

QUINN EMANUEL URQUHART & SULLIVAN, LLP

Susheel Kirpalani
Benjamin I. Finestone
David Cooper
Anil Makhijani
51 Madison Avenue, 22nd Floor
New York, New York 10010
Telephone: (212) 849-7000
Telecopier: (212) 849-7100

THOMPSON COBURN LLP

Brian Hockett (*pro hac vice*)
One US Bank Plaza
St. Louis, MO 63101
Telephone: (314) 552-6000
Facsimile: (314) 552-7000

*Counsel for Defendants-Appellants
Charter Communications, Inc. and
Charter Communications Operating, LLC*

**IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

)	
In re:)	Chapter 11
)	
WINDSTREAM FINANCE, CORP., <i>et al.</i> ,)	Case No. 19-22397 (RDD)
)	
Debtors.)	(Formerly Jointly Administered
)	under Lead Case Windstream
)	Holdings, Inc., 19-22312)
)	
WINDSTREAM HOLDINGS, INC., <i>et al.</i> ,)	
)	
Plaintiffs,)	Adv. Pro. No. 19-08246
)	
vs.)	
)	
CHARTER COMMUNICATIONS, INC.)	
and CHARTER COMMUNICATIONS)	
OPERATING, LLC,)	Related Case Nos.
)	19-cv-09354
Defendants.)	
)	



DEFENDANTS-APPELLANTS' NOTICE OF FILING ATTACHMENTS

Defendants Charter Communications, Inc. and Charter Communications Operating, LLC (“Defendants-Appellants”), by and through their undersigned counsel, hereby file attachments to their Designation of the Record and Statement of Issues to be Presented on Appeal filed with the Court on May 13, 2021. Due to the Court’s document size limitations, it is necessary to file these attachments separately.

Dated: May 13, 2021

Respectfully submitted,

THOMPSON COBURN LLP

By /s/ Brian Hockett

Brian Hockett (pro hac vice)
One U.S. Bank Plaza, Suite 2700
St. Louis, MO 63101
314-552-6000
314-552-7000 (fax)
bhockett@thompsoncoburn.com

QUINN EMANUEL URQUHART &
SULLIVAN, LLP
Susheel Kirpalani
51 Madison Avenue, 22nd Floor
New York, NY 10010
(212) 849-7000
susheelkirpalani@quinnemanuel.com

*Counsel for Defendants-Appellants Charter
Communications, Inc. and Charter Communications
Operating, LLC*

CERTIFICATE OF SERVICE

I hereby certify that on this 13th day of May, 2021, I served a copy of the foregoing ***Defendants-Appellants' Notice of Filing Attachments*** via operation of the Court's Electronic Filing System upon all counsel of record in the adversary proceeding.

/s/ Brian Hockett

2. Summary of Significant Accounting Policies and Changes, Continued:

Share-Based Compensation— In accordance with authoritative guidance on share-based compensation, we measure compensation expense for all stock option and restricted stock awards at fair value on the date of the grant and recognize compensation expense over the requisite service period for awards expected to vest. We estimate the fair value of stock options using the Black-Scholes valuation model and determine the fair value of restricted stock awards based on the grant date quoted market price of Windstream Holdings' common stock. Fair value of stock options and time-based restricted stock awards is recognized as compensation expense, net of estimated forfeitures, on a straight-line basis over the period that each award vests. For accounting purposes, performance-based awards are valued at fair value on the date on which the performance targets are set. Share-based compensation expense for performance-based awards is recognized when it is probable and estimable that the performance metrics will be achieved. Share-based compensation expense is included in cost of services and selling, general and administrative expenses in the accompanying consolidated statements of operations. See Note 10 for additional information regarding stock option, restricted stock and restricted unit activity.

Pension Benefits— We recognize changes in the fair value of plan assets and actuarial gains and losses due to actual experience differing from actuarial assumptions, as a component of net periodic benefit (income) expense in the fourth quarter in the year in which the gains and losses occur, and if applicable in any quarter in which an interim remeasurement is required. The remaining components of net periodic benefit (income) expense, primarily benefits earned, interest cost and expected return on plan assets, are recognized ratably on a quarterly basis. See Note 9 for additional information regarding actuarial assumptions, net periodic benefit (income) expense, projected benefit obligation, plans assets, future contributions and payments.

Operating Leases— Certain of our operating lease agreements include scheduled rent escalations during the initial lease term and/or during succeeding optional renewal periods. We account for these operating leases in accordance with authoritative guidance for operating leases with non-level rent payments. Accordingly, the scheduled increases in rent expense are recognized on a straight-line basis over the initial lease term and those renewal periods that are reasonably assured. The difference between rent expense and rent paid is recorded as deferred rent and is included in other liabilities in the accompanying consolidated balance sheets.

Leasehold improvements are amortized over the shorter of the estimated useful life of the asset or the lease term, including renewal option periods that are reasonably assured.

See Note 17 for our minimum rental commitments for non-cancellable operating leases and related rental expense.

Asset Disposal— In December 2018, we entered into an agreement to sell certain fiber assets in Minnesota to Avrig Enterprises Inc. for cash proceeds of \$45.8 million and concurrently entered into a 20 -year IRU agreement to continue to use a portion of the sold fiber assets at no cost. We accounted for the transaction as a financing due to our continuing involvement in the fiber assets.

Income Taxes— We account for income taxes in accordance with guidance on accounting for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax balances are adjusted to reflect tax rates based on currently enacted tax laws, which will be in effect in the years in which the temporary differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period of the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that such assets will be realized. We account for uncertain tax positions in accordance with authoritative guidance which prescribes a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. Our evaluations of tax positions consider various factors including, but not limited to, changes in tax law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, information obtained during in process audit activities and changes in facts or circumstances related to a tax position. We also accrue for potential interest and penalties related to unrecognized tax benefits in income tax expense (benefit).

Windstream Holdings and its domestic subsidiaries, including Windstream Services, file a consolidated federal income tax return. As such, Windstream Services and its subsidiaries are not separate taxable entities for federal and certain state income tax purposes. In instances when Windstream Services does not file a separate return, income taxes as presented within the accompanying consolidated financial statements attribute current and deferred income taxes of Windstream Holdings to Windstream Services and its subsidiaries in a manner that is systematic, rational and consistent with the asset and liability method. Income tax provisions presented for Windstream Services and its subsidiaries are prepared under the "separate return method." The separate return method represents a hypothetical computation assuming that the reported revenue and expenses of Windstream Services and its subsidiaries were incurred by separate taxable entities. See Note 16 for additional information.

2. Summary of Significant Accounting Policies and Changes, Continued:

Loss Per Share — We compute basic (loss) earnings per share by dividing net (loss) income applicable to common shares by the weighted average number of common shares outstanding during each period. Our non-vested restricted shares containing a non-forfeitable right to receive dividends on a one-to-one per share ratio to common shares are considered participating securities, and the impact is included in the computation of (loss) earnings per share pursuant to the two-class method. Calculations of (loss) earnings per share under the two-class method exclude from the numerator any dividends paid or owed on participating securities and any undistributed earnings considered to be attributable to participating securities. The related participating securities are similarly excluded from the denominator. Commencing in the third quarter of 2017, we eliminated our quarterly common stock dividend.

Diluted (loss) earnings per share reflects the potential dilution that could occur if securities or other contracts to issue common stock, including restricted stock units, stock options and warrants, were exercised or converted into common stock. The dilutive effect of outstanding restricted stock units, stock options and warrants is reflected in diluted earnings per share by application of the treasury stock method. In applying the treasury stock method for stock-based compensation arrangements, the assumed proceeds are computed as the sum of the amount the employee must pay upon exercise plus the amount of compensation cost attributed to future services.

We also issue performance-based restricted stock units as part of our share-based compensation plan. Certain of these restricted stock units contain a forfeitable right to receive dividends. Because dividends attributable to these shares are forfeited if the vesting provisions are not met, they are considered non-participating restricted shares and are not considered to be potentially dilutive under the two-class method until the performance conditions have been satisfied.

A reconciliation of net loss and number of shares used in computing basic and diluted loss per share was as follows for the years ended December 31:

(Millions, except per share amounts)	2018	2017	2016
Basic and diluted loss per share:			
Numerator:			
Net loss	\$ (723.0)	\$ (2,116.6)	\$ (383.5)
Income allocable to participating securities	—	(1.3)	(2.5)
Net loss attributable to common shares	\$ (723.0)	\$ (2,117.9)	\$ (386.0)
Denominator:			
Basic and diluted shares outstanding			
Weighted average shares outstanding	40.8	34.5	19.8
Weighted average participating securities	—	(0.7)	(1.0)
Weighted average basic and diluted shares outstanding	40.8	33.8	18.8
Basic and diluted loss per share:			
Net loss	(\$17.72)	(\$62.66)	(\$20.53)

We have excluded from the computation of diluted shares the effect of restricted stock units and options to purchase shares of our common stock because their inclusion would have an anti-dilutive effect due to our reported net losses for the years ended December 31, 2018, 2017, and 2016. We had 0.4 million restricted stock units and 1.0 million stock options outstanding as of December 31, 2018, compared to 0.8 million restricted stock units and less than 0.1 million stock options outstanding at December 31, 2017. We had 0.3 million restricted stock units and 0.1 million stock options outstanding as of December 31, 2016.

Change in Accounting Estimate — The calculation of depreciation and amortization expense is based on the estimated economic useful lives of the underlying property, plant and equipment and finite-lived intangible assets. We periodically obtain updated depreciation studies to evaluate whether certain useful lives remain appropriate in accordance with authoritative guidance. With the assistance of a third-party valuation advisor, we completed analyses of the depreciable lives of assets held for use of certain subsidiaries during 2016. Based on the results of the analyses, we implemented new depreciation rates in the fourth quarter of 2016, the effects of which resulted in an increase to depreciation expense. Additionally, in the fourth quarter of 2016, we reassessed the estimated useful lives of certain fiber assets, extending the useful life of such assets from 20 to 25 years. The net impact of these changes resulted in increases to depreciation expense of \$35.3 million and \$8.8 million for the years ended December 31, 2017 and 2016, respectively, which increased our reported net loss by \$22.2 million and \$5.4 million or \$.66 and \$.29 per share for the years ended December 31, 2017 and 2016, respectively.

2. Summary of Significant Accounting Policies and Changes, Continued:

Recently Adopted Accounting Standards

Revenue Recognition— In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (Topic 606) as modified by subsequently issued ASU Nos. 2015-14, 2016-08, 2016-10, 2016-11, 2016-12 and 2016-20 (collectively “ASU 2014-09”). The core principle of the revenue model is that an entity should recognize revenue for the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to receive for those goods or services. ASU 2014-09 also provided new accounting principles related to the deferral and amortization of contract acquisition and fulfillment costs.

On January 1, 2018, we adopted ASU 2014-09 using the modified retrospective transition method applied to those contracts which were not complete as of January 1, 2018. Under the modified retrospective transition method, we recognized the cumulative effect of initial adoption as an adjustment to our opening accumulated deficit balance. Comparative information for prior periods has not been restated and continues to be reported under the accounting standards in effect for those periods.

Under the new revenue recognition guidance, a substantial portion of our service revenues continue to be recognized when services are provided. Changes to the timing of recognition of certain installation services, discounts and promotional credits given to customers under the new guidance resulted in the recognition of incremental contract assets and liabilities in our consolidated balance sheet at the date of adoption. In addition, the new requirement to defer incremental contract acquisition and fulfillment costs, including sales commissions and installation costs, and recognize such costs over the period where control of goods and services are transferred resulted in the recognition of additional deferred contract costs in our consolidated balance sheet at the date of adoption. We evaluated the effect of the time value of money and determined it to be immaterial.

The following table presents the cumulative effect of the changes made to our consolidated balance sheet at December 31, 2017:

(Millions)	December 31, 2017	ASU 2014-09 Adjustments	January 1, 2018
Assets			
Accounts receivable	\$ 643.0	\$ —	\$ 643.0
Prepaid expenses and other	\$ 154.3	\$ 26.0	\$ 180.3
Other assets	\$ 91.2	\$ 20.9	\$ 112.1
Deferred income taxes	\$ 370.8	\$ (12.0)	\$ 358.8
Liabilities			
Advance payments and customer deposits	\$ 207.3	\$ (0.5)	\$ 206.8
Other current liabilities	\$ 342.1	\$ (0.3)	\$ 341.8
Other liabilities	\$ 521.9	\$ 0.4	\$ 522.3
Accumulated deficit	\$ (2,512.2)	\$ 35.3	\$ (2,476.9)

The impact of adoption of ASU 2014-09 on our 2018 consolidated statements of operations and consolidated balance sheet are as follows:

(Millions)	Year Ended December 31, 2018		
	Under ASC 605	Effect of Adoption of ASU 2014-09	As reported
Revenue and sales			
Service revenues	\$ 5,635.5	\$ 1.7	\$ 5,637.2
Product sales	\$ 75.9	\$ —	\$ 75.9
Costs and expenses			
Cost of services	\$ 2,853.7	\$ 1.1	\$ 2,854.8
Selling, general and administrative	\$ 891.3	\$ (2.3)	\$ 889.0
Gain on sale of Consumer CLEC business	\$ 146.4	\$ (1.0)	\$ 145.4
Income tax benefit	\$ 448.6	\$ 0.5	\$ 449.1
Net loss	\$ (724.4)	\$ 1.4	\$ (723.0)

2. Summary of Significant Accounting Policies and Changes, Continued:

(Millions)	December 31, 2018		
	Under ASC 605	Effect of Adoption of ASU 2014-09	As reported
Assets			
Accounts receivable	\$ 653.1	\$ —	\$ 653.1
Prepaid expenses and other	\$ 129.9	\$ 29.8	\$ 159.7
Other assets	\$ 76.2	\$ 17.8	\$ 94.0
Liabilities			
Advance payments and customer deposits	\$ 181.6	\$ (1.0)	\$ 180.6
Other current liabilities	\$ 344.2	\$ —	\$ 344.2
Deferred income taxes	\$ 91.9	\$ 12.4	\$ 104.3
Other liabilities	\$ 542.9	\$ (0.5)	\$ 542.4
Accumulated deficit	\$ (3,242.0)	\$ 36.7	\$ (3,205.3)

The new revenue recognition standard also requires additional disclosures related to performance obligations; contract asset and liability balances; deferred commissions and costs to fulfill; disaggregation of revenue and use of practical expedients in applying the new guidance. See Note 8 for additional disclosures.

Statement of Cash Flows.— In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (“ASU 2016-15”). This standard provides guidance on how certain cash receipts and cash payments should be presented and classified in the statement of cash flows, including among others, debt prepayment and extinguishment costs, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims and distributions received from equity method investees. The standard also clarifies that when cash receipts and cash payments have aspects of more than one class of cash flows and cannot be separated, classification will depend on the predominant source or use of the underlying cash flows. ASU 2016-15 is effective for annual and interim reporting periods beginning after December 15, 2017, with early adoption permitted. We adopted this standard effective January 1, 2018. The effect of the retrospective adoption of this standard was to change previously reported amounts within the accompanying consolidated statement of cash flows for the years ended December 31, 2017 and 2016 due to reclassifying \$23.9 million and \$83.4 million , respectively, of debt prepayment penalties and fees paid to lenders in conjunction with the early termination of long-term debt obligations from operating activities to financing activities. Other than this change in classification of debt prepayment penalties and fees, adoption of this standard did not have an impact on our consolidated statement of cash flows.

The following table presents the effect of the changes made to our consolidated statement of cash flows for the year ended December 31, 2017:

(Millions)	As Previously Reported	Reclassification Adjustments	As Revised
Cash Flows from Operating Activities:			
Adjustments to reconcile net loss to net cash provided from operations:			
Noncash portion of net loss on early extinguishment of debt	\$ 36.0	\$ (36.0)	\$ —
Net loss on early extinguishment of debt	\$ —	\$ 56.4	\$ 56.4
Changes in operating assets and liabilities, net:			
Other, net	\$ (32.5)	\$ 3.6	\$ (28.9)
Net cash provided from operating activities	\$ 950.7	\$ 23.9	\$ 974.6
Cash Flows from Financing Activities :			
Repayments of debt and swaps	\$ (2,277.9)	\$ (23.9)	\$ (2,301.8)
Net cash provided from (used in) financing activities	\$ 16.8	\$ (23.9)	\$ (7.1)

2. Summary of Significant Accounting Policies and Changes, Continued:

The following table presents the effect of the changes made to our consolidated statement of cash flows for the year ended December 31, 2016:

(Millions)	As Previously Reported	Reclassification Adjustments	As Revised
Cash Flows from Operating Activities:			
Adjustments to reconcile net loss to net cash provided from operations:			
Noncash portion of net loss on early extinguishment of debt	\$ (51.9)	\$ 51.9	\$ —
Net loss on early extinguishment of debt	\$ —	\$ 18.0	\$ 18.0
Changes in operating assets and liabilities, net:			
Other, net	\$ (3.4)	\$ 13.5	\$ 10.1
Net cash provided from operating activities	\$ 924.4	\$ 83.4	\$ 1,007.8
Cash Flows from Financing Activities :			
Repayments of debt and swaps	\$ (3,263.7)	\$ (83.4)	\$ (3,347.1)
Net cash provided from financing activities	\$ 93.4	\$ (83.4)	\$ 10.0

Definition of a Business — In January 2017, the FASB issued ASU No. 2017-01, Business Combinations (Topic 805), Clarifying the Definition of a Business (“ASU 2017-01”). The standard clarifies the definition of a business when evaluating whether transactions should be accounted for as acquisitions or disposals of assets or businesses. Under the new guidance an integrated set of activities must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output to be considered a business. ASU 2017-01 provides a framework to assist entities in evaluating whether both an input and a substantive process are present and removes the evaluation of whether a market participant could replace missing elements. Although outputs are not required for an integrated set of activities to be a business, outputs generally are a key element of a business; therefore, the new guidance provides more stringent criteria for an integrated sets of activities without outputs. Furthermore, ASU 2017-01 narrows the definition of the term output so that it is consistent with how outputs are described in Topic 606. ASU 2017-01 is effective for annual periods beginning after December 15, 2017, including interim periods within those annual reporting periods. We adopted this standard effective January 1, 2018. Following adoption, we expect fewer transactions will be accounted for as acquisitions or disposals of businesses.

Presentation of Defined Benefit Retirement Costs — In March 2017, the FASB issued ASU No. 2017-07, Compensation-Retirement Benefits (Topic 715) Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost (“ASU 2017-07”). This standard changes the income statement presentation of defined benefit plan expense by requiring separation between operating expense (service cost component) and non-operating expense (all other components, including interest cost, amortization of prior service cost, actuarial gains and losses, curtailments and settlements). The operating expense component will be reported in the same income statement line item(s) as other employee compensation costs arising from services rendered during the period while the non-operating components will be reported in other income and expense. In addition, only the service cost component will be eligible for capitalization as part of an asset such as inventory or property, plant and equipment. Retrospective application of the change in income statement presentation is required, while the change in capitalized benefit cost is to be applied prospectively. The ASU is effective for fiscal years beginning after December 15, 2017. We adopted this standard effective January 1, 2018. The effect of the retrospective adoption of this standard was to change previously reported amounts within the accompanying consolidated statement of operations for the years ended December 31, 2017 and 2016, respectively, for operating income and other expense, net, resulting in increases in operating (loss) income from \$(1,593.5) million to \$(1,590.6) million and from \$515.4 million to \$561.0 million, respectively, with corresponding increases to other (expense) income, net from \$0.6 million to \$(2.3) million and \$21.6 million to \$(24.0) million, respectively. There was no change to our reported net loss for the years ended December 31, 2017 and 2016. The impact of only capitalizing service cost on a prospective basis was immaterial to our consolidated financial statements as of and for the years ended December 31, 2018.

2. Summary of Significant Accounting Policies and Changes, Continued:

Hedging Activities – In August 2017, the FASB issued ASU No. 2017-12, Derivatives and Hedging (Topic 815) Targeted Improvements to Accounting for Hedging Activities (“ASU 2017-12”). This standard modifies hedge accounting to allow more hedging strategies to qualify for hedge accounting, amends presentation and disclosure requirements, and changes how entities assess effectiveness of their hedging transactions. ASU 2017-12 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. As permitted, we early adopted this standard effective January 1, 2018. Upon adoption, we recognized a cumulative effect adjustment of \$1.7 million, net of tax, to the opening balance of our accumulated deficit with an offsetting increase to accumulated other comprehensive income. Comparative prior-period information has not been restated. See Note 6 for additional information regarding our hedging activities and derivative instruments.

Reclassification of Certain Deferred Tax Effects – In February 2018, the FASB issued ASU No. 2018-02, Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (“ASU 2018-02”), which allows an entity to reclassify from accumulated other comprehensive income to retained earnings the stranded tax effects resulting from the 2017 Tax Cuts and Jobs Act. The stranded tax effects result from the change in the federal tax rate for deferred taxes recorded in accumulated other comprehensive income. This standard is effective as of January 1, 2019; however, early adoption is permitted. We elected to early adopt ASU 2018-02 effective October 1, 2018. Upon adoption, we recorded a reclassification adjustment resulting in a charge to our accumulated deficit of \$3.7 million, consisting of stranded tax effects related to deferred taxes for our interest rate swaps and pension and postretirement benefit plans, with an offsetting increase to accumulated other comprehensive income.

Fair Value Measurement Disclosures - In August 2018, the FASB issued ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement (“ASU 2018-13”). This standard modifies the disclosure requirements for fair value measurements by removing the requirements to disclose: (i) amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy; (ii) timing of recognizing transfers between levels within the fair value hierarchy; and (iii) valuation processes used for Level 3 fair value measurements. Additionally, the standard now requires disclosure of changes in unrealized gains and losses for the period included in other comprehensive income (loss) for recurring Level 3 fair value measurements held at the end of each reporting period and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. An entity is permitted to early adopt all of the disclosure changes or early adopt only the removed disclosure requirements and delay adoption of the additional disclosures until the effective date of this amendment. As permitted, we early adopted the provisions of ASU 2018-13 that removed certain fair value disclosure requirements and we will adopt the standard’s additional disclosure requirements effective January 1, 2020. Upon adoption, the additional disclosure requirements will not have a material effect on our consolidated financial statements.

Pension and Other Postretirement Plan Disclosures - In August 2018, the FASB issued ASU No. 2018-14, Compensation - Retirement Benefits - Defined Benefit Plans - General (Topic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans (“ASU 2018-14”). This standard modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans by removing the requirements to disclose: (i) amounts in accumulated other comprehensive income (loss) expected to be recognized as components of net periodic benefit cost over the next fiscal year; (ii) amount and timing of plan assets expected to be returned to the employer; and (iii) effects of a one-percentage point change in assumed health care cost trend rates. Additionally, the standard now requires disclosure of an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period. ASU 2018-14 is effective for fiscal years beginning after December 15, 2020, with early adoption permitted. As permitted, we early adopted the provisions of ASU 2018-14 and have modified our pension and other postretirement plan disclosures (see Note 9) to comply with the standard’s modified disclosure requirements. Except for changes to certain disclosures related to our pension and postretirement plans, this standard did not have a material impact on our consolidated financial statements upon adoption.

2. Summary of Significant Accounting Policies and Changes, Continued:

Recently Issued Authoritative Guidance

Leases. - In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) (“ASU 2016-02”), which will require that virtually all lease arrangements that do not meet the criteria of a short-term lease be presented on the lessee’s balance sheet by recording a right-of-use asset and a lease liability equal to the present value of the related future minimum lease payments. The income statement impacts of the leases will depend on the nature of the leasing arrangement and will be similar to existing accounting for operating and capital leases. The new standard does not substantially change the accounting for lessors. However, some changes to the lessor accounting guidance were made to align with lessee accounting changes under Topic 842 and certain key aspects of Topic 606, Revenue from Contracts with Customers. The new standard will also require additional disclosures regarding an entity’s leasing arrangements and will be effective for the first interim reporting period within annual periods beginning after December 15, 2018, although early adoption is permitted.

In July 2018, the FASB issued ASU No. 2018-11, Leases (Topic 842): Targeted Improvements (“ASU 2018-11”). This amendment provides an optional transition method that permits an entity to initially apply the new guidance at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption and not recast comparative periods. If elected, prior period financial statements and disclosures will continue to be presented in accordance with ASC 840. Prior to the issuance of ASU 2018-11, lessees and lessors would have been required to apply the new standard at the beginning of the earliest period presented in the financial statements in which they first apply the new guidance, using a modified retrospective transition method. In addition, ASU 2018-11 also includes a practical expedient for lessors to not separate the lease and nonlease components of a contract. The effective date for this amendment is the same as ASU 2016-02 discussed above.

We will adopt ASU 2016-02 effective January 1, 2019, utilizing the optional transition method available under ASU 2018-11. Our existing operating lease portfolio primarily consists of network, real estate and equipment leases. Upon adoption of this standard, we expect to record in our consolidated balance sheet a right-of-use asset and liability related to substantially all of our operating lease arrangements. Any new lease arrangements or material modifications entered into subsequent to the adoption date will be accounted for in accordance with the new standard. We have established a cross-functional team to determine the scope of arrangements subject to this standard and to implement a new lease accounting system capable of producing the accounting information necessary to meet the standard’s reporting and disclosure requirements. We do not expect the adoption of this standard to have a material impact on our existing capital leases or arrangements in which we are the lessor. We also do not expect the standard to impact our liquidity.

While we are continuing to assess all impacts of the standard, we anticipate this standard will have a material impact to our consolidated balance sheet. Upon adoption, we expect to record additional lease liabilities of approximately \$300.0 million to \$500.0 million attributable to our operating leases based on the present value of the remaining minimum lease payments with an increase to leased assets or right-of-use assets of approximately \$300.0 million to \$500.0 million . Any difference between these amounts will be recorded as an adjustment to our accumulated deficit.

Upon adoption of ASU 2016-02, we also expect to record a cumulative effect adjustment of approximately \$2.8 billion decreasing our accumulated deficit due to reassessing the accounting treatment of our arrangement with Uniti and certain of its subsidiaries. The transaction with Uniti had been accounted for as a failed spin-leaseback financing arrangement for financial reporting purposes due to prohibited continuing involvement. Under the new leasing standard, the previous forms of prohibited continuing involvement no longer preclude the application of spin-leaseback accounting to the spin-off of assets to Uniti by Windstream Services and the lease of those assets by Windstream Holdings. As a result, we will de-recognize the remaining net book value of network assets transferred to Uniti of approximately \$1.3 billion , recognize a right-of-use asset of approximately \$3.8 billion equaling the adjusted Uniti lease liability, which will decrease by \$0.7 billion , and record a deferred tax liability of approximately \$0.5 billion in accordance with the standard’s transition guidance, as this arrangement will now be accounted for as an operating lease.

2. Summary of Significant Accounting Policies and Changes, Continued:

Due to recording the \$2.8 billion cumulative effect adjustment to equity discussed above and the resulting increase in the carrying value of our reporting units, we expect to record a pre-tax goodwill impairment charge of approximately \$1.8 billion to \$1.9 billion in the first quarter of 2019 resulting from the adoption of ASU 2016-02. Of the total impairment charge, we expect to record an impairment of all remaining goodwill in our Consumer & Small Business reporting unit of \$903.4 million, an impairment of goodwill in our Enterprise reporting unit of approximately \$600.0 million and an impairment of goodwill in our Wholesale reporting unit of approximately \$300.0 million, representing the excess of the carrying value from each reporting unit's fair value. No other long-lived assets are expected to be impaired. Beginning in 2019, our consolidated results of operations will also reflect an increase to cost of services for the annual straight-line rent expense attributable to the Uniti lease of approximately \$675.0 million, a decrease in depreciation expense from de-recognizing the remaining net book value of network assets transferred to Uniti and a decrease in interest expense due to no longer accounting for the Uniti lease as a failed spin-leaseback financing arrangement. As a result of this accounting change, our consolidated statement of cash flows will also reflect a reclassification of the principal portion of the cash rental payments made to Uniti from financing outflows to operating outflows and a reduction in cash paid for interest.

Financial Instruments - Credit Losses – In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (“ASU 2016-13”). This standard introduces a new forward-looking approach, based on expected losses, to estimate credit losses on certain types of financial instruments, including trade receivables. The estimate of expected credit losses will require entities to incorporate considerations of historical information, current information and reasonable and supportable forecasts. This new standard also expands the disclosure requirements to enable users of financial statements to understand the entity's assumptions, models and methods for estimating expected credit losses. ASU 2016-13 is effective for annual and interim reporting periods beginning after December 15, 2019, and the guidance is to be applied using a modified retrospective transition approach. Early adoption is permitted for annual and interim reporting periods beginning after December 15, 2018. We are currently assessing the timing of adoption and the impact the new standard will have on our consolidated financial statements.

Implementation Costs in Cloud Computing Arrangements - In August 2018, the FASB issued ASU No. 2018-15, Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (“ASU 2018-15”). This standard requires entities that are customers in cloud computing arrangements to defer implementation costs if they would be capitalized by the entity in software licensing arrangements under the internal-use software guidance. The service element of a hosting arrangement will continue to be expensed as incurred. The guidance may be applied retrospectively or prospectively to implementation costs incurred after the date of adoption. ASU 2018-15 is effective for annual and interim reporting periods beginning after December 15, 2019, with early adoption permitted. We are currently assessing the timing of adoption and the impact the new standard will have on our consolidated financial statements.

Derivatives and Hedging - Change in Benchmark Interest Rate - In October 2018, the FASB issued ASU No. 2018-16, Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (“SOFR”) Overnight Index Swap (“OIS”) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes (“ASU 2018-16”). This standard adds the OIS rate based on SOFR as an eligible benchmark interest rate for purposes of applying hedge accounting. SOFR is the preferred alternative reference rate to the London Interbank Offered Rate (“LIBOR”). Because we early adopted ASU 2017-12 on January 1, 2018, this standard will be effective for us on January 1, 2019 on a prospective basis. The adoption of this standard will not have a material impact on our consolidated financial statements.

3. Acquisitions:

Completed in 2018

American Telephone Company

On August 31, 2018, Windstream Holdings completed its acquisition of American Telephone Company, LLC (“ATC”), a reseller of a broad range of voice and data communications services to businesses mainly headquartered in the greater New York metropolitan area, for cash consideration of approximately \$10.0 million, net of cash acquired. The purchase price has been allocated to the assets acquired and liabilities assumed based on their estimated fair values as of the acquisition date. The purchase price allocation is preliminary and subject to change based on receipt of information currently not available to us, including the tax basis of the assets acquired. The excess of the aggregate purchase price over the fair value of the tangible net assets acquired was assigned to customer list of \$7.0 million and goodwill of \$3.6 million. All of the goodwill recorded in this acquisition will be deductible for income tax purposes. The results of ATC’s operations were not material to our consolidated results of operations, and accordingly, no pro forma financial information has been presented.

MASS Communications

On March 27, 2018, Windstream Holdings acquired MASS Communications (“MASS”), a privately held telecommunications network management company focused on providing custom engineered voice, data and networking solutions to small and mid-sized global enterprises in the financial, legal, healthcare, technology, education and government sectors for cash consideration of approximately \$37.1 million, net of cash acquired, and included \$2.5 million of expected earn-out payments which have been funded into an escrow account. The acquisition was accounted using the acquisition method and accordingly, the cost of the acquisition was allocated to the assets acquired and liabilities assumed based on their estimated fair values as of the acquisition date. In allocating the purchase price, we recorded approximately \$1.3 million of tangible assets, consisting primarily of accounts receivable, \$10.0 million associated with a customer list intangible asset, \$4.2 million of trade accounts payable and other current liabilities, \$1.5 million of deferred income tax liabilities, and \$31.5 million of goodwill. The purchase price allocation is preliminary and subject to change based on receipt of information currently not available to us, including the tax basis of the assets acquired. Any changes to the initial estimates of the fair value of the acquired assets and liabilities assumed will be recorded as adjustments to those asset and liabilities with the offset charged to goodwill. Goodwill associated with this acquisition was primarily attributable to the MASS workforce and expected synergies. None of the goodwill recorded in this acquisition is expected to be deductible for income tax purposes. The results of MASS’ operations were not material to our consolidated results of operations, and accordingly, no pro forma financial information has been presented.

Completed in 2017

Broadview Network Holdings, Inc.

On July 28, 2017, Windstream Holdings completed its merger with Broadview Networks Holdings, Inc. (“Broadview”), pursuant to the terms of the Agreement and Plan of Merger (the “Broadview Merger Agreement”) dated April 12, 2017, whereby Broadview merged into Beethoven Merger Subsidiary, Inc., with Broadview surviving as an indirect wholly owned subsidiary of Windstream Holdings, and changing its name to Windstream BV Holdings, Inc. Broadview is a leading provider of cloud-based unified communications solutions to small and medium-sized businesses and offers a broad suite of cloud-based services, which will improve our competitiveness and ability to provide enhanced services to business customers. Upon completion of the merger, Windstream added approximately 20,000 small and medium-sized business customers and approximately 3,000 incremental route fiber miles. Pursuant to the terms of the Broadview Merger Agreement, each share of Broadview’s common stock, par value \$.01 per share that was issued and outstanding immediately prior to the effective time of the merger was automatically converted into the right to receive cash consideration of \$6.98 per share. In completing the merger, Windstream Services paid \$69.8 million in cash to Broadview shareholders and assumed \$160.2 million of Broadview’s short-term debt obligations, which Windstream Services subsequently repaid using amounts available under its senior secured revolving credit facility. The transaction was valued at approximately \$230.0 million.

3. Acquisitions, Continued:

During 2017, we adjusted our initial purchase price allocation for changes in the estimated fair value of certain acquired tangible and intangible assets. These adjustments primarily resulted from new information about facts and circumstances that existed at the time of the acquisition. The adjustments included recording an asset of \$2.6 million attributable to certain assumed operating lease obligations for which terms of the lease arrangement were favorable relative to market rates as of the acquisition date and a decrease of \$12.0 million to the acquired customer lists intangible asset based on updates to the information applicable to the third-party valuations of these assets. The impact of these changes on rent expense and depreciation and amortization were not material to our 2017 consolidated results of operations. Based on additional information received and further analysis, we also adjusted the purchase price allocation applicable to acquired net operating losses, resulting in a \$9.7 million reduction in the valuation allowance associated with the net deferred tax assets acquired in the merger. Our initial purchase price allocation had yielded a net deferred tax asset which had been fully offset by a valuation allowance. During 2018, we finalized our purchase price allocation for changes in the estimated fair value of certain acquired assets, resulting from new information about facts and circumstances that existed at the time of acquisition. The adjustments primarily consisted of an increase of \$4.2 million adjusted deferred income tax assets based on receipt of the final tax basis of assets acquired and adjusted certain state gross receipts and sales tax liabilities based on additional information received subsequent to the acquisition date, resulting in increases in deferred income tax assets of \$1.4 million and other current liabilities of \$4.7 million. The measurement period adjustments recorded in 2017 and 2018 to the estimated fair values of assets acquired and liabilities assumed resulted in an offsetting increase to goodwill of \$9.3 million.

Goodwill associated with this acquisition was primarily attributable to the Broadview workforce and expected synergies. As a result of past acquisitions completed by Broadview, approximately \$10.8 million of goodwill recorded in the merger is expected to be deductible for income tax purposes.

The following table summarizes the fair values of the assets acquired and liabilities assumed for Broadview.

(Millions)	Initial Allocation	Adjustments	Final Allocation
Fair value of assets acquired:			
Accounts receivable	\$ 19.7	\$ (2.1)	\$ 17.6
Other current assets	7.7	(0.9)	6.8
Property, plant and equipment	37.1	4.2	41.3
Goodwill	111.3	9.3	120.6
Customer lists (a)	57.0	(12.0)	45.0
Trade names (b)	21.0	—	21.0
Developed technology (c)	10.0	—	10.0
Deferred income taxes	—	11.1	11.1
Other assets	0.6	1.9	2.5
Total assets acquired	264.4	11.5	275.9
Fair value of liabilities assumed:			
Short-term debt obligations	160.2	—	160.2
Other current liabilities	40.2	11.4	51.6
Other liabilities	0.7	0.1	0.8
Total liabilities assumed	201.1	11.5	212.6
Cash paid, net of cash acquired	\$ 63.3	\$ —	\$ 63.3

- (a) Customer lists are amortized using the sum-of-years digits methodology over a weighted average life of 10 years.
- (b) Trade names are amortized on a straight-line basis over an estimated useful life of 1 and 10 years.
- (c) Internally developed technology is amortized on a straight-line basis over an estimated useful life of 5 years.

3. Acquisitions, Continued:

The fair values of the assets acquired and liabilities assumed were determined utilizing income, cost and market approaches with the assistance of a third-party valuation firm. The customer list was valued based on the present value of future cash flows and the trade names and developed technology were valued using the relief-from-royalty method, both of which are income approaches. Significant assumptions utilized in these income approaches were based on our specific information and projections, which are not observable in the market and are thus considered Level 3 measurements as defined by authoritative guidance. The fair value of Broadview's short-term debt obligations, consisting of a revolving credit facility and 10.5 percent senior notes due November 15, 2017 ("Broadview 2017 Notes"), were based on redemption cost and quoted market prices, respectively.

The results of Broadview's operations are included in our consolidated results of operations beginning on July 28, 2017. For the year ended December 31, 2017, our consolidated results of operations include revenues and sales of \$119.9 million and operating income of \$6.0 million attributable to Broadview. We incurred \$4.1 million of merger and integration expenses during the year ended December 31, 2018 as compared to \$14.3 million during the year ended December 31, 2017 related to the completion of this acquisition (see Note 11). Pro forma financial information for Broadview has not been presented because the effects of this acquisition were not material to our consolidated results of operations.

EarthLink Holdings Corp.

On February 27, 2017, Windstream Holdings completed its merger with EarthLink Holdings Corp. ("EarthLink"), pursuant to the terms of the Agreement and Plan of Merger (the "Merger Agreement") dated November 5, 2016, whereby EarthLink merged into Europa Merger Sub, Inc., an wholly-owned subsidiary of Windstream Services, LLC, and survived, and immediately following, merged with Europa Merger Sub, LLC, a wholly-owned subsidiary of Windstream Services, LLC, with Merger Sub surviving and changing its name to EarthLink Holdings, LLC (the "Merger"). EarthLink Holdings, LLC is a direct, wholly-owned subsidiary of Windstream Services and provides data, voice and managed network services to retail and wholesale business customers and nationwide Internet access and related value-added services to residential customers. In the Merger, we added approximately 700,000 customers and approximately 16,000 incremental route fiber miles, which expanded our national footprint to approximately 150,000 fiber route miles and enhanced our ability to offer customers expanded products, services and enhanced enterprise solutions.

We also expect to achieve operating expense and capital expenditure synergies in integrating the acquired operations. Pursuant to the terms of the Merger Agreement, each share of EarthLink common stock was exchanged, on a post-reverse stock split basis, for .164 of Windstream Holdings common stock. No fractional shares were issued in the Merger, with a cash payment being made in lieu of fractional shares. Employee restricted stock units issued by EarthLink that were outstanding as of the merger date were exchanged for an equivalent number of Windstream Holdings restricted stock units based on the same exchange ratio of EarthLink common stock to Windstream Holdings common stock. The replacement restricted stock units remain subject to the vesting and other terms and conditions prescribed by the EarthLink equity plans that were assumed by us in the Merger. In the aggregate, on a post-reverse stock split basis, Windstream Holdings issued 17.6 million shares of its common stock and 1.0 million of replacement equity awards. Windstream also assumed \$435.3 million aggregate principal amount of EarthLink's long-term debt, which we refinanced, as further discussed in Note 5. The Merger qualifies as a tax-free reorganization for U.S. federal income tax purposes and was valued at approximately \$1.1 billion.

We accounted for the Merger using the acquisition method of accounting and accordingly, the cost of the acquisition was allocated to the assets acquired and liabilities assumed based on their fair values as of the Merger date. During 2017, we adjusted the purchase price allocation based on additional information received subsequent to the Merger date. We adjusted our preliminary purchase price allocation to reduce total merger consideration by \$4.3 million to update the portion of the fair value of replacement equity awards attributable to future vesting requirements. We also adjusted the estimated fair value of certain acquired tangible and intangible assets, primarily consisting of an increase of \$11.6 million in property, plant and equipment and a decrease of \$7.0 million to customer lists, based on updates to the information about facts and circumstances that existed at the time of the Merger applicable to the third-party valuations of these assets. The impact of these changes on depreciation and amortization was not material to our consolidated results of operations. Based on additional information received and further analysis, we adjusted the purchase price allocation applicable to acquired net operating losses, resulting in a \$125.7 million reduction in the valuation allowance associated with the net deferred tax assets acquired in the Merger. Our initial purchase price allocation had yielded a net deferred tax asset which had been fully offset by a valuation allowance. In addition, we recorded adjustments to the assumed asset retirement obligations and certain contingent liabilities and other reserves based on the receipt of additional information about facts and circumstances that existed at the time of the Merger. The revisions to the merger consideration and estimated fair values of assets acquired and liabilities assumed resulted in an offsetting decrease to goodwill of \$128.4 million.

3. Acquisitions, Continued:

Goodwill associated with the Merger was primarily attributable to the EarthLink workforce and expected synergies. As a result of past acquisitions completed by EarthLink, approximately \$54.8 million of goodwill recorded in the Merger is expected to be deductible for income tax purposes.

The following table summarizes the fair values of the assets acquired and liabilities assumed for EarthLink.

(Millions)	Preliminary Allocation	Adjustments	Final Allocation
Fair value of assets acquired:			
Cash and other current assets	\$ 37.7	\$ (3.5)	\$ 34.2
Accounts receivable	75.3	(1.5)	73.8
Property, plant and equipment	344.0	11.6	355.6
Goodwill	476.7	(128.4)	348.3
Customer lists (a)	275.0	(7.0)	268.0
Trade name, developed technology and software (b)	31.0	—	31.0
Deferred income taxes	—	125.7	125.7
Other assets	0.3	0.9	1.2
Total assets acquired	1,240.0	(2.2)	1,237.8
Fair value of liabilities assumed:			
Current liabilities	119.5	5.7	125.2
Long-term debt	449.1	—	449.1
Other liabilities	24.5	(3.6)	20.9
Total liabilities assumed	593.1	2.1	595.2
Common stock and replacement equity awards issued to EarthLink shareholders (c)	\$ 646.9	\$ (4.3)	\$ 642.6

- (a) Customer lists are amortized using the sum-of-years digit methodology over a weighted average life of 5.5 years .
- (b) Trade name of \$8.0 million is amortized on a straight-line basis over an estimated useful life of 7 years . Internally developed technology and software of \$23.0 million are amortized on a straight-line basis over an estimated useful life of 3 years .
- (c) Total merger consideration of \$642.6 million consisted of \$631.4 million related to shares issued to EarthLink shareholders and \$11.2 million related to replacement equity awards.

The fair values of the assets acquired and liabilities assumed were determined with the assistance of a third-party valuation firm using income, cost, and market approaches. The customer lists were valued based on the present value of future cash flows and the trade name was valued using the relief-from-royalty method, both of which are income approaches. Significant assumptions utilized in the income approach were based on our specific information and projections, which are not observable in the market and are thus considered Level 3 measurements as defined by authoritative guidance. The cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, was used as appropriate for valuing internally developed technology and software and property, plant and equipment. The cost to replace a given asset reflects the estimated reproduction or replacement cost for the asset, less an allowance for loss in value due to depreciation. The fair value of the EarthLink credit facility was based on its redemption cost, while the remaining bonds were valued based on quoted market prices. Equity consideration was based on the opening price of our common stock on February 27, 2017. Consideration related to replacement restricted stock units was calculated based on the opening price of our common stock on February 27, 2017, net of the portion of the fair value attributable to future vesting requirements. The amount allocated to unearned compensation cost for awards subject to future service requirements was calculated based on the fair value of such awards at the acquisition date and will be recognized as compensation cost over the remaining future service period.

The results of EarthLink's operations are included in our consolidated results of operations beginning on February 27, 2017. For the year ended December 31, 2017, our consolidated results of operations include revenues and sales of \$751.1 million and operating loss of \$(61.0) million attributable to EarthLink. We incurred \$15.5 million and \$104.1 million of merger and integration expenses during the year ended December 31, 2018 and 2017, respectively, related to the completion of the Merger (see Note 11).

3. Acquisitions, Continued:

The following unaudited pro forma consolidated results of operations of Windstream for the years ended December 31, 2017 and 2016 assume that the Merger occurred as of January 1, 2016:

(Millions)	Year Ended December 31,	
	2017	2016
Revenues and sales	\$ 6,002.4	\$ 6,369.3
Operating (loss) income	\$ (1,559.2)	\$ 499.9
Net loss	\$ (2,098.3)	\$ (431.3)
Loss per share	(\$57.27)	(\$12.03)

The pro forma information presents our historical results of operations adjusted to include EarthLink, with the results prior to the merger closing date adjusted to include the pro forma effect of the elimination of transactions between Windstream and EarthLink, the adjustment to revenues and sales to change EarthLink's reporting of USF fees billed to customers and the related payments from a net basis to a gross basis to conform to Windstream's reporting of such customer billings, the adjustment to depreciation and amortization expense associated with the estimated acquired fair value of property, plant and equipment and intangible assets, the adjustment to interest expense to reflect the refinancing of EarthLink's long-term debt obligations, the impact of merger expenses related to the acquisition and the related income tax effects of the pro forma adjustments.

The pro forma results are presented for illustrative purposes only and do not reflect either the realization of potential cost savings or any additional integration costs. These pro forma results do not purport to be indicative of the results that would have been obtained if the Merger had occurred as of the date indicated, nor do the pro forma results intend to be a projection of results that may be obtained in the future.

4. Goodwill and Other Intangible Assets:

Goodwill represents the excess of cost over the fair value of net identifiable tangible and intangible assets acquired through various business combinations. The cost of acquired entities at the date of the acquisition is allocated to identifiable assets and liabilities, and the excess of the total purchase price over the amounts assigned to net identifiable assets has been recorded as goodwill.

We performed a quantitative goodwill impairment test as of our annual measurement date of November 1, 2018. As of that date, we had four reporting units consisting of Consumer & Small Business, Enterprise, Wholesale and Consumer CLEC, which is consistent with how we defined our four reportable operating segments. Our reporting units are not separate legal entities with discrete balance sheet information. Accordingly, in determining the reporting unit's carrying value, assets and liabilities were assigned to the reporting units using a combination of specification identification and consistent and reasonable allocation methodologies as appropriate. We estimated the fair value of our Consumer & Small Business, Enterprise and Wholesale reporting units using an income approach. The income approach is based on the present value of projected cash flows and a terminal value, which represents the expected normalized cash flows of the reporting unit beyond the cash flows from the discrete projection period of five years. We discounted the estimated cash flows for each of the reporting units using a rate that represents a market participant's weighted average cost of capital commensurate with the reporting unit's underlying business operations. For the Consumer CLEC reporting unit, we estimated fair value based on the gross cash proceeds received from the subsequent sale of these operations due to the close proximity of the sale date of December 31, 2018 to our assessment date of November 1, 2018. Based on the results of our quantitative analysis, we determined that no goodwill impairment existed as of November 1, 2018.

4. Goodwill and Other Intangible Assets, Continued:

In performing our annual goodwill impairment test as of November 1, 2017, we also utilized a quantitative approach that compared the fair value to the carrying value of each of the same four reporting units discussed above and estimated the fair value of the reporting units using an income approach. The results of the goodwill impairment test indicated that the carrying values of our Consumer & Small Business and Wholesale reporting units exceeded their fair values. Accordingly, during the fourth quarter of 2017, we recorded an impairment of goodwill in our Consumer & Small Business reporting unit of \$1,417.8 million and an impairment of goodwill in our Wholesale reporting unit of \$423.0 million representing the excess of the carrying value from each reporting unit's fair value. The goodwill impairment in the Consumer & Small Business reporting unit primarily resulted from declines in forecasted revenue and profitability levels for this business unit to reflect greater than expected impacts from competition, lower than expected returns and customer retention from recent capital investments, less than expected opportunities to upsell higher speeds to existing customers, and the effects of offering low introductory pricing plans as part of a new customer acquisition strategy implemented in the fourth quarter of 2017. The impairment charge in the Wholesale reporting unit primarily resulted from adverse changes in forecasted revenue and profitability levels for this business unit to reflect greater than expected pricing pressures on our legacy service offerings and lower incremental returns on future capital expenditures needed to support the business. The fair values of the Enterprise and Consumer CLEC significantly exceeded their respective carrying values, and therefore, there was no goodwill impairment for these two reporting units as of November 1, 2017.

Changes in the carrying amount of goodwill were as follows:

(Millions)	
Balance at December 31, 2016:	\$ 4,213.6
Acquisitions completed during the period:	
Broadview	121.3
EarthLink	348.3
Goodwill impairment	(1,840.8)
Balance at December 31, 2017:	
Goodwill	4,683.2
Accumulated impairment loss	(1,840.8)
Balance at December 31, 2017, net	2,842.4
Changes during the period:	
Broadview measurement period adjustments	(0.7)
MASS acquisition	31.5
ATC acquisition	3.6
Disposition of consumer CLEC business	(103.1)
Balance at December 31, 2018:	
Goodwill	4,614.5
Accumulated impairment loss	(1,840.8)
Balance at December 31, 2018, net	\$ 2,773.7

4. Goodwill and Other Intangible Assets, Continued:

Goodwill assigned to our operating segments and changes in the carrying amount of goodwill by reportable segment were as follows:

(Millions)	Consumer & Small Business	Enterprise	Wholesale	Consumer and Small Business CLEC (a)	Consumer CLEC	Total
Balance at December 31, 2016:	\$ 2,321.2	\$ 598.0	\$ 1,176.4	\$ 118.0	\$ —	\$ 4,213.6
Acquisitions completed during the period:						
Broadview	—	10.7	—	110.6	—	121.3
EarthLink	—	116.1	120.7	111.5	—	348.3
Reallocation adjustment (b)	—	237.0	—	(340.1)	103.1	—
Goodwill impairment	(1,417.8)	—	(423.0)	—	—	(1,840.8)
Balance at December 31, 2017:						
Goodwill	2,321.2	961.8	1,297.1	—	103.1	4,683.2
Accumulated impairment loss	(1,417.8)	—	(423.0)	—	—	(1,840.8)
Balance at December 31, 2017, net	\$ 903.4	\$ 961.8	\$ 874.1	\$ —	\$ 103.1	\$ 2,842.4
Changes during the period:						
Broadview measurement period adjustments	—	(0.7)	—	—	—	(0.7)
MASS acquisition	—	31.5	—	—	—	31.5
ATC acquisition	—	3.6	—	—	—	3.6
Disposition of consumer CLEC business	—	—	—	—	(103.1)	(103.1)
Balance at December 31, 2018:						
Goodwill	2,321.2	996.2	1,297.1	—	—	4,614.5
Accumulated impairment loss	(1,417.8)	—	(423.0)	—	—	(1,840.8)
Balance at December 31, 2018, net	\$ 903.4	\$ 996.2	\$ 874.1	\$ —	\$ —	\$ 2,773.7

(a) Prior to the acquisition of EarthLink, this segment was called Small Business CLEC.

(b) Represents adjustment to reallocate goodwill of the former Consumer and Small Business CLEC reporting unit to the Enterprise and Consumer CLEC reporting units, using a relative fair value basis.

4. Goodwill and Other Intangible Assets, Continued:

Intangible assets were as follows at December 31:

(Millions)	2018			2017		
	Gross Cost	Accumulated Amortization	Net Carrying Value	Gross Cost	Accumulated Amortization	Net Carrying Value
Franchise rights	\$ 1,285.1	\$ (414.6)	\$ 870.5	\$ 1,285.1	\$ (371.8)	\$ 913.3
Customer lists (a)	1,758.5	(1,450.4)	308.1	2,104.6	(1,626.6)	478.0
Cable franchise rights	17.3	(10.3)	7.0	17.3	(9.1)	8.2
Trade names (b)	21.0	(3.9)	17.1	29.0	(2.2)	26.8
Developed technology and software (c)	18.0	(7.7)	10.3	33.0	(7.1)	25.9
Patents	10.6	(10.5)	0.1	10.6	(8.4)	2.2
Balance	\$ 3,110.5	\$ (1,897.4)	\$ 1,213.1	\$ 3,479.6	\$ (2,025.2)	\$ 1,454.4

- (a) At the date of sale, customer lists associated with the consumer CLEC business had a gross cost of \$43.0 million and a net carrying value of \$20.8 million . During 2018, fully amortized customer lists with a gross cost of \$320.1 million were written off.
- (b) At the date of sale, trade names associated with the consumer CLEC business had a gross cost of \$8.0 million and a net carrying value of \$5.9 million .
- (c) At the date of sale, developed technology and software associated with the consumer CLEC business had a gross cost of \$15.0 million and a net carrying value of \$5.9 million .

Intangible asset amortization methodology and useful lives were as follows as of December 31, 2018 :

Intangible Assets	Amortization Methodology	Estimated Useful Life
Franchise rights	straight-line	30 years
Customer lists	sum of years digits	5.5 - 15 years
Cable franchise rights	straight-line	15 years
Trade names	straight-line	1 - 10 years
Developed technology and software	straight-line	3 - 5 years
Patents	straight-line	3 years

Amortization expense for intangible assets subject to amortization was \$225.8 million , \$241.0 million and \$185.2 million in 2018 , 2017 and 2016 , respectively. Amortization expense for intangible assets subject to amortization was estimated to be as follows for each of the years ended December 31 :

Year	(Millions)
2019	\$ 168.7
2020	133.9
2021	101.2
2022	71.4
2023	59.0
Thereafter	678.9
Total	\$ 1,213.1

5. Long-term Debt and Lease Obligations:

Windstream Holdings has no debt obligations. All debt, including the senior secured credit facility described below, have been incurred by Windstream Services and its subsidiaries. Windstream Holdings is neither a guarantor of nor subject to the restrictive covenants imposed by such debt.

Event of Default and Chapter 11 Cases.— As further discussed in Notes 1 and 17, on February 15, 2019, Judge Furman of the District Court found that Windstream Services had defaulted under the indenture governing the August 2023 Notes, which resulted in the acceleration of the August 2023 Notes and a cross default under Windstream Services' senior secured credit agreement governing its secured term and revolving line of credit obligations, as well as the remaining obligations under the master lease agreement with Uniti. In addition, the acceleration of the August 2023 Notes resulted in a cross-acceleration event of default under the indentures governing Windstream Services' other series of secured and unsecured notes. As a result, all long-term debt and remaining obligations under the master lease agreement with Uniti have been classified as current liabilities in the accompanying consolidated balance sheet as of December 31, 2018.

On February 25, 2019, Windstream Holdings and all of its subsidiaries, including Windstream Services, filed voluntary petitions for relief under Chapter 11 of the Bankruptcy Code. The filing of the Chapter 11 Cases also constituted an event of default under our debt agreements. Due to the Chapter 11 Cases, however, our creditors' ability to exercise remedies under our debt agreements were stayed as of the date of the Chapter 11 petition filing. In general, as debtors-in-possession under the Bankruptcy Code, we are authorized to continue to operate as an ongoing business, but may not engage in transactions outside the ordinary course of business without the prior approval of the Bankruptcy Court. Pursuant to first day motions filed with the Bankruptcy Court, the Bankruptcy Court authorized us to conduct our business activities in the ordinary course.

Long-term debt was as follows at December 31:

(Millions)	2018	2017
Issued by Windstream Services:		
Senior secured credit facility, Tranche B6 — variable rates, due March 29, 2021 (a)	\$ 1,180.5	\$ 1,192.6
Senior secured credit facility, Tranche B7 — variable rates, due February 17, 2024	568.4	574.2
Senior secured credit facility, Revolving line of credit — variable rates, due April 24, 2020 (b)	1,017.0	775.0
Senior First Lien Notes — 8.625%, due October 31, 2025 (c) (f)	600.0	600.0
Senior Second Lien Notes — 10.500%, due June 30, 2024 (d) (f)	414.9	—
Senior Second Lien Notes — 9.000%, due June 30, 2025 (d) (f)	802.0	—
Debentures and notes, without collateral:		
2020 Notes — 7.750%, due October 15, 2020 (f)	78.1	492.9
2021 Notes — 7.750%, due October 1, 2021 (f)	70.1	88.9
2022 Notes — 7.500%, due June 1, 2022 (f)	36.2	41.6
2023 Notes — 7.500%, due April 1, 2023 (f)	34.4	120.4
2023 Notes — 6.375%, due August 1, 2023 (f)	806.9	1,147.6
2024 Notes — 8.750%, due December 15, 2024 (f)	105.8	834.3
Issued by subsidiaries of Windstream Services:		
Windstream Holdings of the Midwest, Inc. — 6.75%, due April 1, 2028 (e) (f)	100.0	100.0
Net discount on long-term debt (g)	(28.6)	(61.6)
Unamortized debt issuance costs (g)	(57.6)	(62.0)
	5,728.1	5,843.9
Less current portion	(5,728.1)	(169.3)
Total long-term debt	\$ —	\$ 5,674.6
Weighted average interest rate	7.1%	6.6%
Weighted maturity	N/A	5.1 years

5. Long-term Debt and Lease Obligations, Continued:

Prior to the filing of the Chapter 11 Cases, additional information with respect to our debt obligations was as follows:

- (a) If the maturity of the revolving line of credit is not extended prior to April 24, 2020, the maturity date of the Tranche B6 term loan will be April 24, 2020; provided further, if the 2020 Notes have not been repaid or refinanced prior to July 15, 2020 with indebtedness having a maturity date no earlier than March 29, 2021, the maturity date of the Tranche B6 term loan will be July 15, 2020.
- (b) On January 3, 2019, Windstream Services' reduced future maturities of its revolving line of credit of \$312.0 million using proceeds received from the sale of the Consumer CLEC business.
- (c) The notes are guaranteed by each of our domestic subsidiaries that guarantees debt under Windstream Services' senior secured credit facility. The notes and the guarantees are secured by a first priority lien on Windstream Services' and the guarantors' assets that secure the obligations under the senior secured credit facility.
- (d) The notes are guaranteed by each of our domestic subsidiaries that guarantees debt under Windstream Services' senior secured credit facility. The notes and the guarantees are secured by a second priority lien on Windstream Services' and the guarantors' assets that secure the obligations under the senior secured credit facility.
- (e) These bonds are secured equally with the senior secured credit facility with respect to the assets of Windstream Holdings of the Midwest, Inc.
- (f) Windstream Services may call the remaining aggregate principal amounts of these debentures and notes at various premiums upon early redemption.
- (g) The net discount balance and unamortized debt issuance costs are amortized using the interest method over the life of the related debt instrument.

"Debtor-in-Possession" Financing – Pursuant to a commitment letter dated as of February 25, 2019 by and among Windstream Holdings, Windstream Services and Citigroup Global Markets Inc. (together with certain of its affiliates, "Citi"), Citi has committed to provide senior secured superpriority debtor-in-possession credit facilities in an aggregate principal amount of \$1.0 billion, comprising a superpriority term loan facility (the "Term Facility") in an aggregate principal amount of up to \$500.0 million (the "Term Loan Commitments") and a superpriority revolving credit facility (the "Revolving Facility" and, together with the Term Facility, the "DIP Facilities") in an aggregate principal amount of up to \$500.0 million, subject to availability as described below.

During the period commencing on the date of the Bankruptcy Court's entry of an interim order approving the DIP Facilities in form and substance reasonably satisfactory to Citi (the "Interim Order") and ending on the date the Bankruptcy Court enters a final non-appealable order in form and substance satisfactory to Citi (the "Final Order"), a portion of the Term Loan Commitments will be available to Windstream Services, subject to satisfaction or waiver of certain conditions precedent, in an amount equal to the lesser of \$300.0 million and such other amount as may be approved by order of the Bankruptcy Court. Upon the Bankruptcy Court's entry of the Final Order, the full remaining amount of the Term Loan Commitments shall be available to Windstream Services, subject to the satisfaction or waiver of certain conditions precedent. Availability under the Revolving Facility will be, at any date after the entry of the Interim Order, an amount equal to \$100.0 million, and after the entry of the Final Order, an amount equal to \$500.0 million.

The proceeds of loans extended under the DIP Facilities will be used for purposes permitted by orders of the Bankruptcy Court, including (i) for working capital and other general corporate purposes (ii) to pay transaction costs, professional fees and other obligations and expenses incurred in connection with the DIP Facilities, the Chapter 11 Cases and the transactions contemplated thereunder, and (iii) to pay adequate protection expenses, if any, to the extent set forth in any order entered by the Bankruptcy Court. The maturity date of the DIP Facilities will be 24 months after the closing date of the DIP Facilities. Loans under the Term Facility and the Revolving Facility will bear interest, at the option of Windstream Services, at (1) a margin plus a base rate of the highest of (i) Citibank, N.A.'s base rate, (ii) the three-month certificate of deposit rate plus 1/2 of 1%, (iii) the Federal funds effective rate plus 1/2 of 1% and (iv) the one-month LIBOR plus 1.00% per annum; or (2) a margin plus LIBOR. From and after the closing date for the DIP Facilities, a non-refundable unused commitment fee will accrue at the rate of 0.50% per annum on the daily average unused portion of the Revolving Facility (whether or not then available).

On February 26, 2019, the Bankruptcy Court approved the DIP Facilities and the DIP Facilities closed on the same day.

5. Long-term Debt and Lease Obligations, Continued:

Senior Secured Credit Facility – Prior to the filing of the Chapter 11 Cases, the amended credit facility provided Windstream Services the ability to obtain incremental revolving or term loans in an unlimited amount subject to maintaining a maximum secured leverage ratio and other customary conditions, including obtaining commitments and pro forma compliance with financial maintenance covenants consisting of a maximum debt to consolidated earnings before interest, taxes, depreciation and amortization (“EBITDA”) ratio and a minimum interest coverage ratio. In addition, Windstream Services could have requested extensions of the maturity date under any of its existing revolving or term loan facilities. On February 17, 2017, Windstream Services issued an aggregate principal amount of \$580.0 million in borrowings under Tranche B7 of its senior secured credit facility, the proceeds of which were used to pay down amounts outstanding under Tranche B5, including accrued interest, and to pay related fees and expenses. The incremental Tranche B7 term loan matures on February 17, 2024 and was issued at a price of 99.5 percent of the principal amount of the loan.

Interest rates applicable to the Tranche B7 term loan were, at Windstream Services’ option, equal to either a base rate plus a margin of 2.25 percent per annum or LIBOR plus a margin of 3.25 percent per annum. LIBOR for the Tranche B7 term loan shall at no time be less than 0.75 percent . The Tranche B7 term loan was subject to quarterly amortization payments in an aggregate amount equal to 0.25 percent of the initial principal amount of such term loans, with the remaining balance payable at maturity. At the time of repayment, unamortized debt issuance and discount related to Tranche B5 totaled \$6.3 million , of which \$1.2 million were included in the loss on debt extinguishment, while the remaining \$5.1 million continue to be deferred and amortized to interest expense over the remaining life of Tranche B7 in accordance with debt modification accounting. On the date of closing of the merger with EarthLink, Windstream Services amended its existing senior secured credit agreement to provide for the issuance of an aggregate principal amount of \$450.0 million in incremental borrowings under Tranche B6, the proceeds of which were used to repay amounts outstanding under EarthLink’s credit facility and to redeem EarthLink’s outstanding 8.875 percent Senior Notes due 2019 (“EarthLink 2019 Notes”) and 7.375 percent Senior Secured Notes due 2020 (“EarthLink 2020 Notes”). The incremental loans were issued at a price of 99.0 percent of the principal amount of the loan. The incremental loans are repayable at any time. During the fourth quarter of 2017, Windstream Services repaid \$139.0 million of amounts outstanding under Tranche B6 using proceeds from the issuance of new debt, as further discussed below. At the time of repayment, unamortized debt issuance and discount related to this portion of Tranche B6 totaling \$2.9 million were included in the loss on debt extinguishment.

During 2016, Windstream Services repriced at par \$597.0 million of borrowings outstanding under Tranche B6 and issued at par an incremental \$300.0 million of borrowings under Tranche B6. In connection with the repricing, Windstream Services incurred \$6.7 million in arrangement, legal and other fees. Based on an analysis of participating creditors, Windstream Services concluded that a portion of the repricing transaction should be accounted for as a new debt issuance, a portion as a debt modification, and the remainder as a debt extinguishment. As a result, \$0.6 million of the arrangement, legal and other fees were recorded as debt issuance costs, with the remaining \$6.1 million charged to interest expense in accordance with debt modification accounting. At the time of the repricing transaction, unamortized debt issuance and discount related to the original issuance of Tranche B6 term loan totaled \$24.4 million , of which \$3.1 million were included in the loss on debt extinguishment recognized in 2016, while the remaining \$21.3 million continue to be deferred and amortized to interest expense over the remaining life of the term loan in accordance with debt modification accounting.

During 2016, Windstream Services executed incremental amendments to its existing senior secured credit facility to provide for the issuance of an aggregate principal amount \$600.0 million term loan under Tranche B6 due March 29, 2021, the proceeds of which were used to repurchase \$441.1 million of outstanding 7.875 percent notes due November 1, 2017 (the “2017 Notes”) pursuant to a tender offer and to repay other debt obligations of Windstream Services along with related fees and expenses. The Tranche B6 term loan was issued at a discount of \$15.0 million . Debt issuance costs associated with the Tranche B6 borrowings were \$11.7 million , which were capitalized and are being amortized over the life of the term loan. Interest on all incremental loans under Tranche B6 accrue at LIBOR plus a margin of 4.00 percent per annum, with LIBOR subject to a 0.75 percent floor. The incremental loans are subject to quarterly amortization in an aggregate amount of approximately 0.25 percent of the initial principal amount of the loans, with the remaining balance payable on March 29, 2021.

5. Long-term Debt and Lease Obligations, Continued:

Revolving line of credit—Prior to the filing of the Chapter 11 Cases, under the amended senior secured credit facility, Windstream Services could have obtained revolving loans and issue up to \$50.0 million of letters of credit, which upon issuance reduced the amount available for other extensions of credit. Accordingly, the total amount outstanding under the letters of credit and the indebtedness incurred under the revolving line of credit could not exceed \$1,250.0 million. Borrowings under the revolving line of credit were used for permitted acquisitions, working capital and other general corporate purposes of Windstream Services and its subsidiaries. Windstream Services paid a commitment fee on the unused portion of the commitments under the revolving credit facility that will range from 0.40 percent to 0.50 percent per annum, depending on the debt to consolidated EBITDA ratio of Windstream Services and its subsidiaries. Revolving loans made under the credit facility were not subject to interim amortization and such loans were not required to be repaid prior to April 24, 2020, other than to the extent the outstanding borrowings exceed the aggregate commitments under the revolving credit facility. Interest rates applicable to loans under the revolving line of credit were, at Windstream Services' option, equal to either a base rate plus a margin ranging from 0.25 percent to 1.00 percent per annum or LIBOR plus a margin ranging from 1.25 percent to 2.00 percent per annum, based on the debt to consolidated EBITDA ratio of Windstream Services and its subsidiaries.

During 2018, Windstream Services borrowed \$816.0 million under the revolving line of credit in its senior secured credit facility and through the issuance of new debt and repayments retired \$574.0 million of these borrowings. Borrowings under the revolving line of credit included \$150.0 million for the one-time mandatory redemption payment applicable to the 2024 Notes paid on February 26, 2018. Letters of credit of \$23.4 million were outstanding at December 31, 2018.

During 2017, Windstream Services borrowed \$1,196.0 million under the revolving line of credit and through the completion of a debt-for-debt exchange and repayments retired \$896.0 million of these borrowings in 2017. Borrowings under the revolving line of credit included \$160.0 million to repay amounts outstanding under Broadview's revolving credit facility and to redeem Broadview's 2017 Notes.

The variable interest rate on the revolving line of credit ranged from 3.40 percent to 6.50 percent, and the weighted average rate on amounts outstanding was 4.02 percent during 2018, as compared to variable interest rates during 2017 which ranged from 2.65 percent to 5.50 percent with a weighted average rate on amounts outstanding of 3.16 percent.

Consent Solicitation and Amendments to 2025 Notes and Senior Secured Credit Facility - During the second quarter of 2018, Windstream Services and Windstream Finance Corp. (together the "issuers") received the requisite consents to amend the indenture governing the 8.625 percent senior first lien notes due October 31, 2025 ("2025 Notes"). Holders of the 2025 Notes who validly delivered (and did not validly revoke) consents to the amendments to the indenture received a one-time consent payment equal to \$2.50 per \$1,000 principal amount of 2025 Notes provided that such consent was received prior to the expiration of the consent solicitation on June 6, 2018. The consent solicitation (i) permitted the issuers and guarantors under the indenture to issue or incur indebtedness on a junior lien basis and (ii) authorized the collateral agent under the indenture to enter into a junior lien intercreditor agreement upon the issuance or incurrence of junior lien secured indebtedness by the issuers and the guarantors under the indenture. In conjunction with receiving the requisite consents, the amendments to the indenture became effective and operative. All holders of the 2025 Notes are bound by the terms thereof, even if they did not deliver consents to the amendments. Except for the amendments, all existing terms of the 2025 Notes and the Indenture remain unchanged.

Concurrent with the consent solicitation, Windstream Services also sought and obtained an amendment to its senior secured credit facility to, among other things, (i) permit the issuance or incurrence of second-priority lien secured indebtedness, (ii) allow Windstream Services to use the proceeds from the issuance or incurrence of such second-priority lien secured indebtedness and other secured indebtedness to repay certain of its outstanding secured and unsecured indebtedness, (iii) permit the execution of a first-lien/second-lien intercreditor agreement, (iv) allow for the incurrence of first-priority lien secured indebtedness if the proceeds of such indebtedness are used to prepay or repay revolving loans or term loans under the senior secured credit facility (and, for revolving loans, permanently reduce the commitments), even if Windstream Services does not meet the typical test of having a pro forma first lien leverage ratio of not more than 2.25 to 1.0, and (v) limit the ability of Windstream Services to declare and pay dividends in some respects.

In completing the consent solicitation and amendments, Windstream Services incurred \$11.5 million in fees, consisting of \$8.8 million in consent fees payable to lenders and \$2.7 million in arrangement, legal and other third-party fees. In accordance with debt modification accounting, the \$2.7 million in arrangement, legal and other third-party fees were expensed as additional interest expense and the \$8.8 million in consent fees were capitalized as debt issuance costs and amortized over the respective terms of the 2025 Notes and senior secured credit facility.

5. Long-term Debt and Lease Obligations, Continued:

New Debt Issuances and Debt Exchanges Completed in 2018

On August 2, 2018, Windstream Services completed the settlement of exchange offers, which expired on July 31, 2018, for (1) its 7.75 percent senior notes due October 15, 2020 ("2020 Notes") for new 10.500% percent senior second lien notes due June 30, 2024 (the "New 2024 Notes") and (2) its 7.75 percent senior notes due October 1, 2021 ("2021 Notes"), 7.50 percent senior notes due June 1, 2022 ("2022 Notes"), 7.50 percent senior notes due April 1, 2023 ("April 2023 Notes"), 6.375 percent senior notes due August 1, 2023 ("August 2023 Notes") and 8.75 percent senior notes due December 15, 2024 ("2024 Notes") for new 9.00 percent senior second lien notes due June 30, 2025 (the "New 2025 Notes") as follows:

- accepted for exchange \$414.9 million aggregate principal amount of 2020 Notes in exchange for \$414.9 million aggregate principal amount of New 2024 Notes.
- accepted for exchange \$18.8 million aggregate principal amount of 2021 Notes, \$5.3 million aggregate principal amount of 2022 Notes, \$86.0 million aggregate principal amount of April 2023 Notes, \$340.7 million aggregate principal amount of August 2023 Notes, and \$578.6 million aggregate principal amount of 2024 Notes, in exchange for \$802.0 million aggregate principal amount of New 2025 Notes.

The New 2024 Notes and New 2025 Notes will not be registered under the Securities Act of 1933, as amended (the "Securities Act") or any state securities laws. As such, these notes may not be offered or sold in the United States absent registration or an applicable exemption from the registration requirements of the Securities Act and any applicable state securities laws.

In completing the exchange transactions, Windstream Services incurred \$18.4 million in arrangement, legal and other third-party fees. The exchanges of the 2020 and 2021 Notes were accounted for as a debt modification, and the remaining exchanges of 2022 Notes, April 2023 Notes, August 2023 Notes and 2024 Notes were accounted for as a debt extinguishment. In assessing the accounting treatment for the debt exchanges, we determined that no concessions were granted by our creditors due to the additional collateral and securitization provided to holders of the new notes, as well as consideration of other qualitative factors. For the exchanges accounted for under the extinguishment method of accounting, Windstream Services recognized a net gain of \$190.3 million, consisting of the net principal reduction of \$226.0 million reduced by the write-off of a portion of the unamortized discount and debt issuance costs related to the original notes of \$35.7 million. Of the total legal and other third-party fees incurred, \$6.5 million were expensed as additional interest expense under debt modification accounting while the remaining \$11.9 million of fees were capitalized and amortized over the terms of the new notes in accordance with the extinguishment method of accounting.

New Debt Issuances and Debt Exchanges Completed in 2017

On November 8, 2017, Windstream Services completed a private placement offering of \$400.0 million in aggregate principal amount of 8.625 percent senior first lien notes due October 31, 2025 ("2025 Notes"). The notes were issued at a price of 99.0 percent to yield 8.802 percent. The notes were co-issued by Windstream Finance Corp. ("Windstream Finance"), a direct wholly-owned subsidiary of Windstream Services, and are guaranteed by each of our domestic subsidiaries that guarantees debt under Windstream Services' senior secured credit facility. The notes and the guarantees are secured by a first priority lien on Windstream Services' and the guarantors' assets that secure the obligations under the senior secured credit facility. Windstream Services used the net proceeds of the offering to repay approximately \$250.0 million of borrowings under its revolving line of credit and to repay \$139.0 million of amounts outstanding under its Tranche B6 term loan.

In November 2017, Windstream Services completed exchange offers for its 2020 Notes, 2021 Notes, 2022 Notes, and April 2023 Notes as follows:

- accepted for exchange \$167.5 million aggregate principal amount of 2022 Notes and \$223.1 million aggregate principal amount of April 2023 Notes in exchange for \$420.6 million aggregate principal amount of new August 2023 Notes.
- accepted for exchange \$181.2 million aggregate principal amount of 2021 Notes in exchange for \$141.3 million aggregate principal amount of new August 2023 Notes and approximately \$50.0 million principal amount of 2025 Notes.
- accepted for exchange \$158.0 million aggregate principal amount of 2020 Notes in exchange for approximately \$150.0 million of aggregate principal amount of 2025 Notes.

5. Long-term Debt and Lease Obligations, Continued:

In completing these exchange offers, Windstream Services issued \$561.9 million aggregate principal amount of new August 2023 Notes and issued \$200.0 million aggregate principal amount of 2025 Notes.

Pursuant to exchanges offers for its 2021 and 2022 Notes, in December 2017, Windstream Services issued \$834.3 million in aggregate principal amount of 8.750 percent senior notes due December 15, 2024 (“2024 Notes”) for exchange of \$539.2 million aggregate principal amount of 2021 Notes and \$232.1 million aggregate principal amount of 2022 Notes. The 2024 notes were issued at par and were co-issued by Windstream Finance and are guaranteed by each of our domestic subsidiaries that guarantees debt under Windstream Services’ senior secured credit facility. The 2024 Notes require a one-time mandatory redemption payment of \$150.0 million payable on February 26, 2018. Additionally, as part of the 2024 Notes, Windstream Services agreed to certain provisions that prohibits its ability to issue restricted payments to its parent company, Windstream Holdings, if Windstream Services’ consolidated leverage ratio, as defined in the 2024 Notes, exceeds 3.50 to 1.0, except for purposes of allowing restricted payments to Windstream Holdings for the purposes of making rent payments under the master lease with Uniti and to pay certain administrative expenses. The provisions indirectly impacts, and could limit, Windstream Holdings’ future issuance of dividends to holders of its common stock and its engagement in stock repurchase programs.

In completing the exchange transactions, Windstream Services incurred \$27.7 million in fees, consisting of \$6.0 million in consent fees payable to lenders and \$21.7 million in arrangement, legal and other third-party fees, and the lenders received a net exchange premium of \$95.1 million in the form of additional future principal payments. Based on an analysis of participating creditors, Windstream Services concluded that a portion of the exchanges should be accounted for as a debt modification and the remainder as a debt extinguishment. For the portion of the exchanges accounted for under the extinguishment method of accounting, Windstream Services recognized a net loss of \$55.5 million, consisting of the write-off of a portion of the net exchange premium and consent fees and unamortized premium and debt issuance costs related to the original notes. The remaining \$45.2 million of net exchange premium and \$4.0 million of consent fees were capitalized and deferred over the terms of the new notes in accordance with debt modification accounting. The \$21.7 million in arrangement, legal and other third-party fees were allocated on a lender-by-lender basis to creditors resulting in \$13.8 million of fees expensed as additional interest expense under debt modification accounting, while the remaining \$7.9 million of fees were capitalized and amortized over the terms of the new notes in accordance with the extinguishment method of accounting.

Debentures and Notes Repaid in 2017

During 2017, under a debt repurchase program authorized by Windstream Services’ board of directors, Windstream Services repurchased in the open market \$49.1 million aggregate principal amount of its 2020 Notes at a repurchase price of \$45.3 million, including accrued and unpaid interest. At the time of repurchase, there was \$0.3 million in unamortized net premium and debt issuance costs related to the repurchased notes. The repurchases were funded utilizing available borrowings under the amended revolving line of credit and were accounted for under the extinguishment method of accounting.

Debentures and Notes Repaid in 2016

During 2016, Windstream Services repurchased \$441.1 million aggregate principal amount of its 2017 Notes for total consideration of \$477.5 million, plus accrued interest, pursuant to a cash tender offer. Under the tender offer, Windstream Services paid total consideration of \$1,082.50 per \$1,000 principal amount of the 2017 Notes, which included a \$30 early tender payment, plus accrued and unpaid interest. Windstream Services also repurchased \$93.5 million aggregate principal amount of the 2017 Notes at a repurchase price of \$99.5 million, including accrued and unpaid interest, under a debt repurchase program authorized by Windstream Services’ board of directors. In September 2016, Windstream Services redeemed the remaining \$369.5 million aggregate principal amount outstanding of the 2017 Notes at a redemption price of \$396.4 million, which included a premium payable to creditors of \$26.9 million. At the time of the repurchases and redemption, there was \$8.4 million in unamortized net discount and debt issuance costs related to these notes. Proceeds from the issuance of the Tranche B6 term loan and available borrowings under the amended revolving line of credit were used to fund the redemption and repurchases of the 2017 Notes, which were accounted for as debt extinguishments.

5. Long-term Debt and Lease Obligations, Continued:

Pursuant to the debt repurchase program discussed above, during 2016, Windstream Services repurchased in the open market \$466.8 million aggregate principal amount of its senior unsecured notes consisting of \$111.1 million aggregate principal amount of 2021 Notes, \$44.8 million aggregate principal amount of 2022 Notes, and \$196.6 million aggregate principal amount of April 2023 Notes and \$114.3 million aggregate principal amount of August 2023 Notes. At the time of repurchase, there was \$5.3 million in unamortized net discount and debt issuance costs related to the repurchased notes. The repurchases were funded utilizing available borrowings under the amended revolving line of credit and were accounted for under the extinguishment method of accounting.

Net Gain (Loss) on Early Extinguishment of Debt

The net gain (loss) on early extinguishment of debt was comprised of the following:

(Millions)	(Premium) discount on early redemption	Third-party fees for early redemption	Unamortized (discount) premium on original issuance, net	Unamortized debt issuance costs on original issuance	Net gain (loss) on early extinguishment of debt
Year ended December 31, 2018:					
Exchanges of 2021, 2022, April 2023, August 2023 and 2024 Notes	\$ 226.0	\$ —	\$ (22.9)	\$ (12.8)	\$ 190.3
Total	\$ 226.0	\$ —	\$ (22.9)	\$ (12.8)	\$ 190.3
Year ended December 31, 2017:					
Senior secured credit facility	\$ —	\$ —	\$ (1.8)	\$ (2.3)	\$ (4.1)
Broadview 2017 Notes	—	—	0.2	—	0.2
EarthLink 2019 and 2020 Notes	(18.3)	—	16.3	—	(2.0)
Partial repurchase of 2020 Notes	5.3	—	0.1	(0.4)	5.0
Exchanges of 2020, 2021, 2022, and April 2023 Notes	(49.9)	(2.0)	2.2	(5.8)	(55.5)
Total	\$ (62.9)	\$ (2.0)	\$ 17.0	\$ (8.5)	\$ (56.4)
Year ended December 31, 2016:					
Senior secured credit facility	\$ —	\$ —	\$ (1.7)	\$ (1.4)	\$ (3.1)
2017 Notes	(67.5)	(2.4)	(3.0)	(5.4)	(78.3)
Partial repurchases of 2021, 2022, April 2023 and August 2023 Notes	68.7	—	0.9	(6.2)	63.4
Total	\$ 1.2	\$ (2.4)	\$ (3.8)	\$ (13.0)	\$ (18.0)

Windstream Services may call certain debentures and notes at various premiums on early redemption. These debentures and notes consist of the remaining aggregate principal amounts due related to the 2020, 2021, 2022, April 2023, August 2023, 2024 and 2025 Notes. In addition, Windstream Services may call debt issued by Windstream Holdings of the Midwest, Inc. at various premiums upon early redemption.

5. Long-term Debt and Lease Obligations, Continued:

Long-term Lease Obligations

Leaseback of Telecommunications Network Assets.— On April 24, 2015, we completed the spin-off of certain telecommunications network assets, including our fiber and copper networks and other real estate, to Uniti. Following the spin-off transaction, Windstream Holdings entered into a long-term triple-net master lease with Uniti to lease back the telecommunications network assets. Under terms of the master lease, Windstream Holdings has the exclusive right to use the telecommunications network assets for an initial term of 15 years with up to four, five -year renewal options. Windstream Holdings is required to pay all property taxes, insurance, and repair or maintenance costs associated with the leased property. The master lease provides for an annual rent of \$650.0 million paid in equal monthly installments in advance and is fixed for the first three years. Thereafter, rent will increase on an annual basis at a base rent escalator of 0.5 percent . Future lease payments due under the agreement reset to fair market rental rates upon Windstream Holdings' execution of the renewal options. During December 2015, we requested and Uniti agreed to fund \$43.1 million of capital expenditures. As a result, the annual lease payment increased at a rate of 8.125 percent of the funds received from Uniti, or from \$650.0 million to \$653.5 million . Uniti also has the right, but not the obligation, upon Windstream's request, to fund additional capital expenditures of Windstream in an aggregate amount of up to \$250.0 million for a maximum period of five years . Monthly rent paid by us to Uniti will increase in accordance with the master lease effective as of the date of the funding. If Uniti exercises this right, the lease payments under the master lease will be adjusted at a rate of 8.125 percent of the capital expenditures funded by Uniti during the first two years and at a floating rate based on Uniti's cost of capital thereafter. Additionally, if Uniti agrees to fund the entire \$250.0 million , the initial term of the master lease will be increased from 15 years to 20 years and the number of renewal terms will be reduced from four renewal terms of five years each to three renewal terms of five years each.

Due to various forms of continuing involvement, including Windstream Services or its subsidiaries, retaining bare legal title (but not beneficial ownership) to the various easements, permits and pole attachments related to the telecommunications network assets, we accounted for the transaction as a failed spin-leaseback for financial reporting purposes. As a result, the net book value of the network assets transferred to Uniti continue to be reported in our consolidated balance sheet and all depreciable assets will be fully depreciated over the initial lease term of 15 years . Tenant capital improvements are depreciated over the shorter of the estimated useful life of the asset or the initial lease term.

At inception of the master lease, we recorded a long-term lease obligation of approximately \$5.1 billion equal to the sum of the minimum future annual lease payments over the 15 -year lease term discounted to the present value based on Windstream Services' incremental borrowing rate. Funding received from Uniti in December 2015 for capital expenditures was recorded as an increase to the long-term lease obligation. The effective interest rate on the long-term lease obligation is approximately 10.1 percent . As annual lease payments are made, a portion of the payment will decrease the long-term lease obligation with the balance of the payment charged to interest expense using the effective interest method.

As the master lease was entered into by Windstream Holdings for the direct benefit of Windstream Services and its subsidiaries, Windstream Services is also deemed to have continuing involvement due to retaining its regulatory obligations associated with operating the telecommunications network assets. Accordingly, the effects of the failed spin-leaseback transaction have also been reflected in the standalone consolidated financial statements of Windstream Services. Notwithstanding the foregoing accounting treatment, neither Windstream Services or its subsidiaries is a counterparty or obligor to the master lease agreement.

The filing of the Chapter 11 Cases resulted in an event of default under the master lease. Upon an event of default, remedies available to Uniti include terminating the master lease and requiring us to transfer the business operations we conduct on the leased assets so terminated (with limited exceptions) to a successor tenant for fair market value pursuant to a process set forth in the master lease, dispossessing us from the leased assets, and/or collecting monetary damages for the breach (including rent acceleration), electing to leave the master lease in place and sue for rent and any other monetary damages, and seeking any and all other rights and remedies available under law or in equity. The exercise of such remedies could have a material adverse effect on our business, financial position, results of operations and liquidity. Due to the Chapter 11 Cases, however, Uniti's ability to exercise remedies under master lease was stayed as of the date of the Chapter 11 petition filing.

5. Long-term Debt and Lease Obligations, Continued:

Leaseback of Real Estate Contributed to Pension Plan - During 2014, we contributed certain of our owned real property to the Windstream Pension Plan and then entered into agreements to leaseback the properties for continued use by our operating subsidiaries. The lease agreements include initial lease terms of 10 years for certain properties and 20 years for the remaining properties at an aggregate annual rent of approximately \$6.0 million. The lease agreements provide for annual rent increases ranging from 2.0 percent to 3.0 percent over the initial lease term and may be renewed for up to three additional five-year terms. The properties are managed on behalf of the Windstream Pension Plan by an independent fiduciary. Due to various forms of continuing involvement, including Windstream Services' benefit from the future appreciation of the property, the transaction has been accounted for as a failed contribution-leaseback. Accordingly, the properties continue to be reported as assets of Windstream and depreciated over their remaining useful lives until termination of the lease agreement. We recorded a long-term lease obligation equal to the fair value of the properties at the date of contribution of \$72.2 million. As a result of using the effective interest rate method, when lease payments are made to the Windstream Pension Plan, a portion of the payment is charged to interest expense and the remaining portion is recorded as an accretion to the long-term lease obligation.

A summary of the current and noncurrent portions of the long-term lease obligations was as follows:

(Millions)	December 31, 2018			December 31, 2017		
	Current	Noncurrent	Total	Current	Noncurrent	Total
Assets Subject to Leaseback:						
Telecommunications network assets (a)	\$ 4,570.3	\$ —	\$ 4,570.3	\$ 188.6	\$ 4,570.3	\$ 4,758.9
Real estate contributed to pension plan	—	72.8	72.8	—	73.0	73.0
Total	\$ 4,570.3	\$ 72.8	\$ 4,643.1	\$ 188.6	\$ 4,643.3	\$ 4,831.9

- (a) Due to cross-default provisions contained within the master lease discussed above, the remaining obligations under the master lease also were accelerated. As a result, the long-term lease obligation has been classified as a current liability in the accompanying consolidated balance sheet as of December 31, 2018.

Undiscounted future minimum payments during the initial terms of the leases were as follows for the years ended December 31:

(Millions)	Leaseback of		Total
	Telecommunications Network Assets	Leaseback of Real Estate Contributed to Pension Plan	
Year			
2019	\$ 658.9	\$ 6.5	\$ 665.4
2020	662.2	6.7	668.9
2021	665.6	6.9	672.5
2022	668.9	7.1	676.0
2023	672.2	7.3	679.5
Thereafter	4,323.1	55.0	4,378.1
Total	\$ 7,650.9	\$ 89.5	\$ 7,740.4

Capital Lease Obligations

We lease facilities and equipment for use in our operations. These facilities and equipment are included in outside communications plant in property, plant and equipment in the accompanying consolidated balance sheets. Lease agreements that include a bargain purchase option, transfer of ownership, contractual lease term equal to or greater than 75 percent of the remaining estimated economic life of the leased facilities or equipment or minimum lease payments equal to or greater than 90 percent of the fair value of the leased facilities or equipment are accounted for as capital leases in accordance with authoritative guidance for capital leases. These capital lease obligations are included in the accompanying consolidated balance sheets within other current liabilities and other liabilities. During 2018 and 2017, we acquired equipment under capital leases of \$40.9 million and \$79.1 million, respectively.

5. Long-term Debt and Lease Obligations, Continued:

Future minimum lease payments under capital lease obligations were as follows for the years ended December 31:

Year	(Millions)
2019	\$ 54.5
2020	25.8
2021	8.6
2022	4.3
2023	4.2
Thereafter	5.1
Total future payments	102.5
Less: Amounts representing interest	8.4
Present value of minimum lease payments	\$ 94.1

Interest Expense

Interest expense was as follows for the years ended December 31:

(Millions)	2018	2017	2016
Interest expense - long-term debt	\$ 429.0	\$ 376.1	\$ 350.9
Interest expense - long-term lease obligations:			
Telecommunications network assets	467.0	484.9	500.8
Real estate contributed to pension plan	6.2	6.2	5.8
Impact of interest rate swaps	(3.5)	10.1	11.0
Interest on capital leases and other	6.3	5.1	2.8
Less capitalized interest expense	(3.7)	(7.0)	(10.7)
Total interest expense	\$ 901.3	\$ 875.4	\$ 860.6

6. Derivatives:

Windstream Services enters into interest rate swap agreements to mitigate the interest rate risk inherent in its variable rate senior secured credit facility. Derivative instruments are accounted for in accordance with authoritative guidance for recognition, measurement and disclosures about derivative instruments and hedging activities, including when a derivative or other financial instrument can be designated as a hedge. This guidance requires recognition of all derivative instruments at fair value, and accounting for the changes in fair value depends on whether the derivative has been designated as, qualifies as and is effective as a hedge.

Windstream Services does not use derivatives for trading or speculative purposes and currently does not have any derivatives that are not designated as hedges. For our derivatives which have been designated and qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in accumulated other comprehensive income and subsequently reclassified into interest expense in the same periods during which the hedged transaction affects earnings. Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest expense as interest payments are made on Windstream Services' variable-rate debt.

6. Derivatives, Continued:

As of December 31, 2018, Windstream Services was party to six pay fixed, receive variable interest rate swap agreements. Windstream Services has designated each of the six swaps as cash flow hedges of the interest rate risk inherent in borrowings outstanding under its senior secured credit facility due to changes in the LIBOR benchmark interest rate. The variable rate received on the six swaps is based on one-month LIBOR and resets on the seventeenth day of each month. All of the interest rate swap agreements mature on October 17, 2021. Three of the interest rate swaps are off-market swaps, meaning they contain an embedded financing element, which the swap counterparties recover through an incremental charge in the fixed rate over what would be charged for an at-market swap. As such, a portion of the cash payment on the swaps represents the rate that Windstream Services would pay on a hypothetical at-market interest rate swap and is recognized in interest expense. The remaining portion represents the repayment of the embedded financing element and reduces the initial swap liability. These three swaps have a total notional value of \$675.0 million and the average fixed interest rate paid is 2.984 percent. The fourth interest rate swap agreement has a notional value of \$200.0 million and the fixed interest rate paid is 1.1275 percent. The remaining two interest rate swap agreements have a total notional value of \$500.0 million and the fixed interest rate paid is 1.8812 percent.

All of the swaps are hedging probable variable cash flows which extend up to one year beyond the maturity of certain components of Windstream Services' variable rate debt. Consistent with past practice, Windstream Services expects to extend or otherwise replace these components of its debt with variable rate debt.

As a result of previous refinancing transactions, Windstream Services de-designated certain interest rate swaps and froze the accumulated net gains and losses in accumulated other comprehensive income related to those swaps. The frozen balance is amortized from accumulated other comprehensive income to interest expense over the remaining life of the original swaps.

All derivative instruments are recognized at fair value in the accompanying consolidated balance sheets as either assets or liabilities, depending on the rights or obligations under the related contracts.

Set forth below is information related to interest rate swap agreements:

(Millions, except for percentages)	2018	2017
Designated portion, measured at fair value		
Other current assets	\$ 15.3	\$ 1.2
Other assets	\$ —	\$ 10.6
Other current liabilities	\$ 6.8	\$ 7.8
Other non-current liabilities	\$ —	\$ 10.5
Accumulated other comprehensive income	\$ 39.7	\$ 33.7
De-designated portion, unamortized value		
Accumulated other comprehensive loss	\$ (2.4)	\$ (5.4)
Weighted average fixed rate paid	2.31%	2.31%
Variable rate received	2.46%	1.49%

Prior to the adoption of ASU 2017-12, effective as of January 1, 2018, derivatives were assessed for effectiveness each quarter and any ineffectiveness was recognized in other income, net in our consolidated statements of operations. Ineffectiveness recognized on the cash flow hedges was \$(0.1) million and \$1.4 million for the years ended December 31, 2017 and 2016, respectively.

All or a portion of the change in fair value of Windstream Services' interest rate swap agreements recorded in accumulated other comprehensive income may be recognized in earnings in certain situations. If Windstream Services extinguishes all of its variable rate debt or a portion of its variable rate debt such that the variable rate interest received on the swaps exceeds the variable rate interest paid on its debt, all or a portion of the change in fair value of the swaps may be recognized in earnings. In addition, the change in fair value of the swaps may be recognized in earnings if Windstream Services determines it is no longer probable that it will have future variable rate cash flows to hedge against or if a swap agreement is terminated prior to maturity. Windstream Services has assessed the counterparty risk and determined that no substantial risk of default exists as of December 31, 2018. Each counterparty is a bank with a current credit rating at or above A, as determined by Moody's Investors Service, Standard & Poor's Corporation and Fitch Ratings.

6. Derivatives, Continued:

Windstream Services expects to recognize net gains of \$9.8 million, net of taxes, in interest expense in the next twelve months related to the unamortized value of the de-designated portion of interest rate swap agreements and the interest settlements for its six interest swap agreements at December 31, 2018. Payments on the swaps are presented in the financing activities section of the accompanying consolidated statements of cash flows due to the embedded financing element discussed above.

Changes in derivative instruments were as follows for the years ended December 31:

(Millions)	2018		2017		2016
Changes in fair value of effective portion, net of tax (a)	\$	2.8	\$	7.0	\$ 4.9
Amortization of unrealized losses on de-designated interest rate swaps, net of tax (a)	\$	2.3	\$	3.3	\$ 2.9

- (a) Included as a component of other comprehensive income (loss) and will be reclassified into earnings as the hedged transaction affects earnings. For 2017 and 2016, this amount reflects only the effective portion of the change in fair value of the cash flow hedges.

The agreements with each of the derivative counterparties contain cross-default provisions, whereby if Windstream Services were to default on certain indebtedness, it could also be declared in default on its derivative obligations and may be required to net settle any outstanding derivative liability positions with its counterparties at the swap termination value of \$9.9 million including accrued interest and excluding the credit valuation adjustment to measure non-performance risk. As a result of the adverse court ruling and subsequent filing of the Chapter 11 Cases and cross-default provisions contained within the interest rate swap agreements, the interest rate swaps have been classified as current assets and liabilities in the accompanying consolidated balance sheet as of December 31, 2018.

In addition, certain of the agreements with the counterparties contain provisions where if a specified event or condition, such as a merger, occurs that materially changes Windstream Services' creditworthiness in an adverse manner, Windstream Services may be required to fully collateralize its derivative obligations. At December 31, 2018, Windstream Services had not posted any collateral related to its interest rate swap agreements.

Balance Sheet Offsetting

Windstream Services is party to master netting arrangements, which are designed to reduce credit risk by permitting net settlement of transactions, with counterparties. For financial statement presentation purposes, Windstream Services does not offset assets and liabilities under these arrangements.

The following tables present the assets and liabilities subject to an enforceable master netting arrangement as of December 31, 2018 and 2017.

Information pertaining to derivative assets was as follows:

(Millions)	Gross Amount of Assets Presented in the Consolidated Balance Sheets	Gross Amounts Not Offset in the Consolidated Balance Sheets			Net Amount
		Financial Instruments	Cash Collateral Received		
December 31, 2018:					
Interest rate swaps	\$ 15.3	\$ (3.2)	\$ —	\$ 12.1	
December 31, 2017:					
Interest rate swaps	\$ 11.8	\$ (2.9)	\$ —	\$ 8.9	

6. Derivatives, Continued:

Information pertaining to derivative liabilities was as follows:

(Millions)	Gross Amount of Liabilities Presented in the Consolidated Balance Sheets	Gross Amounts Not Offset in the Consolidated Balance Sheets			Net Amount
		Financial Instruments	Cash Collateral Received		
December 31, 2018:					
Interest rate swaps	\$ 6.8	\$ (3.2)	\$ —		\$ 3.6
December 31, 2017:					
Interest rate swaps	\$ 18.3	\$ (2.9)	\$ —		\$ 15.4

7. Fair Value Measurements:

Fair value of financial and non-financial assets and liabilities is defined as an exit price, representing the amount that would be received to sell an asset or transfer a liability in an orderly transaction between market participants. Authoritative guidance defines the following three tier hierarchy for assessing the inputs used in fair value measurements:

- Level 1 – Quoted prices in active markets for identical assets or liabilities
- Level 2 – Observable inputs other than quoted prices in active markets for identical assets or liabilities
- Level 3 – Unobservable inputs

The highest priority is given to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurement) and the lowest priority is given to unobservable inputs (level 3 measurement). Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the determination of fair value assets and liabilities and their placement within the fair value hierarchy levels.

Our non-financial assets and liabilities, including property, plant and equipment, goodwill, intangible assets and asset retirement obligations, are measured at fair value on a non-recurring basis. No event occurred during the year ended December 31, 2018 requiring these non-financial assets and liabilities to be subsequently recognized at fair value. Our financial instruments consist primarily of cash and cash equivalents, restricted cash, accounts receivable, accounts payable, long-term debt and interest rate swaps. The carrying amount of cash, restricted cash, accounts receivable and accounts payable was estimated by management to approximate fair value due to the relatively short period of time to maturity for those instruments. Cash equivalents, long-term debt and interest rate swaps are measured at fair value on a recurring basis. Cash equivalents were not significant as of December 31, 2017.

The fair values of interest rate swaps and long-term debt were determined using the following inputs at December 31:

(Millions)	2018	2017
Recorded at Fair Value in the Financial Statements:		
Cash equivalents - Level 1 (a)	\$ 310.0	\$ —
Derivatives:		
Interest rate swap assets - Level 2	\$ 15.3	\$ 11.8
Interest rate swap liabilities - Level 2	\$ 6.8	\$ 18.3
Not Recorded at Fair Value in the Financial Statements: (b)		
Long-term debt, including current portion - Level 2	\$ 4,405.8	\$ 4,824.2

- (a) Cash equivalents are highly liquid, actively traded money market funds with next day access.
- (b) Recognized at carrying value of \$5,785.7 million and \$5,905.9 million in long-term debt, including current portion, and excluding unamortized debt issuance costs, in the accompanying consolidated balance sheets as of December 31, 2018 and 2017, respectively.

7. Fair Value Measurements, Continued:

The fair values of interest rate swaps are determined based on the present value of expected future cash flows using observable, quoted LIBOR swap rates for the full term of the swaps and also incorporate credit valuation adjustments to appropriately reflect both Windstream Services' own non-performance risk and non-performance risk of the respective counterparties. As of December 31, 2018 and 2017, the fair values of the interest rate swaps were reduced by \$2.9 million and \$4.8 million, respectively, to reflect non-performance risk.

In calculating the fair value of Windstream Services' long-term debt, the fair value of the debentures and notes was calculated based on quoted market prices of the specific issuances in an active market when available. The fair value of the other debt obligations was estimated based on appropriate market interest rates applied to the debt instruments. In calculating the fair value of the Windstream Holdings of the Midwest, Inc. notes, an appropriate market price of similar instruments in an active market considering credit quality, nonperformance risk and maturity of the instrument was used.

We do not have any assets or liabilities measured for purposes of the fair value hierarchy at fair value using significant unobservable inputs (Level 3). There were no transfers within the fair value hierarchy during the year ended December 31, 2018.

8. Revenues:

As previously discussed in Note 2, we adopted ASU 2014-09 effective January 1, 2018 using the modified retrospective transition method. The majority of our revenue is derived from providing access to or usage of our networks and facilities we operate.

Contract Balances— Contract assets include unbilled amounts resulting when revenue recognized exceeds the amount billed to the customer, and right to payment is not just subject to the passage of time. Contract assets principally consist of discounts and promotional credits given to customers. The current and noncurrent portion of contract assets is included in prepaid expenses and other and other assets, respectively, in the accompanying consolidated balance sheets.

Our contract liabilities consist of services billed in excess of revenue recognized. Our contract assets and liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period. The change in our contract liabilities is primarily related to customer activity associated with services billed in advance, the receipt of cash payments and the satisfaction of our performance obligations. We classify these amounts as current or noncurrent based on the timing of when we expect to recognize revenue.

Contract assets and liabilities from contracts with customers were as follows at:

(Millions)	December 31,	
	2018	January 1, 2018
Contract assets (a)	\$ 12.6	\$ 13.1
Contract liabilities (b)	\$ (184.8)	\$ (209.3)
Revenues recognized included in the opening contract liability balance	\$ 194.9	

- (a) Includes \$8.3 million and \$3.6 million in prepaid expense and other and \$4.3 million and \$9.5 million in other assets as of December 31, 2018 and January 1, 2018, respectively.
- (b) Includes \$172.1 million and \$198.3 million in advance payments and customer deposits and \$12.7 million and \$11.0 million in other liabilities as of December 31, 2018 and January 1, 2018, respectively.

Remaining Performance Obligations— Our remaining performance obligations represent services we are required to provide to customers under bundled or discounted arrangements, which are satisfied as services are provided over the contract term. Certain contracts provide customers the option to purchase additional services or usage based services. The fees related to the additional services or usage based services are recognized when the customer exercises the option, typically on a month-to-month basis. In determining the transaction price allocated, we do not include these non-recurring fees and estimates for usage, nor do we consider arrangements with an original expected duration of less than one year.

8. Revenues, Continued:

Remaining performance obligations reflect recurring charges billed, adjusted for discounts and promotional credits and revenue adjustments. At December 31, 2018, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately \$3.4 billion for contracts with original expected durations of more than one year remaining. We expect to recognize approximately 43.8 percent, 30.8 percent and 14.9 percent of our remaining performance obligations as revenue during 2019, 2020 and 2021, with the remaining balance thereafter.

Revenue by Category— We disaggregate our revenue from contracts with customers by product type for each of our segments, as we believe it best depicts the nature, amount and timing of our revenue. Revenues recognized from contracts with customers by customer and product type for the year ended December 31, 2018 was as follows:

(Millions)	Consumer & Small Business	Enterprise	Wholesale	Consumer CLEC	Total
Revenue from contracts with customers:					
Type of service:					
High-speed Internet bundles	\$ 963.5	\$ —	\$ —	\$ 88.5	\$ 1,052.0
Voice and long-distance	120.5	949.7	—	—	1,070.2
Video and miscellaneous	44.3	—	—	—	44.3
Dial-up, e-mail and miscellaneous	—	—	—	88.3	88.3
Data and integrated services	—	1,540.8	—	—	1,540.8
Small business services	296.3	—	—	—	296.3
Core wholesale (a)	—	—	549.2	—	549.2
Resale (b)	—	—	79.5	—	79.5
Wireless TDM (c)	—	—	9.6	—	9.6
Switched access	28.4	—	35.9	—	64.3
Miscellaneous	—	139.9	—	—	139.9
Service revenues from contracts with customers	1,453.0	2,630.4	674.2	176.8	4,934.4
Product sales	26.5	48.2	0.7	0.5	75.9
Total revenue from contracts with customers	1,479.5	2,678.6	674.9	177.3	5,010.3
Other service revenues (d)	397.5	253.3	48.2	3.8	702.8
Total revenues and sales	\$ 1,877.0	\$ 2,931.9	\$ 723.1	\$ 181.1	\$ 5,713.1

- (a) Core wholesale revenues primarily include revenues from providing special access circuits, fiber connections, data transport and wireless backhaul services.
- (b) Revenues represent voice and data services sold to other communications services providers on a resale basis.
- (c) Revenues represent Time Division Multiplexing (“TDM”) private line transport services.
- (d) Other service revenues primarily include end user surcharges, CAF – Phase II funding, state USF and access recovery mechanism (“ARM”) support and lease revenue.

Deferred Commissions and Other Costs to Fulfill a Contract— Our direct incremental costs of obtaining a contract, consisting of sales commissions and certain costs associated with activating services, including costs to develop customized solutions and provision services, are deferred and recognized as an operating expense using a portfolio approach over the estimated life of the customer, which ranges from 18 to 36 months.

Determining the amount of costs to fulfill requires judgment. In determining costs to fulfill, consideration is given to periodic time studies, management estimates and statistics from internal information systems.

8. Revenues, Continued:

Collectively, deferred commissions and other costs to fulfill a contract are referred to as deferred contract costs. We classify deferred contract costs as current or noncurrent based on the timing of when we expect to recognize the expense. The current and noncurrent portions of deferred contract costs are included in prepaid expenses and other and other assets, respectively, in our consolidated balance sheets. Deferred contract costs totaled \$45.5 million at December 31, 2018, of which \$30.4 million and \$15.1 million was included in prepaid expenses and other and other assets, respectively. At January 1, 2018, deferred contract costs were \$44.6 million, of which \$30.3 million and \$14.3 million was included in prepaid expenses and other and other assets, respectively.

Amortization of deferred contract costs was \$42.0 million for the year ended December 31, 2018. There was no impairment loss recognized for the year ended December 31, 2018, related to deferred contract cost.

9. Employee Benefit Plans and Postretirement Benefits:

We maintain a non-contributory qualified defined benefit pension plan. Future benefit accruals for all eligible nonbargaining employees covered by the pension plan have ceased. We also maintain supplemental executive retirement plans that provide unfunded, non-qualified supplemental retirement benefits to a select group of management employees. Additionally, we provide postretirement healthcare and life insurance benefits for eligible employees. Employees share in, and we fund, the costs of these plans as benefits are paid.

The components of pension benefit (income) expense (including provision for executive retirement agreements) and postretirement benefits (income) expense were as follows for the years ended December 31:

(Millions)	Pension Benefits			Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Benefits earned during the year	\$ 3.5	\$ 8.1	\$ 8.7	\$ —	\$ —	\$ —
Interest cost on benefit obligation	43.1	46.3	53.2	0.8	1.1	1.3
Net actuarial loss	14.9	10.5	60.7	—	—	—
Amortization of net actuarial loss	—	—	—	0.2	0.1	0.2
Amortization of prior service credit	(4.8)	(0.4)	(0.3)	(0.3)	(0.3)	(0.8)
Plan curtailments and settlements	(2.7)	—	0.1	—	—	(5.5)
Expected return on plan assets	(55.0)	(54.4)	(63.3)	—	—	—
Net periodic benefit (income) expense	\$ (1.0)	\$ 10.1	\$ 59.1	\$ 0.7	\$ 0.9	\$ (4.8)

During 2018, we amended the qualified defined benefit pension plan for certain eligible bargaining participants, the effects of which (i) froze benefit accruals upon reaching 30 years of service, (ii) provided for an unreduced early retirement benefit for participants with 30 years of service and (iii) added a lump-sum payment option. Changes to these benefit provisions required remeasurement of the pension plan's funded status as of June 30, 2018 based on updated census data and actuarial assumptions, including the discount rate, which increased from 3.68 percent to 4.31 percent, and fair value of plan assets. As a result of the remeasurement, we recognized a curtailment gain of \$2.7 million, prior service credits of \$2.8 million and a net actuarial gain of \$5.6 million.

During 2016, we made changes to our postretirement medical plan, eliminating medical and prescription drug subsidies primarily for certain active participants effective March 14, 2016. As a result, we remeasured the plan and recognized curtailment gains totaling \$5.5 million, of which \$4.5 million was recognized in cost of services expenses and \$1.0 million was recognized in selling, general and administrative expenses, with the offsetting effects recorded as a reduction in accumulated other comprehensive loss.

In determining our annual postretirement benefits cost, we amortize unrecognized actuarial gains and losses exceeding 10.0 percent of the projected benefit obligation over the lesser of 10 years or the average remaining service life of active employees or life expectancy of inactive participants. We do not amortize unrecognized actuarial gains and losses below the 10.0 percent corridor.

9. Employee Benefit Plans and Postretirement Benefits, Continued:

A summary of plan assets, projected benefit obligation and funded status of the plans (including executive retirement agreements) were as follows at December 31:

(Millions)	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
Fair value of plan assets at beginning of year	\$ 841.4	\$ 799.4	\$ 0.4	\$ 0.4
Actual return on plan assets	(41.1)	97.3	—	—
Employer contributions (a)	18.5	30.1	1.3	3.0
Participant contributions	—	—	2.8	3.0
Benefits paid (b)	(77.9)	(85.9)	(4.1)	(6.0)
Settlements	—	0.5	—	—
Fair value of plan assets at end of year	\$ 740.9	\$ 841.4	\$ 0.4	\$ 0.4
Projected benefit obligation at beginning of year	\$ 1,157.9	\$ 1,145.4	\$ 27.4	\$ 28.0
Interest cost on projected benefit obligations	43.1	46.3	0.8	1.1
Service costs	6.2	8.1	—	—
Participant contributions	—	—	2.8	3.0
Plan amendments	(2.8)	(9.1)	—	—
Actuarial (gain) loss	(80.8)	53.1	(7.2)	1.3
Benefits paid (b)	(77.9)	(85.9)	(4.1)	(6.0)
Curtailments	(2.7)	—	—	—
Projected benefit obligation at end of year	\$ 1,043.0	\$ 1,157.9	\$ 19.7	\$ 27.4
Plan assets less than projected benefit obligation recognized in the consolidated balance sheet:				
Current liabilities	\$ (16.0)	\$ (20.1)	\$ (1.3)	\$ (1.9)
Noncurrent liabilities	(286.1)	(296.4)	(18.0)	(25.1)
Funded status recognized in the consolidated balance sheets	\$ (302.1)	\$ (316.5)	\$ (19.3)	\$ (27.0)
Amounts recognized in accumulated other comprehensive income:				
Net actuarial loss (gain)	\$ —	\$ —	\$ 1.5	\$ (5.9)
Prior service credits	8.2	10.2	0.9	1.2
Net amount recognized in accumulated other comprehensive income	\$ 8.2	\$ 10.2	\$ 2.4	\$ (4.7)

- (a) During 2018, we made contributions totaling \$17.7 million to the qualified pension plan to satisfy our 2018 and remaining 2017 funding requirements using proceeds from the ATM Program and available cash on hand. We also contributed \$1.3 million to the postretirement plan excluding amounts that were funded by participant contributions to the plan.
- (b) Pension benefits paid from Windstream's assets totaled \$0.8 million and \$1.1 million in 2018 and 2017, respectively. All postretirement benefits in both years were paid from Windstream's general corporate assets in both years.

Significant changes in the pension projected benefit obligation for the year-ended 2018 include a \$75.6 million actuarial gain attributable to the change in discount rate from 3.68 percent to 4.34 percent, a \$20.8 million actuarial gain attributable to other assumption changes, including changes made as a result of the 2018 experience study, the update to the lump sum conversion rate, and the update to the generational mortality projection scale to reflect the most recently published scale, and a \$15.6 million actuarial loss due to plan experience.

Significant changes in the postretirement projected benefit obligation for the year-ended 2018 include a \$4.1 million actuarial gain due to plan experience, a \$1.6 million actuarial gain is attributable to other assumption changes, including changes made as a result of the 2018 experience study, the updates to claims cost and trend rate experience, and the update to the generational mortality projection scale to reflect the most recently published scale, and a \$1.5 million actuarial gain attributable to the change in discount rate from 3.74 percent to 4.38 percent.

9. Employee Benefit Plans and Postretirement Benefits, Continued:

The accumulated benefit obligation of our pension plan and executive retirement agreements, was \$1,033.2 million , \$1,141.7 million and \$1,105.5 million at December 31, 2018 , 2017 and 2016 , respectively.

Assumptions— Actuarial assumptions used to calculate pension and postretirement benefits expense (income) were as follows for the years ended December 31:

(Millions)	Pension Benefits (a)			Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Discount rate	4.00%	4.19%	4.40%	3.74%	4.26%	4.67%
Expected return on plan assets	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Rate of compensation increase	2.00%	2.00%	2.00%	—%	—%	—%

- (a) As a result of the remeasurement of our pension benefit obligation due to benefit provision changes previously discussed, key assumptions including the discount rate were updated as of the remeasurement date.

Actuarial assumptions used to calculate the benefit obligations were as follows at December 31:

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
Discount rate	4.34%	3.68%	4.38%	3.74%
Expected return on plan assets	7.00%	7.00%	7.00%	7.00%
Rate of compensation increase	2.00%	2.00%	—%	—%

In developing the expected long-term rate of return assumption, we considered the plan's historical rate of return, as well as input from our investment advisors. Projected returns on qualified pension plan assets were based on broad equity and bond indices and include a targeted asset allocation of 31.0 percent to equities, 49.0 percent to fixed income securities, and 20.0 percent to alternative investments, with an aggregate expected long-term rate of return of approximately 7.0 percent .

Information regarding the healthcare cost trend rate was as follows for the years ended December 31:

	2018	2017
Healthcare cost trend rate assumed for next year	6.25%	6.50%
Rate that the cost trend ultimately declines to	5.00%	5.00%
Year that the rate reaches the terminal rate	2024	2024

Plan Assets— Our pension plan assets are allocated to asset categories based on the specific strategy employed by the asset's investment manager. The asset allocation for our pension plan by asset category was as follows for the years ended December 31:

Asset Category	Target Allocation	Percentage of Plan Assets	
	2019	2018	2017
Equity securities	25.8% - 35.8%	24.4%	28.9%
Fixed income securities	35.5% - 60.5%	53.5%	53.3%
Alternative investments	14.7% - 24.7%	21.6%	15.7%
Money market and other short-term interest bearing securities	0.0% - 6.5%	0.5%	2.1%
		100.0%	100.0%

We utilize a third party to assist in evaluating the allocation of the total assets in the pension trust, taking into consideration the pension liabilities and funded status of the pension plan. Assets are managed utilizing a liability driven investment approach, meaning that assets are managed within a risk management framework which addresses the need to generate incremental returns in the context of an appropriate level of risk, based on plan liability profiles and changes in funded status. The return objectives are to satisfy funding obligations when and as prescribed by law and to keep pace with the growth of the pension plan liabilities. Given the long time horizon for paying out benefits and our strong financial condition, the pension plan can accept an average level of risk relative to other similar plans. The liquidity needs of the pension plan are manageable given that lump sum payments are not available to most participants.

9. Employee Benefit Plans and Postretirement Benefits, Continued:

Equity securities include stocks of both large and small capitalization domestic and international companies. Equity securities are expected to provide both diversification and long-term real asset growth. Domestic equities may include modest holdings of non-U.S. equities, purchased by domestic equity managers as long as they are traded in the U.S and denominated in U.S. dollars and both active and passive (index) investment strategies. International equities provide a broad exposure to return opportunities and investment characteristics associated with the world equity markets outside the U.S. The pension plan's equity holdings are diversified by investment style, market capitalization, market or region, and economic sector. The pension plan is permitted to make investments in our common stock.

Fixed income securities include securities issued by the U.S. Government and other governmental agencies, asset-backed securities and debt securities issued by domestic and international entities, and derivative instruments comprised of swaps, futures, forwards and options. These securities are expected to provide diversification benefits, and are expected to reduce asset volatility and pension funding volatility, and a stable source of income.

Alternative investments may include hedge funds and hedge funds of funds, commodities, both private and public real estate and private equity investments. In addition to attractive diversification benefits, the alternative investments are expected to provide both income and capital appreciation.

Investments in money market and other short-term interest bearing securities are maintained to provide liquidity for benefit payments with protection of principal being the primary objective.

The fair values of our pension plan assets were determined using the following inputs as of December 31, 2018 :

(Millions)	Fair Value	Quoted Price in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
		Level 1	Level 2	Level 3
Money market fund and interest bearing cash (a)	\$ 41.0	\$ —	\$ 41.0	\$ —
Common collective and other trust funds (b)	137.6	—	137.6	—
Government and agency securities (c)	241.1	—	241.1	—
Corporate bonds and asset backed securities (c)	21.6	—	21.6	—
Common and preferred stocks - domestic (c)	21.8	21.8	—	—
Common and preferred stocks - international (c)	29.2	29.2	—	—
Mutual fund (c)	42.5	42.5	—	—
Real estate LLCs (d)	70.3	—	—	70.3
Derivative financial instruments (e)	—	—	—	—
Other investments (f)	1.2	0.4	—	0.8
Investments included in fair value hierarchy	606.3	\$ 93.9	\$ 441.3	\$ 71.1
Other investments measured at NAV:				
Pooled funds (g)	96.5			
Real estate and private equity funds (h)	40.0			
Total investments	742.8			
Dividends and interest receivable	1.0			
Pending trades and other liabilities	(2.9)			
Total plan assets	\$ 740.9			

9. Employee Benefit Plans and Postretirement Benefits, Continued:

The fair values of our pension plan assets were determined using the following inputs as of December 31, 2017 :

(Millions)	Fair Value	Quoted Price in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
		Level 1	Level 2	Level 3
Money market fund and interest bearing cash (a)	\$ 56.0	\$ —	\$ 56.0	\$ —
Common collective and other trust funds (b)	202.0	—	202.0	—
Government and agency securities (c)	250.7	—	250.7	—
Corporate bonds and asset backed securities (c)	27.3	—	27.3	—
Common and preferred stocks - domestic (c)	35.0	35.0	—	—
Common and preferred stocks - international (c)	26.5	26.5	—	—
Mutual fund (c)	51.7	51.7	—	—
Real estate LLCs (d)	72.7	—	—	72.7
Derivative financial instruments (e)	6.4	—	6.4	—
Other investments (f)	1.3	0.5	—	0.8
Investments included in fair value hierarchy	729.6	\$ 113.7	\$ 542.4	\$ 73.5
Other investments measured at NAV:				
Pooled funds (g)	85.1			
Real estate and private equity funds (h)	36.6			
Total investments	851.3			
Dividends and interest receivable	4.4			
Pending trades and other liabilities	(14.3)			
Total plan assets	\$ 841.4			

- (a) Money market fund is valued based on the fair value of the underlying assets held as determined by the fund manager on the last business day of the year. The underlying assets are mostly comprised of certificates of deposit, time deposits and commercial paper valued at amortized cost. The carrying amount of interest bearing cash is estimated to approximate fair value due to the short-term nature of this investment.
- (b) Units in common collective and other trust funds are valued by reference to the funds' underlying assets and are based on the net asset value as reported by the fund manager on the last business day of the year. The underlying assets are mostly comprised of publicly traded equity securities and fixed income securities. These securities are valued at the official closing price of, or the last reported sale prices as of the close of business or, in the absence of any sales, at the latest available bid price.
- (c) Government and agency securities, corporate bonds and asset backed securities, common and preferred stocks, and mutual funds traded in active markets on securities exchanges are valued at their quoted market price on the last day of the year. Securities traded in markets that are not considered active are valued based on quoted market prices, broker or dealer quotes or alternative pricing sources with reasonable levels of price transparency.
- (d) This category consists of real estate properties contributed by Windstream to limited liability companies ("LLCs") wholly- owned by the pension plan. The fair value of these properties is based on independent appraisals. (See also Note 5.)
- (e) Derivative financial instruments consist primarily of swaps and are valued at fair value based on models that reflect the contractual terms of the instruments. Inputs include primarily observable market information, such as swap curves, benchmark yields, rating updates and interdealer broker quotes at the end of the year.
- (f) Other investments consist of a guaranteed annuity contract and investments in foreign currency. The guaranteed annuity contract is reported at contract value which approximates fair value and is based on the value of the underlying contracts as determined by the insurance company. Investments in foreign currency are valued at their quoted market price on the last day of the year.

9. Employee Benefit Plans and Postretirement Benefits, Continued:

- (g) The pooled investment funds are valued based on the net asset value of the fund as determined by the fund manager on the last business day of the year, and is derived from the fair value of each underlying investment held by the pooled fund. These investments have not been classified within the fair value hierarchy.
- (h) The real estate fund is valued based on the net asset value of the fund on the last business day of the year. The net asset value is derived from the fair value of the underlying net assets of the fund. Private equity funds consist of investments in limited partnerships and are valued based on the pension plan's capital account balance at year end as reported in the audited financial statements of the partnership. These investments have not been classified within the fair value hierarchy.

The following is a reconciliation of the beginning and ending balances of pension plan assets that are measured at fair value using significant unobservable inputs:

(Millions)	Real estate LLCs	Guaranteed annuity contract	Total
Balance at December 31, 2016	\$ 78.4	\$ 0.8	\$ 79.2
Unrealized (loss) gains	(5.7)	0.1	(5.6)
Purchases and sales, net	—	(0.1)	(0.1)
Balance at December 31, 2017	72.7	0.8	73.5
Unrealized (loss) gains	(2.4)	0.1	(2.3)
Purchases and sales, net	—	(0.1)	(0.1)
Balance at December 31, 2018	\$ 70.3	\$ 0.8	\$ 71.1

There were no transfers within the fair value hierarchy during the years ended December 31, 2018 and 2017.

There have been no significant changes in the methodology used to value investments from prior year. The valuation methods used may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the valuation methods are consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Estimated Future Employer Contributions and Benefit Payments – Estimated future employer contributions, benefit payments, including executive retirement agreements, are as follows as of December 31, 2018 :

(Millions)	Pension Benefits	Postretirement Benefits
Expected employer contributions in 2019	\$ 16.0	\$ 1.3
Expected benefit payments:		
2019	\$ 77.2	\$ 1.3
2020	76.1	1.2
2021	74.7	1.2
2022	73.5	1.1
2023	72.5	1.1
2024-2028	338.5	5.8

For 2019, the expected employer contribution for pension benefits consists of \$15.2 million to the qualified pension plan to satisfy our remaining 2018 and our 2017 annual funding requirements and \$0.8 million necessary to fund the expected benefit payments of our unfunded supplemental executive retirement pension plans to avoid certain benefit restrictions. We intend to fund these contributions using our common stock, cash or a combination thereof.

9. Employee Benefit Plans and Postretirement Benefits, Continued:

Employee Savings Plan— We also sponsor an employee savings plan under section 401(k) of the Internal Revenue Code, which covers substantially all salaried employees and certain bargaining unit employees. Windstream matches on an annual basis up to a maximum of 4.0 percent of employee pre-tax contributions to the plan for employees contributing up to 5.0 percent of their eligible pre-tax compensation. Excluding amounts capitalized, we recorded expense of \$22.0 million, \$22.9 million and \$21.1 million in 2018, 2017 and 2016, respectively, related to our matching contribution under the employee savings plan, which was included in cost of services and selling, general and administrative expenses in our consolidated statements of operations. Expense related to our 2018 matching contribution will be made in cash. In 2018, we contributed 3.6 million shares of our common stock with a fair value of \$28.3 million to the plan for the 2017 annual matching and other contributions. During 2017, we contributed 0.6 million shares of our common stock with a value of \$22.7 million, as determined by the plan trustee, and \$0.6 million in cash to the plan for the 2016 annual matching contribution. During 2016, we contributed 0.6 million shares of our common stock to the plan for the 2015 annual matching contribution. At the time of these contributions, the shares had a value of approximately \$24.0 million as determined by the plan trustee.

10. Share-Based Compensation Plans:

All share-based compensation award information presented has been retrospectively adjusted to reflect the effects of the one-for-five reverse stock split which became effective on May 25, 2018 (see Note 1).

In May 2018, our stockholders approved amendments to our Amended and Restated 2006 Equity Incentive Plan (the “Incentive Plan”) which (i) extended the term of the Incentive Plan through February 6, 2023 and (ii) increased the maximum number of shares authorized for issuance or delivery under the Incentive Plan on a post-reverse stock split basis from 4.9 million to 6.8 million. Under the Incentive Plan, we may issue equity stock awards in the form of restricted stock, restricted stock units, stock appreciation rights or stock options. As of December 31, 2018, the Incentive Plan had remaining capacity of 2.1 million awards.

Stock Options— During 2018, our Board of Directors granted 1.1 million stock options to certain officers, executives and other key management employees. Under terms of the grant award, the stock options vest ratably over a three-year period from the date of grant and the exercise price of the option equals the market value of our common stock on the date of grant. The maximum term for each option granted is 10 years. Our practice is to issue new shares of common stock upon the exercise of stock options.

We measure the cost of employee stock options based on the grant-date fair value and recognize that cost on a straight-line basis over the period in which a recipient is required to provide services in exchange for the options, which is equal to the vesting period.

The weighted average fair value of stock options granted during the year ended December 31, 2018 was \$4.25 per share using the Black-Scholes option-pricing model and the following weighted average assumptions:

Expected life	6.1 years
Expected volatility	58.7%
Dividend yield	—
Risk-free interest rate	2.6%

Because we do not have historical exercise experience for non-replacement stock options to reasonably estimate future exercise patterns, we used the simplified method available under current SEC rules to derive the expected life assumption, which was computed based on the average of the vesting and contractual terms of the stock options. Expected volatility was based on the historical volatility of our common stock using the weighted average of historical daily price changes of our common stock including the most recent period equal to the expected life of the stock option on the date of grant. The expected dividend yield reflects the elimination of our quarterly common stock dividend in the third quarter of 2017. The risk-free interest rate was determined using the implied yield currently available for zero-coupon U.S. government issues with a remaining term equal to the expected life of the stock options.

10. Share-Based Compensation Plans, Continued:

The following table summarizes stock option activity as of December 31, 2018:

	(Thousands) Number of Shares Underlying Options	Weighted Average Exercise Price	(Years) Weighted Average Remaining Contractual Life	(Millions) Aggregate Intrinsic Value
Outstanding at December 31, 2017	34.2 (a)	\$ 68.20		
Granted	1,079.3	\$ 7.50		
Exercised	—	\$ —		
Canceled and forfeited	(89.5)	\$ 21.15		
Outstanding at December 31, 2018	1,024.0	\$ 8.33	9.0	\$ —
Vested or expected to vest at December 31, 2018	903.2	\$ 8.45	9.0	\$ —
Exercisable at December 31, 2018	17.2	\$ 57.01	1.5	\$ —

(a) Represents options issued in conjunction with past acquisitions as replacement awards to former employees of the acquired companies. Prior to 2018, no other stock options had been granted by us.

The following table summarizes stock option information as of December 31, 2018:

	Options Outstanding		Options Exercisable	
	(Thousands) Number of Options	Weighted Average Exercise Price	(Thousands) Number of Options	Weighted Average Exercise Price
Range of Exercise Prices				
\$7.50 - \$7.60	1,006.8	\$ 7.50	—	\$ —
\$20.90 - \$24.00	1.0	\$ 21.04	1.0	\$ 21.04
\$43.95 - \$91.35	16.2	\$ 59.37	16.2	\$ 59.37
	1,024.0	\$ 8.33	17.2	\$ 57.01

At December 31, 2018, total unamortized compensation cost for non-vested stock option awards amounted to \$2.8 million and is expected to be recognized over a weighted average period of 2.2 years .

Restricted Stock and Restricted Stock Units - Our board of directors may approve grants of restricted stock and restricted stock units to officers, executives, non-employee directors and certain management employees. Grants may include time-based and performance-based awards. Time-based awards granted to employees generally vest over a service period of two or three years. Performance-based restricted stock units may vest in a number of shares from zero to 150.0 percent of their award based on attainment of specified targets over a three -year period.

There were no performance-based restricted stock units granted in 2018. The three-year operating targets for the performance-based restricted stock units granted in 2017 were approved by the board of directors in May 2017. The 2016 three-year operating targets for the performance-based restricted stock units were approved by the board of directors in February 2016. For the 2017 and 2016 annual measurement periods, each of the operating targets were met by the end of their respective measurement periods.

10. Share-Based Compensation Plans, Continued:

The vesting periods and grant date fair value for restricted stock and restricted stock units issued, including the EarthLink replacement awards, were as follows for the years ended December 31:

(Number of shares in thousands)	2018	2017	2016
Service-based restricted stock and restricted units:			
Vest variably over remaining service period, up to three-years	—	571.7	276.2
Vest ratably over a three-year service period	—	490.3	—
Vest one year from date of grant, service based - granted to non-employee directors	109.6	41.4	39.6
Vest immediately on date of grant, service based - granted to non-employee directors	41.1	—	—
Vest two years from date of grant, service based	—	—	10.6
Vest three years from date of grant, service based	—	6.8	10.7
Total granted	150.7	1,110.2	337.1
Grant date fair value (Dollars in millions)	\$ 1.1	\$ 166.5	\$ 49.5
Performance restricted units:			
Vest variably over remaining required service period, up to three years	—	474.2	—
Vest contingently at the end of the respective performance period	—	251.7	276.0
Total granted	—	725.9	276.0
Grant date fair value (Dollars in millions)	\$ —	\$ 130.5	\$ 39.5

Service-based restricted stock and restricted unit activity for the year ended December 31, 2018 was as follows:

	(Thousands) Underlying Number of Shares	Weighted Average Fair Value Per Share
Non-vested at December 31, 2017	1,022.8	\$ 31.45
Granted	150.7	\$ 7.30
Vested	(576.1)	\$ 32.87
Forfeited	(75.3)	\$ 28.37
Non-vested at December 31, 2018	522.1	\$ 23.34

Performance restricted stock unit activity for the year ended December 31, 2018 was as follows:

	(Thousands) Underlying Number of Shares	Weighted Average Fair Value Per Share
Non-vested at December 31, 2017	520.7	\$ 32.90
Granted	—	\$ —
Vested	(103.7)	\$ 36.09
Forfeited	(91.6)	\$ 27.70
Non-vested at December 31, 2018	325.4	\$ 28.35

At December 31, 2018, unrecognized compensation expense for restricted stock and restricted stock units totaled \$7.2 million and is expected to be recognized over the weighted average vesting period of 0.7 years. Unrecognized compensation expense is included in additional paid-in capital in the accompanying consolidated balance sheets and statements of shareholders' and member equity. The total fair value of shares vested was \$22.7 million, \$40.0 million and \$22.9 million during 2018, 2017 and 2016, respectively. Share-based compensation expense recognized for restricted stock and restricted stock units was \$11.3 million, \$32.5 million and \$19.9 million for 2018, 2017 and 2016, respectively.

10. Share-Based Compensation Plans, Continued:

In addition to including amounts related to restricted stock and restricted units, share-based compensation expense presented in the accompanying consolidated statements of cash flow also includes amounts related to certain management incentive compensation plans and the matching contribution to the employee savings plan for which payments to eligible participants are expected to be made in Windstream Holdings common stock. A summary of share-based compensation expense was as follows for the years ended December 31:

(Millions)	2018		2017		2016	
Restricted stock and restricted units and stock options	\$	11.3	\$	32.5	\$	19.9
Employee savings plan (See Note 9)		—		22.9		21.1
Management incentive compensation plans		—		—		0.6
Share-based compensation expense	\$	11.3	\$	55.4	\$	41.6

11. Merger, Integration and Other Costs and Restructuring Charges:

We incur costs to complete a merger or acquisition and integrate its operations into our business, which are presented as merger and integration expense in our consolidated results of operations. These costs include transaction costs, such as accounting, legal, consulting and broker fees; severance and related costs; IT and network conversion; rebranding and marketing; and contract termination fees. During 2017, we incurred investment banking fees, legal, accounting and other consulting fees, severance and employee benefit costs, contract and lease termination costs, and other integration expenses related to the mergers with EarthLink and Broadview. We also incurred legal fees in 2018 and 2017 for litigation related to the Uniti spin-off. During the fourth quarter of 2017, we completed a network optimization project begun in late 2015 designed to consolidate traffic onto network facilities operated by us and reduce the usage of other carriers' networks in our acquired CLEC markets. In undertaking this initiative, we incurred exit costs to migrate traffic to existing lower cost circuits and to terminate existing contracts prior to their expiration. During 2016, we renegotiated the terms of the lease resulting in the elimination of any future rental payments due under the original lease agreement. As a result, we recorded a \$2.0 million reduction in the liability associated with this lease.

Restructuring charges are primarily incurred as a result of evaluations of our operating structure. Among other things, these evaluations explore opportunities to provide greater flexibility in managing and financing existing and future strategic operations, for task automation and the balancing of our workforce based on the current needs of our customers. Severance, lease exit costs and other related charges are included in restructuring charges.

During 2018, we completed restructurings of our workforce to improve our overall cost structure and gain operational efficiencies. In undertaking these efforts, we eliminated approximately 800 positions and incurred restructuring charges of \$24.6 million consisting of severance and employee benefit costs. We also incurred lease termination costs of \$20.4 million as a result of vacating certain facilities.

During 2017, we completed a restructuring of our workforce to streamline our operations, which resulted in the elimination of approximately 725 employees. In addition to this initiative, we completed other reductions in our workforce during the first half of 2017 eliminating approximately 375 employees in our ILEC small business and enterprise segments as well as in our engineering, finance and information technology work groups to more efficiently manage our operations. In completing our 2017 workforce reductions, we incurred total severance and other employee benefit costs of \$35.0 million. Restructuring charges for 2017 also include lease termination costs associated with vacated facilities and consulting fees.

During 2016, restructuring charges primarily consisted of severance and other employee-related costs totaling \$18.7 million related to the completion of several small workforce reductions.

11. Merger, Integration and Other Costs and Restructuring Charges, Continued:

The following is a summary of the merger, integration and other costs and restructuring charges recorded for the years ended December 31:

(Millions)	2018	2017	2016
Merger, integration and other costs:			
Information technology conversion costs	\$ 1.1	\$ 3.0	\$ 0.3
Costs related to merger with EarthLink (a)	15.5	104.1	2.7
Costs related to merger with Broadview (b)	4.1	14.3	—
Costs related to acquisitions of MASS and ATC	2.5	—	—
Legal fees related to Uniti spin-off litigation (see Note 17)	7.2	7.5	—
Costs related to sale of data center business	—	—	0.9
Network optimization and contract termination costs	—	8.5	11.9
Consulting and other costs	1.5	—	—
Reversal of lease termination costs	—	—	(2.0)
Total merger, integration and other costs	31.9	137.4	13.8
Restructuring charges	45.0	43.0	20.3
Total merger, integration and other costs and restructuring charges	\$ 76.9	\$ 180.4	\$ 34.1

- (a) In 2018, these amounts include severance and employee benefit costs for EarthLink employees terminated after the Merger of \$6.9 million , and other miscellaneous expenses of \$3.7 million . We also incurred contract and lease termination costs of \$4.9 million as a result of vacating certain facilities related to the acquired operations of EarthLink.

In 2017, these amounts include investment banking, legal and other consulting services of \$24.0 million , severance and employee benefit costs for EarthLink employees terminated after the Merger of \$39.0 million , share-based compensation expense of \$10.1 million attributable to the accelerated vesting of assumed equity awards for terminated EarthLink employees, rebranding and marketing of \$5.3 million and other miscellaneous expenses of \$3.2 million . We also incurred contract and lease termination costs of \$22.5 million as a result of vacating certain facilities related to the acquired operations of EarthLink.

- (b) In 2018, these amounts include severance and employee benefit costs for Broadview employees terminated after the acquisition of \$1.8 million .We also incurred contract and lease termination costs of \$2.3 million as a result of vacating certain facilities related to the acquired operations of Broadview.

In 2017, these amounts include investment banking, legal and other consulting fees of \$4.5 million and severance and employee benefit costs for Broadview employees terminated after the acquisition of \$4.7 million .We also incurred contract and lease termination costs of \$3.7 million as a result of vacating certain facilities related to the acquired operations of Broadview.

After giving consideration to tax benefits on deductible items, merger, integration and other costs and restructuring charges decreased net income \$56.4 million , \$113.6 million and \$21.0 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

11. Merger, Integration and Other Costs and Restructuring Charges, Continued:

The following is a summary of the activity related to the liabilities associated with merger, integration and other costs and restructuring charges at December 31:

(Millions)	Merger, Integration and Other Charges	Restructuring Charges		Total
		Severance and Benefit Costs	Lease Termination Costs	
Balance at December 31, 2016	\$ 1.5	\$ 4.3	\$ —	\$ 5.8
Expenses incurred in period	137.4	35.0	8.0	180.4
Cash outlays during the period	(128.6)	(34.3)	(3.8)	(166.7)
Balance at December 31, 2017	10.3	5.0	4.2	19.5
Expenses incurred in period	31.9	24.6	20.4	76.9
Cash outlays during the period	(38.2)	(17.0)	(9.3)	(64.5)
Balance at December 31, 2018	\$ 4.0	\$ 12.6	\$ 15.3	\$ 31.9

Payments of these liabilities will be funded through operating cash flows.

12. Gain on Sale of Consumer CLEC Business:

On December 31, 2018, Windstream Services completed the sale of substantially all of its consumer competitive local exchange carrier (“CLEC”) business to an affiliate of Trive Capital Fund III LLP and nQue Technologies for \$320.9 million in cash, net of a working capital adjustment, and recorded a pre-tax gain of \$145.4 million. The Consumer CLEC operations sold consisted solely of the former EarthLink Holdings Corp (“EarthLink”) consumer business that we acquired in February 2017 (see Note 3). The sold operations comprised approximately 3.0 percent of our total consolidated revenues and sales for 2018 and less than 2.0 percent of our total consolidated assets at the date of disposition. The sale of the consumer CLEC business did not represent a strategic shift in our operations nor have a major effect on our consolidated results of operations, financial position or cash flows, and accordingly, did not qualify for reporting as a discontinued operation. Excluding the effects of the gain, the consumer CLEC business generated pre-tax income of \$92.5 million and \$87.3 million in 2018 and 2017, respectively.

13. Other-Than-Temporary Impairment Loss on Investment in Uniti Common Stock:

As previously discussed in Note 5, during 2015, we completed the spin-off of certain telecommunications network assets to Uniti. As of the spin-off date, we retained a passive ownership interest in approximately 19.6 percent of the common stock of Uniti. The retained Uniti shares were classified as available-for-sale and recorded at fair value with unrealized gains and losses reported in accumulated other comprehensive income. No deferred income taxes were recorded with respect to the unrealized gains and losses due to the tax-free qualification of the spin-off. During the first quarter of 2016, we recorded an other-than-temporary impairment loss of \$181.9 million for the difference between the fair value of the Uniti common stock as of March 31, 2016 and our cost basis, which had been based on the market value of the shares on the date of spin-off. We recorded the other-than-temporarily impairment due to the duration in which the Uniti shares had traded at a market price below our initial cost basis. Following the recognition of the other-than-temporary impairment loss, the cost basis of the Uniti shares was adjusted to equal the March 31, 2016 market value. Subsequent changes in the market value of the Uniti shares were recorded in accumulated other comprehensive income.

14. Other Expense, Net:

The components of other expense, net were as follows for the years ended December 31:

(Millions)	2018	2017	2016
(Loss) gain on disposal of data center operations (a)	\$ (7.9)	\$ 0.6	\$ (10.0)
Non-operating pension income (expense)	4.5	(2.0)	(50.4)
Non-operating OPEB (expense) income	(0.7)	(0.9)	4.8
Dividend income on Uniti common stock	—	—	17.6
Net gain on disposal of investment in Uniti common stock (b)	—	—	15.2
Other, net	(0.8)	—	(1.2)
Other expense, net	\$ (4.9)	\$ (2.3)	\$ (24.0)

- (a) During the first quarter of 2018, Windstream Services disposed of its data center operations in Virginia. In completing this disposal, Windstream Services also settled its remaining obligations under a long-term lease and incurred a net loss on disposal. In December 2015, Windstream Services completed the sale of a substantial portion of its data center business to TierPoint LLC (“TierPoint”). Pursuant to the terms of the Membership Interest Purchase Agreement, Windstream Services agreed to indemnify TierPoint for certain losses attributable to any alleged breaches of representations and warranties made by us with such indemnification liability capped at \$10.0 million. In November 2016, TierPoint submitted a notice of a claim to us for indemnification and payment of \$10.0 million. Due to the nature of the claims and the potential difficulty in defending against such claims, as of December 31, 2016, we recorded a loss of \$10.0 million related to the indemnification claim. During the second quarter of 2017, we made a cash payment to TierPoint of \$9.4 million to settle this claim.
- (b) In June 2016, Windstream Services disposed of all of its shares of Uniti common stock through the completion of two debt-for-equity exchanges, pursuant to which Windstream Services transferred the Uniti shares to its bank creditors in exchange for the retirement of \$672.0 million of borrowings outstanding under its revolving line of credit and to satisfy transaction-related expenses. Net of expenses, Windstream Services recognized a net gain on disposal of \$15.2 million in 2016. Unrealized gains related to the Uniti common stock at the time of consummating the debt-for-equity exchanges were reclassified from accumulated other comprehensive income and included in the determination of the net gain on disposal.

15. Accumulated Other Comprehensive Income:

Accumulated other comprehensive income balances, net of tax, were as follows for the years ended December 31:

(Millions)	2018	2017	2016
Pension and postretirement plans	\$ 7.7	\$ 4.0	\$ (1.2)
Unrealized holding gains (losses) on interest rate swaps			
Designated portion	29.7	20.7	13.7
De-designated portion	(1.8)	(3.3)	(6.6)
Accumulated other comprehensive income	\$ 35.6	\$ 21.4	\$ 5.9

15. Accumulated Other Comprehensive Income, Continued:

Changes in accumulated other comprehensive income balances, net of tax, were as follows:

(Millions)	Net (Gains) Losses on Interest Rate Swaps		Pension and Postretirement Plans		Total
Balance at December 31, 2017	\$	17.4	\$	4.0	\$ 21.4
Cumulative effect of adoption of ASU 2017-12		1.7		—	1.7
Cumulative effect of adoption of ASU 2018-02		3.7		(0.2)	3.5
Prior service credit arising during the period		—		2.0	2.0
Other comprehensive income before reclassifications		2.8		5.5	8.3
Amounts reclassified from accumulated other comprehensive income (a)		2.3		(3.6)	(1.3)
Balance at December 31, 2018	\$	27.9	\$	7.7	\$ 35.6

(a) See separate table below for details about these reclassifications.

Reclassifications out of accumulated other comprehensive income were as follows for the years ended December 31:

Details about Accumulated Other Comprehensive Income Components	(Millions) Amount Reclassified from Accumulated Other Comprehensive Income			Affected Line Item in the Consolidated Statements of Operations
	2018	2017	2016	
Available-for-sale securities:				
Gain on disposal recognized in the period	\$ —	\$ —	\$ (51.5)	Other expense, net
Other-than-temporary impairment loss recognized in the period	—	—	181.9	Other-than-temporary impairment loss on investment in Uniti common stock
	—	—	130.4	Net loss
Losses on interest rate swaps:				
Amortization of net unrealized losses on de-designated interest rate swaps	3.0	5.3	4.8	Interest expense
	3.0	5.3	4.8	Loss before income taxes
	(0.7)	(2.0)	(1.9)	Income tax benefit
	2.3	3.3	2.9	Net loss
Pension and postretirement plans:				
Plan curtailments	—	—	(5.5)	(a)
Amortization of net actuarial loss	0.2	0.1	0.2	(a)
Amortization of prior service credits	(5.1)	(0.7)	(1.1)	(a)
	(4.9)	(0.6)	(6.4)	Loss before income taxes
	1.3	0.1	2.5	Income tax benefit
	(3.6)	(0.5)	(3.9)	Net loss
Total reclassifications for the period, net of tax	\$ (1.3)	\$ 2.8	\$ 129.4	Net loss

(a) These accumulated other comprehensive income components are included in the computation of net periodic benefit expense (income) (See Note 9).

16. Income Taxes:

Income tax expense (benefit) was as follows for the years ended December 31:

(Millions)	2018	2017	2016
Current:			
Federal	\$ 0.3	\$ (0.3)	\$ (2.7)
State	7.6	4.9	1.0
	<u>7.9</u>	<u>4.6</u>	<u>(1.7)</u>
Deferred:			
Federal	356.1	(328.0)	(130.2)
State	85.1	(84.7)	(8.1)
	<u>441.2</u>	<u>(412.7)</u>	<u>(138.3)</u>
Income tax expense (benefit)	\$ 449.1	\$ (408.1)	\$ (140.0)

The 2018 deferred income tax expense includes the impact of recording additional valuation allowance. There was also a goodwill impairment charge recorded in 2017 that resulted in the recognition of a deferred income tax benefit. The remainder of deferred income tax expense (benefit) for all three years primarily resulted from temporary differences between depreciation and amortization expense for income tax purposes and depreciation and amortization expense recorded in the accompanying consolidated financial statements.

Differences between the federal income tax statutory rates and effective income tax rates, which include both federal and state income taxes, were as follows for the years ended December 31:

	2018	2017	2016
Statutory federal income tax rate	21.0 %	35.0 %	35.0 %
Increase (decrease)			
State income taxes, net of federal benefit	3.9	3.6	3.7
Adjust deferred taxes for state net operating loss carryforward	0.1	—	(0.6)
Transaction costs	—	(0.1)	(0.2)
Valuation allowance	(183.1)	(0.1)	—
Income tax reserves	—	—	0.1
Research and development credit	(1.0)	0.1	0.8
Disallowed loss	—	—	(12.1)
Share-based compensation	(1.0)	(0.1)	—
Debt exchange	6.8	(6.1)	—
2017 federal tax reform	—	(7.6)	—
Goodwill impairment	—	(8.4)	—
Sale of Consumer CLEC business	(9.3)	—	—
Other items, net	(1.4)	(0.1)	—
Effective income tax rate	<u>(164.0)%</u>	<u>16.2 %</u>	<u>26.7 %</u>

The disallowed loss in 2016 was attributable to the disposal of the Uniti common stock. With regard to the debt exchange that occurred in 2017, a portion was treated as cancellation of debt (“COD”) income for tax purposes and resulted in non-deductible original issue discount (“OID”). We also recorded the impact of the portion of the 2017 goodwill impairment that was non-deductible.

In 2018, we assessed our valuation allowance after considering the adverse court ruling and the resulting acceleration of all of our long-term debt obligations and payments due under the master lease with Uniti and subsequent filing of the Chapter 11 Cases. We determined, based upon all available evidence, that a full valuation allowance was necessary, exclusive of a portion of deferred tax liabilities primarily associated with indefinite-lived intangible assets. Additionally, we recorded incremental tax expense from the sale of the consumer CLEC business. In conjunction with the 2018 debt exchange, there was also a non-taxable gain on extinguishment of debt for financial statement purposes partially offset by COD income for tax purposes.

16. Income Taxes, Continued:

Federal Tax Reform— On December 22, 2017, the Tax Cuts and Jobs Act (the “2017 Tax Act”) was signed into law in the United States. The most significant change is the reduction of the statutory corporate tax rate from 35 percent to 21 percent effective January 1, 2018. In accordance with the 2017 Tax Act, we recorded a decrease to our net deferred tax assets of \$192.2 million and corresponding deferred income expense in the fourth quarter of 2017, the period in which the legislation was enacted. Additionally, on December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the 2017 Tax Act. December 22, 2018 marked the end of the measurement period for purposes of SAB 118. As such, we have completed our analysis based on legislative updates relating to the 2017 Tax Act currently available which resulted in no material adjustments for the year ended December 31, 2018.

The significant components of the net deferred income tax liability (asset) were as follows at December 31:

(Millions)	2018	2017
Property, plant and equipment	\$ 825.5	\$ 876.3
Goodwill and other intangible assets	477.7	532.5
Operating loss and credit carryforward	(576.8)	(595.6)
Postretirement and other employee benefits	(79.6)	(85.6)
Unrealized holding loss and interest rate swaps	7.2	4.5
Deferred compensation	(2.3)	(2.8)
Bad debt	(15.1)	(14.5)
Long-term lease obligations	(1,170.9)	(1,226.3)
Deferred debt costs	(19.2)	(2.0)
Share-based compensation	(6.8)	(7.9)
Other, net	(20.4)	(29.0)
	(580.7)	(550.4)
Valuation allowance	685.0	179.6
Deferred income taxes, net	\$ 104.3	\$ (370.8)
Deferred tax assets	\$ (1,954.0)	\$ (2,000.7)
Deferred tax liabilities	2,058.3	1,629.9
Deferred income taxes, net	\$ 104.3	\$ (370.8)

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which temporary differences representing net future deductible amounts become deductible. We consider the scheduled reversal of deferred tax assets and liabilities, carryback potential, projected future taxable income and tax planning strategies in making this assessment. As a result of the adverse court ruling and subsequent filing of the Chapter 11 Cases, we considered the reversal of taxable temporary differences and carryback potential as a source of income as of December 31, 2018. After consideration of these factors, we recorded a full valuation allowance for the year ended December 31, 2018, exclusive of a portion of deferred tax liabilities primarily associated with indefinite-lived intangible assets. Accordingly, the valuation allowance for the year ended December 31, 2018 increased by \$505.4 million, which is included in income tax expense. At December 31, 2017, our valuation allowance consisted of \$173.0 million related to federal and state loss carryforwards and \$6.6 million related to our state tax credit carryforward.

At December 31, 2018 and 2017, we had federal net operating loss carryforwards of approximately \$1,920.2 million and \$1,796.6 million, respectively. Net operating losses generated prior to 2018 expire in varying amounts from 2019 through 2037. Under the 2017 Tax Act, federal net operating losses generated in 2018 and future years can be carried forward indefinitely. The loss carryforwards at December 31, 2018 were primarily losses acquired in conjunction with our acquisitions including PAETEC, EarthLink and Broadview. The 2018 increase is primarily associated with the increased IRC Section 382 limitation for EarthLink losses due to the sale of the consumer CLEC business.

16. Income Taxes, Continued:

At December 31, 2018 and 2017, we had state net operating loss carryforwards of approximately \$2,456.6 million and \$2,805.4 million, respectively, which expire annually in varying amounts from 2019 through 2038. The loss carryforwards at December 31, 2018 were primarily losses acquired in conjunction with our acquisitions including PAETEC and EarthLink.

The amount of federal tax credit carryforward at December 31, 2018 and 2017, was approximately \$21.8 million and \$44.2 million, respectively, which expire in varying amounts from 2031 through 2036. The amount of state tax credit carryforward at December 31, 2018 and 2017, was approximately \$17.7 million and \$19.9 million, respectively, which expire in varying amounts from 2019 through 2027.

Federal and state tax rules limit the deductibility of loss carryforwards in years following an ownership change. In May 2018, Windstream's shareholders renewed our shareholder rights plan designed to protect our net operating loss carryforwards from the effect of such a change. This plan was designed to deter an ownership change (as defined in IRC Section 382) from occurring, and therefore protect our ability to utilize our federal and state net operating loss carryforwards in the future. The plan is not meant to be an anti-takeover measure and our board of directors has established a procedure to consider requests to exempt the acquisition of Windstream common stock from the rights plan, if such acquisition would not limit or impair the availability of our net loss carryforwards.

We account for uncertainty in taxes in accordance with authoritative guidance. A reconciliation of the unrecognized tax benefits is as follows:

(Millions)	2018		2017		2016
Beginning balance	\$	8.7	\$	8.8	\$ 10.1
Additions based on EarthLink acquisition		—		2.5	—
Additions based on tax positions related to current year		—		0.7	0.7
Reductions for tax positions of prior years		(0.7)		(1.2)	(1.6)
Settlements		—		(2.1)	(0.4)
Ending balance	\$	8.0	\$	8.7	\$ 8.8

We do not expect or anticipate a significant increase or decrease over the next twelve months in the unrecognized tax benefits reported above. The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate are \$7.6 million, \$8.3 million and \$8.6 million (net of indirect benefits) for the years ended December 31, 2018, 2017 and 2016, respectively.

We file income tax returns in the U.S. federal jurisdiction and various states. With few exceptions, we are no longer subject to U.S. federal, state and local income tax examinations by tax authorities for years prior to 2015. However, due to acquired net operating losses, tax authorities have the ability to adjust those net operating losses related to closed years. We have identified Arkansas, California, Florida, Georgia, Illinois, Iowa, Kentucky, Nebraska, New York, North Carolina, Pennsylvania, Texas and Virginia as "major" state taxing jurisdictions.

We recognize accrued interest and penalties related to unrecognized tax benefits as a component of income tax expense. During the years ended December 31, 2018, 2017 and 2016, we recognized approximately \$0.1 million, \$0.2 million, and \$0.1 million in interest and penalties, respectively. Furthermore, we had approximately \$0.3 million, \$0.3 million, and \$0.1 million of interest and penalties accrued as of December 31, 2018, 2017 and 2016, respectively.

17. Commitments and Contingencies:Lease Commitments

Minimum rental commitments for all non-cancellable operating leases, consisting principally of leases for network facilities, real estate, office space and office equipment were as follows as of December 31, 2018 :

Year	(Millions)
2019	\$ 159.0
2020	108.8
2021	87.3
2022	66.3
2023	51.2
Thereafter	182.6
Total	\$ 655.2

Rental expense totaled \$162.0 million , \$161.6 million and \$115.5 million in 2018 , 2017 and 2016 , respectively.

Litigation

In a notice letter received September 22, 2017 (the “Original Notice”), Aurelius Capital Master, Ltd. (“Aurelius”) asserted an alleged default of certain senior unsecured notes, the 6.375 percent Senior Notes due August 2023 of Windstream Services, based on alleged violations of the associated indenture (the “2013 Indenture”). Aurelius primarily alleged that Windstream Services violated the 2013 Indenture by executing transactions related to the spin-off of Uniti in April 2015 (the “Spin-Off”) that, according to Aurelius, constituted a Sale and Leaseback Transaction that was prohibited under Section 4.19 of the 2013 Indenture.

In light of the allegations in the Original Notice, Windstream Services filed suit against U.S. Bank N.A., the Indenture Trustee (the “Trustee”), in Delaware Chancery Court seeking a declaration that it had not violated any provision of the 2013 Indenture and injunctive relief. On October 12, 2017, the Trustee filed suit in the Southern District of New York seeking a declaration that defaults had occurred. Windstream Services filed an answer and affirmative defenses in response to the Trustee’s complaint the following day, as well as counterclaims against the Trustee and Aurelius for declaratory relief. The Delaware action was subsequently dismissed.

Additionally, as outlined in Note 5, on October 18, 2017, Windstream Services launched debt exchange offers with respect to its senior notes, including the 6.375 percent notes, and on October 31, 2017, learned that based on tenders of notes in the exchange offers and consents delivered in the consent solicitation, upon early settlement of the exchange offers, holders representing the requisite percentage of the 6.375 percent notes needed to waive the defaults alleged in the Original Notice would be received. On November 6, 2017, Windstream Services and the Trustee executed a supplemental indenture, and new 6.375 percent notes were issued, which gave effect to the waivers and consents for the 6.375 percent notes. During the fourth quarter of 2017, Windstream Services also completed consent solicitations with respect to each of its series of outstanding notes, pursuant to which noteholders agreed to waive alleged defaults with respect to the transactions related to the Spin-Off and amend the indentures governing such notes to give effect to such waivers and amendments.

On November 22, 2017, Windstream Services filed a motion seeking dismissal of the Trustee’s complaint, which motion was denied without prejudice. On the same date, Aurelius filed counterclaims seeking a declaration that the new 6.375 percent notes were improperly issued and that the debt exchange offers and consent solicitation were void. Windstream Services asserted that such counterclaims should be dismissed pursuant to Section 6.06 of the 2013 Indenture, which contains a “no-action” clause. On November 27, 2017, Windstream Services received a second purported notice of default (the “Second Notice”) from Aurelius which alleged that certain of the exchange and consent transactions described above violated the terms of the 2013 Indenture. Aurelius withdrew the Second Notice on December 6, 2017, and served an alleged notice of an Event of Default and acceleration on December 7, 2017 (“Notice of Acceleration”). The Notice of Acceleration claimed that the principal amount, and all accrued interest, owed under the 2013 Indenture was now due and payable as result of Windstream Services allegedly not curing the alleged defaults set forth in the Original Notice within the sixty-day cure period.

Trial in this matter occurred July 23-25, 2018, and the court heard final arguments on July 31, 2018.

17. Commitments and Contingencies, Continued:

On February 15, 2019, Judge Furman of United States District Court for the Southern District of New York issued certain findings of fact and conclusions of law regarding the Spin-Off and the 2017 exchange and consent transactions and found that the trustee under the 2013 Indenture and/or Aurelius are entitled to a judgment:

- declaring that, in effecting the Spin-Off, we failed to comply with the covenants set forth in Section 4.19 of the 2013 Indenture restricting certain sale and leaseback transactions;
- declaring that our breaches of Section 4.19 constitute a “Default” under 2013 Indenture;
- declaring that the 6.375 percent notes issued in the 2017 exchange and consent transactions do not constitute “Additional Notes” under the 2013 Indenture;
- declaring that the notice of default with respect to the foregoing breaches was valid and effective;
- declaring that those breaches ripened into “Events of Default” as defined in the 2013 Indenture on December 6, 2017;
- declaring that the notice of acceleration with respect to those “Events of Default” was valid and effective, and all principal together with all accrued and unpaid interest on the notes became immediately due and payable as of that date;
- enjoining us from taking any further action to issue new notes in contravention of, or to otherwise violate, the 2013 Indenture;
- awarding to Aurelius a money judgment in an amount of \$310,459,959.10 plus interest from and after July 23, 2018; and
- dismissing our counterclaims with prejudice.

On February 25, 2019, Windstream Holdings and all of its subsidiaries, including Windstream Services, filed Chapter 11 Cases in the Bankruptcy Court. The filing of the Chapter 11 Cases also constitutes an event of default under our debt agreements. Due to the Chapter 11 Cases, however, the creditors’ ability to exercise remedies under our debt agreements were stayed as of the Petition Date. See Note 5 to our consolidated financial statements for more information about the debt agreements.

Windstream Holdings, its current and former directors, and certain of its executive officers are the subject of shareholder-related lawsuits arising out of the merger with EarthLink Holdings Corp. in February 2017. Two putative shareholders have filed separate purported shareholder class action complaints in federal court in Arkansas and state court in Georgia, captioned Murray v. Earthlink Holdings Corp., et. al., and Yadegarian v. Windstream Holdings, Inc., et. al., respectively. Additionally, two separate shareholder derivative actions were filed during the quarter in Arkansas federal court on behalf of Windstream Holdings, Inc., styled Cindy Graham v. Wells, et. al., and Larry Graham v. Thomas, et. al. Additionally, Windstream received a shareholder demand letter in the fourth quarter of 2018 related to the EarthLink merger. All four of the complaints and the demand letter contain similar assertions and claims of alleged securities law violations and breaches of fiduciary duties related to the disclosures in the joint proxy statement/prospectus soliciting shareholder approval of the merger, which the plaintiffs allege were inadequate and misleading. We believe that we have valid defenses for each of the lawsuits, and we plan to vigorously defend the pursuit of all matters. While the ultimate resolution of the matters is not currently predictable, if there is an adverse ruling in any of these matters, the ruling could have material adverse effects on the future consolidated results of our income, cash flows, or financial condition.

17. Commitments and Contingencies, Continued:

Other Matters

Windstream and one of its business customers had an agreement pursuant to which Windstream provided communication services to several of the customer's locations. The majority of funding for the services is administered by the Universal Service Administrative Company ("USAC") pursuant to the Universal Service Rural Health Care Telecommunications Program that offers reduced rates for broadband and telecommunications services to rural health care facilities. In March 2017, USAC issued a funding denial to the customer on the basis that certain rules of the FCC were violated with the selection of Windstream as the service provider. Due to an alleged conflict of interest created by a third-party Windstream channel partner that acted as a consultant for the customer regarding the agreement, USAC asserted that Windstream's selection was not based upon a fair and open competitive bidding process. USAC's denial addressed accrued funding of approximately \$16.6 million, as well as funding of approximately \$6.0 million previously remitted to us. Windstream, along with the customer, appealed the denial; USAC rejected the appeal on June 29, 2018, and Windstream appealed USAC's denial to the FCC on August 23, 2018. The FCC has yet to rule on the appeal. While the ultimate resolution and timing of any decision is not currently predictable, if there is a future adverse legal ruling against us, the ruling could result in financial exposure to Windstream for the total amounts listed above.

We currently are involved in certain legal proceedings arising in the ordinary course of business and, as required, have accrued an estimate of the probable costs for the resolution of those claims for which the occurrence of loss is probable and the amount can be reasonably estimated. These estimates have been developed in consultation with counsel and are based upon an analysis of potential results, assuming a combination of litigation and settlement strategies. It is possible, however, that future results of operations for any particular period could be materially affected by changes in our assumptions or the effectiveness of our strategies related to these proceedings. Additionally, due to the inherent uncertainty of litigation, there can be no assurance that the resolution of any particular claim or proceeding would not have a material adverse effect on our financial condition or results of operations.

Notwithstanding the foregoing, any litigation pending against us and any claims that could be asserted against us that arose prior to the Petition Date are automatically stayed as a result of the commencement of the Chapter 11 Cases pursuant to Section 362(a) of the Bankruptcy Code, subject to certain statutory exceptions. These matters will be subject to resolution in accordance with the Bankruptcy Code and applicable orders of the Bankruptcy Court.

18. Segment Information:

We disaggregate our business operations between customers located in service areas in which we are the incumbent local exchange carrier ("ILEC") and provide services over network facilities operated by us and those customers located in service areas in which we are a competitive local exchange carrier ("CLEC") and provide services primarily over network facilities owned by other carriers. We have further disaggregated our CLEC operations between enterprise, wholesale and consumer customers. As previously discussed, on December 31, 2018, we sold substantially all of our consumer CLEC operations. Prior to the sale, we operated and reported the following four segments:

- Consumer & Small Business - We manage as one business our residential and small business operations in those markets in which we are the ILEC due to the similarities with respect to service offerings, marketing strategies and customer service delivery. Products and services offered to customers include traditional local and long-distance voice services, high-speed Internet services, and value-added services such as security and online back-up, which are delivered primarily over network facilities operated by us. We offer consumer video services through relationships with DirecTV and Dish Network LLC and we also own and operate cable television franchises in some of our service areas. We offer Kinetic, a complete video entertainment offering in several of our markets.

Residential customers can bundle voice, high-speed Internet and video services, to provide one convenient billing solution and receive bundle discounts. Small Business services offer a wide range of advanced Internet, voice, and web conferencing products. These services are equipped to deliver high-speed Internet with competitive speeds, value added services to enhance business productivity and options to bundle services for a global business solution to meet our small business customer needs.

- Enterprise - Products and services offered to our business customers include integrated voice and data services, which deliver voice and broadband services over a single Internet connection, data transport services, multi-site networking services which provide a fast and private connection between business locations, Software Defined Wide Area Network ("SD-WAN"), which optimizes application performance, Unified Communications as a Service ("UCaaS"), a next generation voice solution, as well as a variety of other data services, including cloud computing and collocation and managed services as an alternative to traditional information technology infrastructure.

18. Segment Information, Continued:

- Wholesale - Our wholesale operations are focused on providing network bandwidth to other telecommunications carriers, network operators, and content providers. These services include special access services, which provide access and network transport services to end users, Ethernet and Wave transport up to 100 Gbps, and dark fiber and colocation services. Wholesale services also include fiber-to-the-tower connections to support the wireless backhaul market. In addition, we offer voice and data carrier services to other communications providers and to larger-scale purchasers of network capacity. We also offer traditional services including special access services and Time Division Multiplexing ("TDM") private line transport. The combination of these services allow wholesale customers to provide voice and data services to their customers through the use of our network or in combination with their own networks.
- Consumer CLEC - Products and services offered to customers include traditional voice and long-distance services, nationwide Internet access services, both dial-up and high-speed, as well as value added services including online backup and various e-mail services.

The accounting policies used in measuring segment operating results are the same as those described in Note 2. We evaluate performance of the segments based on contribution margin, which is computed as segment revenues and sales less segment operating expenses. Revenues and sales have been assigned to our operating segments based upon each customer's classification to an individual segment and include all services provided to that customer. Segment revenues also include revenue from federal and state USF, CAF-Phase II support, funds received from federal access recovery mechanisms, revenues from providing switched access services, including usage-based revenues from long-distance companies and other carriers for access to our network to complete long-distance calls, reciprocal compensation received from wireless and other local connecting carriers for the use of network facilities, certain surcharges assessed to our customers, including billings for our required contributions to federal and state USF programs, and product sales to contractors. All of our revenues have been assigned to our operating segments, and accordingly, there are no differences between total segment revenues and sales and total consolidated revenues and sales.

Segment expenses include specific expenses incurred as a direct result of providing services and products to segment customers; selling, general and administrative expenses that are directly associated with specific segment customers or activities; and certain allocated expenses which include network expenses, facilities expenses and other expenses, such as vehicle and real estate-related expenses. Operating expenses associated with regulatory and other revenues have also been assigned to our segments. We do not assign depreciation and amortization expense, goodwill impairment, merger, integration and other costs, restructuring charges, share-based compensation, pension expense, business transformation expenses and costs related to network optimization projects to our segments because these expenses are centrally managed and are not monitored by or reported to the chief operating decision maker ("CODM") by segment. Similarly, certain costs related to centrally-managed administrative functions, such as accounting and finance, information technology, legal and human resources, are not assigned to our segments. Interest expense and net gain (loss) on early extinguishment of debt have also been excluded from segment operating results because we manage our financing activities on a total company basis and have not assigned any long-term debt obligations to the segments. Other income, net, and income tax benefit are not monitored as a part of our segment operations and, therefore, these items also have been excluded from our segment operating results.

Asset information by segment is not monitored or reported to the CODM and therefore has not been presented. All of our customers are located in the United States and we do not have any single customer that provides more than 10 percent of our total consolidated revenues and sales.

18. Segment Information, Continued:

The following table summarizes our segment results for the years ended December 31:

(Millions)	2018	2017	2016
Consumer & Small Business:			
Revenues and sales	\$ 1,877.0	\$ 1,978.3	\$ 2,063.3
Costs and expenses	787.4	848.5	870.7
Segment income	1,089.6	1,129.8	1,192.6
Enterprise:			
Revenues and sales	2,931.9	2,942.1	2,587.9
Costs and expenses	2,303.7	2,364.9	2,075.7
Segment income	628.2	577.2	512.2
Wholesale:			
Revenues and sales	723.1	756.6	720.8
Costs and expenses	216.5	226.8	194.5
Segment income	506.6	529.8	526.3
CLEC Consumer:			
Revenues and sales	181.1	175.9	15.0
Costs and expenses	79.0	86.9	13.1
Segment income	102.1	89.0	1.9
Total segment revenues and sales	5,713.1	5,852.9	5,387.0
Total segment costs and expenses	3,386.6	3,527.1	3,154.0
Total segment income	\$ 2,326.5	\$ 2,325.8	\$ 2,233.0

The following table reconciles segment income to consolidated net loss income for the years ended December 31:

(Millions)	2018	2017	2016
Total segment income	\$ 2,326.5	\$ 2,325.8	\$ 2,233.0
Depreciation and amortization	(1,526.7)	(1,470.0)	(1,263.5)
Goodwill impairment	—	(1,840.8)	—
Merger, integration and other costs	(31.9)	(137.4)	(13.8)
Restructuring charges	(45.0)	(43.0)	(20.3)
Other unassigned operating expenses	(426.3)	(425.2)	(374.4)
Other expense, net	(4.9)	(2.3)	(24.0)
Gain on sale of Consumer CLEC business	145.4	—	—
Net gain (loss) on early extinguishment of debt	190.3	(56.4)	(18.0)
Other-than-temporary impairment loss on investment in Uniti common stock	—	—	(181.9)
Interest expense	(901.3)	(875.4)	(860.6)
Income tax (expense) benefit	(449.1)	408.1	140.0
Net loss	\$ (723.0)	\$ (2,116.6)	\$ (383.5)

19. Supplemental Guarantor Information:

Debentures and notes, without collateral, issued by Windstream Services, LLC

In connection with the issuance of the 7.750 percent senior notes due October 15, 2020, the 7.750 percent senior notes due October 1, 2021, the 7.500 percent senior notes due June 1, 2022, the 7.500 percent senior notes due April 1, 2023, the 6.375 percent senior notes due August 1, 2023 (“the guaranteed notes”), certain of Windstream Services’ wholly-owned subsidiaries (the “Guarantors”), provide guarantees of those debentures. These guarantees are full and unconditional, subject to certain customary release provisions, as well as joint and several. All personal property assets and related operations of the Guarantors are pledged as collateral on the senior secured credit facility of Windstream Services. Certain Guarantors may be subject to restrictions on their ability to distribute earnings to Windstream Services. The remaining subsidiaries of Windstream Services (the “Non-Guarantors”) are not guarantors of the guaranteed notes. Windstream Holdings is not a guarantor of any Windstream Services debt instruments.

Following the mergers, the acquired legal entities of EarthLink, Broadview, MASS, and ATC have been designated as either Guarantors or Non-Guarantors. Accordingly, the financial information presented herein includes the acquired EarthLink operations beginning on February 27, 2017, the acquired Broadview operations beginning on July 28, 2017, the acquired MASS operations as of March 27, 2018, and the acquired ATC operations as of August 31, 2018.

The following information presents condensed consolidating and combined statements of comprehensive income (loss) for the years ended December 31, 2018 , 2017 and 2016 , condensed consolidating and combined balance sheets as of December 31, 2018 and 2017 , and condensed consolidating and combined statements of cash flows for the years ended December 31, 2018 , 2017 and 2016 of Windstream Services, the Guarantors and the Non-Guarantors. Investments consist of investments in net assets of subsidiaries held by Windstream Services and other subsidiaries and have been presented using the equity method of accounting.

Condensed Consolidating Statement of Comprehensive Income (Loss) For the Year Ended December 31, 2018

(Millions)	Windstream Services	Guarantors	Non- Guarantors	Eliminations	Consolidated
Revenues and sales:					
Service revenues	\$ —	\$ 1,150.3	\$ 4,592.1	\$ (105.2)	\$ 5,637.2
Product sales	—	71.1	4.8	—	75.9
Total revenues and sales	—	1,221.4	4,596.9	(105.2)	5,713.1
Costs and expenses:					
Cost of services	—	500.2	2,459.4	(104.8)	2,854.8
Cost of products sold	—	61.5	7.6	—	69.1
Selling, general and administrative	—	149.0	738.6	(0.4)	887.2
Depreciation and amortization	5.7	441.7	1,079.3	—	1,526.7
Merger, integration and other costs	—	0.2	31.7	—	31.9
Restructuring charges	—	3.8	41.2	—	45.0
Total costs and expenses	5.7	1,156.4	4,357.8	(105.2)	5,414.7
Operating (loss) income	(5.7)	65.0	239.1	—	298.4
(Losses) earnings from consolidated subsidiaries	(786.9)	(80.6)	49.3	818.2	—
Other income (expense), net	0.5	(0.3)	(5.1)	—	(4.9)
Gain on sale of Consumer CLEC business	—	145.4	—	—	145.4
Net gain on early extinguishment of debt	190.3	—	—	—	190.3
Intercompany interest income (expense)	54.7	(45.1)	(9.6)	—	—
Interest expense	(418.9)	(141.9)	(340.5)	—	(901.3)
Loss before income taxes	(966.0)	(57.5)	(66.8)	818.2	(272.1)
Income tax (benefit) expense	(244.4)	519.6	174.3	—	449.5
Net loss	\$ (721.6)	\$ (577.1)	\$ (241.1)	\$ 818.2	\$ (721.6)
Comprehensive loss	\$ (712.8)	\$ (577.1)	\$ (241.1)	\$ 818.2	\$ (712.8)

19. Supplemental Guarantor Information, Continued:

	Condensed Consolidating Statement of Comprehensive Income (Loss)					
	For the Year Ended December 31, 2017					
(Millions)	Windstream Services	Guarantors	Non- Guarantors	Eliminations	Consolidated	
Revenues and sales:						
Service revenues	\$ —	\$ 1,190.5	\$ 4,668.5	\$ (99.3)	\$ 5,759.7	
Product sales	—	83.6	9.6	—	93.2	
Total revenues and sales	—	1,274.1	4,678.1	(99.3)	5,852.9	
Costs and expenses:						
Cost of services	—	565.4	2,494.5	(97.2)	2,962.7	
Cost of products sold	—	77.2	16.3	—	93.5	
Selling, general and administrative	—	162.4	733.8	(2.1)	894.1	
Depreciation and amortization	9.3	365.0	1,095.7	—	1,470.0	
Goodwill impairment	979.4	—	861.4	—	1,840.8	
Merger, integration and other costs	—	1.6	135.8	—	137.4	
Restructuring charges	—	8.5	34.5	—	43.0	
Total costs and expenses	988.7	1,180.1	5,372.0	(99.3)	7,441.5	
Operating (loss) income	(988.7)	94.0	(693.9)	—	(1,588.6)	
Losses (earnings) from consolidated subsidiaries	(1,018.8)	(195.5)	11.6	1,202.7	—	
Other income (expense), net	0.2	0.2	(2.7)	—	(2.3)	
Net (loss) gain on early extinguishment of debt	(54.6)	(2.0)	0.2	—	(56.4)	
Intercompany interest income (expense)	84.5	(39.6)	(44.9)	—	—	
Interest expense	(375.8)	(149.0)	(350.6)	—	(875.4)	
Loss before income taxes	(2,353.2)	(291.9)	(1,080.3)	1,202.7	(2,522.7)	
Income tax benefit	(237.8)	(39.0)	(130.5)	—	(407.3)	
Net loss	\$ (2,115.4)	\$ (252.9)	\$ (949.8)	\$ 1,202.7	\$ (2,115.4)	
Comprehensive loss	\$ (2,099.9)	\$ (252.9)	\$ (949.8)	\$ 1,202.7	\$ (2,099.9)	

F-116

19. Supplemental Guarantor Information, Continued:

	Condensed Consolidating Statement of Comprehensive Income (Loss)					
	For the Year Ended December 31, 2016					
(Millions)	Windstream Services	Guarantors	Non- Guarantors	Eliminations	Consolidated	
Revenues and sales:						
Service revenues	\$ —	\$ 1,011.0	\$ 4,304.9	\$ (36.0)	\$ 5,279.9	
Product sales	—	96.4	10.7	—	107.1	
Total revenues and sales	—	1,107.4	4,315.6	(36.0)	5,387.0	
Costs and expenses:						
Cost of services	—	417.0	2,263.4	(33.2)	2,647.2	
Cost of products sold	—	86.7	11.8	—	98.5	
Selling, general and administrative	—	150.7	633.1	(2.8)	781.0	
Depreciation and amortization	13.8	301.4	948.3	—	1,263.5	
Merger, integration and other costs	—	—	13.8	—	13.8	
Restructuring charges	—	2.9	17.4	—	20.3	
Total costs and expenses	13.8	958.7	3,887.8	(36.0)	4,824.3	
Operating (loss) income	(13.8)	148.7	427.8	—	562.7	
Losses from consolidated subsidiaries	(65.1)	(65.7)	(15.1)	145.9	—	
Other income (expense), net	34.6	(0.8)	(57.8)	—	(24.0)	
Net loss on early extinguishment of debt	(18.0)	—	—	—	(18.0)	
Other-than-temporary impairment loss on investment in Uniti common stock	(181.9)	—	—	—	(181.9)	
Intercompany interest income (expense)	116.6	(44.6)	(72.0)	—	—	
Interest expense	(355.1)	(149.5)	(356.0)	—	(860.6)	
Loss before income taxes	\$ (482.7)	\$ (111.9)	\$ (73.1)	\$ 145.9	\$ (521.8)	
Income tax benefit	(100.2)	(16.3)	(22.8)	—	(139.3)	
Net loss	(382.5)	(95.6)	(50.3)	145.9	(382.5)	
Comprehensive loss	\$ (92.2)	\$ (95.6)	\$ (50.3)	\$ 145.9	\$ (92.2)	

19. Supplemental Guarantor Information, Continued:

Condensed Consolidating Balance Sheet						
	As of December 31, 2018					
(Millions)	Windstream Services	Guarantors	Non- Guarantors	Eliminations	Consolidated	
Assets						
Current Assets:						
Cash and cash equivalents	\$ 328.2	\$ —	\$ 27.5	\$ —	\$ 355.7	
Restricted cash	5.3	—	—	—	5.3	
Accounts receivable, net	—	115.3	541.1	(3.3)	653.1	
Notes receivable - affiliate	—	5.0	—	(5.0)	—	
Affiliates receivable, net	—	537.9	1,842.1	(2,380.0)	—	
Inventories	—	66.6	15.8	—	82.4	
Prepaid expenses and other	80.3	33.9	93.8	(48.3)	159.7	
Total current assets	413.8	758.7	2,520.3	(2,436.6)	1,256.2	
Investments in consolidated subsidiaries	4,737.8	526.9	573.6	(5,838.3)	—	
Notes receivable - affiliate	—	303.3	—	(303.3)	—	
Goodwill	657.2	1,609.6	506.9	—	2,773.7	
Other intangibles, net	449.9	335.3	427.9	—	1,213.1	
Net property, plant and equipment	0.5	1,125.1	3,795.3	—	4,920.9	
Other assets	22.8	17.8	53.4	—	94.0	
Total Assets	\$ 6,282.0	\$ 4,676.7	\$ 7,877.4	\$ (8,578.2)	\$ 10,257.9	
Liabilities and Equity (Deficit)						
Current Liabilities:						
Current portion of long-term debt	\$ 5,628.5	\$ 99.6	\$ —	\$ —	\$ 5,728.1	
Current portion of long-term lease obligations	—	1,334.5	3,235.8	—	4,570.3	
Accounts payable	—	226.4	277.2	—	503.6	
Affiliates payable, net	2,380.0	—	—	(2,380.0)	—	
Notes payable - affiliate	—	—	5.0	(5.0)	—	
Advance payments and customer deposits	—	31.3	152.6	(3.3)	180.6	
Accrued taxes	—	87.7	48.0	(48.3)	87.4	
Accrued interest	41.4	1.7	0.4	—	43.5	
Other current liabilities	37.8	77.7	228.7	—	344.2	
Total current liabilities	8,087.7	1,858.9	3,947.7	(2,436.6)	11,457.7	
Long-term lease obligations	—	15.6	57.2	—	72.8	
Notes payable - affiliate	—	—	303.3	(303.3)	—	
Deferred income taxes	104.3	—	—	—	104.3	
Other liabilities	9.3	55.5	477.6	—	542.4	
Total liabilities	8,201.3	1,930.0	4,785.8	(2,739.9)	12,177.2	
Commitments and Contingencies (See Note 17)						
Equity (Deficit):						
Common stock	—	39.4	81.9	(121.3)	—	
Additional paid-in capital	1,244.2	3,956.7	1,404.9	(5,361.6)	1,244.2	
Accumulated other comprehensive income	35.6	—	7.7	(7.7)	35.6	
(Accumulated deficit) retained earnings	(3,199.1)	(1,249.4)	1,597.1	(347.7)	(3,199.1)	
Total (deficit) equity	(1,919.3)	2,746.7	3,091.6	(5,838.3)	(1,919.3)	
Total Liabilities and Equity (Deficit)	\$ 6,282.0	\$ 4,676.7	\$ 7,877.4	\$ (8,578.2)	\$ 10,257.9	

19. Supplemental Guarantor Information, Continued:

Condensed Consolidating Balance Sheet						
	As of December 31, 2017					
(Millions)	Windstream Services	Guarantors	Non- Guarantors	Eliminations	Consolidated	
Assets						
Current Assets:						
Cash and cash equivalents	\$ —	\$ 2.5	\$ 40.9	\$ —	\$ 43.4	
Accounts receivable, net	—	185.2	461.1	(3.3)	643.0	
Notes receivable - affiliate	—	5.0	—	(5.0)	—	
Affiliates receivable, net	—	18.3	1,949.8	(1,968.1)	—	
Inventories	—	76.9	16.1	—	93.0	
Prepaid expenses and other	26.8	44.3	83.2	—	154.3	
Total current assets	26.8	332.2	2,551.1	(1,976.4)	933.7	
Investments in consolidated subsidiaries	5,603.7	575.9	401.0	(6,580.6)	—	
Notes receivable - affiliate	—	306.9	—	(306.9)	—	
Goodwill	657.2	1,712.8	472.4	—	2,842.4	
Other intangibles, net	479.8	461.7	512.9	—	1,454.4	
Net property, plant and equipment	5.8	1,318.3	4,067.7	—	5,391.8	
Deferred income taxes	—	460.7	205.2	(295.1)	370.8	
Other assets	24.5	15.5	51.2	—	91.2	
Total Assets	\$ 6,797.8	\$ 5,184.0	\$ 8,261.5	\$ (9,159.0)	\$ 11,084.3	
Liabilities and Equity (Deficit)						
Current Liabilities:						
Current portion of long-term debt	\$ 169.3	\$ —	\$ —	\$ —	\$ 169.3	
Current portion of long-term lease obligations	—	55.2	133.4	—	188.6	
Accounts payable	—	123.4	370.6	—	494.0	
Affiliates payable, net	1,968.1	—	—	(1,968.1)	—	
Notes payable - affiliate	—	—	5.0	(5.0)	—	
Advance payments and customer deposits	—	40.7	169.9	(3.3)	207.3	
Accrued taxes	—	23.8	65.7	—	89.5	
Accrued interest	50.2	1.8	0.6	—	52.6	
Other current liabilities	15.6	102.7	223.8	—	342.1	
Total current liabilities	2,203.2	347.6	969.0	(1,976.4)	1,543.4	
Long-term debt	5,575.0	99.6	—	—	5,674.6	
Long-term lease obligations	—	1,350.1	3,293.2	—	4,643.3	
Notes payable - affiliate	—	—	306.9	(306.9)	—	
Deferred income taxes	295.1	—	—	(295.1)	—	
Other liabilities	23.4	77.1	421.4	—	521.9	
Total liabilities	8,096.7	1,874.4	4,990.5	(2,578.4)	12,383.2	
Commitments and Contingencies (See Note 17)						
Equity (Deficit):						
Common stock	—	39.4	81.9	(121.3)	—	
Additional paid-in capital	1,187.1	3,958.6	1,358.1	(5,316.7)	1,187.1	
Accumulated other comprehensive income	21.4	—	4.0	(4.0)	21.4	
(Accumulated deficit) retained earnings	(2,507.4)	(688.4)	1,827.0	(1,138.6)	(2,507.4)	
Total (deficit) equity	(1,298.9)	3,309.6	3,271.0	(6,580.6)	(1,298.9)	
Total Liabilities and Equity (Deficit)	\$ 6,797.8	\$ 5,184.0	\$ 8,261.5	\$ (9,159.0)	\$ 11,084.3	

19. Supplemental Guarantor Information, Continued:

	Condensed Consolidating Statement of Cash Flows					
	For the Year Ended December 31, 2017					
(Millions)	Windstream Services	Guarantors	Non- Guarantors	Eliminations	Consolidated	
Cash Provided from Operating Activities:						
Net cash (used in) provided from operating activities	\$ (337.1)	\$ 319.9	\$ 992.1	\$ —	\$ 974.9	
Cash Flows from Investing Activities:						
Additions to property, plant and equipment	(0.5)	(120.4)	(787.7)	—	(908.6)	
Acquisition of Broadview, net of cash acquired	(63.3)	—	—	—	(63.3)	
Cash acquired from EarthLink	—	0.7	4.3	—	5.0	
Other, net	—	(5.0)	(11.3)	—	(16.3)	
Net cash used in investing activities	(63.8)	(124.7)	(794.7)	—	(983.2)	
Cash Flows from Financing Activities:						
Distributions to Windstream Holdings, Inc.	(83.7)	—	—	—	(83.7)	
Contribution from Windstream Holdings, Inc.	9.6	—	—	—	9.6	
Repayments of debt and swaps	(1,688.2)	(453.6)	(160.0)	—	(2,301.8)	
Proceeds of debt issuance	2,614.6	—	—	—	2,614.6	
Debt issuance costs	(27.1)	—	—	—	(27.1)	
Intercompany transactions, net	(413.0)	338.7	74.3	—	—	
Payments under long-term lease obligations	—	(49.5)	(119.2)	—	(168.7)	
Payments under capital lease obligations	—	(34.0)	(5.0)	—	(39.0)	
Other, net	(11.3)	3.5	(3.5)	—	(11.3)	
Net cash provided from (used in) financing activities	400.9	(194.9)	(213.4)	—	(7.4)	
Increase (decrease) in cash and cash equivalents	—	0.3	(16.0)	—	(15.7)	
Cash and Cash Equivalents:						
Beginning of period	—	2.2	56.9	—	59.1	
End of period	\$ —	\$ 2.5	\$ 40.9	\$ —	\$ 43.4	

20. Quarterly Financial Information – (Unaudited):

(Millions, except per share amounts)	For the Year Ended December 31, 2018				
	Total	4th	3rd	2nd	1st
Revenues and sales	\$ 5,713.1	\$ 1,393.8	\$ 1,420.6	\$ 1,444.4	\$ 1,454.3
Operating income	\$ 296.6	\$ 63.7	\$ 75.6	\$ 88.3	\$ 69.0
Net (loss) income	\$ (723.0)	\$ (549.2)	\$ 41.3	\$ (93.7)	\$ (121.4)
Basic and diluted (loss) earnings per share: (a)					
Net (loss) income	(\$17.72)	(\$12.92)	\$.97	(\$2.30)	(\$3.25)

- (a) Quarterly (loss) income per share amounts may not add to full-year (loss) earnings per share amounts due to the difference in weighted-average common shares for the quarters compared to the weighted-average common shares for the year.

Significant items affecting our historical operating trends in the quarterly periods of 2018 were as follows:

- As discussed in Note 9, we recognize actuarial gains and losses for pension benefits as a component of net periodic benefit expense (income) in the fourth quarter of each year, unless an earlier measurement date is required. Results of operations for the fourth quarter of 2018 include net pre-tax actuarial gains related to pension benefits of \$14.9 million .
- Net loss in the fourth quarter of 2018 includes a pre-tax gain of \$145.4 million from the sale of our Consumer CLEC business (see Note 12).
- As of December 31, 2018, Windstream recorded a full valuation allowance, exclusive of a portion of deferred tax liabilities primarily associated with indefinite-lived intangible assets, due to the acceleration of all long-term debt obligations following an adverse court ruling and subsequent filing of the Chapter 11 Cases, and Windstream's assessment that it was more likely than not that our deferred tax assets would not be realized. See Notes 5, 16 and 17 for additional information regarding the acceleration of long-term debt obligations, the court ruling, filing of the Chapter 11 Cases, and the related effects on income taxes.
- Net income in the third quarter of 2018 primarily reflects a pre-tax gain of \$190.3 million from the early extinguishment of long-term debt in connection with the completion of two debt exchange transactions (see Note 5).
- Operating income in each of the quarters of 2018 reflected reductions in merger, integration and other charges when compared to the same periods a year ago. The decreases were primarily attributable to our 2017 mergers with Broadview and EarthLink. Merger, integration and other charges decreased \$28.5 million , \$24.7 million , \$2.3 million and \$50.0 million in the fourth, third, second and first quarters of 2018, respectively. See Note 11 for additional information.
- Operating income in each of the quarters of 2018 was adversely impacted by increases in depreciation and amortization expense when compared to the same periods a year ago. The increases were primarily attributable to the mergers with Broadview and EarthLink and current year additions to property, plant and equipment, reflecting our continued investment in our broadband network.

(Millions, except per share amounts)	For the Year Ended December 31, 2017				
	Total	4th	3rd	2nd	1st
Revenues and sales	\$ 5,852.9	\$ 1,497.9	\$ 1,497.7	\$ 1,491.6	\$ 1,365.7
Operating (loss) income	\$ (1,590.6)	\$ (1,778.4)	\$ 41.2	\$ 102.5	\$ 44.1
Net loss	\$ (2,116.6)	\$ (1,835.7)	\$ (101.5)	\$ (68.1)	\$ (111.3)
Basic and diluted loss per share: (a)					
Net loss	(\$62.66)	(\$51.32)	(\$2.76)	(\$1.83)	\$4.44

- (a) Quarterly loss per share amounts may not add to full-year loss per share amounts due to the difference in weighted-average common shares for the quarters compared to the weighted-average common shares for the year.

20. Quarterly Financial Information – (Unaudited), Continued:

Significant items affecting our historical operating trends in the quarterly periods of 2017 were as follows:

- As discussed in Note 4, we recognized in the fourth quarter of 2017 a goodwill impairment charge of \$1,840.8 million .
- As discussed in Note 9, we recognize actuarial gains and losses for pension benefits as a component of net periodic benefit expense (income) in the fourth quarter of each year, unless an earlier measurement date is required. Results of operations for the fourth quarter of 2017 include net pre-tax actuarial losses related to pension benefits of \$10.5 million .
- Operating (loss) income in each of the quarters of 2017 was adversely impacted by increases in depreciation and amortization expense when compared to the same periods a year ago. The increases were primarily attributable to the mergers with Broadview and EarthLink and the implementation of new depreciation rates in the fourth quarter of 2016 that shortened the depreciable lives of assets used by certain of our subsidiaries partially offset by the effects of extending the useful lives of certain fiber assets from 20 to 25 years.
- Operating (loss) income and net loss in each of the quarters of 2017 included incremental merger, integration and other charges related to our mergers with Broadview and EarthLink. These incremental charges totaled \$20.4 million , \$31.5 million , \$13.4 million and \$53.1 million in the fourth, third, second and first quarters of 2017, respectively. See Note 11 for additional information.
- Operating income and net loss in the third quarter of 2017 included incremental restructuring charges related to a workforce reduction designed to improve our overall cost structure and gain operational efficiencies. In undertaking these efforts, we eliminated approximately 700 employees and incurred a restructuring charge of \$22.8 million , principally consisting of severance and employee benefit costs (see Note 11).

21. Subsequent Events:

Litigation

As previously discussed in Notes 5 and 17, Windstream Services received a notice of default from Aurelius, which alleged that Windstream Services had breached certain covenants under the indenture governing its August 2023 Notes relating to the transfer of certain assets and the subsequent lease of those assets in connection with the Uniti spin-off. On November 6, 2017, Windstream Services received consents from holders representing a majority of the outstanding aggregate principal amount of its August 2023 Notes to certain waivers and amendments to the Indenture relating to the defaults alleged in the notice of default in connection with certain exchange and consent transactions completed in 2017. On October 12, 2017, the trustee under the indenture filed suit in the United States District Court for the Southern District of New York (the “Court”) seeking a declaration that defaults had occurred under the indenture. Windstream Services filed an answer and affirmative defenses in response to the trustee’s complaint as well as counterclaims against the trustee and Aurelius for declaratory relief. Aurelius filed counterclaims seeking a declaration that the new August 2023 Notes were improperly issued in the 2017 exchange and consent transactions and the consents received from holders representing a majority of the outstanding aggregate principal amount of August 2023 Notes did not cure the defaults alleged in the Notice. On December 7, 2017, Aurelius sent a notice of acceleration to Windstream Services purporting to declare the Notes to be due and payable immediately on the basis of the defaults alleged in the notice of default and Windstream Services’ failure to cure such alleged breaches by the end of the cure period.

Trial in the litigation occurred July 23-25, 2018 and the court heard final arguments on July 31, 2018.

On February 15, 2019, Judge Furman of the Court issued certain findings of fact and conclusions of law regarding the Uniti spin-off and 2017 exchange and consent transactions. Judge Furman found that the trustee under the Indenture and/or Aurelius are entitled to a judgment against Windstream as previously outlined in Note 17.

Chapter 11 Filing

As previously discussed in Note 1, on February 25, 2019, Windstream Holdings and all of its subsidiaries, including Windstream Services (collectively, the “Debtors”), filed voluntary petitions for reorganization under Chapter 11 of the Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York (the “Bankruptcy Court”). The Debtors intend to use the court-supervised process to address obligations that have been accelerated as a result of the decision by Judge Furman against Windstream Services, discussed above.