases		Finance Leases	
(Dollars in millions)					
Remainder of 2019	\$	118	\$	1	
2020		161		1	
2021		144		_	
2022		127		1	
2023		111		_	
Thereafter		764		14	
Total lease payments <sup>1</sup>	\$	1,425	\$	17	
Less: Imputed interest		386		11	
Present value of lease liabilities	\$	1,039	\$	6	

<sup>1</sup> Lease payments exclude \$11 million of legally binding lease payments for leases signed but not yet commenced.

#### **Lessor Agreements**

TDS' most significant lessor leases are for tower space and colocation space. All of TDS' lessor leases are classified as operating leases. A lease is generally present in a contract if the lessee controls the use of identified property, plant, or equipment for a period of time in exchange for consideration. TDS' lessor agreements with lease and nonlease components are generally accounted for separately; however, certain service agreements with insignificant lease components are accounted for as nonlease transactions.

Lease term recognition determines the periods to allocate revenue over the term of the lease. Many of TDS' leases include renewal and early termination options. At lease commencement, lease terms include options to extend the lease when TDS is reasonably certain that lessees will exercise the options. Lease terms would not include periods after the date of a termination option that lessees are reasonably certain to exercise.

Variable lease income occurs when, subsequent to the lease commencement, lease payments are received that were not originally included in the lease receivable calculation. TDS' variable lease income is primarily a result of leases with escalations that are tied to an index. The incremental increases due to the index changes are recorded as variable lease income.

The following table shows the components of lease income which are included in service revenue in the Consolidated Statement of Operations:

	Three Months E March 31, 20	
(Dollars in millions)		
Operating lease income	\$	22

The maturities of expected lease payments to be received are as follows:

	Opera	ting Leases
(Dollars in millions)		
Remainder of 2019	\$	57
2020		70
2021		37
2022		25
2023		13
Thereafter		10
Total future lease maturities	\$	212

#### **Disclosures under ASC 840**

As of December 31, 2018, future minimum rental payments required under operating leases and rental receipts expected under operating leases that have noncancellable lease terms in excess of one year were as follows:

	Operating Minimum R	Operating Leases Future Minimum Rental Receipts		
(Dollars in millions)				
2019	\$	170	\$	59
2020		158		48
2021		142		35
2022		126		23
2023		110		10
Thereafter		784		7
Total	\$	1,490	\$	182

#### **Note 9 Variable Interest Entities**

#### **Consolidated VIEs**

TDS consolidates VIEs in which it has a controlling financial interest as defined by GAAP and is therefore deemed the primary beneficiary. A controlling financial interest will have both of the following characteristics: (a) the power to direct the VIE activities that most significantly impact economic performance; and (b) the obligation to absorb the VIE losses and the right to receive benefits that are significant to the VIE. TDS reviews these criteria initially at the time it enters into agreements and subsequently when events warranting reconsideration occur. These VIEs have risks similar to those described in the "Risk Factors" in TDS' Form 10-K for the year ended December 31, 2018.

During 2017, U.S. Cellular formed USCC EIP LLC (Seller/Sub-Servicer), USCC Receivables Funding LLC (Transferor) and the USCC Master Note Trust (Trust), collectively the special purpose entities (SPEs), to facilitate a securitized borrowing using its equipment installment plan receivables. Under a Receivables Sale Agreement, U.S. Cellular wholly-owned, majority-owned and unconsolidated entities, collectively referred to as "affiliated entities", transfers device equipment installment plan contracts to the Seller/Sub-Servicer. The Seller/Sub-Servicer aggregates device equipment installment plan contracts, and performs servicing, collection and all other administrative activities related to accounting for the equipment installment plan contracts. The Seller/Sub-Servicer sells the eligible equipment installment plan receivables to the Transferor, a bankruptcy remote entity, which subsequently sells the receivables to the Trust. The Trust, which is bankruptcy remote and isolated from the creditors of U.S. Cellular, will be responsible for issuing asset-backed variable funding notes (Notes), which are collateralized by the equipment installment plan receivables owned by the Trust. Given that U.S. Cellular has the power to direct the activities of these SPEs, and that these SPEs lack sufficient equity to finance their activities, U.S. Cellular is deemed to have a controlling financial interest in the SPEs and, therefore, consolidates them. All transactions with third parties (e.g., issuance of the asset-backed variable funding notes) will be accounted for as a secured borrowing due to the pledging of equipment installment plan contracts as collateral, significant continuing involvement in the transferred assets, subordinated interests of the cash flows, and continued evidence of control of the receivables.

The following VIEs were formed to participate in FCC auctions of wireless spectrum and to fund, establish, and provide wireless service with respect to any FCC licenses won in the auctions:

- Advantage Spectrum, L.P. (Advantage Spectrum) and Sunshine Spectrum, Inc., the general partner of Advantage Spectrum; and
- King Street Wireless, L.P. (King Street Wireless) and King Street Wireless, Inc., the general partner of King Street Wireless.

These particular VIEs are collectively referred to as designated entities. The power to direct the activities that most significantly impact the economic performance of these VIEs is shared. Specifically, the general partner of these VIEs has the exclusive right to manage, operate and control the limited partnerships and make all decisions to carry on the business of the partnerships. The general partner of each partnership needs the consent of the limited partner, an indirect TDS subsidiary, to sell or lease certain licenses, to make certain large expenditures, admit other partners or liquidate the limited partnerships. Although the power to direct the activities of these VIEs is shared, TDS has the most significant level of exposure to the variability associated with the economic performance of the VIEs, indicating that TDS is the primary beneficiary of the VIEs. Therefore, in accordance with GAAP, these VIEs are consolidated.

TDS also consolidates other VIEs that are limited partnerships that provide wireless service. A limited partnership is a variable interest entity unless the limited partners hold substantive participating rights or kick-out rights over the general partner. For certain limited partnerships, U.S. Cellular is the general partner and manages the operations. In these partnerships, the limited partners do not have substantive kick-out or participating rights and, further, such limited partners do not have the authority to remove the general partner. Therefore, these limited partnerships are also recognized as VIEs and are consolidated under the variable interest model.

The following table presents the classification and balances of the consolidated VIEs' assets and liabilities in TDS' Consolidated Balance Sheet.

March 31, 2019		December 31, 2018		
\$	8	\$	9	
	17		17	
	617		609	
	4		5	
	5		5	
	647		647	
	85		88	
	37		_	
	338		347	
\$	1,758	\$	1,727	
\$	34	\$	31	
	34		_	
	12		15	
\$	80	\$	46	
	\$	\$ 8 17 617 4 5 647 85 37 338 \$ 1,758	\$ 8 \$ 17 617 4 5 5 647 85 37 338 \$ 1,758 \$ \$ 34 \$ 34 12	

#### **Unconsolidated VIEs**

TDS manages the operations of and holds a variable interest in certain other limited partnerships, but is not the primary beneficiary of these entities and, therefore, does not consolidate them under the variable interest model.

TDS' total investment in these unconsolidated entities was \$4 million at both March 31, 2019 and December 31, 2018, and is included in Investments in unconsolidated entities in TDS' Consolidated Balance Sheet. The maximum exposure from unconsolidated VIEs is limited to the investment held by TDS in those entities.

#### **Other Related Matters**

TDS made contributions, loans and/or advances to its VIEs totaling \$183 million and \$19 million , during the three months ended March 31, 2019 and 2018 , respectively; of which \$168 million in 2019 and \$10 million in 2018 , are related to USCC EIP LLC as discussed above. TDS may agree to make additional capital contributions and/or advances to these or other VIEs and/or to their general partners to provide additional funding for operations or the development of licenses granted in various auctions. TDS may finance such amounts with a combination of cash on hand, borrowings under its revolving credit agreement and/or other long-term debt. There is no assurance that TDS will be able to obtain additional financing on commercially reasonable terms or at all to provide such financial support.

The limited partnership agreements of Advantage Spectrum and King Street Wireless also provide the general partner with a put option whereby the general partner may require the limited partner, a subsidiary of U.S. Cellular, to purchase its interest in the limited partnership. The general partner's put options related to its interests in King Street Wireless will become exercisable in 2019. The general partner's put options related to its interest in Advantage Spectrum will become exercisable in 2021 and 2022. The greater of the carrying value of the general partner's investment or the value of the put option, net of any borrowings due to TDS, is recorded as Noncontrolling interests with redemption features in TDS' Consolidated Balance Sheet. Also in accordance with GAAP, minority share of income or changes in the redemption value of the put options, net of interest accrued on the loans, are recorded as a component of Net income attributable to noncontrolling interests, net of tax, in TDS' Consolidated Statement of Operations.

During the first quarter of 2018, TDS recorded an out-of-period adjustment attributable to 2016 and 2017 due to errors in the application of accounting guidance applicable to the calculation of Noncontrolling interests with redemption features related to King Street Wireless, Inc. This out-of-period adjustment had the impact of increasing Net income attributable to noncontrolling interests, net of tax, by \$6 million and decreasing Net income attributable to TDS shareholders by \$6 million for the three months ended March 31, 2018. TDS determined that this adjustment was not material to any of the periods impacted.

## Note 10 Noncontrolling Interests

The following schedule discloses the effects of Net income attributable to TDS shareholders and changes in TDS' ownership interest in U.S. Cellular on TDS' equity:

Three Months Ended March 31,	2019	2018	
(Dollars in millions)			
Net income attributable to TDS shareholders	\$ 59	\$ 39	)
Transfers to noncontrolling interests			
Change in TDS' Capital in excess of par value from U.S. Cellular's issuance of U.S. Cellular shares	(2)	(2	2)
Change in TDS' Capital in excess of par value from U.S. Cellular's repurchases of U.S. Cellular shares	_	_	_
Purchase of ownership in subsidiaries from noncontrolling interests	_	_	-
Net transfers to noncontrolling interests	(2)	(2	2)
Change from net income attributable to TDS and transfers to noncontrolling interests	\$ 57	\$ 37	7

## **Note 11 Business Segment Information**

U.S. Cellular and TDS Telecom are billed for services they receive from TDS, consisting primarily of information processing, accounting and finance, and general management services. Such billings are based on expenses specifically identified to U.S. Cellular and TDS Telecom and on allocations of common expenses. Management believes the method used to allocate common expenses is reasonable and that all expenses and costs applicable to U.S. Cellular and TDS Telecom are reflected in the accompanying business segment information on a basis that is representative of what they would have been if U.S. Cellular and TDS Telecom operated on a stand-alone basis.

Financial data for TDS' reportable segments for the three month periods ended, or as of March 31, 2019 and 2018, is as follows. See Note 1 — Basis of Presentation for additional information.

			TDS Telecom							
Three Months Ended or as of March 31, 2019	U.S	. Cellular	Wireline			TDS Telecom able Total <sup>1</sup>		Corporate, Eliminations and Other		Total
(Dollars in millions)										
Operating revenues										
Service	\$	741	\$ 170	\$	60	\$	230	\$	24	\$ 995
Equipment and product sales		225	_						37	262
Total operating revenues		966	171		60		230		61	1,257
Cost of services (excluding Depreciation, amortization and accretion reported below)		176	63		26		88		20	284
Cost of equipment and products		233	_		_		_		31	264
Selling, general and administrative		326	47		14		61		10	397
Depreciation, amortization and accretion		169	34		17		50		8	227
(Gain) loss on asset disposals, net		2	(7)		_		(7)		_	(5)
(Gain) loss sale of business and other exit costs, net		(2)	_		_		_		_	(2)
(Gain) loss on license sales and exchanges, net		(2)	 _		_					 (2)
Operating income (loss)		64	34		2		37		(7)	94
Equity in earnings of unconsolidated entities		44	_		_		_		_	44
Interest and dividend income		6	3		_		3		_	9
Interest expense		(29)	1		_		_		(14)	(43)
Other, net		_	_							 
Income (loss) before income taxes		85	 38		3		40		(21)	104
Income tax expense (benefit) <sup>2</sup>		27					10		(3)	 34
Net income (loss)		58					31		(19)	 70
Add back:										
Depreciation, amortization and accretion		169	34		17		50		8	227
(Gain) loss on asset disposals, net		2	(7)		_		(7)		_	(5)
(Gain) loss sale of business and other exit costs, net		(2)	_		_		_		_	(2)
(Gain) loss on license sales and exchanges, net		(2)	_		_		_		_	(2)
Interest expense		29	(1)		_		_		14	43
Income tax expense (benefit) <sup>2</sup>		27					10		(3)	34
Adjusted EBITDA <sup>3</sup>	\$	281	\$ 63	\$	20	\$	83	\$	1	\$ 365
Investments in unconsolidated entities	\$	468	\$ 4	\$	_	\$	4	\$	35	\$ 507
Total assets	\$	8,229	\$ 1,353	\$	641	\$	1,986	\$	572	\$ 10,787
Capital expenditures	\$	102	\$ 29	\$	13	\$	42	\$	3	\$ 147

Numbers may not foot due to rounding.

TDS To	elecom
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Three Months Ended or as of March 31, 2018	U.S. Cellular		Wireline		Cable		TDS Telecom Total <sup>1</sup>		Corporate, Eliminations and Other		Total
(Dollars in millions)											
Operating revenues											
Service	\$	724	\$	175	\$ 55	\$	230	\$	24	\$	978
Equipment and product sales		218		_	_		_		29		247
Total operating revenues		942		175	55		231		52		1,225
Cost of services (excluding Depreciation, amortization and accretion reported below)		179		65	26		90		19		288
Cost of equipment and products		219		_	_		_		27		246
Selling, general and administrative		326		47	13		60		9		395
Depreciation, amortization and accretion		159		37	17		54		8		221
(Gain) loss on asset disposals, net		1		_	_		_		1		2
(Gain) loss on license sales and exchanges, net		(7)			 						(7)
Operating income (loss)		65		26	(1)		25		(10)		80
Equity in earnings of unconsolidated entities		38		_	_		_		_		38
Interest and dividend income		4		1	_		1		_		5
Interest expense		(29)		_	_		_		(14)		(43)
Other, net		(1)		1	_		1		1		1
Income (loss) before income taxes		77		28	(1)		27		(23)		81
Income tax expense (benefit) <sup>2</sup>		22					6		(4)		24
Net income (loss)		55					21		(19)		57
Add back:											
Depreciation, amortization and accretion		159		37	17		54		8		221
(Gain) loss on asset disposals, net		1		_	_		_		1		2
(Gain) loss on license sales and exchanges, net		(7)		_	_		_		_		(7)
Interest expense		29		_	_		_		14		43
Income tax expense (benefit) <sup>2</sup>		22					6		(4)		24
Adjusted EBITDA <sup>3</sup>	\$	259	\$	65	\$ 16	\$	81	\$		\$	340
Investments in unconsolidated entities	\$	450	\$	4	\$ _	\$	4	\$	34	\$	488
Total assets	\$	7,048	\$	1,264	\$ 644	\$	1,901	\$	532	\$	9,481
Capital expenditures	\$	70	\$	29	\$ 11	\$	40	\$	5	\$	115

Numbers may not foot due to rounding.

- 1 TDS Telecom Total includes eliminations between the Wireline and Cable segments.
- 2 Income tax expense (benefit) is not provided at the individual segment level for Wireline and Cable. TDS calculates income tax expense for "TDS Telecom Total".
- Adjusted earnings before interest, taxes, depreciation, amortization and accretion (Adjusted EBITDA) is a segment measure reported to the chief operating decision maker for purposes of making decisions about allocating resources to the segments and assessing their performance. Adjusted EBITDA is defined as net income, adjusted for the items set forth in the reconciliation above. TDS believes Adjusted EBITDA is a useful measure of TDS' operating results before significant recurring non-cash charges, gains and losses, and other items as presented above as they provide additional relevant and useful information to investors and other users of TDS' financial data in evaluating the effectiveness of its operations and underlying business trends in a manner that is consistent with management's evaluation of business performance.

# Telephone and Data Systems, Inc. Additional Required Information

#### **Controls and Procedures**

#### **Evaluation of Disclosure Controls and Procedures**

TDS maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)) that are designed to ensure that information required to be disclosed in its reports filed or submitted under the Exchange Act is processed, recorded, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to TDS' management, including its principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives.

As required by SEC Rules 13a-15(b), TDS carried out an evaluation, under the supervision and with the participation of management, including its principal executive officer and principal financial officer, of the effectiveness of the design and operation of TDS' disclosure controls and procedures as of the end of the period covered by this Quarterly Report. Based on this evaluation, TDS' principal executive officer and principal financial officer concluded that TDS' disclosure controls and procedures were effective as of March 31, 2019, at the reasonable assurance level.

#### **Changes in Internal Control Over Financial Reporting**

There have been no changes in internal controls over financial reporting that have occurred during the three months ended March 31, 2019, that have materially affected, or are reasonably likely to materially affect, TDS' internal control over financial reporting, except as follows: TDS implemented internal controls to ensure that, upon adoption of the new lease accounting standard codified in ASC 842, effective January 1, 2019, and for all periods thereafter, the financial statements will be presented in accordance with this new accounting standard.

### **Legal Proceedings**

The United States Department of Justice (DOJ) has notified TDS, that it is conducting inquiries of U.S. Cellular and TDS under the federal False Claims Act. The DOJ is investigating U.S. Cellular's participation in spectrum auctions 58, 66, 73 and 97 conducted by the FCC. U.S. Cellular is a limited partner in several limited partnerships which qualified for the 25% bid credit in each auction. TDS and U.S. Cellular are cooperating with the DOJ's review. TDS and U.S. Cellular believe that U.S. Cellular's arrangements with the limited partnerships and the limited partnerships' participation in the FCC auctions complied with applicable law and FCC rules. At this time, TDS cannot predict the outcome of this review.

Refer to the disclosure under Legal Proceedings in TDS' Form 10-K for the year ended December 31, 2018, for additional information. There have been no material changes to such information since December 31, 2018.

### **Unregistered Sales of Equity Securities and Use of Proceeds**

On August 2, 2013, the Board of Directors of TDS authorized, and TDS announced by Form 8-K, a \$250 million stock repurchase program for TDS Common Shares. Depending on market conditions, such shares may be repurchased in compliance with Rule 10b-18 of the Exchange Act, pursuant to Rule 10b5-1 under the Exchange Act, or pursuant to accelerated share repurchase arrangements, prepaid share repurchases, private transactions or as otherwise authorized. This authorization does not have an expiration date. TDS did not determine to terminate the foregoing Common Share repurchase program, or cease making further purchases thereunder, during the first quarter of 2019.

The maximum dollar value of shares that may yet be purchased under this program was \$ 199 million as of March 31, 2019. There were no purchases made by or on behalf of TDS, and no open market purchases made by any "affiliated purchaser" (as defined by the SEC) of TDS, of TDS Common Shares during the quarter covered by this Form 10-Q.

### **Other Information**

The following information is being provided to update prior disclosures made pursuant to the requirements of Form 8-K, Item 2.03 — Creation of a Direct Financial Obligation or an Obligation Under an Off-Balance Sheet Arrangement of a Registrant.

Neither TDS nor U.S. Cellular borrowed or repaid any cash amounts under their revolving credit agreements in the first quarter of 2019 or through the filing date of this Form 10-Q, and had no cash borrowings outstanding under their revolving credit agreements as of March 31, 2019, or as of the filing date of this Form 10-Q.

Further, U.S. Cellular did not borrow or repay any cash amounts under its receivables securitization agreement in the first quarter of 2019 or through the filing date of this Form 10-Q, and had no cash borrowings outstanding under its receivables securitization agreement as of March 31, 2019, or as of the filing date of this Form 10-Q.

### **Exhibits**

Exhibit Number	Description of Documents
Exhibit 4.1	Third Amendment to Amended and Restated Term Loan Credit Agreement, among U.S. Cellular, CoBank, ACB, as administrative agent, and the other lenders thereto, dated as of March 14, 2019, is hereby incorporated by reference to Exhibit 4.1 to U.S. Cellular's Current Report on Form 10-Q for the period ended March 31, 2019.
Exhibit 10.1	TDS 2019 Officer Bonus Program is hereby incorporated by reference to Exhibit 10.1 to TDS' Current Report on Form 8-K dated March 12, 2019.
Exhibit 10.2	Form of 2019 TDS Performance Share Award Agreement is hereby incorporated by reference to Exhibit 10.2 to TDS' Current Report on Form 8-K dated March 12, 2019.
Exhibit 10.3	Form of U.S. Cellular 2013 Long-Term Incentive Plan 2019 Performance Award Agreement for the President and CEO of U.S. Cellular is hereby incorporated by reference to Exhibit 10.2 to U.S. Cellular's Current Report on Form 8-K dated March 12, 2019.
Exhibit 31.1	Principal executive officer certification pursuant to Rule 13a-14 of the Securities Exchange Act of 1934.
Exhibit 31.2	Principal financial officer certification pursuant to Rule 13a-14 of the Securities Exchange Act of 1934.
Exhibit 32.1	Principal executive officer certification pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code.
Exhibit 32.2	Principal financial officer certification pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code.
Exhibit 101.INS	XBRL Instance Document
Exhibit 101.SCH	XBRL Taxonomy Extension Schema Document
Exhibit 101.PRE	XBRL Taxonomy Presentation Linkbase Document
Exhibit 101.CAL	XBRL Taxonomy Calculation Linkbase Document
Exhibit 101.LAB	XBRL Taxonomy Label Linkbase Document
Exhibit 101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

The foregoing exhibits include only the exhibits that relate specifically to this Form 10-Q or that supplement the exhibits identified in <u>TDS' Form 10-K for the year ended December 31, 2018</u>. Reference is made to TDS' Form 10-K for the year ended December 31, 2018, for a complete list of exhibits, which are incorporated herein except to the extent supplemented or superseded above.

## Form 10-Q Cross Reference Index

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#### **SIGNATURES**

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

	TELEPHONE AND DATA SYSTEMS, INC.							
	(Registrant)							
Date:	May 2, 2019		/s/ LeRoy T. Carlson, Jr.					
			LeRoy T. Carlson, Jr. President and Chief Executive Officer (principal executive officer)					
Date:	May 2, 2019		/s/ Douglas W. Chambers					
			Douglas W. Chambers Senior Vice President - Finance and Chief Accounting Officer (principal financial officer and principal accounting officer)					
Date:	May 2, 2019		/s/ Anita J. Kroll					
			Anita J. Kroll Vice President and Controller					

#### Certification of principal executive officer

I, LeRoy T. Carlson, Jr., certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Telephone and Data Systems, 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure
    that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities,
    particularly during the period in which this report is being prepared;
  - designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 2, 2019

/s/ LeRoy T. Carlson, Jr.

LeRoy T. Carlson, Jr.
President and Chief Executive Officer
(principal executive officer)

#### Certification of principal financial officer

- I, Douglas W. Chambers, certify that:
- 1. I have reviewed this quarterly report on Form 10-Q of Telephone and Data Systems, 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure
    that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities,
    particularly during the period in which this report is being prepared;
  - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 2, 2019

/s/ Douglas W. Chambers

Douglas W. Chambers Senior Vice President - Finance and Chief Accounting Officer (principal financial officer and principal accounting officer)

# Certification Pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code

I, LeRoy T. Carlson, Jr., the principal executive officer of Telephone and Data Systems, Inc., certify that (i) the quarterly report on Form 10-Q for the first quarter of 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Telephone and Data Systems, Inc.

/s/ LeRoy T. Carlson, Jr. LeRoy T. Carlson, Jr.

May 2, 2019

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Telephone and Data Systems, Inc. and will be retained by Telephone and Data Systems, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

# Certification Pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code

I, Douglas W. Chambers, the principal financial officer of Telephone and Data Systems, Inc., certify that (i) the quarterly report on Form 10-Q for the first quarter of 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Telephone and Data Systems, Inc.

/s/ Douglas W. Chambers
Douglas W. Chambers
May 2, 2019

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Telephone and Data Systems, Inc. and will be retained by Telephone and Data Systems, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.