

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2020

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 001-36146

CommScope Holding Company, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

27-4332098
(I.R.S. Employer
Identification No.)

**1100 CommScope Place, SE
Hickory, North Carolina
(Address of principal executive offices)
28602
(Zip Code)
(828) 324-2200**

(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.01 per share	COMM	The NASDAQ Stock Market

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

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

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

As of October 23, 2020 there were 198,644,631 shares of Common Stock outstanding.

CommScope Holding Company, Inc.
Form 10-Q
September 30, 2020
Table of Contents

Part I—Financial Information (Unaudited):

Item 1. Condensed Consolidated Financial Statements:

<u>Condensed Consolidated Statements of Operations</u>	2
<u>Condensed Consolidated Statements of Comprehensive Loss</u>	3
<u>Condensed Consolidated Balance Sheets</u>	4
<u>Condensed Consolidated Statements of Cash Flows</u>	5
<u>Condensed Consolidated Statements of Stockholders' Equity</u>	6
<u>Notes to Unaudited Condensed Consolidated Financial Statements</u>	7

<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	28
--	----

<u>Item 3. Quantitative and Qualitative Disclosures About Market Risk</u>	47
---	----

<u>Item 4. Controls and Procedures</u>	48
--	----

Part II—Other Information:

<u>Item 1. Legal Proceedings</u>	49
----------------------------------	----

<u>Item 1A. Risk Factors</u>	49
------------------------------	----

<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	49
--	----

<u>Item 3. Defaults Upon Senior Securities</u>	49
--	----

<u>Item 4. Mine Safety Disclosures</u>	49
--	----

<u>Item 5. Other Information</u>	49
----------------------------------	----

<u>Item 6. Exhibits</u>	50
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<u>Signatures</u>	51
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PART 1 -- FINANCIAL INFORMATION (UNAUDITED)
ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

CommScope Holding Company, Inc.
Condensed Consolidated Statements of Operations
(Unaudited – In millions, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net sales	\$ 2,168.1	\$ 2,380.2	\$ 6,304.1	\$ 6,046.4
Cost of sales	1,432.6	1,770.3	4,271.3	4,378.5
Gross profit	735.5	609.9	2,032.8	1,667.9
Operating expenses:				
Selling, general and administrative	296.7	305.8	898.7	972.0
Research and development	184.6	171.5	541.1	399.5
Amortization of purchased intangible assets	158.1	163.9	473.5	387.3
Restructuring costs, net	40.3	19.5	83.6	78.3
Asset impairments	—	—	206.7	—
Total operating expenses	679.7	660.7	2,203.6	1,837.1
Operating income (loss)	55.8	(50.8)	(170.8)	(169.2)
Other income (expense), net	(16.9)	1.5	(30.2)	(3.6)
Interest expense	(147.2)	(160.7)	(437.7)	(423.5)
Interest income	1.3	1.8	4.2	15.9
Loss before income taxes	(107.0)	(208.2)	(634.5)	(580.4)
Income tax (expense) benefit	(9.3)	51.7	37.2	87.6
Net loss	(116.3)	(156.5)	(597.3)	(492.8)
Series A convertible preferred stock dividend	(14.1)	(13.8)	(41.8)	(26.9)
Deemed dividend on Series A convertible preferred stock	—	—	—	(3.0)
Net loss attributable to common stockholders	<u>\$ (130.4)</u>	<u>\$ (170.3)</u>	<u>\$ (639.1)</u>	<u>\$ (522.7)</u>
Loss per share:				
Basic	\$ (0.66)	\$ (0.88)	\$ (3.26)	\$ (2.70)
Diluted	\$ (0.66)	\$ (0.88)	\$ (3.26)	\$ (2.70)
Weighted average shares outstanding:				
Basic	196.9	194.1	195.9	193.5
Diluted	196.9	194.1	195.9	193.5

See notes to unaudited condensed consolidated financial statements.

CommScope Holding Company, Inc.
Condensed Consolidated Statements of Comprehensive Loss
(Unaudited – In millions)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Comprehensive loss:				
Net loss	\$ (116.3)	\$ (156.5)	\$ (597.3)	\$ (492.8)
Other comprehensive income (loss), net of tax:				
Foreign currency translation gain (loss)	63.7	(76.6)	(1.3)	(76.5)
Pension and other postretirement benefit activity	(0.1)	(0.1)	(0.6)	(0.2)
Gain (loss) on hedging instruments	(9.0)	7.9	(21.9)	(4.0)
Total other comprehensive income (loss), net of tax	54.6	(68.8)	(23.8)	(80.7)
Total comprehensive loss	<u>\$ (61.7)</u>	<u>\$ (225.3)</u>	<u>\$ (621.1)</u>	<u>\$ (573.5)</u>

See notes to unaudited condensed consolidated financial statements.

CommScope Holding Company, Inc.
Condensed Consolidated Balance Sheets
(In millions, except share amounts)

	Unaudited	
	September 30, 2020	December 31, 2019
Assets		
Cash and cash equivalents	\$ 582.8	\$ 598.2
Accounts receivable, less allowance for doubtful accounts of \$43.1 and \$35.4, respectively	1,497.2	1,698.8
Inventories, net	1,104.5	975.9
Prepaid expenses and other current assets	230.9	238.9
Total current assets	3,415.4	3,511.8
Property, plant and equipment, net of accumulated depreciation of \$665.5 and \$553.8, respectively	673.3	723.8
Goodwill	5,254.1	5,471.7
Other intangible assets, net	3,795.5	4,263.6
Other noncurrent assets	562.7	460.7
Total assets	<u>\$ 13,701.0</u>	<u>\$ 14,431.6</u>
Liabilities and Stockholders' Equity		
Accounts payable	\$ 1,147.3	\$ 1,148.0
Accrued and other liabilities	878.3	862.0
Current portion of long-term debt	32.0	32.0
Total current liabilities	2,057.6	2,042.0
Long-term debt	9,589.3	9,800.4
Deferred income taxes	217.7	215.1
Other noncurrent liabilities	540.5	537.8
Total liabilities	12,405.1	12,595.3
Commitments and contingencies		
Series A convertible preferred stock, \$0.01 par value	1,041.8	1,000.0
Stockholders' equity:		
Preferred stock, \$0.01 par value: Authorized shares: 200,000,000; Issued and outstanding shares: 1,041,819 Series A convertible preferred stock	—	—
Common stock, \$0.01 par value: Authorized shares: 1,300,000,000; Issued and outstanding shares: 196,990,667 and 194,563,530, respectively	2.1	2.0
Additional paid-in capital	2,494.2	2,445.1
Retained earnings (accumulated deficit)	(1,776.6)	(1,179.3)
Accumulated other comprehensive loss	(220.8)	(197.0)
Treasury stock, at cost: 8,498,082 shares and 7,411,382 shares, respectively	(244.8)	(234.5)
Total stockholders' equity	254.1	836.3
Total liabilities and stockholders' equity	<u>\$ 13,701.0</u>	<u>\$ 14,431.6</u>

See notes to unaudited condensed consolidated financial statements.

CommScope Holding Company, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited - In millions)

	Nine Months Ended September 30,	
	2020	2019
Operating Activities:		
Net loss	\$ (597.3)	\$ (492.8)
Adjustments to reconcile net loss to net cash generated by operating activities:		
Depreciation and amortization	618.8	514.5
Equity-based compensation	90.0	58.7
Deferred income taxes	(96.6)	(172.4)
Asset impairments	206.7	—
Changes in assets and liabilities:		
Accounts receivable	200.9	165.3
Inventories	(130.3)	356.3
Prepaid expenses and other assets	32.2	63.8
Accounts payable and other liabilities	(25.0)	(228.0)
Other	39.1	(5.0)
Net cash generated by operating activities	338.5	260.4
Investing Activities:		
Additions to property, plant and equipment	(73.5)	(72.3)
Proceeds from sale of property, plant and equipment	0.2	1.2
Proceeds from sale of long-term investments	—	9.3
Cash paid for ARRIS acquisition, net of cash acquired	—	(5,053.4)
Cash paid for Cable Exchange acquisition	(3.5)	(11.0)
Other	—	1.1
Net cash used in investing activities	(76.8)	(5,125.1)
Financing Activities:		
Long-term debt repaid	(1,174.0)	(2,753.3)
Long-term debt proceeds	950.0	6,933.0
Debt issuance costs	(11.6)	(120.8)
Debt extinguishment costs	(14.9)	—
Series A convertible preferred stock proceeds	—	1,000.0
Dividends paid on Series A convertible preferred stock	—	(29.9)
Proceeds from the issuance of common shares under equity-based compensation plans	1.0	3.0
Tax withholding payments for vested equity-based compensation awards	(10.3)	(12.3)
Net cash generated by (used in) financing activities	(259.8)	5,019.7
Effect of exchange rate changes on cash and cash equivalents	(17.3)	(4.1)
Change in cash and cash equivalents	(15.4)	150.9
Cash and cash equivalent at beginning of period	598.2	458.2
Cash and cash equivalents at end of period	\$ 582.8	\$ 609.1

See notes to unaudited condensed consolidated financial statements.

CommScope Holding Company, Inc.
Condensed Consolidated Statements of Stockholders' Equity
(Unaudited - In millions, except share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Number of common shares outstanding:				
Balance at beginning of period	195,997,230	193,873,919	194,563,530	192,376,255
Issuance of shares under equity-based compensation plans	1,469,968	569,086	3,513,837	2,476,179
Shares surrendered under equity-based compensation plans	(476,531)	(192,283)	(1,086,700)	(601,712)
Balance at end of period	<u>196,990,667</u>	<u>194,250,722</u>	<u>196,990,667</u>	<u>194,250,722</u>
Common stock:				
Balance at beginning and end of period	\$ 2.0	\$ 2.0	\$ 2.0	\$ 2.0
Issuance of shares under equity-based compensation plans	0.1	—	0.1	—
Balance at end of period	<u>\$ 2.1</u>	<u>\$ 2.0</u>	<u>\$ 2.1</u>	<u>\$ 2.0</u>
Additional paid-in capital:				
Balance at beginning of period	\$ 2,474.3	\$ 2,410.7	\$ 2,445.1	\$ 2,385.1
Issuance of shares under equity-based compensation plans	—	0.3	0.9	3.0
Equity-based compensation	34.0	28.0	90.0	58.7
Equity-based compensation assumed	—	—	—	8.3
Dividend on Series A convertible preferred stock	(14.1)	(13.8)	(41.8)	(26.9)
Deemed dividend on Series A convertible preferred stock	—	—	—	(3.0)
Balance at end of period	<u>\$ 2,494.2</u>	<u>\$ 2,425.2</u>	<u>\$ 2,494.2</u>	<u>\$ 2,425.2</u>
Retained earnings (accumulated deficit):				
Balance at beginning of period	\$ (1,660.3)	\$ (586.1)	\$ (1,179.3)	\$ (249.8)
Net loss	(116.3)	(156.5)	(597.3)	(492.8)
Balance at end of period	<u>\$ (1,776.6)</u>	<u>\$ (742.6)</u>	<u>\$ (1,776.6)</u>	<u>\$ (742.6)</u>
Accumulated other comprehensive loss:				
Balance at beginning of period	\$ (275.4)	\$ (171.1)	\$ (197.0)	\$ (159.2)
Other comprehensive income (loss), net of tax	54.6	(68.8)	(23.8)	(80.7)
Balance at end of period	<u>\$ (220.8)</u>	<u>\$ (239.9)</u>	<u>\$ (220.8)</u>	<u>\$ (239.9)</u>
Treasury stock, at cost:				
Balance at beginning of period	\$ (240.8)	\$ (230.6)	\$ (234.5)	\$ (221.3)
Net shares surrendered under equity-based compensation plans	(4.0)	(3.0)	(10.3)	(12.3)
Balance at end of period	<u>\$ (244.8)</u>	<u>\$ (233.6)</u>	<u>\$ (244.8)</u>	<u>\$ (233.6)</u>
Total stockholders' equity	<u>\$ 254.1</u>	<u>\$ 1,211.1</u>	<u>\$ 254.1</u>	<u>\$ 1,211.1</u>

See notes to unaudited condensed consolidated financial statements.

1. BACKGROUND AND BASIS OF PRESENTATION

Background

CommScope Holding Company, Inc., along with its direct and indirect subsidiaries (CommScope or the Company), is a global provider of infrastructure solutions for communication and entertainment networks. The Company's solutions for wired and wireless networks enable service providers including cable, telephone and digital broadcast satellite operators and media programmers to deliver media, voice, Internet Protocol (IP) data services and Wi-Fi to their subscribers and allow enterprises to experience constant, wireless and wired connectivity across complex and varied networking environments. The Company's solutions are complemented by a broad array of services including technical support, systems design and integration. CommScope is a leader in digital video and IP television distribution systems, broadband access infrastructure platforms and equipment that delivers data and voice networks to homes. CommScope's global leadership position is built upon innovative technology, broad solution offerings, high-quality and cost-effective customer solutions, and global manufacturing and distribution scale.

On April 4, 2019, the Company completed the acquisition of ARRIS International plc (ARRIS) (the Acquisition) in an all-cash transaction with a total purchase price of approximately \$7.7 billion, including debt assumed. See Note 2 for additional discussion of the Acquisition.

As of January 1, 2020, the Company reorganized its internal management and reporting structure as part of the integration of the Acquisition. The reorganization changed the information regularly reviewed by the Company's chief operating decision maker for purposes of allocating resources and assessing performance. As a result, the Company now reports financial performance for the 2020 year based on four operating segments: Broadband Networks (Broadband), Home Networks (Home), Outdoor Wireless Networks (OWN) and Venue and Campus Networks (VCN). These four segments represent non-aggregated reportable operating segments. Prior to this change, the Company operated and reported five operating segments: Connectivity Solutions, Mobility Solutions, Customer Premises Equipment, Network and Cloud and Ruckus Networks. All prior period amounts in these condensed consolidated financial statements have been recast to reflect these operating segment changes.

Basis of Presentation

The accompanying condensed consolidated financial statements are unaudited and reflect all adjustments of a normal, recurring nature that are, in the opinion of management, necessary for a fair presentation of the interim period financial statements. The results of operations for these interim periods are not necessarily indicative of the results of operations to be expected for any future period or the full fiscal year. Certain prior year amounts have been reclassified to conform to the current year presentation.

The unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) for interim financial information and are presented in accordance with the applicable requirements of Regulation S-X. Accordingly, these financial statements do not include all of the information and notes required by U.S. GAAP for complete financial statements. These unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the 2019 Annual Report). The significant accounting policies followed by the Company are set forth in Note 2 within the Company's audited consolidated financial statements included in the 2019 Annual Report. Other than the enhancements described below to the allowance for doubtful accounts policy as a result of the adoption of Accounting Standards Update (ASU) No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, there were no material changes in the Company's significant accounting policies during the three or nine months ended September 30, 2020.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable and contract assets for unbilled receivables are stated at the amount owed by the customer, net of allowances for estimated doubtful accounts, discounts, returns and rebates. The Company measures the allowance for doubtful accounts using an expected credit loss model, which uses a lifetime expected loss allowance for all trade accounts receivable and contract assets. To measure the expected credit losses, trade accounts receivable and contract assets are grouped based on shared credit risk characteristics and the days past due. Contract assets relate to unbilled work in progress and have substantially the same risk characteristics as trade accounts receivable for the same types of contracts. Therefore, the Company has concluded that the expected loss rates for trade accounts receivables are a reasonable approximation of the loss rates for the contract assets.

In calculating an allowance for doubtful accounts, the Company uses its historical experience, external indicators and forward-looking information to calculate expected credit losses using an aging method. The Company assesses impairment of trade accounts receivable on a collective basis as they possess shared credit risk characteristics which have been grouped based on the days past due.

The expected loss rates are based on the payment profiles of sales over the preceding thirty-six months and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle their trade accounts receivable.

Concentrations of Risk and Related Party Transactions

Net sales to Comcast Corporation and affiliates (Comcast) accounted for 11% of the Company's total net sales during the three and nine months ended September 30, 2020. No other direct customer accounted for 10% or more of the Company's total net sales. Net sales to Comcast accounted for 15% and 10% of the Company's total net sales during the three and nine months ended September 30, 2019, respectively. Other than Comcast, no other direct customer accounted for 10% or more of the Company's total net sales during the three and nine months ended September 30, 2019. No direct customer accounted for 10% or more of the Company's accounts receivable as of September 30, 2020.

The Company relies on sole suppliers or a limited group of suppliers for certain key components, subassemblies and modules and a limited group of contract manufacturers to manufacture a significant portion of its products. Any disruption or termination of these arrangements could have a material adverse impact on the Company's results of operations.

As of September 30, 2020, funds affiliated with Carlyle Partners VII S1 Holdings, L.P. (Carlyle) owned 100% of the Series A Convertible Preferred Stock (the Convertible Preferred Stock), which was sold to Carlyle to fund a portion of the Acquisition. See Note 11 for further discussion of the Convertible Preferred Stock. Other than transactions related to the Convertible Preferred Stock, there were no material related party transactions for the three or nine months ended September 30, 2020.

Product Warranties

The Company recognizes a liability for the estimated claims that may be paid under its customer warranty agreements to remedy potential deficiencies of quality or performance of the Company's products. These product warranties extend over various periods, depending upon the product subject to the warranty and the terms of the individual agreements. The Company records a provision for estimated future warranty claims as cost of sales based upon the historical relationship of warranty claims to sales and specifically identified warranty issues. The Company bases its estimates on assumptions that are believed to be reasonable under the circumstances and revises its estimates, as appropriate, when events or changes in circumstances indicate that revisions may be necessary. Such revisions may be material.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

The following table summarizes the activity in the product warranty accrual, included in accrued and other liabilities and other noncurrent liabilities:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Product warranty accrual, beginning of period	\$ 55.9	\$ 66.6	\$ 61.0	\$ 15.6
Obligation assumed under ARRIS acquisition	—	—	—	57.4
Provision for warranty claims	10.3	6.5	20.1	12.5
Warranty claims paid	(8.4)	(9.3)	(22.8)	(21.7)
Foreign exchange	0.2	—	(0.3)	—
Product warranty accrual, end of period	<u>\$ 58.0</u>	<u>\$ 63.8</u>	<u>\$ 58.0</u>	<u>\$ 63.8</u>

Commitments and Contingencies

The Company is party to certain intellectual property claims and periodically receives notices asserting that its products infringe on another party's patents and other intellectual property rights. These claims and assertions, whether against the Company directly or against its customers, could require the Company to pay damages, royalties, stop offering the relevant products and/or cease other activities. The Company may also be called upon to indemnify certain customers for costs related to products sold to such customers. While the outcome of the claims and notices is uncertain and a reasonable estimate of the loss from unfavorable outcomes in certain of these matters cannot be determined, an adverse outcome could result in a material loss.

As of September 30, 2020, the Company had a liability of \$59.4 million recorded in accrued and other liabilities on the Condensed Consolidated Balance Sheets related to certain intellectual property assertions that have been settled or are in process of settlement. Of that amount, \$48.5 million was assumed in the Acquisition. The Company paid \$66.2 million during the nine months ended September 30, 2020 to settle intellectual property assertions and expects to pay an additional \$39.8 million in the fourth quarter of 2020. For the three and nine months ended September 30, 2020, the Company recorded a charge (credit) to cost of sales in the Condensed Consolidated Statements of Operations of \$(9.9) million and \$2.8 million, respectively related to these intellectual property assertions. These amounts are primarily reflected in the results of the Home and VCN segments.

The Company is either a plaintiff or a defendant in certain other pending legal matters in the normal course of business. Management believes none of these other pending legal matters will have a material adverse effect on the Company's business or financial condition upon final disposition.

In addition, the Company is subject to various federal, state, local and foreign laws and regulations governing the use, discharge, disposal and remediation of hazardous materials. Compliance with current laws and regulations has not had, and is not expected to have, a materially adverse effect on the Company's financial condition or results of operations.

Asset Impairments

Goodwill is tested for impairment annually or at other times if events have occurred or circumstances exist that indicate the carrying value of the reporting unit may exceed its fair value. There were no indicators of goodwill impairment identified during the three months ended September 30, 2020. See Notes 3 and 8 for discussion of goodwill impairment charges during the nine months ended September 30, 2020. There were no indicators of goodwill impairment identified during the three or nine months ended September 30, 2019.

Property, plant and equipment and intangible assets with finite lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable, based on the undiscounted cash flows expected to be derived from the use and ultimate disposition of the assets. Assets identified as impaired are adjusted to estimated fair value. Equity investments without readily determinable fair values are evaluated each reporting period for impairment based on a qualitative assessment and are then measured at fair value if an impairment is determined to exist. Other than certain assets impaired as a result of restructuring actions, there were no definite-lived intangible or other long-lived asset impairments identified during the three or nine months ended September 30, 2020 or 2019. See Note 10 for discussion of impairment charges related to restructuring actions.

Income Taxes

For the three months ended September 30, 2020, the Company's effective tax rate was (8.7)% and the Company recognized income tax expense of \$9.3 million on a pretax loss of \$107.0 million. The income tax expense on the Company's pretax loss was driven by \$19.2 million of tax expense related to a foreign tax rate change. For the nine months ended September 30, 2020, the Company's effective tax rate was 5.9% and the Company recognized a tax benefit of \$37.2 million on a pretax loss of \$634.5 million. The Company's tax benefit was less than the statutory rate of 21.0% in the nine months ended September 30, 2020 primarily due to a goodwill impairment charge of \$206.7 million, for which minimal tax benefits were recorded, \$22.7 million of tax expense related to state valuation allowances and \$19.2 million in income tax expense related to a foreign tax rate change. For both the three and nine months ended September 30, 2020, the Company's tax rate was also impacted favorably by federal tax credits and unfavorably by U.S. anti-deferral provisions and foreign withholding taxes. Excess tax costs of \$1.2 million and \$9.0 million related to equity compensation awards also impacted the income taxes unfavorably for the three and nine months ended September 30, 2020, respectively.

For the three and nine months ended September 30, 2019, the Company's effective income tax rate was 24.8% and 15.1%, respectively, and the Company recognized a tax benefit of \$51.7 million on a pretax loss of \$208.2 million and a tax benefit of \$87.6 million on a pretax loss of \$580.4 million, respectively. For the three and nine months ended September 30, 2019, our tax benefit was impacted favorably by the impact of federal tax credits, benefits recognized from adjustments related to prior years' tax returns and the expiration of statutes of limitations on various uncertain tax positions and impacted unfavorably by the impact of U.S. anti-deferral provisions and foreign withholding taxes. Excess tax costs related to equity-based compensation awards had an unfavorable impact on our tax benefit of \$1.1 million and \$1.5 million for the three and nine months ended September 30, 2019, respectively.

Earnings (Loss) Per Share

Basic earnings (loss) per share (EPS) is computed by dividing net income (loss), less any dividends and deemed dividends related to the Convertible Preferred Stock, by the weighted average number of common shares outstanding during the period. The numerator in diluted EPS is based on the basic EPS numerator adjusted to add back any dividends and deemed dividends related to the Convertible Preferred Stock, subject to antidilution requirements. The denominator used in diluted EPS is based on the basic EPS computation plus the effect of potentially dilutive common shares related to the Convertible Preferred Stock and equity-based compensation plans, subject to antidilution requirements.

For the three and nine months ended September 30, 2020, 18.9 million and 17.4 million shares, respectively, of outstanding equity-based compensation awards were not included in the computation of diluted EPS because the effect was either antidilutive or the performance conditions were not met. Of those amounts, for the three and nine months ended September 30, 2020, 4.7 million and 4.5 million shares, respectively, would have been considered dilutive if the Company had not been in a net loss position. For the three and nine months ended September 30, 2019, 17.4 million shares and 10.8 million shares, respectively, were not included in the computation of diluted EPS because the effect was either antidilutive or the performance conditions were not met. Of those amounts, for the three and nine months ended September 30, 2019, 1.4 million shares and 2.3 million shares, respectively, would have been considered dilutive if the Company had not been in a net loss position.

For the three and nine months ended September 30, 2020 and 2019, 37.4 million and 36.9 million, respectively, and 36.4 million and 23.8 million, respectively, of as-if converted shares related to the Convertible Preferred Stock were excluded from the diluted share count because they were anti-dilutive; however, they would have been considered dilutive if the Company had not been in a net loss position.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

The following table presents the basis for the EPS computations (in millions, except per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Numerator:				
Net loss	\$ (116.3)	\$ (156.5)	\$ (597.3)	\$ (492.8)
Dividends on Series A convertible preferred stock	(14.1)	(13.8)	(41.8)	(26.9)
Deemed dividends on Series A convertible preferred stock	—	—	—	(3.0)
Net loss attributable to common stockholders	<u>\$ (130.4)</u>	<u>\$ (170.3)</u>	<u>\$ (639.1)</u>	<u>\$ (522.7)</u>
Denominator:				
Weighted average common shares outstanding - basic	196.9	194.1	195.9	193.5
Dilutive effect of as-if converted Series A convertible preferred stock	—	—	—	—
Dilutive effect of equity-based awards	—	—	—	—
Weighted average common shares outstanding - diluted	<u>196.9</u>	<u>194.1</u>	<u>195.9</u>	<u>193.5</u>
Loss per share:				
Basic	\$ (0.66)	\$ (0.88)	\$ (3.26)	\$ (2.70)
Diluted	\$ (0.66)	\$ (0.88)	\$ (3.26)	\$ (2.70)

Recent Accounting Pronouncements

Adopted During the Nine Months Ended September 30, 2020

On January 1, 2020, the Company adopted ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments* and subsequent amendments to the initial guidance: ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05 and ASU No. 2020-02 (collectively, Topic 326). The new guidance replaces the incurred loss methodology with the current expected credit loss (CECL) methodology. The measurement of expected credit losses under the CECL methodology is applicable to financial assets measured at amortized cost, including trade accounts receivable. It also applies to off-balance sheet credit exposures not accounted for as insurance (loan commitments, standby letters of credit, financial guarantees, and other similar instruments) and net investments in leases recognized by a lessor in accordance with Topic 842.

The Company adopted Topic 326 using the modified retrospective method for all financial assets measured at amortized cost, which are primarily trade accounts receivable and contract assets for the Company. Results for reporting periods beginning after January 1, 2020 are presented under Topic 326 while prior period amounts continue to be reported in accordance with previously applicable U.S. GAAP. The impact of adopting Topic 326 as of January 1, 2020 was not material to the consolidated financial statements.

Issued but Not Adopted

In August 2020, the Financial Accounting Standards Board (FASB) issued ASU No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity*. The new guidance simplifies the accounting for convertible instruments by reducing the number of accounting models available for convertible debt instruments and convertible preferred stock and amends the guidance for the derivatives scope exception for contracts in an entity’s own equity to reduce form-over-substance-based accounting conclusions and requires the application of the if-converted method for calculating diluted earnings per share, along with expanded disclosures. ASU No. 2020-06 is effective for the Company as of January 1, 2022 and early adoption is permitted beginning January 1, 2021. The Company is evaluating the impact of the new guidance on the consolidated financial statements.

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides temporary optional guidance to ease the potential burden in accounting for reference rate reform. The new guidance provides optional expedients and exceptions for applying generally accepted accounting principles to transactions affected by reference rate reform if certain criteria are met. These transactions include contract modifications, hedging relationships, and sale or transfer of debt securities classified as held-to-maturity. The Company can elect to apply the amendments as of March 12, 2020 through December 31, 2022. The Company is currently evaluating the impact of this guidance on the consolidated financial statements.

In January 2020, the FASB issued ASU No. 2020-01, *Investments – Equity Securities (Topic 321), Investments – Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)*. The new guidance is based on a consensus of the Emerging Issues Task Force and is expected to increase comparability in accounting for these transactions. The amendments in this guidance clarify the interaction of accounting for equity securities under Topic 321 and investments accounted for under the equity method of accounting in Topic 323 and the accounting for certain forward contracts and purchased options accounted for under Topic 815. ASU No. 2020-01 is effective for the Company as of January 1, 2021 and early adoption is permitted. The Company is evaluating the impact of the new guidance on the consolidated financial statements.

In December 2019 the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*. The new guidance simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and clarifying and amending existing guidance. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating the impact of the new guidance on the consolidated financial statements and disclosures.

2. ACQUISITIONS

On April 4, 2019, the Company acquired all of the issued ordinary shares of ARRIS in an all cash transaction with a total consideration of approximately \$7.7 billion, including debt assumed. ARRIS is a global leader in entertainment, communications and networking technology. The combined company is expected to drive profitable growth in new markets, shape the future of wired and wireless communications, and position the Company to benefit from key industry trends, including network convergence, fiber and mobility everywhere, 5G, Internet of Things and rapidly changing network and technology architectures.

During the first quarter of 2020, the Company completed its acquisition accounting and made the following adjustments to the provisional amounts that were previously recorded:

- An increase of \$13.1 million in accrued liabilities and an increase of \$3.2 million in deferred tax assets due to an adjustment of certain pre-acquisition contingencies with a corresponding \$9.9 million increase to goodwill.
- An increase in deferred tax assets of \$20.8 million related to the release of valuation allowances for certain state income tax credits with a corresponding decrease to goodwill.
- A decrease in deferred tax liabilities of approximately \$4.7 million, an increase in income tax payable of \$6.7 million and a decrease in unrecognized tax benefits of approximately \$0.9 million with a corresponding \$1.1 million increase to goodwill.

The Company recorded these amounts as measurement period adjustments because the information was known as of the acquisition date but the analysis was finalized in the first quarter of 2020.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

3. GOODWILL

As a result of the change in segments as discussed in Note 1, goodwill was reallocated from the previous segments to the new segments. The following table presents goodwill after the reallocation by new reportable segment:

	<u>Broadband</u>	<u>Home</u>	<u>OWN</u>	<u>VCN</u>	<u>Total</u>
Goodwill, gross at December 31, 2019	\$ 3,355.1	\$ 402.1	\$ 666.0	\$ 1,635.6	\$ 6,058.8
Adjustments to preliminary purchase price	(7.1)	(1.3)	—	(1.4)	(9.8)
Foreign exchange and other	2.3	(1.3)	—	(2.1)	(1.1)
Goodwill, gross at September 30, 2020	<u>3,350.3</u>	<u>399.5</u>	<u>666.0</u>	<u>1,632.1</u>	<u>6,047.9</u>
Accumulated impairment charges at					
December 31, 2019	(193.6)	(192.8)	(159.5)	(41.2)	(587.1)
Impairment charges for the nine months ended					
September 30, 2020	—	(206.7)	—	—	(206.7)
Accumulated impairment at September 30, 2020	<u>(193.6)</u>	<u>(399.5)</u>	<u>(159.5)</u>	<u>(41.2)</u>	<u>(793.8)</u>
Goodwill, net at September 30, 2020	<u>\$ 3,156.7</u>	<u>\$ —</u>	<u>\$ 506.5</u>	<u>\$ 1,590.9</u>	<u>\$ 5,254.1</u>

The Company's change in segments as of January 1, 2020 resulted in a realignment of its existing reporting units. Although the reporting units were realigned under the new segments, the Company's reporting units remained the same except for where two reporting units have been combined into a new reporting unit. In this case, goodwill was simply combined in the new reporting units. Since the composition of the reporting units and the assignment of goodwill to the reporting units were unaffected, an interim goodwill impairment test due to the change in segments was not performed in the first quarter of 2020.

During the second quarter of 2020, the Company determined that indicators of goodwill impairment existed for the Home Networks reporting unit due to lower projected operating results, primarily from the accelerated decline in video devices. This trend was projected to continue as consumers adopt the use of other streaming applications and was further impacted by the macro-economic effects caused by the new strain of coronavirus (COVID-19). The Company performed a quantitative goodwill impairment test during the second quarter of 2020 and recorded a \$206.7 million goodwill impairment charge during the second quarter 2020 relating to the Home Networks reporting unit. It is reflected in the asset impairments line on the Condensed Consolidated Statements of Operations for the nine months ended September 30, 2020. This reflected a full impairment of the remaining goodwill in the Home segment, and as such, the Home segment has no remaining goodwill balance as of September 30, 2020.

Estimating the fair value of a reporting unit involves uncertainties because it requires management to develop numerous assumptions, including assumptions about the future growth and potential volatility in revenues and costs, capital expenditures, industry economic factors and future business strategy. Changes in projected revenue growth rates, projected operating income margins or estimated discount rates due to uncertain market conditions, loss of one or more key customers, changes in the Company's strategy, changes in technology or other factors could negatively affect the fair value in one or more of the Company's reporting units and result in a material impairment charge in the future.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

4. REVENUE FROM CONTRACTS WITH CUSTOMERS

Disaggregated Net Sales

The following table presents net sales by reportable segment, disaggregated based on contract type:

	Three Months Ended September 30,									
	Broadband		Home		OWN		VCN		Total	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Contract type:										
Product contracts	\$ 744.5	\$ 623.0	\$ 561.7	\$ 817.8	\$ 265.7	\$ 328.4	\$ 444.8	\$ 494.5	\$ 2,016.7	\$ 2,263.7
Other contracts	76.4	71.8	1.9	8.6	6.1	6.0	67.0	30.1	151.4	116.5
Consolidated net sales	<u>\$ 820.9</u>	<u>\$ 694.8</u>	<u>\$ 563.6</u>	<u>\$ 826.4</u>	<u>\$ 271.8</u>	<u>\$ 334.4</u>	<u>\$ 511.8</u>	<u>\$ 524.6</u>	<u>\$ 2,168.1</u>	<u>\$ 2,380.2</u>

	Nine Months Ended September 30,									
	Broadband		Home		OWN		VCN		Total	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Contract type:										
Product contracts	\$ 1,885.0	\$ 1,520.5	\$ 1,777.3	\$ 1,702.3	\$ 931.8	\$ 1,165.8	\$ 1,281.9	\$ 1,383.8	\$ 5,876.0	\$ 5,772.4
Other contracts	221.3	170.2	11.8	13.1	17.2	17.6	177.8	73.1	428.1	274.0
Consolidated net sales	<u>\$ 2,106.3</u>	<u>\$ 1,690.7</u>	<u>\$ 1,789.1</u>	<u>\$ 1,715.4</u>	<u>\$ 949.0</u>	<u>\$ 1,183.4</u>	<u>\$ 1,459.7</u>	<u>\$ 1,456.9</u>	<u>\$ 6,304.1</u>	<u>\$ 6,046.4</u>

The Other contracts line above primarily includes service contracts and project contracts with multiple performance obligations. Further information on net sales by reportable segment and geographic region is included in Note 9.

Allowance for Doubtful Accounts

	Three Months Ended				Nine Months Ended			
	September 30,				September 30,			
	2020	2019	2020	2019	2020	2019	2020	2019
Allowance for doubtful accounts, beginning of period	\$ 43.4	\$ 25.6	\$ 35.4	\$ 17.4				
Charged to costs and expenses	(1.5)	6.8	6.9	13.8				
Write-offs	(0.3)	—	(2.9)	(0.1)				
Recoveries	—	0.2	1.5	0.2				
Foreign exchange and other	1.5	—	2.2	1.3				
Allowance for doubtful accounts, end of period	<u>\$ 43.1</u>	<u>\$ 32.6</u>	<u>\$ 43.1</u>	<u>\$ 32.6</u>				

Customer Contract Balances

The following table provides the balance sheet location and amounts of contract assets and liabilities from contracts with customers as of September 30, 2020 and December 31, 2019.

	Balance Sheet Location	September 30,	December 31,
		2020	2019
Unbilled accounts receivable	Accounts receivable, less allowance for doubtful accounts	\$ 34.3	\$ 28.6
Deferred revenue	Accrued and other liabilities and Other noncurrent liabilities	144.5	122.2

There were no material changes to contract asset balances for the three or nine months ended September 30, 2020 as a result of changes in estimates or impairments. As of September 30, 2020, the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied and that have a duration of one year or less was \$99.0 million, with the remaining \$45.5 million having a duration greater than one year.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

Contract Liabilities

The following table presents the changes in deferred revenue for the nine months ended September 30, 2020 and 2019:

	Nine Months Ended	
	September 30,	
	2020	2019
Balance at beginning of period	\$ 122.2	\$ 7.6
Fair value of deferred revenue acquired in ARRIS acquisition	—	90.1
Deferral of revenue	142.5	78.2
Recognition of unearned revenue	(120.2)	(61.1)
Balance at end of period	<u>\$ 144.5</u>	<u>\$ 114.8</u>

5. LEASES

The Company has operating type leases for real estate, equipment and vehicles in the U.S. and internationally. As of September 30, 2020, the Company had no finance type leases. The Company's leases have remaining lease terms of up to 9 years, some of which may include options to extend the leases for up to 5 years or options to terminate the leases within 1 year. Operating lease expense was \$26.7 million and \$78.8 million for the three and nine months ended September 30, 2020, respectively, inclusive of period cost for short-term, cancellable and variable leases, not included in lease liabilities, of \$7.9 million and \$23.3 million for the three and nine months ended September 30, 2020, respectively. Operating lease expense was \$23.0 million and \$61.3 million for the three and nine months ended September 30, 2019, respectively, inclusive of period cost for short-term, cancellable and variable leases, not included in lease liabilities, of \$9.2 million and \$18.6 million for the three and nine months ended September 30, 2019, respectively.

The Company occasionally subleases all or a portion of certain unutilized real estate facilities. As of September 30, 2020 and 2019, the Company's sublease arrangements were classified as operating type leases and the income amounts were not material for the three or nine months ended September 30, 2020 and 2019. See Note 10 for discussion of the impairments of operating lease right of use assets during the three and nine months ended September 30, 2020.

Supplemental cash flow information related to operating leases:

	Nine Months Ended	
	September 30,	
	2020	2019
Operating cash paid to settle lease liabilities	\$ 55.8	\$ 49.2
Right of use asset additions in exchange for lease liabilities	17.1	21.3

Supplemental balance sheet information related to operating leases:

	Balance Sheet Location	September 30,	December 31,
		2020	2019
Right of use assets	Other noncurrent assets	\$ 175.1	\$ 204.9
Lease liabilities	Accrued and other liabilities	\$ 62.5	\$ 61.7
Lease liabilities	Other noncurrent liabilities	129.9	160.4
Total lease liabilities		<u>\$ 192.4</u>	<u>\$ 222.1</u>

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

In the table above, the right of use assets balance as of December 31, 2019 has been revised to correct an immaterial error in presentation. This error did not affect the right of use assets balance included in the other noncurrent assets line in the Condensed Consolidated Balance Sheets as of December 31, 2019.

Weighted average remaining lease term (in years)	3.9
Weighted average discount rate	6.9%

Future minimum lease payments under non-cancellable leases as of September 30, 2020:

	<u>Operating Leases</u>	
Remainder of 2020	\$	20.1
2021		69.9
2022		46.7
2023		36.1
2024		25.2
Thereafter		24.6
Total minimum lease payments	\$	222.6
Less: imputed interest		(30.2)
Total	\$	192.4

6. SUPPLEMENTAL FINANCIAL STATEMENT INFORMATION

Inventories

	<u>September 30, 2020</u>	<u>December 31, 2019</u>
Raw materials	\$ 279.9	\$ 240.1
Work in process	148.7	121.6
Finished goods	675.9	614.2
	<u>\$ 1,104.5</u>	<u>\$ 975.9</u>

Accrued and Other Liabilities

	<u>September 30, 2020</u>	<u>December 31, 2019</u>
Compensation and employee benefit liabilities	\$ 268.4	\$ 187.3
Operating lease liabilities	62.5	61.7
Accrued interest	59.3	97.8
Deferred revenue	99.0	82.6
Accrued royalties	40.2	63.9
Product warranty accrual	45.0	42.8
Restructuring reserve	36.0	24.0
Income taxes payable	15.4	15.8
Value-added taxes payable	28.6	27.3
Contract manufacturing liability	39.4	25.4
Patent claims and litigation	47.1	70.1
Other	137.4	163.3
	<u>\$ 878.3</u>	<u>\$ 862.0</u>

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

Accumulated Other Comprehensive Loss

The following table presents changes in accumulated other comprehensive loss (AOCL), net of tax:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Foreign currency translation				
Balance at beginning of period	\$ (227.7)	\$ (140.4)	\$ (162.7)	\$ (140.5)
Other comprehensive income (loss)	63.7	(76.6)	(1.3)	(78.2)
Amounts reclassified from AOCL	—	—	—	1.7
Balance at end of period	<u>\$ (164.0)</u>	<u>\$ (217.0)</u>	<u>\$ (164.0)</u>	<u>\$ (217.0)</u>
Hedging instruments				
Balance at beginning of period	\$ (21.8)	\$ (13.3)	\$ (8.9)	\$ (1.4)
Other comprehensive income (loss)	(9.0)	7.9	(21.9)	(4.0)
Balance at end of period	<u>\$ (30.8)</u>	<u>\$ (5.4)</u>	<u>\$ (30.8)</u>	<u>\$ (5.4)</u>
Defined benefit plan activity				
Balance at beginning of period	\$ (25.9)	\$ (17.4)	\$ (25.4)	\$ (17.3)
Amounts reclassified from AOCL	(0.1)	(0.1)	(0.6)	(0.2)
Balance at end of period	<u>\$ (26.0)</u>	<u>\$ (17.5)</u>	<u>\$ (26.0)</u>	<u>\$ (17.5)</u>
Net AOCL at end of period	<u>\$ (220.8)</u>	<u>\$ (239.9)</u>	<u>\$ (220.8)</u>	<u>\$ (239.9)</u>

Amounts reclassified from net AOCL related to foreign currency translation and defined benefit plans are recorded in other income (expense), net in the Condensed Consolidated Statements of Operations.

Cash Flow Information

	Nine Months Ended September 30,	
	2020	2019
Cash paid during the period for:		
Income taxes, net of refunds	\$ 61.8	\$ 82.5
Interest	451.8	353.3

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

7. FINANCING

	September 30, 2020	December 31, 2019
7.125% senior notes due July 2028	\$ 700.0	\$ —
5.00% senior notes due March 2027	750.0	750.0
8.25% senior notes due March 2027	1,000.0	1,000.0
6.00% senior notes due June 2025	1,400.0	1,500.0
5.50% senior notes due June 2024	—	650.0
5.00% senior notes due June 2021	—	150.0
6.00% senior secured notes due March 2026	1,500.0	1,500.0
5.50% senior secured notes due March 2024	1,250.0	1,250.0
Senior secured term loan due April 2026	3,168.0	3,192.0
Senior secured revolving credit facility	—	—
Total principal amount of debt	\$ 9,768.0	\$ 9,992.0
Less: Original issue discount, net of amortization	(25.9)	(29.2)
Less: Debt issuance costs, net of amortization	(120.8)	(130.4)
Less: Current portion	(32.0)	(32.0)
Total long-term debt	\$ 9,589.3	\$ 9,800.4

See Note 8 in the Notes to Consolidated Financial Statements in the 2019 Annual Report for additional information on the terms and conditions of the Company's debt obligations except the new 7.125% senior notes due 2028 (the 2028 Notes), which are described below.

In August 2020, the Company redeemed \$100.0 million aggregate principal amount of the 6.00% senior notes due 2025 (the 2025 Notes). The redemption of the 2025 Notes resulted in a charge of \$3.0 million which is reflected in other income (expense), net during the three and nine months ended September 30, 2020. In connection with the redemption, \$1.3 million of debt issuance costs was written off and included in interest expense during the three and nine months ended September 30, 2020.

7.125% Senior Notes due July 2028

On July 1, 2020, the Company issued \$700.0 million aggregate principal amount of the 2028 Notes. The Company will pay interest on the 2028 Notes semi-annually in arrears on July 1 and January 1 of each year, commencing on January 1, 2021. Unless repurchased or redeemed earlier, the 2028 Notes will mature on July 1, 2028. The 2028 Notes were offered in a private placement exempt from registration under the Securities Act of 1933, as amended (the Securities Act), to qualified institutional buyers pursuant to Rule 144A under the Securities Act and to certain non-U.S. persons outside of the United States in reliance on Regulation S under the Securities Act. The Company used the net proceeds from the offering of the 2028 Notes, together with cash on hand, to redeem and retire all of the outstanding 5.00% senior notes due 2021 (the 2021 Notes) and the outstanding 5.50% senior notes due 2024 (the 2024 Notes) and pay fees and expenses related to the transaction. The redemption of the 2024 Notes resulted in a charge of \$11.9 million which is reflected in other income (expense), net during the three and nine months ended September 30, 2020. In connection with the redemptions of the 2021 Notes and the 2024 Notes, including the \$100.0 million redemption of the 2021 Notes in February 2020, \$4.7 million and \$5.0 million of debt issuance costs were written off and included in interest expense during the three and nine months ended September 30, 2020, respectively.

The 2028 Notes are guaranteed on a senior unsecured basis by each of CommScope, Inc.'s existing and future wholly owned domestic restricted subsidiaries that is an obligor under the senior secured credit facilities or certain other capital markets debt, subject to certain exceptions. The 2028 Notes and the related guarantees rank senior in right of payment to all of CommScope, Inc.'s and the guarantors' subordinated indebtedness and equally in right of payment with all of CommScope, Inc.'s and the guarantors' senior indebtedness (without giving effect to collateral arrangements). The 2028 Notes and the related guarantees are effectively junior to all of CommScope, Inc.'s and the guarantors' existing and future secured indebtedness to the extent of the value of the assets securing such secured indebtedness. In addition, the 2028 Notes and related guarantees are structurally subordinated to all existing and future liabilities (including trade payables) of CommScope, Inc.'s subsidiaries that do not guarantee the 2028 Notes.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

The 2028 Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the 2028 Notes may be redeemed at the option of the holders at 101% of their principal amount, plus accrued and unpaid interest. The 2028 Notes may be redeemed by CommScope, Inc. on or after July 1, 2023 at the redemption prices specified in the indenture governing the 2028 Notes. Prior to July 1, 2023, the 2028 Notes may be redeemed by CommScope, Inc. at a redemption price equal to 100% of their principal amount, plus a make-whole premium (as specified in the indenture governing the 2028 Notes), plus accrued and unpaid interest. Prior to July 1, 2023, under certain circumstances, CommScope, Inc. may also redeem up to 40% of the aggregate principal amount of the 2028 Notes at a redemption price of 107.125%, plus accrued and unpaid interest, using the proceeds of certain equity offerings.

In connection with issuing the 2028 Notes, the Company incurred costs of \$11.6 million during the three and nine months ended September 30, 2020 which were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the 2028 Notes.

Senior Secured Credit Facilities

In April 2020, the Company borrowed \$250.0 million under the senior secured asset-based revolving credit facility (the Revolving Credit Facility). The Company repaid the \$250.0 million, plus accrued interest, in July 2020. As of September 30, 2020, the Company had no outstanding borrowings under the Revolving Credit Facility and had availability of \$733.6 million, after giving effect to borrowing base limitations and outstanding letters of credit.

During the three and nine months ended September 30, 2020, the Company made quarterly scheduled amortization payments of \$8.0 million and \$24.0 million, respectively, on the senior secured term loan due in 2026 (the 2026 Term Loan). The current portion of long-term debt reflects \$32.0 million of repayments due under the 2026 Term Loan.

No portion of the 2026 Term Loan was reflected as a current portion of long-term debt as of September 30, 2020 related to the potentially required excess cash flow payment because the amount that may be payable in 2021, if any, cannot currently be reliably estimated.

Other Matters

The following table summarizes scheduled maturities of long-term debt as of September 30, 2020:

	<u>Remainder of 2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Thereafter</u>
Scheduled maturities of long-term debt	\$ 8.0	\$ 32.0	\$ 32.0	\$ 32.0	\$ 1,282.0	\$ 8,382.0

The Company's non-guarantor subsidiaries held \$2,533 million, or 19%, of total assets and \$946 million, or 8%, of total liabilities as of September 30, 2020 and accounted for \$637 million, or 29% and \$1,834 million, or 29%, of net sales for the three and nine months ended September 30, 2020, respectively. As of December 31, 2019, the non-guarantor subsidiaries held \$3,773 million, or 26%, of total assets and \$714 million, or 6%, of total liabilities. For the three and nine months ended September 30, 2019, the non-guarantor subsidiaries accounted for \$399 million, or 17%, and \$1,770 million, or 29%, of net sales, respectively. All amounts presented exclude intercompany balances.

The weighted average effective interest rate on outstanding borrowings, including the impact of the interest rate swap, and the amortization of debt issuance costs and original issue discount, was 5.87% and 6.17% at September 30, 2020 and December 31, 2019, respectively.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

8. FAIR VALUE MEASUREMENTS

The Company's financial instruments consist primarily of cash and cash equivalents, trade receivables, trade payables, debt instruments, interest rate derivatives and foreign currency contracts. For cash and cash equivalents, trade receivables and trade payables, the carrying amounts of these financial instruments as of September 30, 2020 and December 31, 2019 were considered representative of their fair values due to their short terms to maturity. The fair values of the Company's debt instruments, interest rate derivatives and foreign currency contracts were based on indicative quotes.

Fair value measurements using quoted prices in active markets for identical assets and liabilities fall within Level 1 of the fair value hierarchy, measurements using significant other observable inputs fall within Level 2, and measurements using significant unobservable inputs fall within Level 3.

The carrying amounts, estimated fair values and valuation input levels of the Company's debt instruments, interest rate derivatives and foreign currency contracts as of September 30, 2020 and December 31, 2019, are as follows:

	September 30, 2020		December 31, 2019		Valuation Inputs
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	
Assets:					
Foreign currency contracts	\$ 5.5	\$ 5.5	\$ 10.7	\$ 10.7	Level 2
Liabilities:					
7.125% senior notes due 2028	\$ 700.0	\$ 722.8	\$ —	\$ —	Level 2
5.00% senior notes due 2027	750.0	720.0	750.0	696.4	Level 2
8.25% senior notes due 2027	1,000.0	1,040.0	1,000.0	1,052.5	Level 2
6.00% senior notes due 2025	1,400.0	1,415.5	1,500.0	1,501.7	Level 2
5.50% senior notes due 2024	—	—	650.0	656.0	Level 2
5.00% senior notes due 2021	—	—	150.0	149.9	Level 2
6.00% senior secured notes due 2026	1,500.0	1,560.0	1,500.0	1,595.6	Level 2
5.50% senior secured notes due 2024	1,250.0	1,281.6	1,250.0	1,302.1	Level 2
Senior secured term loan due 2026	3,168.0	3,092.8	3,192.0	3,219.9	Level 2
Senior secured revolving credit facility	—	—	—	—	Level 2
Foreign currency contracts	9.4	9.4	5.9	5.9	Level 2
Interest rate swap contracts	33.8	33.8	16.3	16.3	Level 2

Non-Recurring Fair Value Measurements

During the three and nine months ended September 30, 2020, the Company recorded a pretax impairment charge of \$2.6 million related to right of use operating lease assets associated with restructuring activities (see Note 10). The fair value of the right of use assets was determined using a discounted cash flow (DCF) model where the fair value was based upon the present value of the anticipated sublease cash flows utilizing information gathered from third party analysis. The inputs in the DCF model were Level 3 inputs.

During the second quarter of 2020, the Company recorded a pretax goodwill impairment charge of \$206.7 million related to the Home Networks reporting unit in the Home segment (see Note 3). The fair value of the reporting unit was determined as of May 31, 2020 using a DCF model. Under the DCF method, the fair value of a reporting unit is based on the present value of estimated future cash flows. The inputs to the DCF model were Level 3 valuation inputs.

These fair value estimates are based on pertinent information available to management as of the valuation date. Although management is not aware of any factors that would significantly affect these fair value estimates, such amounts have not been comprehensively revalued for purposes of these financial statements since those dates, and current estimates of fair value may differ significantly from the amounts presented.

9. SEGMENTS AND GEOGRAPHIC INFORMATION

As of January 1, 2020, the Company reorganized its internal management and reporting structure as part of the integration of the Acquisition. The reorganization changed the information regularly reviewed by the Company’s chief operating decision maker for purposes of allocating resources and assessing performance. As a result, the Company is reporting financial performance based on four reportable segments: Broadband, Home, OWN and VCN. These reportable segments are based upon the nature of the products and services they offer.

The Broadband segment provides an end-to-end product portfolio serving the telco and cable provider broadband market. The segment brings together the Network Cable and Connectivity business with the Network and Cloud business and includes converged cable access platform, passive optical networking, video systems, access technologies, fiber and coaxial cable, fiber and copper connectivity and hardened closures.

The Home segment comprises the former Consumer Premises Equipment business and focuses on the future of the connected home and connected devices inside the home. The segment includes subscriber-based solutions that support broadband and video applications connecting cable, telecommunications and satellite service providers to a customer’s home and adds wireless connectivity or other wired connections integrating in-home devices together to enable the consumption of internet-based services and the delivery of broadcast, streamed and stored video to televisions and other connected devices. The broadband offerings in the Home segment include devices that provide residential connectivity to a service provider’s network, such as digital subscriber line and cable modems and telephony and data gateways which incorporate routing and Wi-Fi functionality. Video offerings include set top boxes that support cable, satellite and IPTV content delivery and include products such as digital video recorders, high definition set top boxes and hybrid set top devices.

The OWN segment focuses on the macro and metro cell markets. The segment includes base station antennas, RF filters, tower connectivity, microwave antennas, metro cell products, cabinets, steel accessories, Spectrum Access System and Comsearch. As the Company’s wireless operator customers shift a portion of their 5G capital expenditures from the macro tower to the metro cell, the portfolio will strategically help to make the transition smooth and cost-effective.

The VCN segment targets both public and private networks for campuses, venues, data centers and buildings. The segment combines Wi-Fi and switching, distributed antenna systems, licensed and unlicensed small cells and enterprise fiber and copper infrastructure.

The following table provides summary financial information by reportable segment:

	<u>September 30, 2020</u>	<u>December 31, 2019</u>
Identifiable segment-related assets:		
Broadband	\$ 6,494.5	\$ 6,681.1
Home	1,763.3	2,178.7
OWN	1,237.2	1,394.1
VCN	<u>3,385.1</u>	<u>3,476.4</u>
Total identifiable segment-related assets	12,880.1	13,730.3
Reconciliation to total assets:		
Cash and cash equivalents	582.8	598.2
Deferred income tax assets	<u>238.1</u>	<u>103.1</u>
Total assets	<u>\$ 13,701.0</u>	<u>\$ 14,431.6</u>

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

The Company's measure of segment performance is adjusted EBITDA (earnings before interest, income taxes, depreciation and amortization). The Company defines adjusted EBITDA as operating income, adjusted to exclude depreciation, amortization of intangible assets, restructuring costs, asset impairments, equity-based compensation, transaction and integration costs and other items that the Company believes are useful to exclude in the evaluation of operating performance from period to period because these items are not representative of the Company's core business.

The following table provides net sales, adjusted EBITDA, depreciation expense and additions to property, plant and equipment by reportable segment:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net sales:				
Broadband	\$ 820.9	\$ 694.8	\$ 2,106.3	\$ 1,690.7
Home	563.6	826.4	1,789.1	1,715.4
OWN	271.8	334.4	949.0	1,183.4
VCN	511.8	524.6	1,459.7	1,456.9
Consolidated net sales	<u>\$ 2,168.1</u>	<u>\$ 2,380.2</u>	<u>\$ 6,304.1</u>	<u>\$ 6,046.4</u>
Segment adjusted EBITDA:				
Broadband	\$ 204.2	\$ 153.5	\$ 427.2	\$ 329.6
Home	28.5	59.7	75.8	121.8
OWN	53.6	75.3	218.4	312.6
VCN	55.6	81.3	131.6	209.8
Total segment adjusted EBITDA	341.9	369.8	853.0	973.8
Amortization of intangible assets	(158.1)	(163.9)	(473.5)	(387.3)
Restructuring costs, net	(40.3)	(19.5)	(83.6)	(78.3)
Equity-based compensation	(34.0)	(28.0)	(90.0)	(58.7)
Asset impairments	—	—	(206.7)	—
Transaction and integration costs	(4.8)	(2.2)	(17.8)	(189.8)
Acquisition accounting adjustments	(5.1)	(108.7)	(15.8)	(272.9)
Patent claims and litigation	1.4	(55.0)	(11.4)	(55.0)
Executive severance	(6.3)	—	(6.3)	—
Depreciation	(38.9)	(43.3)	(118.7)	(101.0)
Consolidated operating income (loss)	<u>\$ 55.8</u>	<u>\$ (50.8)</u>	<u>\$ (170.8)</u>	<u>\$ (169.2)</u>
Depreciation expense:				
Broadband	\$ 14.8	\$ 17.7	\$ 44.8	\$ 39.4
Home	8.3	10.7	26.3	20.1
OWN	4.1	4.3	12.7	13.2
VCN	11.7	10.6	34.9	28.3
Consolidated depreciation expense	<u>\$ 38.9</u>	<u>\$ 43.3</u>	<u>\$ 118.7</u>	<u>\$ 101.0</u>
Additions to property, plant and equipment:				
Broadband	\$ 11.1	\$ 10.1	\$ 32.7	\$ 28.2
Home	3.7	1.5	10.7	3.9
OWN	6.1	2.8	12.9	12.2
VCN	4.9	9.9	17.2	28.0
Consolidated additions to property, plant and equipment	<u>\$ 25.8</u>	<u>\$ 24.3</u>	<u>\$ 73.5</u>	<u>\$ 72.3</u>

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

Sales to customers located outside of the U.S. comprised 39.2% and 38.3% of total net sales for the three and nine months ended September 30, 2020, respectively, compared to 39.8% and 40.9% of total net sales for the three and nine months ended September 30, 2019, respectively. Sales by geographic region, based on the destination of product shipments, were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
United States	\$ 1,318.2	\$ 1,432.7	\$ 3,892.3	\$ 3,572.5
Europe, Middle East and Africa	407.3	423.1	1,161.4	1,124.3
Asia Pacific	219.1	251.3	598.5	665.9
Caribbean and Latin America	149.9	187.6	432.3	476.5
Canada	73.6	85.5	219.6	207.2
Consolidated net sales	<u>\$ 2,168.1</u>	<u>\$ 2,380.2</u>	<u>\$ 6,304.1</u>	<u>\$ 6,046.4</u>

10. RESTRUCTURING COSTS

The Company incurs costs associated with restructuring initiatives intended to improve overall operating performance and profitability. The costs related to restructuring actions are generally cash-based and primarily consist of employee-related costs, which include severance and other one-time termination benefits.

In addition to the employee-related costs, the Company also records other costs associated to restructuring actions, such as impairment costs arising from unutilized real estate or equipment. As a result of prior restructuring and consolidation actions, the Company owns unutilized real estate and is attempting to sell or lease this unutilized space. Additional impairment charges may be incurred related to these or other excess assets, which are recorded as other associated costs.

The Company's net pretax restructuring charges, by segment, were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Broadband	\$ 11.7	\$ 5.4	\$ 16.9	\$ 31.1
Home	3.8	6.8	27.9	21.9
OWN	5.9	1.1	9.8	6.9
VCN	18.9	6.2	29.0	18.4
Total	<u>\$ 40.3</u>	<u>\$ 19.5</u>	<u>\$ 83.6</u>	<u>\$ 78.3</u>

Restructuring liabilities were included in the Company's Condensed Consolidated Balance Sheets as follows:

	September 30, 2020	December 31, 2019
Accrued and other liabilities	\$ 36.0	\$ 24.0
Other noncurrent liabilities	5.2	4.4
Total liability	<u>\$ 41.2</u>	<u>\$ 28.4</u>

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

ARRIS Integration Restructuring Actions

In anticipation of and following the Acquisition, the Company initiated a series of restructuring actions, which are currently ongoing, to integrate and streamline operations and achieve cost synergies. The activity within the liability established for the ARRIS integration restructuring actions was as follows:

	Employee- Related Costs	Other Associated Costs	Total
Balance at June 30, 2020	\$ 25.5	\$ 1.7	\$ 27.2
Additional charge recorded	37.1	3.2	40.3
Cash paid	(23.5)	(1.3)	(24.8)
Non-cash items	—	(2.6)	(2.6)
Balance at September 30, 2020	<u>\$ 39.1</u>	<u>\$ 1.0</u>	<u>\$ 40.1</u>
Balance at December 31, 2019	\$ 23.1	\$ 2.0	\$ 25.1
Additional charge recorded	80.1	3.5	83.6
Cash paid	(64.1)	(1.6)	(65.7)
Non-cash items	—	(2.9)	(2.9)
Balance at September 30, 2020	<u>\$ 39.1</u>	<u>\$ 1.0</u>	<u>\$ 40.1</u>

The ARRIS integration actions include headcount reductions in manufacturing, sales, engineering, marketing and administrative functions. The Company expects to make cash payments of \$16.9 million during the remainder of 2020 and additional cash payments of \$23.2 million between 2021 and 2022 to settle the announced ARRIS integration initiatives. The Company has recognized restructuring charges of \$169.7 million since the Acquisition for integration and synergy actions. Additional restructuring actions related to the ARRIS integration are expected to be identified and the resulting charges and cash requirements are expected to be material.

In addition, during the three and nine months ended September 30, 2020, other associated costs include a \$2.6 million impairment of operating lease right of use assets related to ceasing use and consolidating operations at certain locations as part of restructuring activities. This impairment expense is included in restructuring costs, net on the Company's Condensed Consolidated Statements of Operations. Prior to recording these impairments, the carrying value of the right of use assets related to these properties was \$5.1 million. The Company estimated that the fair market value of the remaining right of use assets after impairment was \$2.5 million.

BNS Integration Restructuring Actions

Following the acquisition of the Broadband Network Solutions (BNS) business in 2015, the Company initiated a series of restructuring actions to integrate and streamline operations and achieve cost synergies. The BNS integration actions included the announced closures or reduction in activities at various U.S. and international facilities as well as headcount reductions in sales, marketing and administrative functions. The Company has recognized restructuring charges of \$153.0 million since the BNS acquisition for integration actions. No additional restructuring actions are expected in connection with the BNS integration initiatives. The Company has accrued \$1.1 million for these BNS integration restructuring actions as of September 30, 2020. The Company paid \$2.2 million during the nine months ended September 30, 2020 and expects to make cash payments of \$0.4 million during the remainder of 2020 and additional cash payments of \$0.7 million between 2021 and 2022.

11. SERIES A CONVERTIBLE PREFERRED STOCK

On April 4, 2019, the Company issued and sold 1,000,000 shares of the Convertible Preferred Stock to Carlyle for \$1.0 billion, or \$1,000 per share, pursuant to an Investment Agreement between the Company and Carlyle, dated November 8, 2018. The Convertible Preferred Stock is convertible at the option of the holders at any time into shares of CommScope common stock at an initial conversion rate of 36.3636 shares of common stock per share of the Convertible Preferred Stock (equivalent to \$27.50 per common share). The conversion rate is subject to customary anti-dilution and other adjustments.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

Holders of the Convertible Preferred Stock are entitled to a cumulative dividend at the rate of 5.5% per year, payable quarterly in arrears. Dividends can be paid in cash, in-kind through the issuance of additional shares of the Convertible Preferred Stock or any combination of the two, at the Company's option. During the three and nine months ended September 30, 2020, the Company paid dividends in-kind of \$14.1 million and \$41.8 million, respectively, which was recorded as additional Convertible Preferred Stock on the Condensed Consolidated Balance Sheets.

12. STOCKHOLDERS' EQUITY

Equity-Based Compensation Plans

As of September 30, 2020, \$138.3 million of total unrecognized compensation expense related to unvested stock options, restricted stock units (RSUs) and performance share units (PSUs) is expected to be recognized over a remaining weighted average period of 1.4 years. There were no significant capitalized equity-based compensation costs at September 30, 2020.

The following table shows a summary of the equity-based compensation expense included in the Condensed Consolidated Statements of Operations:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Selling, general and administrative	\$ 18.6	\$ 17.6	\$ 49.3	\$ 38.5
Cost of sales	5.5	3.7	14.5	7.7
Research and development	9.9	6.7	26.2	12.5
Total equity-based compensation expense	<u>\$ 34.0</u>	<u>\$ 28.0</u>	<u>\$ 90.0</u>	<u>\$ 58.7</u>

Stock Options

Stock options are awards that allow the recipient to purchase shares of the Company's common stock at a fixed price. Stock options are granted at an exercise price equal to the Company's stock price at the date of grant. These awards vest over three to five years following the grant date and have a contractual term of ten years. These awards vest based on a time-based component or a combination of time and performance-based components.

The following table summarizes the stock option activity (in millions, except per share data and years):

	Shares	Weighted Average Option Exercise Price Per Share	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Options outstanding at June 30, 2020	9.2	\$ 17.57		
Expired	—	\$ —		
Forfeited	(0.1)	\$ 18.60		
Options outstanding at September 30, 2020	<u>9.1</u>	\$ 17.54	6.3	\$ 6.9
Options outstanding at December 31, 2019	9.6	\$ 17.70		
Exercised	(0.1)	\$ 8.25		
Expired	(0.1)	\$ 30.29		
Forfeited	(0.3)	\$ 20.05		
Options outstanding at September 30, 2020	<u>9.1</u>	\$ 17.54	6.3	\$ 6.9
Options vested at September 30, 2020	3.9	\$ 15.74	3.2	\$ 6.9
Options unvested at September 30, 2020	5.2	\$ 18.88	8.6	\$ —

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

The exercise prices of outstanding options at September 30, 2020 were in the following ranges (in millions, except per share data and years):

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Shares	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price Per Share	Shares	Weighted Average Exercise Price Per Share
\$2.96 to \$5.74	2.1	0.3	\$ 5.74	2.1	\$ 5.74
\$5.75 to \$22.99	5.7	8.6	\$ 18.33	0.6	\$ 17.60
\$23.00 to \$42.32	1.3	6.0	\$ 33.35	1.2	\$ 32.84
\$2.96 to \$42.32	9.1	6.3	\$ 17.54	3.9	\$ 15.74

The Company uses the Black-Scholes model to estimate the fair value of stock option awards at the date of grant. Key inputs and assumptions used in the model include the grant date fair value of common stock, exercise price of the award, the expected option term, the risk-free interest rate, stock price volatility and the Company's projected dividend yield. The expected term represents the period over which the Company's employees are expected to hold their options. The risk-free interest rate reflects the yield on zero-coupon U.S. treasury securities with a term equal to the option's expected term. Expected volatility is derived based on the historical volatility of the Company's stock. The Company's projected dividend yield is zero. The Company believes the valuation technique and the approach utilized to develop the underlying assumptions are appropriate in estimating the fair values of its stock options. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards. Subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the Company.

There were no stock option awards granted during the three or nine months ended September 30, 2020. The following table presents the weighted average assumptions used to estimate the fair value of stock option awards granted during the three and nine months ended September 30, 2019.

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Expected option term (in years)	6.4	6.3
Risk-free interest rate	1.6%	2.2%
Expected volatility	40.0%	40.0%
Weighted average exercise price	\$ 12.20	\$ 18.47
Weighted average fair value at grant date	\$ 5.21	\$ 8.00

Restricted Stock Units

RSUs entitle the holder to shares of common stock after a vesting period that generally ranges from one to three years. The fair value of the awards is determined on the grant date based on the Company's stock price.

CommScope Holding Company, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements
(In millions, unless otherwise noted)

The following table summarizes the RSU activity (in millions, except per share data):

	Restricted Stock Units	Weighted Average Grant Date Fair Value Per Share
Non-vested share units at June 30, 2020	15.0	\$ 14.28
Granted	—	\$ —
Vested and shares issued	(1.4)	\$ 17.29
Forfeited	(0.6)	\$ 14.27
Non-vested share units at September 30, 2020	<u>13.0</u>	\$ 13.94
Non-vested share units at December 31, 2019	7.7	\$ 22.30
Granted	9.6	\$ 10.57
Vested and shares issued	(3.2)	\$ 23.12
Forfeited	(1.1)	\$ 16.26
Non-vested share units at September 30, 2020	<u>13.0</u>	\$ 13.94

Performance Share Units

Performance share units (PSUs) are stock-based awards in which the number of shares ultimately received by the employee depends on Company performance against specified targets. Such awards typically vest over three years and the number of shares issued can vary from 0% to 200% of the number of PSUs granted, depending on performance. The fair value of each PSU is determined on the date of grant based on the Company's stock price. The ultimate number of shares issued and the related compensation cost recognized is based on the final performance metrics compared to the targets specified in the grants.

The following table summarizes the PSU activity (in millions, except per share data):

	Performance Share Units	Weighted Average Grant Date Fair Value Per Share
Non-vested share units at June 30, 2020	2.7	\$ 7.73
Granted	—	\$ —
Vested and shares issued	(0.1)	\$ 6.67
Forfeited	(0.2)	\$ 10.00
Non-vested share units at September 30, 2020	<u>2.4</u>	\$ 7.66
Non-vested share units at December 31, 2019	2.7	\$ 12.47
Granted	0.2	\$ 10.32
Vested and shares issued	(0.2)	\$ 17.63
Forfeited	(0.3)	\$ 9.26
Non-vested share units at September 30, 2020	<u>2.4</u>	\$ 7.66

13. SUBSEQUENT EVENTS

On October 13, 2020, the Company informed holders of the 2025 Notes that it would redeem \$100.0 million aggregate principal amount of the 2025 Notes on October 23, 2020. The redemption price included the accrued and unpaid interest up to the date of redemption. Following the redemption, \$1,300.0 million aggregate principal amount of the 2025 Notes remained outstanding.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following narrative is an analysis of the three and nine months ended September 30, 2020 compared to the three and nine months ended September 30, 2019. The discussion is provided to increase the understanding of, and should be read in conjunction with, the unaudited condensed consolidated financial statements and accompanying notes included in this report as well as the audited consolidated financial statements, related notes thereto and management's discussion and analysis of financial condition and results of operations, including management's discussion and analysis regarding the application of critical accounting policies as well as the risk factors, included in our Annual Report on Form 10-K for the year ended December 31, 2019 (2019 Annual Report) and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020.

We discuss certain financial measures in management's discussion and analysis of financial condition and results of operations, including adjusted EBITDA, that differ from measures calculated in accordance with generally accepted accounting principles in the United States (GAAP). See "Reconciliation of Non-GAAP Measures" included elsewhere in this quarterly report for more information about these non-GAAP financial measures, including our reasons for including the measures and material limitations with respect to the usefulness of the measures.

Overview

We are a global provider of infrastructure solutions for communication and entertainment networks. Our solutions for wired and wireless networks enable service providers including cable, telephone and digital broadcast satellite operators and media programmers to deliver media, voice, IP data services and Wi-Fi to their subscribers and allow enterprises to experience constant wireless and wired connectivity across complex and varied networking environments. Our solutions are complemented by a broad array of services including technical support, systems design and integration. We are a leader in digital video and Internet Protocol Television distribution systems, broadband access infrastructure platforms, and associated data and voice customer premises equipment. Our global leadership position is built upon innovative technology, broad solution offerings, high-quality and cost-effective customer solutions, and global manufacturing and distribution scale.

On April 4, 2019, we completed the acquisition of ARRIS International plc (ARRIS) (the Acquisition) in an all-cash transaction with a total purchase price of approximately \$7.7 billion, including debt assumed. The operations of the ARRIS business are included in our consolidated operating results for the three and nine months ended September 30, 2020 and 2019; however, for the comparative nine months ended September 30, 2019, the operations of the ARRIS business are included only from the date of the Acquisition. During the three and nine months ended September 30, 2020, we recognized \$4.8 million and \$17.8 million, respectively, of transaction and integration costs and \$40.3 million and \$83.6 million, respectively, of restructuring costs mostly related to the Acquisition and integration activities. During the three and nine months ended September 30, 2019, we recognized \$2.2 million and \$189.8 million, respectively, of transaction and integration costs and \$19.5 million and \$78.3 million, respectively, of restructuring costs related to the Acquisition and integration activities. We will continue to incur integration and restructuring costs and such costs may be material.

As of January 1, 2020, we reorganized our internal management and reporting structure as part of the integration of the Acquisition. The reorganization changed the information regularly reviewed by our chief operating decision maker for purposes of allocating resources and assessing performance. As a result, we are reporting financial performance based on four new operating segments: Broadband Networks (Broadband), Home Networks (Home), Outdoor Wireless Networks (OWN) and Venue and Campus Networks (VCN). These four segments represent non-aggregated reportable operating segments. Prior to this change, we operated and reported five operating segments: Connectivity Solutions, Mobility Solutions, Customer Premises Equipment, Network and Cloud and Ruckus Networks. Our change in segments as of January 1, 2020 resulted in a realignment of our existing reporting units. Although the reporting units were realigned, our reporting units remained the same except for where two reporting units have been combined into a new reporting unit. In this case, goodwill was simply combined in the new reporting units. Since the composition of the reporting units and the assignment of goodwill to the reporting units were unaffected, an interim goodwill impairment test was not performed due to our change in segments during the first quarter of 2020. See the discussion below under "Critical Accounting Policies" for more information regarding the interim goodwill impairment test performed during the second quarter of 2020.

In March 2020, the World Health Organization declared the new strain of coronavirus (COVID-19) a pandemic and the United States (U.S.) declared a national emergency with respect to COVID-19. The COVID-19 pandemic has negatively impacted regional and global economies, disrupted global supply chains and created significant volatility and disruption of financial markets. The global impact of the outbreak has been rapidly evolving and certain jurisdictions, including those where we have operations, have also reacted by instituting quarantines, restrictions on travel, “shelter in place” rules, social distancing protocols and restrictions on types of business that may continue to operate. While we have been deemed an “essential” (or equivalent) business in many jurisdictions and, therefore, have been permitted to continue most of our operations in those jurisdictions, the impact of the COVID-19 pandemic on our operational and financial performance has included temporary closures of our facilities and the facilities of certain of our customers, suppliers and other vendors in our supply chain. We have taken measures to protect the health and safety of our employees, including implementing new and increased cleaning procedures, health screenings, safety protocols and social distancing requirements where appropriate, work with our customers and vendors to minimize potential disruptions and support our community in addressing the challenges posed by this global pandemic.

The COVID-19 outbreak has negatively impacted our financial performance during the three and nine months ended September 30, 2020, as discussed more below, particularly in our VCN, OWN and Home segments. While the impacts in the first quarter 2020 were primarily related to supply constraints due to the shutdown of our factories in Suzhou, China, the second and third quarters reflected a combination of changes in demand, business continuity costs and supply constraints. Currently, most CommScope factories are fully operational, but we have experienced periodic, temporary factory closures in certain jurisdictions due to health concerns. From a demand standpoint, the impact has been mixed with network strain driving increased demand for our Broadband products, while VCN has been negatively impacted due to social distancing measures and the general economic slowdown. We currently expect the decline in revenue caused by the economic slowdown due to COVID-19 to persist through 2020. Additionally, we have taken a number of actions to reduce our operating costs and manage our balance sheet in light of the COVID-19 pandemic, including headcount reductions, improved working capital management, lower capital spending and suspension of certain discretionary spending.

The extent of the impact of the COVID-19 pandemic on our operational and financial performance will depend on future developments, including the duration and spread of the pandemic and related actions taken by domestic and international jurisdictions to prevent disease spread, all of which are uncertain and cannot be predicted. We have considered the impact of the economic slowdown on our evaluation of our significant estimates, including goodwill impairment indicators and credit losses, as of September 30, 2020. Although no indicators of goodwill impairment or significant changes in credit risk were identified as of September 30, 2020, it is possible credit losses could emerge as the impact of the crisis becomes clearer and those losses could be material. See the discussion below under “Critical Accounting Policies” for more information regarding the interim goodwill impairment test performed during the second quarter of 2020.

CRITICAL ACCOUNTING POLICIES

Interim Impairment Review of Goodwill

We estimate the fair value of a reporting unit using a discounted cash flow (DCF) method or, as appropriate, a combination of the DCF method and a market approach known as the guideline public company method. Under the DCF method, we calculate the fair value of a reporting unit based on the present value of estimated future cash flows. The significant assumptions in the DCF model primarily include, but are not limited to, forecasts of annual revenue growth rates, annual operating income margin, the terminal growth rate and the discount rate used to determine the present value of the cash flow projections. When determining these assumptions and preparing these estimates, we consider historical performance trends, industry data, insight derived from customers, relevant changes in the reporting unit’s underlying business and other market trends that may affect the reporting unit. The discount rate is based on the estimated weighted average cost of capital as of the test date of market participants in the industry in which the reporting unit operates. Under the guideline public company method, we estimate the fair value based upon market multiples of revenue and earnings derived from publicly traded companies with similar operating and investment characteristics as the reporting unit. The weighting of the fair value derived from the market approach may vary depending on the level of comparability of these publicly-traded companies to the reporting unit. When comparable public companies are not meaningful or not available, we may estimate the fair value of a reporting unit using only the DCF method.

During the second quarter of 2020, we determined that indicators of impairment existed for our Home Networks reporting unit due to lower projected operating results, primarily driven by the accelerated decline in demand for video devices. This trend was projected to continue as consumers adopt the use of other streaming applications and was further impacted negatively by the macro-economic effects of COVID-19. Accordingly, we assessed the fair value of our Home Networks reporting unit as of May 31, 2020 and recorded a goodwill impairment charge of \$206.7 million in the Home segment. This reflects a full impairment of the remaining goodwill in the Home segment, and as such, the Home segment has no remaining goodwill balance as of September 30, 2020.

To determine the fair value of our Home Networks reporting unit and test for goodwill impairment, we developed a revised forecast for 2020 and updated the annual financial forecasts for the years beyond 2020. We used an income approach (DCF method) because we believe this is the most direct approach to incorporate the specific economic attributes and risk profile of the reporting unit into our valuation model. Consistent with our 2019 annual impairment test, we used a 9.0% discount rate for the interim goodwill impairment test for the Home Networks reporting unit. We determined that the utilization of a market approach for the interim goodwill impairment test would not impact the conclusion.

While no indicators of impairment existed for our other reporting units during the nine months ended September 30, 2020, we believe our Enterprise and Network and Cloud (N&C) reporting units could be at risk due to continued challenges in operating results and our ability to grow these businesses. The Enterprise reporting unit is in our VCN segment and the N&C reporting unit is in our Broadband segment. If assumed net sales and cash flow projections are not achieved in future periods, it is possible that the goodwill of these or other reporting units could be deemed to be impaired and the impairment could be material.

Other Developments

There have been no changes in our critical accounting policies as disclosed in our 2019 Annual Report. See Note 1 in the Notes to Unaudited Condensed Consolidated Financial Statements for discussion of our adoption of Accounting Standards Update (ASU) No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, as of January 1, 2020. Our allowance for doubtful accounts is a significant accounting estimate and while the adoption of this new guidance impacted our allowance for doubtful accounts policy, it did not materially impact the estimate of our allowance for doubtful accounts. There were no other changes in our significant accounting estimates as disclosed in our 2019 Annual Report.

COMPARISON OF RESULTS OF OPERATIONS FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2020 WITH THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2019

	Three Months Ended September 30,					
	2020		2019		\$ Change	% Change
	Amount	% of Net Sales	Amount	% of Net Sales		
	(dollars in millions, except per share amounts)					
Net sales	\$ 2,168.1	100.0%	\$ 2,380.2	100.0%	\$ (212.1)	(8.9)%
Gross profit	735.5	33.9	609.9	25.6	125.6	20.6
Operating income (loss)	55.8	2.6	(50.8)	(2.1)	106.6	NM
Non-GAAP adjusted EBITDA (1)	341.9	15.8	369.8	15.5	(27.9)	(7.5)
Net loss	(116.3)	(5.4)%	(156.5)	(6.6)%	40.2	NM
Diluted loss per share	\$ (0.66)		\$ (0.88)		\$ 0.22	NM

	Nine Months Ended September 30,					
	2020		2019		\$ Change	% Change
	Amount	% of Net Sales	Amount	% of Net Sales		
	(dollars in millions, except per share amounts)					
Net sales	\$ 6,304.1	100.0%	\$ 6,046.4	100.0%	\$ 257.7	4.3%
Gross profit	2,032.8	32.2	1,667.9	27.6	364.9	21.9
Operating income (loss)	(170.8)	(2.7)	(169.2)	(2.8)	(1.6)	NM
Non-GAAP adjusted EBITDA (1)	853.0	13.5	973.8	16.1	(120.8)	(12.4)
Net loss	(597.3)	(9.5)%	(492.8)	(8.2)%	(104.5)	NM
Diluted loss per share	\$ (3.26)		\$ (2.70)		\$ (0.56)	NM

(1) See "Reconciliation of Non-GAAP Measures."

NM – Not meaningful

Net sales

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2020	2019	\$ Change	% Change	2020	2019	\$ Change	% Change
Net sales	\$ 2,168.1	\$ 2,380.2	\$ (212.1)	(8.9)%	\$ 6,304.1	\$ 6,046.4	\$ 257.7	4.3%
Domestic	1,318.2	1,432.7	(114.5)	(8.0)	3,892.3	3,572.5	319.8	9.0
International	849.9	947.5	(97.6)	(10.3)	2,411.8	2,473.9	(62.1)	(2.5)

Net sales for the three months ended September 30, 2020 decreased compared to the prior year period by \$262.8 million in the Home segment, \$62.6 million in the OWN segment and \$12.8 million in the VCN segment. The declines in the Home and OWN segments were driven primarily by a slowdown in sales to both U.S. and international service provider customers as demand for video products and wireless network equipment decreased. The decline in the VCN segment was driven by decreases in sales of enterprise products. Net sales in the Broadband segment increased \$126.1 million for the three months ended September 30, 2020 due to increased demand for both Network Cable and Connectivity (NCC) and N&C products. Net sales for the nine months ended September 30, 2020 increased primarily due to the increase of approximately \$559 million related to the ARRIS business because the prior year period only included net sales since the April 4, 2019 acquisition date. This increase was partially offset by declines in the existing CommScope businesses primarily due to lower sales to wireless service providers and enterprise customers.

From a regional perspective, for the three months ended September 30, 2020, net sales were lower compared to the prior year period across all regions, including decreases of \$114.5 million in the U.S., \$37.7 million in the Caribbean and Latin American (CALA) region, \$32.2 million in the Asia Pacific (APAC) region, \$15.8 million in the Europe, Middle East and Africa (EMEA) region and \$11.9 million in Canada. From a regional perspective, for the nine months ended September 30, 2020, net sales were higher across all regions except for the APAC and CALA regions due to the Acquisition. Excluding the ARRIS business, for the nine months ended September 30, 2020, net sales were lower compared to the prior year period across all regions, including decreases of approximately \$113 million in the APAC region, \$98 million in the EMEA region, \$45 million in the CALA region, \$36 million in the U.S. and \$9 million in Canada.

We believe lower demand caused by COVID-19 reduced our net sales during the three and nine months ended September 30, 2020. While it is difficult to quantify the demand impacts, we believe the most significant reductions in demand related to COVID-19 for both the three and nine months ended September 30, 2020 were in our VCN segment. We do not believe that supply chain disruptions related to COVID-19 materially impacted net sales during the three months ended September 30, 2020, but we estimate that supply chain disruptions reduced revenue by approximately \$90 million during the first half of 2020. Management currently expects the decline in net sales caused by the economic slowdown to persist through the remainder of 2020.

Net sales to customers located outside of the U.S. comprised 39.2% and 38.3% of total net sales for the three and nine months ended September 30, 2020, respectively, compared to 39.8% and 40.9% for the three and nine months ended September 30, 2019, respectively. For further details by segment, see the section titled "Segment Results" below.

Gross profit, SG&A expense and R&D expense

	Three Months Ended				Nine Months Ended			
	September 30,		\$ Change	% Change	September 30,		\$ Change	% Change
	2020	2019			2020	2019		
Gross profit	\$ 735.5	\$ 609.9	\$ 125.6	20.6%	\$ 2,032.8	\$ 1,667.9	\$ 364.9	21.9%
As a percent of sales	33.9%	25.6%			32.2%	27.6%		
SG&A expense	296.7	305.8	(9.1)	(3.0)	898.7	972.0	(73.3)	(7.5)
As a percent of sales	13.7%	12.8%			14.3%	16.1%		
R&D expense	184.6	171.5	13.1	7.6	541.1	399.5	141.6	35.4
As a percent of sales	8.5%	7.2%			8.6%	6.6%		

Gross profit (net sales less cost of sales)

Despite lower sales, gross profit increased for the three months ended September 30, 2020 compared to the prior year period primarily due to \$108.7 million of acquisition accounting adjustments in the prior year related mostly to the mark-up of inventory to its estimated fair value and \$55.0 million of costs in the prior year period related to the settlement of intellectual property litigation. Excluding these adjustments, gross profit was \$773.6 million, or 32.5% of sales, for the three months ended September 30, 2019, which indicates a current year decline in gross profit primarily due to lower net sales. Gross profit as a percentage of sales for the three months ended September 30, 2020 is higher than the adjusted prior period due to favorable product mix and lower material costs. Gross profit increased for the nine months ended September 30, 2020 compared to the prior year period due to the addition of the ARRIS business. Excluding the ARRIS business, gross profit decreased slightly for the nine months ended September 30, 2020 to approximately \$1,059 million, or 34.9% of sales, from approximately \$1,170 million, or 35.0% of sales, in the prior year primarily due to lower net sales in the existing CommScope businesses. We estimate that incremental business continuity costs related to COVID-19 reduced gross profit by \$10 million during the three months ended September 30, 2020 and a combination of supply chain disruptions and business continuity costs related to COVID-19 reduced gross profit by \$55 million for the nine months ended September 30, 2020.

Selling, general and administrative expense

For the three months ended September 30, 2020, selling, general and administrative (SG&A) expense decreased primarily due to the benefits from acquisition synergies and cost savings initiatives and an \$8.3 million reduction in bad debt expense. These favorable impacts were offset partially by an increase in variable incentive compensation and \$6.3 million in executive severance costs. For the nine months ended September 30, 2020, SG&A expense decreased compared to the prior year period due to a reduction of \$172.0 million in transaction and integration costs related to the Acquisition. Excluding transaction and integration costs, SG&A expense for the nine months ended September 30, 2020 increased primarily due to the addition of SG&A expense of approximately \$117 million related to the ARRIS business. When compared to the prior year period, SG&A expense for the nine months ended September 30, 2020 benefitted from acquisition synergies and other cost savings initiatives offset partially by higher variable incentive compensation.

Research and development expense

For the three months ended September 30, 2020, research and development (R&D) expense and R&D expense as a percentage of sales increased compared to the prior year period due to our continued investment in certain VCN segment products and higher variable compensation expense. R&D expense increased for the nine months ended September 30, 2020 compared to the prior year period due to the addition of R&D expenses of approximately \$125 million related to the ARRIS business. Excluding the ARRIS business, R&D expense and R&D expense as a percentage of sales increased for the nine months ended September 30, 2020 due to our continuing investment in certain VCN segment products and higher variable incentive costs. R&D activities generally relate to ensuring that our products are capable of meeting the evolving technological needs of our customers, bringing new products to market and modifying existing products to better serve our customers.

Amortization of purchased intangible assets, Restructuring costs, net and Asset impairments

	Three Months Ended September 30,		\$ Change	% Change	Nine Months Ended September 30,		\$ Change	% Change
	2020	2019			2020	2019		
Amortization of purchased intangible assets	\$ 158.1	\$ 163.9	\$ (5.8)	(3.5%)	\$ 473.5	\$ 387.3	\$ 86.2	22.3%
Restructuring costs, net	40.3	19.5	20.8	106.7%	83.6	78.3	5.3	6.8%
Asset impairments	—	—	—	NM	206.7	—	206.7	NM

NM – Not meaningful

Amortization of purchased intangible assets

For the three months ended September 30, 2020, amortization of purchased intangible assets was lower compared to the prior year period because certain of our intangible assets became fully amortized. The amortization of purchased intangible assets was higher in the nine months ended September 30, 2020 compared to the prior year period primarily due to the addition of approximately \$90 million of amortization related to the ARRIS business. Excluding the ARRIS business, amortization decreased for the nine months ended September 30, 2020 compared to the prior year period because certain of our intangible assets became fully amortized.

Restructuring costs, net

The restructuring costs recorded in the three and nine months ended September 30, 2020 and 2019 were primarily related to integrating and preparing to integrate the ARRIS business. From a cash perspective, we paid \$24.8 million and \$67.9 million to settle restructuring liabilities during the three and nine months ended September 30, 2020, respectively, and expect to pay an additional \$17.3 million by the end of 2020 related to restructuring actions that have been initiated. In addition, we expect to pay \$23.9 million between 2021 and 2022 related to restructuring actions that have been initiated. Additional restructuring actions related to the Acquisition are expected to be identified and the resulting charges and cash requirements are expected to be material.

Asset impairments

For the three months ended September 30, 2020, we did not record any asset impairment charges other than those identified as restructuring costs because they resulted from restructuring initiatives. For the nine months ended September 30, 2020, we recorded a goodwill impairment charge of \$206.7 million related to our Home Networks reporting unit within our Home segment. See the discussion above under “Critical Accounting Policies” for more information regarding the interim goodwill impairment test performed during the second quarter of 2020. We did not record any asset impairment charges during the three or nine months ended September 30, 2019.

Other income (expense), net

	Three Months Ended September 30,		\$ Change	% Change	Nine Months Ended September 30,		\$ Change	% Change
	2020	2019			2020	2019		
Foreign currency loss	\$ (5.6)	\$ (4.1)	\$ (1.5)	NM	\$ (19.5)	\$ (9.7)	\$ (9.8)	NM
Other income (expense), net	(11.3)	5.6	(16.9)	(301.8%)	(10.7)	6.1	(16.8)	(275.4%)

NM – Not meaningful

Foreign currency loss

Foreign currency loss includes the net foreign currency gains and losses resulting from the settlement of receivables and payables, foreign currency contracts and short-term intercompany advances in a currency other than the subsidiary’s functional currency. The increase in foreign currency loss for the three and nine months ended September 30, 2020 compared to the prior year periods was primarily driven by certain unhedged currencies.

Other income (expense), net

In connection with the refinancing of the 5.00% senior notes due 2021 (the 2021 Notes) and the 5.50% senior notes due 2024 (the 2024 Notes) and the redemption of \$100.0 million of the 6.00% senior notes due 2025 (the 2025 Notes), as further described in Note 7 in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q, we paid redemption premiums of \$14.9 million that were included in other income (expense), net during the three and nine months ended September 30, 2020.

Interest expense, Interest income and Income taxes

	Three Months Ended September 30,		\$ Change	% Change	Nine Months Ended September 30,		\$ Change	% Change
	2020	2019			2020	2019		
Interest expense	\$ (147.2)	\$ (160.7)	\$ 13.5	NM	\$ (437.7)	\$ (423.5)	\$ (14.2)	NM
Interest income	1.3	1.8	(0.5)	(27.8%)	4.2	15.9	(11.7)	(73.6%)
Income tax (expense) benefit	(9.3)	51.7	(61.0)	(118.0%)	37.2	87.6	(50.4)	(57.5%)

NM – Not meaningful

Interest expense and interest income

Interest expense for the three months ended September 30, 2020 decreased compared to the prior year period due primarily to lower variable interest rates on our senior secured term loan due 2026 (the 2026 Term Loan) which reduced interest expense by approximately \$17 million. This favorable impact was partially offset by the write-off of debt issuance costs of \$6.0 million related to the refinancing of the 2021 Notes and 2024 Notes and the partial redemption of the 2025 Notes as further described in Note 7 to the Notes to Unaudited Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q. Interest expense for the nine months ended September 30, 2020 increased compared to the prior year period due to the financing of the Acquisition that occurred in February 2019. The increase was partially offset by lower variable interest rates and lower debt balances due to voluntary repayments in 2019 and 2020.

In March 2019, we entered into pay-fixed, receive-variable interest rate swap derivatives and designated them as cash flow hedges of interest rate risk. These swaps effectively fixed the interest rate on a portion the 2026 Term Loan. The total notional amount of the interest rate swap derivatives as of September 30, 2020 was \$600 million with outstanding maturities of up to forty-two months.

Our weighted average effective interest rate on outstanding borrowings, including the impact of the interest rate swap and the amortization of debt issuance costs and original issue discount, was 5.87% at September 30, 2020, 6.17% at December 31, 2019 and 6.18% at September 30, 2019.

Interest income decreased during the nine months ended September 30, 2020 primarily due to \$10.9 million of interest earned on the proceeds of the acquisition-related debt that were held in an interest-bearing escrow account in the prior year period until the Acquisition date.

Income tax expense

For the three months ended September 30, 2020, our effective tax rate was (8.7)% and we recognized income tax expense of \$9.3 million on a pretax loss of \$107.0 million. The income tax expense on our pretax loss was driven by \$19.2 million of tax expense related to a foreign tax rate change. For the nine months ended September 30, 2020, our effective tax rate was 5.9% and we recognized a tax benefit of \$37.2 million on a pretax loss of \$634.5 million. Our tax benefit was less than the statutory rate of 21.0% in the nine months ended September 30, 2020 primarily due to a goodwill impairment charge of \$206.7 million, for which minimal tax benefits were recorded, \$22.7 million of tax expense related to state valuation allowances and \$19.2 million in income tax expense related to a foreign tax rate change. For both the three and nine months ended September 30, 2020, the Company's tax rate was also impacted favorably by federal tax credits and unfavorably by U.S. anti-deferral provisions and foreign withholding taxes. Excess tax costs of \$1.2 million and \$9.0 million related to equity compensation awards also impacted the income taxes unfavorably for the three and nine months ended September 30, 2020, respectively.

Our effective income tax rate was 24.8% and 15.1% for the three and nine months ended September 30, 2019, respectively. We recognized a tax benefit of \$51.7 million on a pretax loss of \$208.2 million and a tax benefit of \$87.6 million on a pretax loss of \$580.4 million, respectively. For the three and nine months ended September 30, 2019, our tax benefit was impacted favorably by federal tax credits, benefits recognized from adjustments related to prior years' tax returns and the expiration of statutes of limitations on various uncertain tax positions and impacted unfavorably by U.S. anti-deferral provisions and foreign withholding taxes. Excess tax costs related to equity-based compensation awards had an unfavorable impact on our tax benefit of \$1.1 million and \$1.5 million for the three and nine months ended September 30, 2019, respectively.

Segment Results

	Three Months Ended September 30,						\$ Change	% Change
	2020		2019		Amount	% of Net Sales		
	Amount	% of Net Sales	Amount	% of Net Sales				
(dollars in millions)								
Net sales by segment:								
Broadband	\$ 820.9	37.9 %	\$ 694.8	29.2 %	\$ 126.1		18.1 %	
Home	563.6	26.0	826.4	34.7	(262.8)		(31.8)	
OWN	271.8	12.5	334.4	14.0	(62.6)		(18.7)	
VCN	511.8	23.6	524.6	22.0	(12.8)		(2.4)	
Consolidated net sales	<u>\$ 2,168.1</u>	100.0 %	<u>\$ 2,380.2</u>	100.0 %	<u>\$ (212.1)</u>		<u>(8.9) %</u>	
Operating income (loss) by segment:								
Broadband	\$ 76.7	9.3 %	\$ (13.0)	(1.9) %	\$ 89.7		NM	
Home	(3.7)	(0.7)	3.8	0.5	(7.5)		NM	
OWN	26.0	9.6	(2.2)	(0.7)	28.2		(1,281.8) %	
VCN	(43.2)	(8.4)	(39.4)	(7.5)	(3.8)		NM	
Consolidated operating income (loss)	<u>\$ 55.8</u>	2.6 %	<u>\$ (50.8)</u>	(2.1) %	<u>\$ 106.6</u>		<u>NM</u>	
Adjusted EBITDA by segment:								
Broadband	\$ 204.2	24.9 %	\$ 153.5	22.1 %	\$ 50.7		33.0 %	
Home	28.5	5.1	59.7	7.2	(31.2)		(52.3)	
OWN	53.6	19.7	75.3	22.5	(21.7)		(28.8)	
VCN	55.6	10.9	81.3	15.5	(25.7)		(31.6)	
Non-GAAP consolidated adjusted EBITDA (1)	<u>\$ 341.9</u>	15.8 %	<u>\$ 369.8</u>	15.5 %	<u>\$ (27.9)</u>		<u>(7.5) %</u>	

	Nine Months Ended September 30,						\$ Change	% Change
	2020		2019		Amount	% of Net Sales		
	Amount	% of Net Sales	Amount	% of Net Sales				
(dollars in millions)								
Net sales by segment:								
Broadband	\$ 2,106.3	33.4 %	\$ 1,690.7	28.0 %	\$ 415.6	24.6 %		
Home	1,789.1	28.4	1,715.4	28.4	73.7	4.3		
OWN	949.0	15.1	1,183.4	19.6	(234.4)	(19.8)		
VCN	1,459.7	23.2	1,456.9	24.1	2.8	0.2		
Consolidated net sales	<u>\$ 6,304.1</u>	100.0 %	<u>\$ 6,046.4</u>	100.0 %	<u>\$ 257.7</u>	4.3 %		
Operating income (loss) by segment:								
Broadband	\$ 67.5	3.2 %	\$ (180.2)	(10.7) %	\$ 247.7	NM		
Home	(281.0)	(15.7)	(21.2)	(1.2)	(259.8)	NM		
OWN	146.5	15.4	173.2	14.6	(26.7)	(15.4) %		
VCN	(103.8)	(7.1)	(141.0)	(9.7)	37.2	NM		
Consolidated operating loss	<u>\$ (170.8)</u>	(2.7) %	<u>\$ (169.2)</u>	(2.8) %	<u>\$ (1.6)</u>	NM		
Adjusted EBITDA by segment:								
Broadband	\$ 427.2	20.3 %	\$ 329.6	19.5 %	\$ 97.6	29.6 %		
Home	75.8	4.2	121.8	7.1	(46.0)	(37.8)		
OWN	218.4	23.0	312.6	26.4	(94.2)	(30.1)		
VCN	131.6	9.0	209.8	14.4	(78.2)	(37.3)		
Non-GAAP consolidated adjusted EBITDA (1)	<u>\$ 853.0</u>	13.5 %	<u>\$ 973.8</u>	16.1 %	<u>\$ (120.8)</u>	(12.4) %		

(1) See "Reconciliation of Non-GAAP Measures."

Note: Components may not sum to total due to rounding.

NM – Not meaningful

Broadband Networks Segment

Our Broadband segment provides an end-to-end product portfolio serving the telco and cable provider broadband market. The segment brings together the NCC business with the N&C business. The Broadband segment includes converged cable access platform, passive optical networking, video systems, access technologies, fiber and coaxial cable, fiber and copper connectivity and hardened closures.

Net sales for the Broadband segment increased for the three months ended September 30, 2020 compared to the prior year period due to increased demand for both our NCC and N&C products. From a regional perspective, for the three months ended September 30, 2020, net sales increased in the U.S. by \$110.8 million, in the EMEA region by \$17.5 million and in the APAC region by \$13.5 million but decreased in the CALA region by \$8.6 million and in Canada by \$7.1 million. Broadband segment net sales were higher in the nine months ended September 30, 2020 compared to the prior year period primarily as a result of the Acquisition. For the nine months ended September 30, 2020 and 2019, incremental net sales from the ARRIS business were approximately \$1,093 million and \$708 million, respectively. From a regional perspective, for the nine months ended September 30, 2020, excluding the ARRIS business, Broadband segment net sales increased approximately \$95 million in the U.S. but decreased across all other major regions, including decreases of approximately \$33 million in the APAC region, \$24 million in the CALA region, \$4 million in Canada and \$3 million in the EMEA region. Supply constraints related to the COVID-19 pandemic negatively affected Broadband segment net sales during the first half of 2020; however, we believe the segment also benefitted from increased demand for certain of its products. Management currently expects that the impact from COVID-19 will not significantly affect the Broadband segment for the remainder of 2020.

For the three months ended September 30, 2020, Broadband segment operating income increased compared to the prior year period primarily due to reductions of \$54.9 million in acquisition accounting adjustments related to the mark-up of inventory to its estimated fair value and deferred revenue as well as increased sales volumes. For the nine months ended September 30, 2020, Broadband segment operating income was favorably impacted by reductions in acquisition accounting adjustments of \$129.1 million, reductions in transaction and integration costs of \$112.2 million and reductions in restructuring costs of \$14.9 million. Transaction and integration costs, acquisition accounting adjustments and restructuring costs are not reflected in adjusted EBITDA. For the three and nine months ended September 30, 2020, Broadband segment adjusted EBITDA increased due to higher net sales, the impact of cost savings initiatives and lower material costs. Since the Broadband segment includes the acquired N&C business, both operating income and adjusted EBITDA for the nine months ended September 30, 2020 are higher than the prior year period due to the incremental period of ARRIS results included in the current year. See “Reconciliation of Segment Adjusted EBITDA” below.

Home Networks Segment

Our Home segment offers broadband and video products. The segment includes subscriber-based solutions that support broadband and video applications connecting cable, telco and satellite service providers to a customer’s home and adds wireless connectivity or other wired connections integrating in-home devices together to enable the consumption of internet-based services and the delivery of broadcast, streamed and stored video to televisions and other connected devices. Broadband offerings include devices that provide residential connectivity to a service providers’ network, such as digital subscriber line and cable modems and telephony and data gateways which incorporate routing and Wi-Fi functionality. Video offerings include set top boxes that support cable, satellite and IPTV content delivery and include products such as digital video recorders, high definition set top boxes and hybrid set top devices.

Net sales for the Home segment decreased for the three months ended September 30, 2020 primarily due to lower sales volumes of video products to both U.S. and international service provider customers. From a regional perspective, for the three months ended September 30, 2020, sales were down across all major regions including decreases of \$183.1 million in the U.S., \$40.4 million in the APAC region, \$35.1 million in the CALA region, \$2.6 million in the EMEA region and \$1.6 million in Canada. Net sales for the Home segment increased for the nine months ended September 30, 2020 because the prior year period only included net sales since the April 4, 2019 acquisition date. For the three months ended September 30, 2020, we believe the COVID-19 pandemic impacts to Home segment net sales were mostly related to demand. For the nine months ended September 30, 2020, we believe the impacts from COVID-19 were a combination of supply chain disruptions and lower demand. We anticipate ongoing softness in the Home segment for the remainder of 2020 partially due to the impacts of COVID-19 but also due to the continuing declines in demand for video products.

For the three months ended September 30, 2020, the operating loss for the Home segment increased compared to the prior year period primarily due to lower sales volumes partially offset by the release of a \$23.6 million accrual related to a patent royalty matter that was settled for less than anticipated. For the nine months ended September 30, 2020, the Home segment operating loss increased compared to the prior year period primarily due to the goodwill impairment charge of \$206.7 million in the current year period offset partially by a \$25.9 million reduction in acquisition accounting adjustments mainly related to the mark-up of inventory to its estimated fair value as well as the \$23.6 million release discussed above. Asset impairments, acquisition accounting adjustments and a portion of the patent and litigation settlement described above are not reflected in adjusted EBITDA. Of the \$23.6 million patent royalty accrual release, \$15.1 million related to pre-acquisition sales and was excluded from the calculation of adjusted EBITDA; the remaining \$8.5 million release provided a benefit to Home segment adjusted EBITDA in the three and nine months ended September 30, 2020. Despite that benefit, Home segment adjusted EBITDA decreased for the three and nine months ended September 30, 2020 primarily due to lower sales offset partially by lower material costs. See “Reconciliation of Segment Adjusted EBITDA” below.

Outdoor Wireless Networks Segment

Our OWN segment focuses on the macro and metro cell wireless markets. The segment’s offerings include base station antennas, RF filters, tower connectivity, microwave antennas, metro cell products, cabinets, steel accessories, Spectrum Access System and Comsearch. As our wireless operator customers shift a portion of their 5G capital expenditures from the macro tower to the metro cell, the portfolio will strategically help make the transition smooth and cost-effective.

OWN segment net sales decreased during the three and nine months ended September 30, 2020 compared to the prior year periods primarily due to a slowdown in sales of wireless network equipment to both U.S. and international service provider customers. From a regional perspective, for the three and nine months ended September 30, 2020, OWN segment net sales were lower across all regions, except the CALA region for the three month period, and were primarily driven by decreases in the U.S. of \$53.5 million and \$143.9 million, respectively, the EMEA region of \$15.8 million and \$51.4 million, respectively, and the APAC region of \$4.6 million and \$34.5 million, respectively. U.S. net sales of OWN segment products in the three and nine months ended September 30, 2019 benefitted from the build out of next generation 4G networks to support commercial and public safety markets, and that spending did not recur at the same level in 2020 periods. In addition, we believe a portion of the decline in OWN segment net sales for the three and nine months ended September 30, 2020 was caused by lower demand as a result of the macroeconomic slowdown caused by the COVID-19 pandemic. We currently believe the impact from COVID-19 could continue to negatively affect the OWN segment for the remainder of 2020.

For the three months ended September 30, 2020, OWN segment operating income increased compared to the prior year period due to the impact of a patent litigation claim settled during the prior year period for \$55.0 million offset partially by lower sales in the current year period. For the nine months ended September 30, 2020, OWN segment operating income decreased due to lower net sales in the current year period partially offset by the impact of the patent litigation claim described above settled in the prior year period. Adjusted EBITDA decreased for the three and nine months ended September 30, 2020 compared to the prior year periods primarily due to the decrease in net sales. Patent litigation settlements are not reflected in adjusted EBITDA. See “Reconciliation of Segment Adjusted EBITDA” below.

Venue and Campus Networks Segment

Our VCN segment targets both public and private networks for campuses, venues, data centers and buildings. The segment combines Wi-Fi and switching, distributed antenna systems, licensed and unlicensed small cells, and enterprise fiber and copper infrastructure.

For the three months ended September 30, 2020, net sales decreased in the VCN segment as higher sales of Ruckus solutions and distributed antenna systems were more than offset by lower sales of enterprise products. From a regional perspective, for the three months ended September 30, 2020, net sales increased in the U.S. by \$11.3 million but decreased across all other major regions driven by decreases of \$14.9 million in the EMEA region and \$6.8 million in the CALA region. VCN segment net sales were higher in the nine months ended September 30, 2020 compared to the prior year period primarily as a result of the Acquisition. For the nine months ended September 30, 2020 and 2019, incremental net sales related to the ARRIS business were approximately \$384 million and \$283 million, respectively. From a regional perspective, for the nine months ended September 30, 2020, excluding the ARRIS business, VCN segment net sales increased approximately \$14 million in the U.S. but decreased across all other major regions, driven by decreases of approximately \$46 million in the APAC region, \$43 million in the EMEA region and \$18 million in the CALA region. We believe the primary driver for lower VCN segment net sales for the three and nine months ended September 30, 2020 was lower demand resulting from the COVID-19 pandemic. Management currently expects the impact of COVID-19 to continue to negatively affect the VCN segment for the remainder of 2020.

For the three months ended September 30, 2020, VCN segment operating loss increased primarily due to lower sales, higher restructuring costs of \$13.0 million and increased patent litigation costs of \$13.7 million. These unfavorable impacts on VCN segment operating loss were partially offset by a \$46.1 million reduction in acquisition accounting adjustments primarily related to the mark-up of inventory to its estimated fair value. For the nine months ended September 30, 2020, VCN segment operating loss decreased due to a \$102.1 million reduction in acquisition accounting adjustments related to the mark-up of inventory to its estimated fair value as well as reductions in transaction and integration costs of \$50.9 million. These favorable impacts were offset partially by the impacts of lower VCN segment net sales, higher patent litigation costs of \$13.7 million and higher restructuring costs of \$11.3 million. VCN segment operating results for the nine months ended September 30, 2019 only include the acquired Ruckus business after the April 4, 2019 acquisition date, which affects the segment’s comparability to the current year period. For the three and nine months ended September 30, 2020, adjusted EBITDA decreased primarily due to unfavorable product mix and, to a lesser extent, lower sales, offset partially by the impacts of cost savings initiatives. Acquisition accounting adjustments, restructuring costs, patent litigation costs and transaction and integration costs are not reflected in adjusted EBITDA. See “Reconciliation of Segment Adjusted EBITDA” below.

LIQUIDITY AND CAPITAL RESOURCES

The following table summarizes certain key measures of our liquidity and capital resources (in millions, except percentage data).

	September 30, 2020	December 31, 2019	\$ Change	% Change
Cash and cash equivalents	\$ 582.8	\$ 598.2	\$ (15.4)	(2.6) %
Working capital (1), excluding cash and cash equivalents and current portion of long-term debt	807.0	903.6	(96.6)	(10.7)
Availability under revolving credit facility	733.6	796.8	(63.2)	(7.9)
Long-term debt, including current portion	9,621.3	9,832.4	(211.1)	(2.1)
Total capitalization (2)	10,917.2	11,668.7	(751.5)	(6.4)
Long-term debt as a percentage of total capitalization	88.1%	84.3%		

(1) Working capital consisted of current assets of \$3,415.4 million less current liabilities of \$2,057.6 million at September 30, 2020. Working capital consisted of current assets of \$3,511.8 million less current liabilities of \$2,042.0 million at December 31, 2019.

(2) Total capitalization includes long-term debt, convertible preferred stock and stockholders' equity.

Our principal sources of liquidity on a short-term basis are cash and cash equivalents, cash flows provided by operations and availability under our credit facilities. In April 2020, we borrowed \$250.0 million under our senior secured revolving credit facility (the Revolving Credit Facility) as a precautionary measure to reinforce our cash position and preserve financial flexibility in light of the uncertainty in the global economy at that time resulting from the COVID-19 pandemic. We subsequently repaid the full amount in July 2020 because we did not believe the proceeds were needed for future liquidity as our cash flow generation has continued to improve and the broader financial markets have continued to stabilize. On a long-term basis, our potential sources of liquidity also include raising capital through the issuance of additional equity and/or debt.

The primary uses of liquidity include debt service requirements (including voluntary debt repayments or redemptions), funding working capital requirements, paying acquisition integration costs, capital expenditures, paying restructuring costs, paying dividends related to the Convertible Preferred Stock if we elect to pay such dividends in cash, paying litigation claims and settlements and income tax payments. We believe that our existing cash, cash equivalents and cash flows from operations, combined with availability under the Revolving Credit Facility, will be sufficient to meet our presently anticipated future cash needs. We may experience volatility in cash flows between periods due to, among other reasons, variability in the timing of vendor payments and customer receipts. We may, from time to time, borrow additional amounts under the Revolving Credit Facility or issue securities, if market conditions are favorable, to meet future cash needs or to reduce our borrowing costs.

Although there are no financial maintenance covenants under the terms of our senior notes, there is a limitation, among other limitations, on certain future borrowings based on an adjusted leverage ratio or a fixed charge coverage ratio. These ratios are based on financial measures similar to non-GAAP adjusted EBITDA as presented in the "Reconciliation of Non-GAAP Measures" section below, but also give pro forma effect to certain events, including acquisitions, synergies and savings from cost reduction initiatives such as facility closures and headcount reductions. For the twelve months ended September 30, 2020, our pro forma adjusted EBITDA, as measured pursuant to the indentures governing our notes, was \$1,281.5 million, which included annualized synergies expected to be realized in the next two years (\$45.8 million) and annualized savings expected from announced cost reduction initiatives (\$59.1 million) so that the impact of the cost reduction initiatives is fully reflected in the twelve-month period used in the calculation of the ratios. In addition to limitations under these indentures, our senior secured credit facilities contain customary negative covenants based on similar financial measures. We believe we are in compliance with the covenants under our indentures and senior secured credit facilities at September 30, 2020.

Cash and cash equivalents decreased during the nine months ended September 30, 2020 due to cash used in financing activities of \$259.8 million, driven by the \$800.0 million combined redemptions of the 2021 Notes and 2024 Notes and the \$100.0 million partial redemption of the 2025 Notes partially offset by the issuance of \$700.0 million of 7.125% senior unsecured notes due in 2028 (the 2028 Notes); cash used in investing activities of \$76.8 million, driven by capital expenditures; and the unfavorable impact of exchange rates on cash of \$17.3 million. These decreases were offset partially by cash generated by operating activities of \$338.5 million. As of September 30, 2020, approximately 49% of our cash and cash equivalents were held outside the U.S.

Working capital, excluding cash and cash equivalents and the current portion of long-term debt, decreased during the nine months ended September 30, 2020 due to a decrease in accounts receivable due to lower sales and favorable collections partially offset by an increase in inventory. The net reduction in total capitalization during the three and nine months ended September 30, 2020 reflected the net loss for the period and the \$224.0 million net reduction in gross debt.

Cash Flow Overview

	September 30,		\$ Change	% Change
	2020	2019		
Net cash generated by operating activities	\$ 338.5	\$ 260.4	\$ 78.1	30.0%
Net cash used in investing activities	(76.8)	(5,125.1)	5,048.3	NM
Net cash generated by (used in) financing activities	(259.8)	5,019.7	(5,279.5)	(105.2%)

NM – Not meaningful

Operating Activities

	Nine Months Ended September 30,	
	2020	2019
Operating Activities:		
Net loss	\$ (597.3)	\$ (492.8)
Adjustments to reconcile net loss to net cash generated by operating activities:		
Depreciation and amortization	618.8	514.5
Equity-based compensation	90.0	58.7
Deferred income taxes	(96.6)	(172.4)
Asset impairments	206.7	—
Changes in assets and liabilities:		
Accounts receivable	200.9	165.3
Inventories	(130.3)	356.3
Prepaid expenses and other assets	32.2	63.8
Accounts payable and other liabilities	(25.0)	(228.0)
Other	39.1	(5.0)
Net cash generated by operating activities	\$ 338.5	\$ 260.4

During the nine months ended September 30, 2020, operating cash flows increased compared to the prior year period due to the Acquisition, which was included in the prior year period only since April 4, 2019, as well as a year-over-year reduction of \$187.8 million in cash paid for transaction and integration costs related to the Acquisition. These increases in cash generation were offset partially by \$98.5 million in additional interest paid in the current year period as a result of the Acquisition-related debt as well as \$66.2 million paid in the current year period related to patent claims and litigation.

Investing Activities

	Nine Months Ended September 30,	
	2020	2019
Investing Activities:		
Additions to property, plant and equipment	\$ (73.5)	\$ (72.3)
Proceeds from sale of property, plant and equipment	0.2	1.2
Proceeds from sale of long-term investments	—	9.3
Cash paid for ARRIS acquisition, net of cash acquired	—	(5,053.4)
Cash paid for Cable Exchange acquisition	(3.5)	(11.0)
Other	—	1.1
Net cash used in investing activities	\$ (76.8)	\$ (5,125.1)

During the nine months ended September 30, 2020, our investment in property, plant and equipment was relatively unchanged despite the incremental time the ARRIS business was owned in the current year, as management intentionally slowed capital spending in light of the economic uncertainty caused by the COVID-19 pandemic. Our investments in property, plant and equipment were primarily related to supporting improvements in manufacturing operations, including expanding production capacity and investing in information technology, including software developed for internal use. During the nine months ended September 30, 2020 and 2019, we paid \$3.5 million and \$11.0 million, respectively, related to our August 2017 acquisition of Cable Exchange. The payment in the third quarter 2020 was the final payment related to the Cable Exchange acquisition. During the nine months ended September 30, 2019, we paid \$5.1 billion, net of cash acquired, using a combination of cash on hand, proceeds from the issuance of long-term debt and proceeds from the issuance of the Convertible Preferred Stock to fund the Acquisition.

Financing Activities

	Nine Months Ended	
	September 30,	
	2020	2019
Financing Activities:		
Long-term debt repaid	\$ (1,174.0)	\$ (2,753.3)
Long-term debt proceeds	950.0	6,933.0
Debt issuance costs	(11.6)	(120.8)
Debt extinguishment costs	(14.9)	—
Series A convertible preferred stock proceeds	—	1,000.0
Dividends paid on Series A convertible preferred stock	—	(29.9)
Proceeds from the issuance of common shares under equity-based compensation plans	1.0	3.0
Tax withholding payments for vested equity-based compensation awards	(10.3)	(12.3)
Net cash generated by (used in) financing activities	<u>\$ (259.8)</u>	<u>\$ 5,019.7</u>

In July 2020, we issued \$700.0 million of 7.125% (the 2028 Notes) and used the net proceeds from the offering to redeem and retire the \$700.0 million outstanding under the 2021 Notes and the 2024 Notes. We incurred \$11.6 million of debt issuance costs in connection with the issuance of the 2028 Notes. Also during the nine months ended September 30, 2020, we borrowed and repaid \$250.0 million under the Revolving Credit Facility. In addition, we redeemed \$100.0 million aggregate principal amount of the 2021 Notes, redeemed \$100.0 million aggregate principal amount of the 2025 Notes and paid three quarterly scheduled amortization payments totaling \$24.0 million on the 2026 Term Loan. We paid redemption premiums of \$11.9 million to retire the 2024 Notes and \$3.0 million to partially redeem the 2025 Notes. We may continue to look for favorable opportunities to refinance portions of our existing debt to lower borrowing costs, extend the term or adjust the total amount of fixed or floating-rate debt.

During the nine months ended September 30, 2019, we received net proceeds from the acquisition-related debt of approximately \$6.9 billion to fund the Acquisition. We repaid \$225.0 million of the senior secured term loan due 2022 in the first quarter of 2019 and we repaid the remaining balance of \$261.3 million using proceeds from the 2026 Term Loan. As part of funding the Acquisition, we repaid ARRIS' outstanding debt of \$2.1 billion under its senior secured credit facilities. We also borrowed and repaid \$15.0 million under the Revolving Credit Facility. In connection with the acquisition-related debt, we paid \$120.8 million of debt issuance costs during the nine months ended September 30, 2019.

As of September 30, 2020, we had no outstanding borrowings under the Revolving Credit Facility and the remaining availability was \$733.6 million, reflecting a borrowing base of \$763.8 million reduced by \$30.2 million of letters of credit issued under the Revolving Credit Facility.

During the nine months ended September 30, 2020, we received proceeds of \$1.0 million related to the exercise of stock options. Also during the nine months ended September 30, 2020, employees surrendered 1.1 million shares of our common stock to satisfy their tax withholding requirements on vested restricted stock units and performance share units, which reduced cash flows by \$10.3 million. During the nine months ended September 30, 2019, we received proceeds of \$3.0 million related to the exercise of stock options and employees surrendered 0.6 million shares of our common stock to satisfy their tax withholding requirements on vested restricted stock units and performance share units, which reduced cash flows by \$12.3 million.

Off-Balance Sheet Arrangements

We were not party to any significant off-balance sheet arrangements during the nine months ended September 30, 2020.

Reconciliation of Non-GAAP Measures

We believe that presenting certain non-GAAP financial measures enhances an investor's understanding of our financial performance. We further believe that these financial measures are useful in assessing our operating performance from period to period by excluding certain items that we believe are not representative of our core business. We also use certain of these financial measures for business planning purposes and in measuring our performance relative to that of our competitors.

We believe these financial measures are commonly used by investors to evaluate our performance and that of our competitors. However, our use of the term non-GAAP adjusted EBITDA may vary from that of others in our industry. These financial measures should not be considered as alternatives to operating income (loss), net income (loss) or any other performance measures derived in accordance with U.S. GAAP as measures of operating performance, operating cash flows or liquidity.

We also believe presenting these non-GAAP results for the twelve months ended September 30, 2020 provides an additional tool for assessing our recent performance. Such amounts are unaudited and are derived by subtracting the data for the nine months ended September 30, 2019 from the data for the year ended December 31, 2019 and then adding the data for the nine months ended September 30, 2020.

Although there are no financial maintenance covenants under the terms of our senior notes, there is a limitation, among other limitations, on certain future borrowings based on an adjusted leverage ratio or a fixed charge coverage ratio. These ratios are based on financial measures similar to non-GAAP adjusted EBITDA as presented in this section, but also give pro forma effect to certain events, including acquisitions, synergies and savings from cost reduction initiatives such as facility closures and headcount reductions.

Consolidated

	Three Months Ended		Nine Months Ended		Year Ended	Twelve Months Ended
	September 30,		September 30,		December 31,	September 30,
	2020	2019	2020	2019	2019	2020
Net loss	\$ (116.3)	\$ (156.5)	\$ (597.3)	\$ (492.8)	\$ (929.5)	\$ (1,034.0)
Income tax expense (benefit)	9.3	(51.7)	(37.2)	(87.6)	(144.5)	(94.1)
Interest income	(1.3)	(1.8)	(4.2)	(15.9)	(18.1)	(6.4)
Interest expense	147.2	160.7	437.7	423.5	577.2	591.4
Other expense (income), net	16.9	(1.5)	30.2	3.6	6.4	33.0
Operating income (loss)	\$ 55.8	\$ (50.8)	\$ (170.8)	\$ (169.2)	\$ (508.5)	\$ (510.1)
Adjustments:						
Amortization of purchased intangible assets	158.1	163.9	473.5	387.3	593.2	679.4
Restructuring costs, net	40.3	19.5	83.6	78.3	87.7	93.0
Equity-based compensation	34.0	28.0	90.0	58.7	90.8	122.1
Asset impairments	—	—	206.7	—	376.1	582.8
Transaction and integration costs (1)	4.8	2.2	17.8	189.8	195.3	23.3
Acquisition accounting adjustments (2)	5.1	108.7	15.8	272.9	264.2	7.1
Patent claims and litigation	(1.4)	55.0	11.4	55.0	55.0	11.4
Executive severance	6.3	—	6.3	—	—	6.3
Depreciation	38.9	43.3	118.7	101.0	143.7	161.4
Non-GAAP adjusted EBITDA	\$ 341.9	\$ 369.8	\$ 853.0	\$ 973.8	\$ 1,297.5	\$ 1,176.7

(1) In 2020 and 2019, primarily reflects transaction and integration costs related to the Acquisition.

(2) For the three and nine months ended September 30, 2020, reflects acquisition accounting adjustments related to reducing deferred revenue to its estimated fair value. For the three and nine months ended September 30, 2019, reflects acquisition accounting adjustments of \$94.9 million and \$240.7 million, respectively, related to the mark up of inventory to its estimated fair value and acquisition accounting adjustments of \$13.8 million and \$32.2 million, respectively, related to reducing deferred revenue to its estimated fair value. For the year ended December 31, 2019, reflects acquisition accounting adjustments of \$218.8 million related to the mark up of inventory to its estimated fair value and acquisition accounting adjustments of \$45.4 million related to reducing deferred revenue to its estimated fair value.

Note: Components may not sum to total due to rounding.

Reconciliation of Segment Adjusted EBITDA

Segment adjusted EBITDA is provided as a performance measure in Note 9 in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q. Below we reconcile segment adjusted EBITDA for each segment individually to operating income for that segment to supplement the reconciliation of the total segment adjusted EBITDA to consolidated operating income in that footnote.

Broadband Networks Segment

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Operating income (loss)	\$ 76.7	\$ (13.0)	\$ 67.5	\$ (180.2)
Adjustments:				
Amortization of purchased intangible assets	81.2	72.0	243.4	160.1
Restructuring costs, net	11.7	5.6	16.9	31.8
Equity-based compensation	13.1	11.2	34.7	22.5
Transaction and integration costs	1.7	2.0	6.1	118.3
Acquisition accounting adjustments	2.8	57.7	8.6	137.7
Patent claims and litigation	—	—	3.0	—
Executive severance	2.2	—	2.2	—
Depreciation	14.8	17.7	44.8	39.4
Adjusted EBITDA	<u>\$ 204.2</u>	<u>\$ 153.5</u>	<u>\$ 427.2</u>	<u>\$ 329.6</u>

Home Networks Segment

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Operating income (loss)	\$ (3.7)	\$ 3.8	\$ (281.0)	\$ (21.2)
Adjustments:				
Amortization of purchased intangible assets	26.0	33.7	77.9	67.4
Restructuring costs, net	3.8	6.8	28.0	21.9
Equity-based compensation	6.5	4.9	17.3	8.5
Asset impairments	—	—	206.7	—
Transaction and integration costs	0.9	(3.5)	3.2	(2.3)
Acquisition accounting adjustments	0.5	3.3	1.4	27.3
Patent claims and litigation	(15.1)	—	(5.3)	—
Executive severance	1.2	—	1.2	—
Depreciation	8.3	10.7	26.3	20.1
Adjusted EBITDA	<u>\$ 28.5</u>	<u>\$ 59.7</u>	<u>\$ 75.8</u>	<u>\$ 121.8</u>

Outdoor Wireless Networks Segment

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Operating income (loss)	\$ 26.0	\$ (2.2)	\$ 146.5	\$ 173.2
Adjustments:				
Amortization of purchased intangible assets	11.4	12.2	34.4	37.4
Restructuring costs, net	5.9	1.1	9.8	6.9
Equity-based compensation	4.0	3.5	10.6	9.2
Transaction and integration costs	0.9	1.4	3.2	17.7
Patent claims and litigation	—	55.0	—	55.0
Executive severance	1.2	—	1.2	—
Depreciation	4.1	4.3	12.7	13.2
Adjusted EBITDA	<u>\$ 53.6</u>	<u>\$ 75.3</u>	<u>\$ 218.4</u>	<u>\$ 312.6</u>

Venue and Campus Networks Segment

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Operating loss	\$ (43.2)	\$ (39.4)	\$ (103.8)	\$ (141.0)
Adjustments:				
Amortization of purchased intangible assets	39.6	45.8	117.9	122.4
Restructuring costs, net	18.9	5.9	29.0	17.7
Equity-based compensation	10.3	8.4	27.4	18.5
Transaction and integration costs	1.3	2.2	5.3	56.2
Acquisition accounting adjustments	1.7	47.8	5.7	107.8
Patent claims and litigation	13.7	—	13.7	—
Executive severance	1.7	—	1.7	—
Depreciation	11.7	10.6	34.9	28.3
Adjusted EBITDA	<u>\$ 55.6</u>	<u>\$ 81.3</u>	<u>\$ 131.6</u>	<u>\$ 209.8</u>

Note: Components may not sum to total due to rounding.

Contractual Obligations

During 2020, the Company redeemed \$150.0 million aggregate principal amount of the 2021 Notes, \$650.0 million aggregate principal amount of the 2024 Notes and \$100.0 million aggregate principal amount of the 2025 Notes. Also during 2020, the Company issued \$700.0 million of the 2028 Notes.

Contractual Obligations	Total Payments Due	Amount of Payments Due per Period			
		Remainder of 2020	2021-2022	2023-2024	Thereafter
			(in millions)		
Long-term debt, including current maturities (a)	\$ 9,768.0	\$ 8.0	\$ 64.0	\$ 1,314.0	\$ 8,382.0
Interest on long-term debt (a)(b)	2,939.2	71.6	1,053.8	1,014.3	799.5
Operating leases	222.6	20.1	116.6	61.3	24.6
Purchase obligations and other supplier agreements (c)	320.5	262.4	58.1	—	—
Pension and other postretirement benefit liabilities (d)	6.0	3.3	0.8	0.7	1.2
Restructuring costs, net (e)	41.2	17.3	23.9	—	—
Patent claims and litigation settlements (f)	39.8	39.8	—	—	—
Unrecognized tax benefits (g)	—	—	—	—	—
Total contractual obligations	\$ 13,337.3	\$ 422.5	\$ 1,317.2	\$ 2,390.3	\$ 9,207.3

- (a) No other prepayment or redemption of any of our long-term debt balances has been assumed. Refer to Note 7 in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Form 10-Q and Note 8 in the Notes to Consolidated Financial Statements included in our 2019 Annual Report for information regarding the terms of our long-term debt agreements.
- (b) Interest on long-term debt excludes the amortization of debt issuance costs and original issue discount. Interest on variable rate debt is estimated based upon rates in effect at September 30, 2020.
- (c) Purchase obligations and other supplier agreements include \$309.6 million related to obligations, primarily to our contract manufacturers, with non-cancelable terms to purchase goods or services, and payments of \$10.9 million for minimum amounts owed under take-or-pay or requirements contracts. Generally, amounts covered by open purchase orders, other than the portion that is non-cancelable as disclosed above, are excluded as there is no contractual obligation until goods or services are received.
- (d) Amounts reflect expected contributions related to payments under the postretirement benefit plans through 2029 and expected pension contributions of \$3.2 million during the remainder of 2020 (see Note 12 in the Notes to Consolidated Financial Statements included in our 2019 Annual Report).
- (e) Future restructuring payments exclude payments due under lease arrangements which are included in operating leases above.
- (f) Amount reflects the settlements of certain intellectual property assertions.
- (g) Due to the uncertainty in predicting the timing of tax payments related to our unrecognized tax benefits, \$156.5 million has been excluded from the presentation. We anticipate a reduction of up to \$4.9 million of unrecognized tax benefits during the remainder of 2020 (see Note 13 in the Notes to Consolidated Financial Statements included in our 2019 Annual Report).

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q or any other oral or written statements made by us or on our behalf may include forward-looking statements that reflect our current views with respect to future events and financial performance. These statements may discuss goals, intentions or expectations as to future plans, trends, events, results of operations or financial condition or otherwise, in each case, based on current beliefs of management, as well as assumptions made by, and information currently available to, such management. These forward-looking statements are generally identified by their use of such terms and phrases as “intend,” “goal,” “estimate,” “expect,” “project,” “projections,” “plans,” “potential,” “anticipate,” “should,” “could,” “designed to,” “foreseeable future,” “believe,” “think,” “scheduled,” “outlook,” “target,” “guidance” and similar expressions, although not all forward-looking statements contain such terms. This list of indicative terms and phrases is not intended to be all-inclusive.

These forward-looking statements are subject to various risks and uncertainties, many of which are outside our control, including, without limitation, risks related to the ARRIS acquisition (including risks associated with the integration of the business and systems and that we may not realize estimated cost savings, synergies, growth or other anticipated benefits); our dependence on customers' capital spending on data and communication systems; concentration of sales among a limited number of customers and channel partners; changes in technology; the scope, duration and impact of disease outbreaks and pandemics, such as COVID-19, on our business including employees, sites, operations, customers and supply chain; industry competition and the ability to retain customers through product innovation, introduction, and marketing; risks associated with our sales through channel partners; changes to the regulatory environment in which our customers operate; product quality or performance issues and associated warranty claims; our ability to maintain effective management information technology systems and to successfully implement major systems initiatives; cyber-security incidents, including data security breaches, ransomware or computer viruses; the risk our global manufacturing operations suffer production or shipping delays, causing difficulty in meeting customer demands; the risk that internal production capacity or that of contract manufacturers may be insufficient to meet customer demand or quality standards; the use of open standards; the long-term impact of climate change; changes in cost and availability of key raw materials, components and commodities and the potential effect on customer pricing; risks associated with our dependence on a limited number of key suppliers for certain raw materials and components; the risk that contract manufacturers we rely on encounter production, quality, financial or other difficulties; our ability to integrate and fully realize anticipated benefits from prior or future divestitures, acquisitions or equity investments; potential difficulties in realigning global manufacturing capacity and capabilities among our global manufacturing facilities or those of our contract manufacturers that may affect our ability to meet customer demands for products; possible future restructuring actions; substantial indebtedness and restrictive debt covenants; our ability to incur additional indebtedness; our ability to generate cash to service our indebtedness; possible future impairment charges for fixed or intangible assets, including goodwill; income tax rate variability and ability to recover amounts recorded as deferred tax assets; our ability to attract and retain qualified key employees; labor unrest; obligations under our defined benefit employee benefit plans requiring plan contributions in excess of current estimates; significant international operations exposing us to economic, political and other risks, including the impact of variability in foreign exchange rates; our ability to comply with governmental anti-corruption laws and regulations and export and import controls worldwide; our ability to compete in international markets due to export and import controls to which we may be subject; the impact of Brexit; changes in the laws and policies in the United States affecting trade, including the risk and uncertainty related to tariffs or a potential global trade war that may impact our products; cost of protecting or defending intellectual property; costs and challenges of compliance with domestic and foreign environmental laws; the impact of litigation and similar regulatory proceedings that we are involved in or may become involved in, including the costs of such litigation; risks associated with stockholder activism, which could cause us to incur significant expense, hinder execution of our business strategy and impact the trading value of our securities; and other factors beyond our control. These and other factors are discussed in greater detail in our 2019 Annual Report on Form 10-K and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 and may be updated from time to time in our annual reports, quarterly reports, current reports and other filings we make with the Securities and Exchange Commission. Although the information contained in this Quarterly Report on Form 10-Q represents our best judgment as of the date of this report based on information currently available and reasonable assumptions, we can give no assurance that the expectations will be attained or that any deviation will not be material. Given these uncertainties, we caution you not to place undue reliance on these forward-looking statements, which speak only as of the date made. We are not undertaking any duty or obligation to update this information to reflect developments or information obtained after the date of this report, except as otherwise may be required by law.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Other than the changes disclosed below, there have been no material changes in the interest rate risk, commodity price risk or foreign currency exchange rate risk information previously reported under Item 7A of our 2019 Annual Report, as filed with the SEC on February 20, 2020.

Interest Rate Risk

The table below summarizes the expected interest and principal payments associated with our variable rate debt outstanding at September 30, 2020 (mainly the \$3.2 billion variable rate term loan and asset-based revolving credit facility). The principal payments presented below are based on scheduled maturities and assume no borrowings under the existing revolving credit facility. The interest payments presented below assume the interest rate in effect at September 30, 2020. The impact of a 1% increase in the interest rate index on projected future interest payments on the variable rate debt is also included in the table below.

	Remainder of 2020	2021	2022	2023	2024	There- after
Principal and interest payments on variable rate debt	\$ 37.6	\$ 146.9	\$ 145.7	\$ 144.6	\$ 142.8	\$ 3,154.9
Average cash interest rate	3.74%	3.65%	3.65%	3.66%	3.64%	3.63%
Impact of 1% increase in interest rate index	\$ 7.9	\$ 31.4	\$ 31.1	\$ 30.8	\$ 30.5	\$ 33.9

We also have \$6.6 billion aggregate principal amount of fixed rate senior notes. The table below summarizes our expected interest and principal payments related to our fixed rate debt at September 30, 2020.

	Remainder of 2020	2021	2022	2023	2024	There- after
Principal and interest payments on fixed rate debt	\$ 42.0	\$ 412.6	\$ 412.6	\$ 412.6	\$ 1,628.3	\$ 6,026.6
Average cash interest rate	6.25%	6.25%	6.25%	6.25%	6.33%	6.83%

As part of our hedging strategy to mitigate a portion of the exposure to changes in cash flows resulting from the variable interest rate on the 2026 Term Loan, in March 2019, we entered into and designated pay-fixed, receive-variable interest rate swap derivatives as cash flow hedges of interest rate risk. The total notional amount of the interest rate swap derivatives as of September 30, 2020 was \$600.0 million with outstanding maturities of up to forty-two months. As of September 30, 2020, the combined fair value of the interest rate swaps was a \$33.8 million loss. The table above excludes the impact of these interest rate swap derivatives.

Foreign Currency Risk

We hold certain foreign exchange forward contracts and cross currency swaps, with outstanding maturities of up to nine months, that are designated as net investment hedges and are intended to mitigate a portion of the foreign currency risk on the Euro net investment in a foreign subsidiary. As of September 30, 2020, the notional value of these derivative contracts was \$300.0 million and the unrealized loss on the contracts was \$6.3 million.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures are effective.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company's internal control over financial reporting during the quarter ended September 30, 2020 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The Company is party to certain intellectual property claims and also periodically receives notices asserting that its products infringe on another party's patents and other intellectual property rights. These claims and assertions, whether against the Company directly or against its customers, could require the Company to pay damages, royalties, stop offering the relevant products and/or cease other activities. The Company may also be called upon to indemnify certain customers for costs related to products sold to such customers. While the outcome of the claims and notices is uncertain and a reasonable estimate of the loss from unfavorable outcomes in certain of these matters cannot be determined, an adverse outcome could result in a material loss.

The Company is also either a plaintiff or a defendant in certain other pending legal matters in the normal course of business. Management believes none of these pending legal matters will have a material adverse effect on the Company's business or financial condition upon final disposition.

In addition, the Company is subject to various federal, state, local and foreign laws and regulations governing the use, discharge, disposal and remediation of hazardous materials. Compliance with current laws and regulations has not had, and is not expected to have, a materially adverse effect on the Company's financial condition or results of operations.

ITEM 1A. RISK FACTORS

The Company's business, financial condition, results of operations and cash flows are subject to various risks which could cause actual results to vary from recent results or from anticipated future results. Other than the supplemental risk factor previously reported in Item 1A of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, which risk factor is incorporated herein by this reference, there have been no material changes to our risk factors disclosed in Item 1A, Risk Factors, of our Form 10-K for the year ended December 31, 2019.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities:

None.

Issuer Purchases of Equity Securities:

The following table summarizes the stock purchase activity for the three months ended September 30, 2020:

Period	Total Number of Shares Purchased (1)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Value of Shares that May Yet be Purchased Under the Plans or Programs
July 1, 2020 - July 31, 2020	406,107	\$ 8.14	—	\$ —
August 1, 2020 - August 31, 2020	65,715	\$ 9.60	—	\$ —
September 1, 2020 -September 30, 2020	4,709	\$ 10.47	—	\$ —
Total	476,531	\$ 8.36	—	—

(1) The shares purchased were withheld to satisfy the withholding tax obligations related to restricted stock units and performance share units that vested during the period.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

- 4.1 [Indenture, dated as of July 1, 2020, by and between the Issuer and Wilmington Trust, National Association, as trustee, including the form of 7.125% Senior Note due 2028 \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K \(File No. 001-36146\), filed with the SEC on July 2, 2020\).](#)
- 10.1 *** [Employment Agreement, dated October 1, 2020, by and between Charles L. Treadway and CommScope, Inc. \(incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K \(File No. 001-36146\), filed with the SEC on October 1, 2020\).](#)
- 10.2 *** [Form of Restricted Stock Unit Award Certificate \(incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K \(File No. 001-36146\), filed with the SEC on October 1, 2020\).](#)
- 10.3 *** [Form of Performance Share Unit Award Certificate \(incorporated by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K \(File No. 001-36146\), filed with the SEC on October 1, 2020\).](#)
- 10.4 *** [Employment Agreement, dated October 1, 2020, by and between Claudius E. Watts IV and CommScope, Inc \(incorporated by reference to Exhibit 10.4 of the Registrant's Current Report on Form 8-K \(File No. 001-36146\), filed with the SEC on October 1, 2020\).](#)
- 31.1 ** [Certification of Principal Executive Officer pursuant to Rule 13a-14\(a\).](#)
- 31.2 ** [Certification of Principal Financial Officer pursuant to Rule 13a-14\(a\).](#)
- 32.1 ** [Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 \(furnished pursuant to Item 601\(b\)\(32\)\(ii\) of Regulation S-K\).](#)
- 101.INS Inline XBRL Instance Document – The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
- 101.SCH Inline XBRL Schema Document, furnished herewith.
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document.
- 104 Cover Page Interactive Data File (embedded within the Inline XBRL document).

**Filed herewith.

***Management contract or compensatory plan or arrangement.

SIGNATURES

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

November 4, 2020
Date

COMMSCOPE HOLDING COMPANY, INC.

/s/ Alexander W. Pease

Alexander W. Pease

Executive Vice President and Chief Financial Officer

(Principal Financial Officer and duly authorized officer)

MANAGEMENT CERTIFICATION

I, Charles L. Treadway, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of CommScope Holding Company, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: November 4, 2020

/s/ Charles L. Treadway

Name: Charles L. Treadway
Title: President, Chief Executive Officer and Director
(Principal Executive Officer)

MANAGEMENT CERTIFICATION

I, Alexander W. Pease, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of CommScope Holding Company, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: November 4, 2020

/s/ Alexander W. Pease

Name: Alexander W. Pease
Title: Executive Vice President and Chief Financial
Officer (Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of CommScope Holding Company, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Charles L. Treadway, President, Chief Executive Officer and Director of the Company, and Alexander W. Pease, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350 as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 4, 2020

/s/ Charles L. Treadway

Charles L. Treadway

President, Chief Executive Officer and Director

(Principal Executive Officer)

/s/ Alexander W. Pease

Alexander W. Pease

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)