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 June 30, 2019

OR

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

For the transition period from to

Commission file number 001-36146

CommScope Holding Company, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**27-4332098**
(State or other jurisdiction of incorporation or organization)	**(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)

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	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

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

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

As of July 26, 2019 there were 194,105,783 shares of Common Stock outstanding.

CommScope Holding Company, Inc.
Form 10-Q
June 30, 2019
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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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net sales	$ 2,566.7	$ 1,239.9	$ 3,666.3	$ 2,360.4
Cost of sales	1,906.7	782.7	2,608.2	1,505.4
Gross profit	660.0	457.2	1,058.1	855.0
Operating expenses:				
Selling, general and administrative	480.9	171.1	666.3	342.6
Research and development	177.8	47.8	228.0	97.6
Amortization of purchased intangible assets	164.1	66.4	223.5	133.7
Restructuring costs, net	46.4	7.2	58.8	12.7
Total operating expenses	869.2	292.5	1,176.6	586.6
Operating income (loss)	(209.2)	164.7	(118.5)	268.4
Other income (expense), net	0.7	(3.2)	(5.0)	(2.1)
Interest expense	(165.3)	(60.7)	(262.8)	(120.5)
Interest income	2.3	2.1	14.1	3.5
Income (loss) before income taxes	(371.5)	102.9	(372.2)	149.3
Income tax (expense) benefit	37.5	(37.0)	35.9	(49.6)
Net income (loss)	(334.0)	65.9	(336.3)	99.7
Series A convertible preferred stock dividend	(13.1)	—	(13.1)	—
Deemed dividend on Series A convertible preferred stock	(3.0)	—	(3.0)	—
Net income (loss) attributable to common stockholders	$ (350.1)	$ 65.9	$ (352.4)	$ 99.7
Earnings (loss) per share:				
Basic	$ (1.81)	$ 0.34	$ (1.82)	$ 0.52
Diluted	$ (1.81)	$ 0.34	$ (1.82)	$ 0.51
Weighted average shares outstanding:				
Basic	193.6	192.2	193.2	191.8
Diluted	193.6	195.2	193.2	195.3

See notes to unaudited condensed consolidated financial statements.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Comprehensive income (loss):				
Net income (loss)	$ (334.0)	$ 65.9	$ (336.3)	$ 99.7
Other comprehensive loss, net of tax:				
Foreign currency translation gain (loss)	9.9	(108.6)	0.1	(61.8)
Pension and other postretirement benefit activity	(0.1)	(1.3)	(0.1)	(2.7)
Gain (loss) on hedging instruments	(10.4)	3.1	(11.9)	2.5
Total other comprehensive loss, net of tax	(0.6)	(106.8)	(11.9)	(62.0)
Total comprehensive income (loss)	$ (334.6)	$ (40.9)	$ (348.2)	$ 37.7

See notes to unaudited condensed consolidated financial statements.

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

	June 30, 2019		December 31, 2018	
Assets				
Cash and cash equivalents	$	348.0	$	458.2
Accounts receivable, less allowance for doubtful accounts of $25.6 and $17.4, respectively		2,264.7		810.4
Inventories, net		1,404.1		473.3
Prepaid expenses and other current assets		284.4		135.9
Total current assets		4,301.2		1,877.8
Property, plant and equipment, net of accumulated depreciation of $482.2 and $437.7, respectively		767.3		450.9
Goodwill		5,759.1		2,852.3
Other intangible assets, net		4,670.6		1,352.0
Other noncurrent assets		438.5		97.5
Total assets	$	15,936.7	$	6,630.5
Liabilities and Stockholders' Equity				
Accounts payable	$	1,406.5	$	399.2
Accrued and other liabilities		854.9		291.4
Current portion of long-term debt		24.0		—
Total current liabilities		2,285.4		690.6
Long-term debt		10,302.5		3,985.9
Deferred income taxes		345.1		83.3
Other noncurrent liabilities		578.8		113.9
Total liabilities		13,511.8		4,873.7
Commitments and contingencies				
Series A convertible preferred stock, $0.01 par value		1,000.0		—
Stockholders' equity:				
Preferred stock, $0.01 par value: Authorized shares: 200,000,000; Issued and outstanding shares: 1,000,000 Series A convertible preferred stock		—		—
Common stock, $0.01 par value: Authorized shares: 1,300,000,000; Issued and outstanding shares: 193,873,919 and 192,376,255, respectively		2.0		2.0
Additional paid-in capital		2,410.7		2,385.1
Retained earnings (accumulated deficit)		(586.1)		(249.8)
Accumulated other comprehensive loss		(171.1)		(159.2)
Treasury stock, at cost: 7,153,511 shares and 6,744,082 shares, respectively		(230.6)		(221.3)
Total stockholders' equity		1,424.9		1,756.8
Total liabilities and stockholders' equity	$	15,936.7	$	6,630.5

See notes to unaudited condensed consolidated financial statements.

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

	Six Months Ended June 30,	
	2019	2018
Operating Activities:		
Net income (loss)	$ (336.3)	$ 99.7
Adjustments to reconcile net income (loss) to net cash generated by (used in) operating activities:		
Depreciation and amortization	301.0	178.3
Equity-based compensation	30.7	22.4
Deferred income taxes	(105.4)	(24.6)
Changes in assets and liabilities:		
Accounts receivable	(304.0)	(137.0)
Inventories	132.2	(48.0)
Prepaid expenses and other assets	24.2	(0.6)
Accounts payable and other liabilities	(1.0)	40.9
Other	(3.0)	4.0
Net cash generated by (used in) operating activities	(261.6)	135.1
Investing Activities:		
Additions to property, plant and equipment	(48.0)	(30.8)
Proceeds from sale of property, plant and equipment	0.8	6.2
Cash paid for current year acquisitions, net of cash acquired	(5,049.9)	—
Cash paid for prior year acquisition	(11.0)	—
Other	6.6	1.3
Net cash used in investing activities	(5,101.5)	(23.3)
Financing Activities:		
Long-term debt repaid	(2,553.3)	—
Long-term debt proceeds	6,933.0	—
Debt issuance costs	(118.1)	—
Series A convertible preferred stock proceeds	1,000.0	—
Deemed dividend paid on Series A convertible preferred stock	(3.0)	—
Proceeds from the issuance of common shares under equity-based compensation plans	2.7	4.9
Tax withholding payments for vested equity-based compensation awards	(9.3)	(15.5)
Net cash generated by (used in) financing activities	5,252.0	(10.6)
Effect of exchange rate changes on cash and cash equivalents	0.9	(9.5)
Change in cash and cash equivalents	(110.2)	91.7
Cash and cash equivalent at beginning of period	458.2	454.0
Cash and cash equivalents at end of period	$ 348.0	$ 545.7

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 June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Number of common shares outstanding:				
Balance at beginning of period	193,456,207	192,077,678	192,376,255	190,906,110
Issuance of shares under equity-based compensation plans	510,460	138,864	1,907,093	1,707,573
Shares surrendered under equity-based compensation plans	(92,748)	(2,045)	(409,429)	(399,186)
Balance at end of period	193,873,919	192,214,497	193,873,919	192,214,497
Common stock:				
Balance at beginning and end of period	$ 2.0	$ 2.0	$ 2.0	$ 2.0
Additional paid-in capital:				
Balance at beginning of period	$ 2,393.9	$ 2,348.5	$ 2,385.1	$ 2,334.1
Issuance of shares under equity-based compensation plans	1.5	1.0	2.7	4.9
Equity-based compensation	23.1	11.9	30.7	22.4
Equity-based compensation assumed	8.3	—	8.3	—
Dividend on Series A convertible preferred stock	(13.1)	—	(13.1)	—
Deemed dividend on Series A convertible preferred stock	(3.0)	—	(3.0)	—
Balance at end of period	$ 2,410.7	$ 2,361.4	$ 2,410.7	$ 2,361.4
Retained earnings (accumulated deficit):				
Balance at beginning of period	$ (252.1)	$ (356.2)	$ (249.8)	$ (396.0)
Net income (loss)	(334.0)	65.9	(336.3)	99.7
Cumulative effect of change in accounting principle	—	—	—	6.0
Balance at end of period	$ (586.1)	$ (290.3)	$ (586.1)	$ (290.3)
Accumulated other comprehensive loss:				
Balance at beginning of period	$ (170.5)	$ (41.8)	$ (159.2)	$ (86.6)
Other comprehensive loss, net of tax	(0.6)	(106.8)	(11.9)	(62.0)
Balance at end of period	$ (171.1)	$ (148.6)	$ (171.1)	$ (148.6)
Treasury stock, at cost:				
Balance at beginning of period	$ (228.8)	$ (221.0)	$ (221.3)	$ (205.6)
Net shares surrendered under equity-based compensation plans	(1.8)	(0.1)	(9.3)	(15.5)
Balance at end of period	$ (230.6)	$ (221.1)	$ (230.6)	$ (221.1)
Total stockholders' equity	$ 1,424.9	$ 1,703.4	$ 1,424.9	$ 1,703.4

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, 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 Internet Protocol Television distribution systems, broadband access infrastructure platforms, and associated data and voice Customer Premises Equipment. 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. The results of operations of ARRIS' products and services are reflected in the new reporting segments of Customer Premises Equipment (CPE), Network and Cloud (N&C) and Ruckus Networks (Ruckus). The Company borrowed approximately $7.0 billion, issued $1.0 billion in Series A Convertible Preferred Stock (the Convertible Preferred Stock) and used cash on hand to fund the Acquisition and related costs. See Note 2 for additional discussion of the Acquisition, Note 7 for additional discussion of the debt financing transactions and Note 12 for additional discussion of the Convertible Preferred Stock.

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 Acquisition was accounted for using the acquisition method of accounting and the ARRIS results of operations are reported in the Company's unaudited condensed consolidated financial statements from April 4, 2019, the date of acquisition, through June 30, 2019.

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, 2018 (the 2018 Annual Report).

Change in Accounting Policy

Effective April 1, 2019, the Company made a voluntary change in accounting principle related to its classification of internal handling costs to prepare goods for shipment. Historically, the Company presented these handling costs within selling, general and administrative expense (SG&A). Under the new policy, the Company is presenting these expenses within cost of sales in the Condensed Consolidated Statements of Operations. The Company believes that this change is preferable as the classification in cost of sales better reflects the costs of generating the related revenue and results in more meaningful presentation of gross margin. Additionally, this presentation enhances the comparability of the Company's financial statements with industry peers and provides more consistency in the treatment of all shipping and handling costs. The accounting policy change was applied retrospectively to all periods presented. There was no change to net income (loss), earnings (loss) per share, retained earnings (accumulated deficit) or cash flows; however, cost of sales increased by $14.2 million and $27.7 million and SG&A decreased by the same amounts for the three and six months ended June 30, 2018, respectively. The Company recorded handling costs as a component of cost of sales for the three and six months ended June 30, 2019. The Condensed Consolidated Statements of Operations was adjusted to reflect this change; however, there was no other impact on the condensed consolidated financial statements.

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 2018 Annual Report. Other than the enhancements described below to revenue recognition polices as a result of the Acquisition, the changes described below to lease policies as a result of the adoption of Accounting Standards Update (ASU) No. 2016-02, *Leases* and the change in accounting principle related to the classification of internal handling costs described above, there were no material changes in the Company's significant accounting policies during the three or six months ended June 30, 2019.

Revenue Recognition

The Company recognizes revenue based on the satisfaction of distinct obligations to transfer goods and services to customers. The Company's revenue is generated from product or equipment sales; bundled sales arrangements inclusive of product, software and services; and custom design and installation services. Revenue is recognized when performance obligations in a contract are satisfied through the transfer of control of the good or service at the amount of consideration expected to be received. The following are required before revenue is recognized:

- Identify the contract with the customer. A variety of arrangements are considered contracts; however, these are usually the Master Purchase Agreement and amendments or customer purchase orders.
- Identify the performance obligations in the contract. Performance obligations are identified as promised goods or services in an arrangement that are distinct.
- Determine the transaction price. The transaction price is the amount of consideration the Company expects to receive in exchange for transferring the promised goods or services. The consideration may include fixed or variable amounts or both.
- Allocate the transaction price to the performance obligations. The transaction price is allocated to the performance obligations on a relative standalone selling price basis.
- Recognize revenue as the performance obligations are satisfied. Revenue is recognized when transfer of control of the promised goods or services has occurred. This is either at a point in time or over time.

For product sales, revenue is recognized when control of the product has transferred to the customer, which is generally at the point in time when products have been shipped, right to payment has been obtained and risk of loss has been transferred. Certain of the Company's product performance obligations include proprietary operating system software, which typically is not considered separately identifiable. Therefore, sales of these products and the related software are considered one performance obligation.

Certain customer transactions may be project based and include multiple performance obligations based on the bundling of equipment, software and services. When a multiple performance obligation arrangement exists, the transaction price is allocated to the performance obligations, and revenue is recognized on a relative standalone selling price basis upon transfer of control of each deliverable. To determine the standalone selling price, the Company first looks to establish the standalone selling price through an observable price when the good or service is sold separately in similar circumstances. If the standalone selling price cannot be established through an observable price, the Company will make an estimate based on market conditions, customer specific factors and customer class. The Company may use a combination of approaches to estimate the standalone selling price.

For performance obligations recognized over time, judgment is required to evaluate assumptions, including the total estimated costs to determine progress towards completion of the performance obligation and to calculate the corresponding amount of revenue to recognize. If estimated total costs on any contract are greater than the net contract revenues, the entire estimated costs are recorded in the period in which the revisions to estimates are identified and the amounts can be reasonably estimated.

License contracts include revenue recognized for the licensing of intellectual property, including software, sold separately without products. Functional intellectual property licenses do not meet the criteria for revenue to be recognized over time and revenue is most commonly recognized upon delivery of the license/software to the customer.

Other customer contract types include a variety of post-contract support services offerings, including:

- Maintenance and support services provided under annual service-level agreements with the Company's customers. These services represent stand-ready obligations that are recognized over time (on a straight-line basis over the contract period) because the customer simultaneously receives and consumes the benefits of the services as the services are performed.
- Professional services and other similar services consist primarily of "Day 2" services to help customers maximize their utilization of deployed systems. The services are recognized over time because the customer simultaneously receives and consumes the benefits of the service as the services are performed.
- Installation services relate to the routine installation of equipment ordered by the customer at the customer's site and are distinct performance obligations from delivery of the related hardware. The associated revenues are recognized over time as the services are provided.

Revenue is measured based on the consideration the Company expects to be entitled based on customer contracts. For sales to distributors, system integrators and value-added resellers, revenue is adjusted for variable consideration amounts, including but not limited to estimated discounts, returns, rebates and distributor price protection programs. These estimates are determined based upon historical experience, contract terms, inventory levels in the distributor channel and other related factors. Adjustments to variable consideration estimates are recorded when circumstances indicate revisions may be necessary.

A contract liability for deferred revenue is recorded when consideration is received or is unconditionally due from a customer prior to transferring control of goods or services to the customer under the terms of a contract. Deferred revenue balances typically result from advance payments received from customers for product contracts or from billings in excess of revenue recognized on project or services arrangements.

Unbilled receivables are recorded when revenues are recognized in advance of invoice issuance. A contract asset is any portion of unbilled receivables for which the right to consideration is conditional on a factor other than the passage of time, which is common for certain project contract performance obligations. These assets are presented on a combined basis with accounts receivable and are converted to accounts receivable once the Company's right to the consideration becomes unconditional, which varies by contract but is generally based on achieving certain acceptance milestones. The Company recognizes the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset would be one year or less.

The Company includes shipping and handling costs billed to customers in net sales and includes the costs incurred to transport product to customers as well as certain internal handling costs, which relate to activities to prepare goods for shipment, as cost of sales. Shipping and handling costs incurred after control is transferred to the customer are accounted for as fulfillment costs and are not accounted for as separate revenue obligations.

Leases

The Company determines if a contract is a lease or contains a lease at inception. Right of use assets related to operating type leases are reported in other noncurrent assets and the present value of remaining lease obligations is reported in accrued and other liabilities and other noncurrent liabilities on the Condensed Consolidated Balance Sheets. CommScope does not currently have any financing type leases.

Operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. The majority of the Company's leases do not provide an implicit rate; therefore, the Company uses the incremental borrowing rates applicable to the economic environment and the duration of the lease, based on the information available at commencement date, in determining the present value of future payments. The right of use asset for operating leases is measured using the lease liability adjusted for the impact of lease payments made prior to commencement, lease incentives received, initial direct costs incurred and any asset impairments. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

The Company remeasures and reallocates the consideration in a lease when there is a modification of the lease that is not accounted for as a separate contract. The lease liability is remeasured when there is a change in the lease term or a change in the assessment of whether the Company will exercise a lease option. The Company assesses right of use assets for impairment in accordance with its long-lived asset impairment policy.

The Company accounts for lease agreements with contractually required lease and non-lease components on a combined basis. Lease payments made for cancellable leases, variable amounts that are not based on an observable index and lease agreements with an original duration of less than twelve months are recorded directly to lease expense.

Concentrations of Risk and Related Party Transactions

No direct customer accounted for 10% or more of the Company's total net sales during the three or six months ended June 30, 2019. No direct customer accounted for 10% or more of the Company's accounts receivable as of June 30, 2019.

Net sales to Anixter International Inc. and its affiliates (Anixter) accounted for 11% of the Company's total net sales during both the three and six months ended June 30, 2018. Net sales to KGP Companies (KGPCo) accounted for 10% of the Company's net sales during the three months ended June 30, 2018. Other than Anixter and KGPCo, no direct customer accounted for 10% or more of the Company's total net sales for the three or six months ended June 30, 2018.

As of June 30, 2019, funds affiliated with Carlyle Partners VII S1 Holdings, L.P. (Carlyle) owned 100% of the Convertible Preferred Stock, which is approximately 16% of the Company's common stock on an if-converted basis.

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.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Product warranty accrual, beginning of period	$ 14.1	$ 16.2	$ 15.6	$ 16.9
Obligation assumed in ARRIS acquisition	57.4	—	57.4	—
Provision for warranty claims	6.5	0.4	6.0	1.9
Warranty claims paid	(11.5)	(1.7)	(12.4)	(4.0)
Foreign exchange	0.1	(0.1)	—	—
Product warranty accrual, end of period	$ 66.6	$ 14.8	$ 66.6	$ 14.8

Commitments and Contingencies

The Company is either a plaintiff or a defendant in certain pending legal matters in the normal course of business. The Company may also be called upon to indemnify certain customers for costs related to products or services sold to such customers. Management believes none of these legal matters, including the matter further described below, will have a material adverse effect on the Company's business or financial condition upon final disposition.

The Company intervened as defendants in Fractus, S.A. (Fractus) v. CommScope Technologies LLC, T-Mobile U.S., Inc., T-Mobile USA, Inc., Verizon Communications, Inc. and Cello Partnership d/b/a Verizon Wireless, which is a consolidated patent infringement action brought by Fractus, in the United States (U.S.) District Court for the Eastern District of Texas (the Court) alleging that defendants infringed on Fractus' patents on cellular base station antenna technologies. The Court has set the action for trial commencing on September 9, 2019. The Company believes that Fractus will not succeed on the merits of their claims and the Company intends to defend vigorously against them, and as such, the Company cannot reasonably estimate the amount of loss that could result from an unfavorable outcome in this matter. The outcome of this action is uncertain, but based on current information, the Company does not expect it to have a material adverse effect on its financial condition and results of operations.

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. During the first quarter of 2019, the Company assessed goodwill for impairment due to a change in reporting units in the Connectivity segment. As a result, the Company performed impairment testing for goodwill under the Connectivity segment reporting unit structure immediately before the change and determined that no impairment existed. The Company reallocated goodwill to the new reporting units and performed impairment testing for goodwill immediately after the change and determined no impairment existed.

Since the closing of the Acquisition on April 4, 2019, the ARRIS reporting units (CPE, N&C and Ruckus) have continued to experience challenges that have impacted the Company's performance. These challenges include declines in spending by cable operator customers that have resulted in recent declines in net sales and operating income for these reporting units and the loss of key leaders of these reporting units following the Acquisition. Certain of these challenges are expected to persist throughout the remainder of 2019 and will impact management's ability to grow these businesses at the rate that was originally estimated when the Acquisition was closed. Based on these factors, during the second quarter of 2019, the Company determined that indicators of possible goodwill impairment existed for the reporting units from the recently acquired ARRIS business. The Company performed goodwill impairment testing and determined that no impairment existed. There were no goodwill impairments identified during the three and six months ended June 30, 2019 or 2018.

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 carried at 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 and six months ended June 30, 2019 or 2018.

Income Taxes

For the three and six months ended June 30, 2019, the Company's effective tax rate was 10.1% and 9.6%, respectively, and the Company recognized a tax benefit of $37.5 million on a net loss of $371.5 million and a tax benefit of $35.9 million on a net loss of $372.2 million, respectively. The Company's tax benefit was unfavorably impacted by the impact of U.S. anti-deferral provisions and foreign withholding taxes but this impact was partially offset by the favorable impact of federal tax credits for the three and six months ended June 30, 2019. The impact of excess tax costs related to equity-based compensation awards was not material for the three or six months ended June 30, 2019.

The effective income tax rate of 36.0% and 33.2% for the three and six months ended June 30, 2018, respectively, was higher than the statutory rate of 21.0% primarily due to the effect of the provision for state income taxes, the impact of earnings in foreign jurisdictions that are taxed at rates higher than the U.S. statutory rate, the impact of U.S. anti-deferral provisions and the impact of repatriation taxes. These increases to the effective tax rate were partially offset by the favorable impact of $0.4 million and $4.7 million of excess tax benefits related to equity-based compensation awards for the three and six months ended June 30, 2018, 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 six months ended June 30, 2019, 12.2 million shares and 8.9 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 six months ended June 30, 2019, 2.2 million shares and 2.5 million shares, respectively, would have been considered dilutive if the Company had not been in a net loss position. For the three and six months ended June 30, 2018, 2.2 million and 1.7 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.

For the three and six months ended June 30, 2019, 34.8 million and 17.5 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.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Numerator:				
Net income (loss)	$ (334.0)	$ 65.9	$ (336.3)	$ 99.7
Dividends on Series A convertible preferred stock	(13.1)	—	(13.1)	—
Deemed dividends on Series A convertible preferred stock	(3.0)	—	(3.0)	—
Net income (loss) attributable to common stockholders	$ (350.1)	$ 65.9	$ (352.4)	$ 99.7
Denominator:				
Weighted average common shares outstanding - basic	193.6	192.2	193.2	191.8
Dilutive effect of as-if converted Series A convertible preferred stock	—	—	—	—
Dilutive effect of equity-based awards	—	3.0	—	3.5
Weighted average common shares outstanding - diluted	193.6	195.2	193.2	195.3
Earnings (loss) per share:				
Basic	$ (1.81)	$ 0.34	$ (1.82)	$ 0.52
Diluted	$ (1.81)	$ 0.34	$ (1.82)	$ 0.51

Recent Accounting Pronouncements

Adopted During the Six Months Ended June 30, 2019

On January 1, 2019, the Company adopted ASU No. 2016-02, *Leases*, and all subsequently issued clarifying guidance. Under the new guidance, lessees are required to recognize assets and lease liabilities for the rights and obligations created by leased assets previously classified as operating leases. In July 2018, the FASB issued ASU No. 2018-11, which permitted entities to record the impact of adoption using a modified retrospective method with any cumulative-effect as an adjustment to retained earnings (accumulated deficit) as opposed to restating comparative periods for the effects of applying the new standard. The Company elected this transition approach; therefore, the Company's prior period reported results are not restated to include the impact of this adoption. In addition, the Company elected the package of three transition practical expedients which alleviate the requirement to reassess embedded leases, lease classification and initial direct costs for leases commencing prior to the adoption date.

The adoption effect of the new guidance increased total assets and total liabilities in the Condensed Consolidated Balance Sheets by $98.8 million as of January 1, 2019 due to the addition of right-of-use assets and lease obligations for operating type leases, net of the elimination of existing prepaid rent, deferred rent and lease termination cost amounts. The adoption of the new standard did not materially affect the Condensed Consolidated Statements of Operations; and therefore, no cumulative effect adjustment was recorded. Adoption of the new standard also did not materially affect the Condensed Consolidated Statements of Cash Flows. See Note 5 for further discussion of the Company's leasing activities.

On January 1, 2019, the Company adopted ASU No. 2017-04, *Simplifying the Test of Goodwill Impairment*, which eliminates Step 2 from the goodwill impairment test. Under the new guidance, the Company will perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize a goodwill impairment charge for the excess of the reporting unit's carrying amount over its fair value, up to the amount of goodwill allocated to that reporting unit. Adoption of the new standard did not materially affect the Company's consolidated financial statements.

On January 1, 2019, the Company adopted ASU No. 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement (CCA) that is a Service Contract*. The new guidance aligns the accounting for costs incurred to implement a CCA that is a service arrangement with the guidance on capitalizing costs associated with developing or obtaining internal-use software. Adoption of the new standard did not materially impact the Company's consolidated financial statements.

Issued but Not Adopted

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*. The new guidance replaces the current incurred loss method used for determining credit losses on financial assets, including trade receivables, with an expected credit loss method. ASU No. 2016-13 is effective for the Company as of January 1, 2020 and early adoption is permitted. The Company plans to adopt this guidance as of January 1, 2020 and is evaluating the impact of the new guidance on the consolidated financial statements.

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. For the three and six months ended June 30, 2019, net sales of $1.4 billion and an operating loss of $0.4 billion were included in the Condensed Consolidated Statements of Operations related to the ARRIS business. For the three and six months ended June 30, 2019, the Company recorded $167.0 million and $187.7 million, respectively, of transaction and integration costs related to the Acquisition and these costs were recognized in SG&A in the Condensed Consolidated Statements of Operations.

The following amounts represent the preliminary determination of the fair value of identifiable assets acquired and liabilities assumed from the ARRIS acquisition. The final determination of the fair value of certain assets and liabilities will be completed within the one year measurement period from the date of acquisition as required by Accounting Standards Codification (ASC) Topic 805, *Business Combinations.* As of June 30, 2019, the valuation studies necessary to determine the fair market value of the assets acquired and liabilities assumed are preliminary, including the validation of the underlying cash flows used to determine the fair value of the identified intangible assets. The size and breadth of the ARRIS acquisition necessitates use of the one year measurement period to adequately analyze all the factors used in establishing the asset and liability fair values as of the acquisition date, including, but not limited to, intangible assets, inventory, real property, leases, deferred tax assets and liabilities, certain reserves and the related tax impacts of any adjustments. Any potential adjustments could be material in relation to the preliminary values presented below:

	Estimated Fair Value
Assets	
Cash and cash equivalents	$ 556.1
Accounts receivable	1,151.8
Inventory	1,063.4
Other current assets	131.0
Property, plant and equipment	328.2
Goodwill	2,894.6
Identifiable intangible assets	3,542.8
Other noncurrent assets	463.6
Less: Liabilities assumed	
Current liabilities	(1,505.9)
Debt	(2,052.0)
Other noncurrent liabilities	(959.3)
Net acquisition cost	$ 5,614.3

The fair value of net accounts receivable is $1,151.8 million with a gross contractual amount of $1,170.0 million. The Company expects $18.2 million to be uncollectible. Total consideration excludes $134.6 million related to the cash settlement of outstanding unvested ARRIS equity compensation awards. These cash settled equity awards were recorded as transaction costs during the three and six months ended June 30, 2019 and are included in SG&A in the Condensed Consolidated Statements of Operations.

In order to allocate the consideration transferred for ARRIS, the fair values of all identifiable assets and liabilities were established. For accounting and financial reporting purposes, fair value is defined under ASC Topic 820, *Fair Value Measurements and Disclosures* as the price that would be received upon sale of an asset or the amount paid to transfer a liability in an orderly transaction between market participants at the measurement date. Market participants are assumed to be buyers and sellers in the principal (most advantageous) market for the asset or liability. Additionally, fair value measurements for an asset assume the highest and best use of that asset by market participants. Use of different estimates and judgments could yield different results. In determining the fair value of identifiable assets acquired and liabilities assumed, a review was conducted for any significant contingent assets or liabilities existing as of the acquisition date.

The goodwill arising from the ARRIS acquisition is believed to result from the company's reputation in the marketplace and assembled workforce and is not expected to be deductible for income tax purposes.

Various valuation techniques were used to estimate the fair value of the assets acquired and the liabilities assumed which use significant unobservable inputs, or Level 3 inputs as defined by the fair value hierarchy. Using these valuation approaches requires the Company to make significant estimates and assumptions. The estimated fair values are expected to change as the Company completes its valuation analyses of the assets acquired and liabilities assumed.

The table below summarizes the preliminary valuations of the intangible assets acquired that were determined by management to meet the criteria for recognition apart from goodwill and determined to have finite lives. The values presented below are preliminary estimates and are subject to change as management completes its valuation of the ARRIS acquisition.

	Estimated Fair Value (in millions)	Weighted Average Estimated Useful Life (in years)
Customer contracts and relationships	$ 1,605.0	18
Trademarks	457.0	13
Patents and technologies	1,437.8	7
Backlog	43.0	0.5
Total amortizable intangible assets	$ 3,542.8	

The amounts related to ARRIS included in the following unaudited pro forma information are based on their historical results and, therefore, may not be indicative of the actual results when operated as part of CommScope. The pro forma adjustments represent management's best estimates based on information available at the time the pro forma information was prepared and may differ from the adjustments that may actually have been required. Accordingly, the unaudited pro forma financial information should not be relied upon as being indicative of the results that would have been realized had the acquisition of ARRIS occurred as of the date indicated or that may be achieved in the future.

The following table presents the unaudited pro forma consolidated results of operations for CommScope for the three and six months ended June 30, 2019 and 2018 as though the acquisition of ARRIS had been completed as of January 1, 2018 (in millions, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net sales	$ 2,610.6	$ 2,950.9	$ 5,088.3	$ 5,630.9
Net income (loss) attributable to common stockholders	(87.9)	(79.1)	(167.9)	(389.2)
Net income (loss) per diluted share	$ (0.45)	$ (0.41)	$ (0.87)	$ (2.03)

These unaudited pro forma results reflect adjustments for net interest expense for the debt related to the acquisition; depreciation expense for property, plant and equipment that has been marked up to its estimated fair value; amortization for intangible assets with finite lives identified separate from goodwill; equity-based compensation for equity awards issued to ARRIS employees; and the related income tax impacts of these adjustments.

The unaudited pro forma results for the three and six months ended June 30, 2019 were adjusted to exclude certain non-recurring transaction and integration costs, acquisition accounting adjustments related to the markup of inventory to its estimated fair value and deferred revenue, and the related income tax impacts. The unaudited pro forma results for the three and six months ended June 30, 2018 were adjusted to include the impact of these items. These adjustments in the aggregate on a pre-tax basis were $328.0 million and $345.6 million for the three and six months ended June 30, 2019, respectively and $(110.3) million and $(441.4) million for the three and six months ended June 30 ,2018, respectively.

3. GOODWILL

The following table presents goodwill by reportable segment:

	Connectivity	Mobility	CPE	N&C	Ruckus	Total
Goodwill, gross at December 31, 2018	$ 2,161.6	$ 901.7	$ —	$ —	$ —	$ 3,063.3
Preliminary acquisition allocation	—	—	377.6	2,114.7	402.3	2,894.6
Foreign exchange and other	10.1	1.3	0.8	—	—	12.2
Goodwill, gross at June 30, 2019	2,171.7	903.0	378.4	2,114.7	402.3	5,970.1
Accumulated impairment charges at December 31, 2018 and June 30, 2019	(51.5)	(159.5)	—	—	—	(211.0)
Goodwill, net at June 30, 2019	$ 2,120.2	$ 743.5	$ 378.4	$ 2,114.7	$ 402.3	$ 5,759.1

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 June 30,											
	Connectivity		Mobility		CPE		N&C		Ruckus		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Contract type:												
Product contracts	$ 668.8	$ 738.4	$509.2	$474.5	$885.2	$ —	$238.1	$ —	$133.4	$ —	$2,434.7	$1,212.9
Project contracts	—	0.1	11.8	13.5	—	—	16.7	—	—	—	28.5	13.6
Other contracts	2.1	2.0	8.4	11.4	3.8	—	75.8	—	13.4	—	103.5	13.4
Consolidated net sales	$ 670.9	$ 740.5	$529.4	$499.4	$889.0	$ —	$330.6	$ —	$146.8	$ —	$2,566.7	$1,239.9

	Six Months Ended June 30,											
	Connectivity		Mobility		CPE		N&C		Ruckus		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Contract type:												
Product contracts	$ 1,313.7	$1,410.0	$943.6	$899.8	$885.2	$ —	$238.1	$ —	$133.4	$ —	$3,514.0	$2,309.8
Project contracts	—	0.1	23.1	24.0	—	—	16.7	—	—	—	39.8	24.1
Other contracts	3.3	4.0	16.2	22.5	3.8	—	75.8	—	13.4	—	112.5	26.5
Consolidated net sales	$ 1,317.0	$1,414.1	$982.9	$946.3	$889.0	$ —	$330.6	$ —	$146.8	$ —	$3,666.3	$2,360.4

Further information on net sales by reportable segment and geographic region is included in Note 10.

Allowance for Doubtful Accounts

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Allowance for doubtful accounts, beginning of period	$ 19.5	$ 15.1	$ 17.4	$ 14.0
Charged to costs and expenses	4.6	5.1	7.0	6.5
Account write-offs and other	1.5	(1.1)	1.2	(1.4)
Allowance for doubtful accounts, end of period	$ 25.6	$ 19.1	$ 25.6	$ 19.1

Customer Contract Balances

The following table provides the balance sheet location and amounts of contract assets and liabilities from contracts with customers as of June 30, 2019 and December 31, 2018.

	Balance Sheet Location	June 30, 2019	December 31, 2018
Unbilled accounts receivable	Accounts receivable, less allowance for doubtful accounts	$ 38.1	$ 3.1
Deferred revenue	Accrued and other liabilities and Other noncurrent liabilities	115.8	7.6

There were no material changes to contract asset balances for the three or six months ended June 30, 2019 as a result of changes in estimates or impairments. As of June 30, 2019, the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied that have a duration of one year or less was $85.3 million, with the remaining $30.5 million having a duration greater than one year.

Contract Liabilities

The following table presents the changes in deferred revenue for the six months ended June 30, 2019:

	Six Months Ended June 30, 2019
Balance at beginning of period	$ 7.6
Fair value of deferred revenue acquired in ARRIS acquisition	90.1
Deferral of revenue	48.9
Recognition of unearned revenue	(30.8)
Balance at end of period	$ 115.8

5. LEASES

The Company has operating type leases for real estate, equipment and vehicles in both the U.S. and internationally. As of June 30, 2019, the Company had no finance type leases. The Company’s leases have remaining lease terms of up to 10 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 $25.5 million and $38.3 million for the three and six months ended June 30, 2019, respectively, inclusive of period cost for short-term, cancellable and variable leases, not included in lease liabilities, of $5.8 million and $9.4 million for the three and six months ended June 30, 2019, respectively.

The Company occasionally subleases all or a portion of certain unutilized real estate facilities. As of June 30, 2019, the Company’s sublease arrangements were classified as operating type leases and the income amounts were not material for the three or six months ended June 30, 2019.

Supplemental cash flow information related to operating leases:

	Six Months Ended June 30, 2019
Operating cash paid to settle lease liabilities	$ 20.0
Right of use asset additions in exchange for lease liabilities	11.4

Supplemental balance sheet information related to operating leases:

	Balance Sheet Location	June 30, 2019
Right of use assets	Other noncurrent assets	$ 245.4
Lease liabilities	Accrued and other liabilities	$ 63.1
Lease liabilities	Other noncurrent liabilities	191.7
Total lease liabilities		$ 254.8
Weighted average remaining lease term (in years)		4.6
Weighted average discount rate		6.4%

Future minimum lease payments under non-cancellable leases as of June 30, 2019:

	Operating Leases
Remainder of 2019	$ 39.8
2020	74.3
2021	64.3
2022	42.9
2023	32.4
Thereafter	47.6
Total minimum lease payments	$ 301.3
Less: imputed interest	(46.5)
Total	$ 254.8

6. SUPPLEMENTAL FINANCIAL STATEMENT INFORMATION

Inventories

	June 30, 2019	December 31, 2018
Raw materials	$ 256.9	$ 146.8
Work in process	129.5	98.8
Finished goods	1,017.7	227.7
	$ 1,404.1	$ 473.3

Accrued and Other Liabilities

	June 30, 2019	December 31, 2018
Compensation and employee benefit liabilities	$ 173.0	$ 94.3
Operating lease liabilities	63.1	—
Accrued interest	106.7	18.5
Deferred revenue	85.3	7.6
Accrued royalties	59.7	1.2
Product warranty accrual	42.4	15.6
Restructuring reserve	35.7	29.9
Income taxes payable	43.8	7.7
Value-added taxes payable	32.9	12.4
Accrued professional fees	25.0	19.3
Other	187.3	84.9
	$ 854.9	$ 291.4

Accumulated Other Comprehensive Loss

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Foreign currency translation				
Balance at beginning of period	$ (150.3)	$ (6.0)	$ (140.5)	$ (52.7)
Other comprehensive income (loss)	8.5	(108.5)	(1.6)	(61.8)
Amounts reclassified from AOCL	1.4	—	1.7	—
Balance at end of period	$ (140.4)	$ (114.5)	$ (140.4)	$ (114.5)
Hedging instruments				
Balance at beginning of period	$ (2.9)	$ (5.6)	$ (1.4)	$ (5.0)
Other comprehensive income (loss)	(10.4)	3.1	(11.9)	2.5
Balance at end of period	$ (13.3)	$ (2.5)	$ (13.3)	$ (2.5)
Defined benefit plan activity				
Balance at beginning of period	$ (17.3)	$ (30.3)	$ (17.3)	$ (28.9)
Amounts reclassified from AOCL	(0.1)	(1.3)	(0.1)	(2.7)
Balance at end of period	$ (17.4)	$ (31.6)	$ (17.4)	$ (31.6)
Net AOCL at end of period	$ (171.1)	$ (148.6)	$ (171.1)	$ (148.6)

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

	Six Months Ended June 30,	
	2019	2018
Cash paid during the period for:		
Income taxes, net of refunds	$ 50.5	$ 63.9
Interest	157.1	120.3

7. FINANCING

	June 30, 2019	December 31, 2018
5.00% senior notes due March 2027	$ 750.0	$ 750.0
8.25% senior notes due March 2027	1,000.0	—
6.00% senior notes due June 2025	1,500.0	1,500.0
5.50% senior notes due June 2024	650.0	650.0
5.00% senior notes due June 2021	650.0	650.0
6.00% senior secured notes due March 2026	1,500.0	—
5.50% senior secured notes due March 2024	1,250.0	—
Senior secured term loan due April 2026	3,200.0	—
Senior secured term loan due December 2022	—	486.3
Senior secured revolving credit facility	—	—
Total principal amount of debt	$ 10,500.0	$ 4,036.3
Less: Original issue discount, net of amortization	(31.1)	(1.5)
Less: Debt issuance costs, net of amortization	(142.4)	(48.9)
Less: Current portion	(24.0)	—
Total long-term debt	$ 10,302.5	$ 3,985.9

See Note 6 in the Notes to Consolidated Financial Statements in the 2018 Annual Report for additional information on the terms and conditions of the 5.00% senior notes due 2027, the 6.00% senior notes due 2025, the 5.50% senior notes due 2024, the 5.00% senior notes due 2021 (collectively, the Existing Notes) and the senior secured term loan due 2022 (the 2022 Term Loan).

New Notes

In connection with the Acquisition, in February 2019, CommScope Finance LLC, a wholly owned subsidiary of the Company and an unrestricted subsidiary as defined in the indentures governing the Existing Notes and the credit agreements governing the Company’s then-existing senior secured credit facilities, issued $1.0 billion of 8.25% senior notes due 2027 (the New Unsecured Notes), $1.5 billion of 6.00% senior secured notes due 2026 (the 2026 Secured Notes) and $1.25 billion of 5.50% senior secured notes due 2024 (the 2024 Secured Notes and, together with the New Unsecured Notes and the 2026 Secured Notes, the New Notes). The proceeds from the issuance of the New Notes were held in escrow until the closing of the Acquisition on April 4, 2019 and were then used to fund the Acquisition, which also included the repayment of ARRIS’ outstanding debt of $2.1 billion under its senior secured credit facilities. Concurrent with the closing of the Acquisition, CommScope Finance LLC merged with and into CommScope, Inc., with CommScope, Inc. continuing as the surviving entity, upon which CommScope, Inc. became the issuer of the New Notes by operation of law.

The indentures governing the New Notes contain covenants that restrict the ability of CommScope, Inc. and its restricted subsidiaries to, among other things, incur additional debt, make certain payments, including payment of dividends (except with respect to the Convertible Preferred Stock) or repurchases of equity interests of CommScope, Inc., make loans or acquisitions or capital contributions and certain investments, incur certain liens, sell assets, merge or consolidate or liquidate other entities and enter into certain transactions with affiliates.

There are no financial maintenance covenants in the indentures governing the New Notes. Events of default under the indentures governing the New Notes include, among others, non-payment of principal or interest when due, covenant defaults, bankruptcy and insolvency events and cross acceleration to material debt.

8.25% Senior Notes due 2027

The New Unsecured Notes mature on March 1, 2027. Interest is payable on the New Unsecured Notes semi-annually in arrears on March 1 and September 1 of each year, beginning on September 1, 2019. The New Unsecured 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 New Unsecured 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), including the senior secured credit facilities, the 2026 Secured Notes, the 2024 Secured Notes and the Existing Notes. The New Unsecured Notes and the related guarantees are effectively junior to all of CommScope, Inc.'s and the guarantors' existing and future secured debt, including the 2026 Secured Notes and 2024 Secured Notes (discussed below) and the senior secured credit facilities, to the extent of the value of the assets securing such secured debt. In addition, the New Unsecured 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 New Unsecured Notes.

The New Unsecured Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the New Unsecured Notes may be redeemed at the option of the holders at 101% of their face amount, plus accrued and unpaid interest. The New Unsecured Notes may be redeemed by CommScope, Inc. on or after March 1, 2022 at the redemption prices specified in the indenture governing the New Unsecured Notes. Prior to March 1, 2022, the New Unsecured 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 New Unsecured Notes), plus accrued and unpaid interest. Prior to March 1, 2022, under certain circumstances, CommScope, Inc. may also redeem up to 40% of the aggregate principal amount of the New Unsecured Notes at a redemption price of 108.25%, plus accrued and unpaid interest, using the proceeds of certain equity offerings.

In connection with issuing the New Unsecured Notes, the Company incurred costs of $17.3 million during the six months ended June 30, 2019, which were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the New Unsecured Notes.

6.00% Senior Secured Notes due 2026

The 2026 Secured Notes mature on March 1, 2026. Interest is payable on the 2026 Secured Notes semi-annually in arrears on March 1 and September 1 of each year, beginning on September 1, 2019. The 2026 Secured Notes are guaranteed on a senior secured basis by the Company and 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 2026 Secured Notes and the related guarantees are secured on a first-priority basis by security interests in all of the assets that secure indebtedness under the senior secured term loan due 2026 (the 2026 Term Loan) on a first-priority basis, and on a second-priority basis in all assets that secure the new asset-based revolving credit facility on a first-priority basis and the 2026 Term Loan on a second-priority basis. The 2026 Secured 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), including the senior secured credit facilities, the New Unsecured Notes, the 2024 Secured Notes and the Existing Notes. The 2026 Secured Notes and the related guarantees are effectively senior to all of CommScope, Inc.'s and the guarantors' unsecured indebtedness and debt secured by a lien junior to the liens securing the 2026 Secured Notes, in each case to the extent of the value of the collateral, and effectively equal to all of CommScope, Inc.'s and the guarantors' senior indebtedness secured on the same priority basis as the 2026 Secured Notes, including the 2026 Term Loan and the 2024 Secured Notes. The 2026 Secured Notes and the related guarantees are effectively subordinated to any of CommScope, Inc.'s or the guarantors' indebtedness that is secured by assets that do not constitute collateral and effectively subordinated to any of CommScope, Inc.'s or the guarantors' indebtedness that is secured by a senior-priority lien, including under the new asset-based revolving credit facility, in each case to the extent of the value of the assets securing such indebtedness. In addition, the 2026 Secured 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 2026 Secured Notes.

The 2026 Secured Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the 2026 Secured Notes may be redeemed at the option of the holders at 101% of their face amount, plus accrued and unpaid interest. The 2026 Secured Notes may be redeemed by CommScope, Inc. on or after March 1, 2022 at the redemption prices specified in the indenture governing the 2026 Secured Notes. Prior to March 1, 2022, the 2026 Secured 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 2026 Secured Notes), plus accrued and unpaid interest. Prior to March 1, 2022, under certain circumstances, CommScope, Inc. may also redeem up to 40% of the aggregate principal amount of the 2026 Secured Notes at a redemption price of 106.00%, plus accrued and unpaid interest, using the proceeds of certain equity offerings.

In connection with issuing the 2026 Secured Notes, the Company incurred costs of $22.0 million during the six months ended June 30, 2019, which were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the 2026 Secured Notes.

5.50% Senior Secured Notes due 2024

The 2024 Secured Notes mature on March 1, 2024. Interest is payable on the 2024 Secured Notes semi-annually in arrears on March 1 and September 1 of each year, beginning on September 1, 2019. The 2024 Secured Notes are guaranteed on a senior secured basis by the Company and 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 debt, subject to certain exceptions. The 2024 Secured Notes and the related guarantees are secured on a first-priority basis by security interests in all of the assets that secure indebtedness under the 2026 Term Loan on a first-priority basis, and on a second-priority basis in all assets that secure the new asset-based revolving credit facility on a first-priority basis and the 2026 Term Loan on a second-priority basis. The 2024 Secured 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), including the senior secured credit facilities, the New Unsecured Notes, the 2026 Secured Notes and the Existing Notes. The 2024 Secured Notes and the related guarantees are effectively senior to all of CommScope, Inc.'s and the guarantors' unsecured indebtedness and debt secured by a lien junior to the liens securing the 2024 Secured Notes, in each case to the extent of the value of the collateral, and effectively equal to all of CommScope, Inc.'s and the guarantors' senior indebtedness secured on the same priority basis as the 2024 Secured Notes, including the 2026 Term Loan and the 2026 Secured Notes. The 2024 Secured Notes and the related guarantees are effectively subordinated to any of CommScope, Inc.'s or the guarantors' indebtedness that is secured by assets that do not constitute collateral and effectively subordinated to any of CommScope, Inc.'s or the guarantors' indebtedness that is secured by a senior-priority lien, including under the new asset-based revolving credit facility, in each case to the extent of the value of the assets securing such indebtedness. In addition, the 2024 Secured 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 2024 Secured Notes.

The 2024 Secured Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the 2024 Secured Notes may be redeemed at the option of the holders at 101% of their face amount, plus accrued and unpaid interest. The 2024 Secured Notes may be redeemed on or after March 1, 2022 by CommScope, Inc. at the redemption prices specified in the indenture governing the 2024 Secured Notes. Prior to March 1, 2021, the 2024 Secured 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 2024 Secured Notes), plus accrued and unpaid interest. Prior to March 1, 2021, under certain circumstances, CommScope, Inc. may also redeem up to 40% of the aggregate principal amount of the 2024 Secured Notes at a redemption price of 105.50%, plus accrued and unpaid interest, using the proceeds of certain equity offerings.

In connection with issuing the 2024 Secured Notes, the Company incurred costs of $18.4 million during the six months ended June 30, 2019, which were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the 2024 Secured Notes.

Senior Secured Credit Facilities

Senior Secured Term Loan Due 2026

In connection with the Acquisition, on April 4, 2019, CommScope, Inc. borrowed $3.2 billion, less $32.0 million of original issue discount, under a new senior secured term loan due 2026 (the 2026 Term Loan). The Company used a portion of the proceeds from the 2026 Term Loan to pay off the remaining $261.3 million on the 2022 Term Loan and the rest of the proceeds were used to finance the Acquisition. During the three months ended March 31, 2019, the Company repaid $225.0 million of the 2022 Term Loan. In connection with the repayments of the 2022 Term Loan, $4.1 million and $7.7 million of original issue discount and debt issuance costs were written off and included in interest expense for the three and six months ended June 30, 2019, respectively. The Company incurred costs of $43.8 million and $50.0 million during the three and six months ended June 30, 2019, respectively, related to the 2026 Term Loan that were recorded as a reduction of the carrying amount of the debt after closing of the Acquisition and will be amortized over the term of the 2026 Term Loan. The Company also incurred ticking fees related to the 2026 Term Loan of $12.3 million during the six months ended June 30, 2019 that were included in interest expense.

The 2026 Term Loan has scheduled amortization payments of $32.0 million per year due in equal quarterly installments, beginning with the quarter ending December 31, 2019, with the balance due at maturity (April 2026). The current portion of long-term debt reflects $24.0 million of repayments due under the 2026 Term Loan. The interest rate is, at the Company's option, either (1) the base rate (which is the highest of (w) the greater of the then-current federal funds rate set by the Federal Reserve Bank of New York and the overnight federal funds rate, in each case, plus 0.5%, (x) the prime rate on such day, (y) the one-month Eurodollar rate published on such date plus 1.00% and (z) 1.00% per annum) plus an applicable margin of 2.25% or (2) one-, two-, three- or six-month LIBOR or, if available from all lenders, 12-month LIBOR or any shorter period (selected at the option of CommScope, Inc.) plus an applicable margin of 3.25%. The 2026 Term Loan is subject to a LIBOR floor of 0.00%.

Subject to certain conditions, the 2026 Term Loan may be increased or a new incremental term loan facility may be added to increase the capacity by up to the sum of the greater of $950.0 million and 50% of Consolidated EBITDA, as defined in the credit agreement governing the 2026 Term Loan (the Credit Agreement), plus an unlimited amount as long as on a pro forma basis the Company meets certain net leverage ratios or fixed charge ratios as defined in the Credit Agreement.

CommScope, Inc. may voluntarily prepay loans under the 2026 Term Loan, subject to minimum amounts, with prior notice but without premium or penalty (other than a 1.00% premium on any prepayment in connection with a repricing transaction prior to October 4, 2019). CommScope, Inc. must prepay the 2026 Term Loan with the net cash proceeds of certain asset sales, the incurrence or issuance of specified refinancing indebtedness and, commencing with the fiscal year ending in December 2020, 50% of excess cash flow (such percentage subject to reduction based on the achievement of specified Consolidated First Lien Net Leverage Ratios), in each case, subject to certain reinvestment rights and other exceptions.

CommScope, Inc.'s obligations under the 2026 Term Loan are guaranteed by the Company and each of CommScope, Inc.'s direct and indirect wholly owned U.S. subsidiaries (subject to certain permitted exceptions based on immateriality thresholds of aggregate assets and revenues of excluded U.S. subsidiaries). The 2026 Term Loan is secured by a lien on substantially all of CommScope, Inc.'s and the guarantors' current and fixed assets (subject to certain exceptions), and the 2026 Term Loan will have a first-priority lien on all fixed assets and a second-priority lien on all current assets (second in priority to the liens securing the new asset-based revolving credit facility), in each case, subject to other permitted liens.

The 2026 Term Loan contains customary negative covenants consistent with those applicable to the New Notes, including, but not limited to, restrictions on the ability of CommScope, Inc. and its subsidiaries to merge and consolidate with other companies, incur indebtedness, grant liens or security interests on assets, pay dividends (except with respect to the Convertible Preferred Stock) or make other restricted payments, sell or otherwise transfer assets or enter into certain transactions with affiliates.

The 2026 Term Loan provides that, upon the occurrence of certain events of default, the obligations thereunder may be accelerated. Such events of default will include payment defaults, material inaccuracies of representations and warranties, covenant defaults, cross-defaults to other material indebtedness, voluntary and involuntary bankruptcy proceedings, material money judgments, material pension-plan events, change of control and other customary events of default.

Senior Secured Revolving Credit Facility

On April 4, 2019, the Company replaced its asset-based revolving credit facility with a new asset-based revolving credit facility in an amount of up to $1.0 billion, subject to borrowing capacity, with a maturity in April 2024, available to CommScope, Inc. and its U.S. subsidiaries designated as co-borrowers (the Revolving Borrowers). The ability to draw under the new asset-based revolving credit facility or issue letters of credit is conditioned upon, among other things, delivery of prior written notice of a borrowing or issuance, as applicable, the ability of the borrowers to reaffirm the representations and warranties contained in the new asset-based revolving credit facility and the absence of any default or event of default. In connection with the new asset-based revolving credit facility, the Company incurred costs of approximately $13.2 million in the three and six months ended June 30, 2019 which were recorded in other noncurrent assets and are being amortized over the term of the credit facility. The Company borrowed and repaid $15.0 million under the new asset-based revolving credit facility during the three and six months ended June 30, 2019. As of June 30, 2019, the Company had no outstanding borrowings under the new asset-based revolving credit facility and had availability of $971.9 million, after giving effect to borrowing base limitations and outstanding letters of credit.

Letters of credit under the new asset-based revolving credit facility are limited to the lesser of (x) $250.0 million and (y) the aggregate unused amount of commitments under the new asset-based revolving credit facility then in effect. Subject to certain conditions, the new asset-based revolving credit facility may be expanded by up to $400.0 million in additional commitments. Loans under the new asset-based revolving credit facility may be denominated, at the option of the Revolving Borrowers, in U.S. dollars, euros, pounds sterling or Swiss francs.

Borrowings under the new asset-based revolving credit facility are limited by borrowing base calculations based on the sum of specified percentages of eligible accounts receivable and inventory, minus the amount of any applicable reserves. Borrowings will bear interest at a floating rate, which can be either an adjusted Eurodollar rate plus an applicable margin of 1.25% to 1.50% or, at the option of the Revolving Borrowers, a base rate plus an applicable margin of 0.25% to 0.50%.

The obligations of the Revolving Borrowers under the new asset-based revolving credit facility are guaranteed by the Company, CommScope, Inc. and each of CommScope, Inc.'s direct and indirect wholly owned U.S. subsidiaries (subject to certain permitted exceptions based on immateriality thresholds of aggregate assets and revenues of excluded U.S. subsidiaries). The new asset-based revolving credit facility is secured by a lien on substantially all of the Revolving Borrowers' and the guarantors' current and fixed assets (subject to certain exceptions). The new asset-based revolving credit facility has a first-priority lien on all current assets and a second-priority lien on all fixed assets (second in priority to the liens securing the 2024 Secured Notes, the 2026 Secured Notes and the 2026 Term Loan), in each case, subject to other permitted liens.

The following fees are applicable under the new asset-based revolving credit facility: (i) an unused line fee of (x) 0.25% per annum of the unused portion of the new asset-based revolving credit facility when the average unused portion of the facility is less than 50% of the aggregate commitments under the new asset-based revolving credit facility or (y) 0.375% per annum of the unused portion of the new asset-based revolving credit facility when the average unused portion of the facility is equal to or greater than 50% of the aggregate commitments under the new asset-based revolving credit facility; (ii) a letter of credit participation fee on the aggregate stated amount of each letter of credit equal to the applicable margin for adjusted Eurodollar rate loans, as applicable; (iii) a letter of credit fronting fee of 0.125% per annum, multiplied by the average aggregate daily maximum amount available to be drawn under all applicable letters of credit issued by such letter of credit issuer; and (iv) certain other customary fees and expenses of the lenders and agents thereunder.

The Revolving Borrowers will be required to make prepayments under the new asset-based revolving credit facility at any time when, and to the extent that, the aggregate amount of the outstanding loans and letters of credit under the new asset-based revolving credit facility exceeds the lesser of the aggregate amount of commitments in respect of the new asset-based revolving credit facility and the borrowing base.

The new asset-based revolving credit facility contains customary covenants, including, but not limited to, restrictions on the ability of CommScope, Inc. and its subsidiaries to merge and consolidate with other companies, incur indebtedness, grant liens or security interests on assets, make acquisitions, loans, advances or investments, pay dividends (except with respect to the Convertible Preferred Stock), sell or otherwise transfer assets, optionally prepay or modify terms of any junior indebtedness, enter into certain transactions with affiliates or change lines of business. The new asset-based revolving credit facility contains a Covenant Fixed Charge Coverage Ratio (as defined in the credit agreement governing the facility) of 1.00 to 1.00. The credit agreement provides that, in the event excess availability under the facility is less than the greater of $80 million and 10% of the borrowing base as of the end of any fiscal quarter, the Covenant Fixed Charge Coverage Ratio for that fiscal quarter must be tested and must exceed the level set forth above. As of June 30, 2019, the Company's excess availability and Covenant Fixed Charge Coverage Ratio were in excess of the asset-based revolving credit facility's requirements.

The new asset-based revolving credit facility provides that, upon the occurrence of certain events of default, the obligations thereunder may be accelerated and the lending commitments terminated. Such events of default include payment defaults, material inaccuracies of representations and warranties, covenant defaults, cross-defaults to other material indebtedness, voluntary and involuntary bankruptcy proceedings, material money judgments, material pension-plan events, certain change of control events and other customary events of default.

Other Matters

The following table summarizes scheduled maturities of long-term debt as of June 30, 2019:

	Remainder of 2019	2020	2021	2022	2023	Thereafter
Scheduled maturities of long-term debt	$ 8.0	$ 32.0	$ 682.0	$ 32.0	$ 32.0	$ 9,714.0

The Company's non-guarantor subsidiaries held $3,212 million, or 20%, of total assets and $527 million, or 4%, of total liabilities as of June 30, 2019 and accounted for $956 million, or 37%, and $1,371 million, or 37%, of net sales for the three and six months ended June 30, 2019, respectively. As of December 31, 2018, the non-guarantor subsidiaries held $2,354 million, or 36%, of total assets and $454 million, or 9%, of total liabilities. For the three and six months ended June 30, 2018, the non-guarantor subsidiaries accounted for $471 million, or 38%, and $935 million, or 40%, of net sales, respectively. All amounts presented exclude intercompany balances.

The weighted average effective interest rate on outstanding borrowings, including the amortization of debt issuance costs and original issue discount, was 6.26% and 5.73% at June 30, 2019 and December 31, 2018, respectively.

8. DERIVATIVES AND HEDGING ACTIVITIES

Derivatives Not Designated As Hedging Instruments

The Company uses forward contracts to hedge a portion of its balance sheet foreign exchange re-measurement risk and to hedge certain planned foreign currency expenditures. As of June 30, 2019, the Company had foreign currency contracts outstanding with maturities of up to eleven months and aggregate notional values of $545 million (based on exchange rates as of June 30, 2019). Unrealized gains and losses resulting from these contracts are recognized in other income (expense), net and partially offset corresponding foreign exchange gains and losses on the balances and expenditures being hedged. These instruments are not held for speculative or trading purposes, are not designated as hedges for hedge accounting purposes and are marked to market each period through earnings.

The following table presents the balance sheet location and fair value of the Company's derivatives not designated as hedging instruments:

	Balance Sheet Location	Fair Value of Asset (Liability) June 30, 2019	Fair Value of Asset (Liability) December 31, 2018
Foreign currency contracts	Prepaid expenses and other current assets	$ 2.8	$ 1.7
Foreign currency contracts	Accrued and other liabilities	(4.0)	(3.0)
Total derivatives not designated as hedging instruments		$ (1.2)	$ (1.3)

The pretax impact of these foreign currency contracts, both matured and outstanding, on the Condensed Consolidated Statements of Operations is as follows:

Foreign Currency Forward Contracts	Location of Loss	Loss Recognized
Three Months Ended June 30, 2019	Other income (expense), net	$ (1.8)
Three Months Ended June 30, 2018	Other income (expense), net	$ (19.4)
Six Months Ended June 30, 2019	Other income (expense), net	$ (5.1)
Six Months Ended June 30, 2018	Other income (expense), net	$ (7.6)

Derivative Instruments Designated As Net Investment Hedges

The Company has a hedging strategy to designate certain foreign currency contracts as net investment hedges to mitigate a portion of the foreign currency risk on the euro net investment in a foreign subsidiary. As of June 30, 2019, the Company held designated foreign currency contracts with outstanding maturities of up to twenty-four months and an aggregate notional value of $320.0 million.

Hedge effectiveness is assessed each quarter based on the net investment in the foreign subsidiary designated as the hedged item and the changes in the fair value of designated foreign currency contracts based on spot rates. For hedges that meet the effectiveness requirements, changes in fair value are recorded as a component of other comprehensive income (loss), net of tax. Amounts excluded from hedge effectiveness at inception under the spot method for designated forward contracts are recognized on a straight-line basis over the life of each contract and for designated cross-currency swap contracts are recognized as interest accrues. For the three and six months ended June 30, 2019, the Company recognized $0.6 million and $1.2 million, respectively, of pre-tax income in interest expense as a result of amounts excluded from hedge effectiveness under the spot method. As of June 30, 2019, there was no ineffectiveness on the instruments designated as net investment hedges.

The following table presents the balance sheet location and fair value of the derivative instruments designated as net investment hedges:

	Balance Sheet Location	Fair Value of Asset (Liability) June 30, 2019	Fair Value of Asset (Liability) December 31, 2018
Foreign currency contracts	Prepaid expenses and other current assets	$ 0.9	$ 0.8
Foreign currency contracts	Other noncurrent assets	0.6	—
Total derivatives designated as net investment hedging instruments		$ 1.5	$ 0.8

The impact of the effective portion of foreign currency contracts designated as net investment hedging instruments, both matured and outstanding, on the Condensed Consolidated Statements of Comprehensive Income (Loss) is as follows:

Foreign Currency Forward Contracts	Location of Gain (Loss)	Effective Portion of Gain (Loss) Recognized
Three Months Ended June 30, 2019	Other comprehensive loss, net of tax	$ (1.7)
Three Months Ended June 30, 2018	Other comprehensive loss, net of tax	$ 3.1
Six Months Ended June 30, 2019	Other comprehensive loss, net of tax	$ 1.0
Six Months Ended June 30, 2018	Other comprehensive loss, net of tax	$ 2.5

Derivative Instruments Designated As Cash Flow Hedges of Interest Rate Risk

The Company has implemented a hedging strategy to mitigate a portion of the exposure to changes in cash flows resulting from variable interest rates on the 2026 Term Loan which are based on the one-month LIBOR benchmark rate (see Note 7). During the first quarter of 2019, the Company entered into and designated pay-fixed, receive-variable interest rate swap derivatives as cash flow hedges of interest rate risk which effectively fixed the interest rate on a portion the variable-rate debt. Total notional amount of the interest rate swap derivatives as of June 30, 2019 was $600 million with outstanding maturities up to fifty-seven months. There were no derivate instruments designated as cash flow hedges of interest rate risk during the year ended December 31, 2018.

Hedge effectiveness is assessed each quarter, and for hedges that meet the effectiveness requirements, changes in fair value are recorded as a component of other comprehensive income (loss), net of tax, and will be reclassified to interest expense as interest payments are made on the Company's variable rate debt. As of June 30, 2019, there was no ineffectiveness on the instruments designated as cash flow hedges.

The following table presents the balance sheet location and fair value of the derivative instruments designated as cash flow hedges of interest rate risk:

		Fair Value of Asset (Liability)	
	Balance Sheet Location	June 30, 2019	December 31, 2018
Interest rate swap contracts	Other noncurrent liabilities	$ (16.7)	$ —
Total derivatives designated as cash flow hedges of interest rate risk		$ (16.7)	$ —

The impact of the effective portion of the interest rate swap contracts designated as cash flow hedging instruments on the Condensed Consolidated Statements of Comprehensive Income (Loss) is as follows:

Interest Rate Derivatives	Location of Gain (Loss)	Effective Portion of Gain (Loss) Recognized
Three Months Ended June 30, 2019	Other comprehensive loss, net of tax	$ (8.4)
Six Months Ended June 30, 2019	Other comprehensive loss, net of tax	$ (12.5)

9. 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 June 30, 2019 and December 31, 2018 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 June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019		December 31, 2018		
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	Valuation Inputs
Assets:					
Foreign currency contracts	$ 4.3	$ 4.3	$ 2.5	$ 2.5	Level 2
Liabilities:					
5.00% senior notes due 2027	$ 750.0	$ 652.5	$ 750.0	$ 608.0	Level 2
8.25% senior notes due 2027	1,000.0	1,018.6	—	—	Level 2
6.00% senior notes due 2025	1,500.0	1,400.9	1,500.0	1,355.6	Level 2
5.50% senior notes due 2024	650.0	620.1	650.0	591.8	Level 2
5.00% senior notes due 2021	650.0	649.2	650.0	641.9	Level 2
6.00% senior secured notes due 2026	1,500.0	1,537.5	—	—	Level 2
5.50% senior secured notes due 2024	1,250.0	1,282.8	—	—	Level 2
Senior secured term loan due 2026	3,200.0	3,194.0	—	—	Level 2
Senior secured term loan due 2022	—	—	486.3	461.9	Level 2
Foreign currency contracts	4.0	4.0	3.0	3.0	Level 2
Interest rate swap contracts	16.7	16.7	—	—	Level 2

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.

10. SEGMENTS AND GEOGRAPHIC INFORMATION

Following the Acquisition, the Company has the following five reportable segments, which align with the manner in which the business is managed: Connectivity Solutions (Connectivity), Mobility Solutions (Mobility), Customer Premises Equipment (CPE), Network & Cloud (N&C) and Ruckus Networks (Ruckus). Management intends to re-evaluate reportable segments once the integration of ARRIS is substantially complete.

The Connectivity segment provides innovative fiber optic and copper cable and connectivity solutions for use in data centers and business enterprise, telecommunications, cable television and residential broadband networks. The Connectivity portfolio includes network solutions for indoor and outdoor network applications. Indoor network solutions are found in commercial buildings and data centers, while outdoor network solutions are found in both local-area and wide-area networks, central offices and headends, and "last-mile" fiber-to-the-x (FTTX) installations.

The Mobility segment provides the integral building blocks for cellular base station sites and related connectivity, while focusing on all aspects of the radio access network (RAN) from the macro through the metro to the indoor layer. Macro cell solutions can be found at wireless tower sites and on rooftops. Metro cell solutions can be found on street poles and on other urban, outdoor structures and include radio frequency (RF) delivery and connectivity solutions, equipment housing and concealment. Distributed antenna systems and small cell indoor solutions allow wireless operators to increase spectral efficiency and thereby extend and enhance cellular coverage and capacity in challenging network conditions.

The CPE 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 (DSL) 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 (DVRs), high definition set top boxes and hybrid set top devices.

The N&C segment's product solutions include cable modem termination system, video infrastructure, distribution and transmission equipment and cloud solutions that enable facility-based service providers to construct a state-of-the-art residential and metro distribution network. The portfolio also includes a full suite of global services that offer technical support, professional services and system integration to enable solutions sales of the Company's end-to-end product portfolio.

The Ruckus segment provides converged wired (LAN) and wireless (WLAN, IoT) networks for enterprises and service providers. Product offerings include indoor and outdoor Wi-Fi and LTE access points, access, aggregation and core switches; on-premises and cloud-based control and management systems; and software and software-as-a-service (SaaS) applications addressing security, location, reporting and analytics.

The following table provides summary financial information by reportable segment:

	June 30, 2019	December 31, 2018
Identifiable segment-related assets:		
Connectivity	$ 4,385.2	$ 4,258.1
Mobility	2,139.9	1,871.3
CPE	2,946.8	—
N&C	4,949.9	—
Ruckus	1,097.3	—
Total identifiable segment-related assets	15,519.1	6,129.4
Reconciliation to total assets:		
Cash and cash equivalents	348.0	458.2
Deferred income tax assets	69.6	42.9
Total assets	$ 15,936.7	$ 6,630.5

In the first quarter of 2019, the Company changed its measure of segment performance from adjusted operating income to 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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net sales:				
Connectivity	$ 670.9	$ 740.5	$ 1,317.0	$ 1,414.1
Mobility	529.4	499.4	982.9	946.3
CPE	889.0	—	889.0	—
N&C	330.6	—	330.6	—
Ruckus	146.8	—	146.8	—
Consolidated net sales	$ 2,566.7	$ 1,239.9	$ 3,666.3	$ 2,360.4
Segment adjusted EBITDA:				
Connectivity	$ 142.2	$ 157.2	$ 249.9	$ 279.8
Mobility	140.4	113.9	241.2	199.4
CPE	62.1	—	62.1	—
N&C	45.0	—	45.0	—
Ruckus	5.9	—	5.9	—
Total segment adjusted EBITDA	395.6	271.1	604.1	479.2
Amortization of intangible assets	(164.1)	(66.4)	(223.5)	(133.7)
Restructuring costs, net	(46.4)	(7.2)	(58.8)	(12.7)
Equity-based compensation	(23.1)	(11.9)	(30.7)	(22.4)
Transaction and integration costs	(167.0)	(1.0)	(187.7)	(2.5)
Depreciation	(40.1)	(19.9)	(57.8)	(39.5)
Purchase accounting adjustments	(164.1)	—	(164.1)	—
Consolidated operating income (loss)	$ (209.2)	$ 164.7	$ (118.5)	$ 268.4
Depreciation expense:				
Connectivity	$ 12.5	$ 14.2	$ 24.7	$ 28.3
Mobility	5.7	5.7	11.2	11.2
CPE	9.5	—	9.5	—
N&C	9.2	—	9.2	—
Ruckus	3.2	—	3.2	—
Consolidated depreciation expense	$ 40.1	$ 19.9	$ 57.8	$ 39.5
Additions to property, plant and equipment:				
Connectivity	$ 11.9	$ 12.6	$ 26.5	$ 21.4
Mobility	5.3	4.6	12.1	9.4
CPE	2.4	—	2.4	—
N&C	6.7	—	6.7	—
Ruckus	0.3	—	0.3	—
Consolidated additions to property, plant and equipment	$ 26.6	$ 17.2	$ 48.0	$ 30.8

Sales to customers located outside of the U.S. comprised 41.5% and 41.6% of total net sales for the three and six months ended June 30, 2019, respectively, compared to 42.4% and 44.0% of total net sales for the three and six months ended June 30, 2018, respectively. Sales by geographic region, based on the destination of product shipments, were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
United States	$ 1,500.7	$ 714.6	$ 2,139.9	$ 1,322.1
Europe, Middle East and Africa	471.3	253.4	701.2	503.1
Asia Pacific	267.4	183.2	414.6	371.8
Caribbean and Latin America	225.4	61.6	288.9	117.7
Canada	101.9	27.1	121.7	45.7
Consolidated net sales	$ 2,566.7	$ 1,239.9	$ 3,666.3	$ 2,360.4

11. 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 composed of employee-related costs, fixed asset related costs and lease related costs. Employee-related costs include the expected severance costs and related benefits as well as one-time severance benefits that are accrued over the remaining period employees are required to work in order to receive such benefits. Fixed asset related costs include non-cash impairments or fixed asset disposals associated with restructuring actions in addition to the cash costs to uninstall, pack, ship and reinstall manufacturing equipment and the costs to prepare the receiving facility to accommodate relocated equipment. Fixed asset related costs are expensed as incurred. Cash paid is net of proceeds received from the sale of related assets. Effective January 1, 2019, with the adoption of ASU No. 2016-02, *Leases*, lease exit obligations related to unused leased facilities are reported as part of lease liabilities. Lease related costs include non-cash impairments of lease assets related to restructuring actions in addition to any one-time cash termination costs.

As a result of restructuring and consolidation actions, the Company owns unutilized real estate at various facilities in the U.S. and internationally. The Company is attempting to sell or lease this unutilized space. Additional impairment charges may be incurred related to these or other excess assets.

The Company’s net pre-tax restructuring charges, by segment, were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Connectivity	$ 3.3	$ 4.7	$ 10.6	$ 7.1
Mobility	2.6	2.5	7.7	5.6
CPE	15.1	—	15.1	—
N&C	21.5	—	21.5	—
Ruckus	3.9	—	3.9	—
Total	$ 46.4	$ 7.2	$ 58.8	$ 12.7

Restructuring reserves were included in the Company’s Condensed Consolidated Balance Sheets as follows:

	June 30, 2019	December 31, 2018
Accrued and other liabilities	$ 35.7	$ 29.9
Other noncurrent liabilities	5.0	5.2
Total liability	$ 40.7	$ 35.1

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 activity within the liability established for the BNS integration restructuring actions was as follows:

	Employee-Related Costs	Lease Termination Costs	Fixed Asset Related Costs	Total
Balance at March 31, 2019	$ 11.7	$ —	$ —	$ 11.7
Additional charge recorded	(0.2)	0.1	(0.3)	(0.4)
Cash paid	(4.1)	(0.1)	—	(4.2)
Foreign exchange and other non-cash items	—	—	0.3	0.3
Balance at June 30, 2019	$ 7.4	$ —	$ —	$ 7.4
Balance at December 31, 2018	$ 29.2	$ 0.3	$ —	$ 29.5
Additional charge recorded	(0.2)	0.1	0.2	0.1
Cash paid	(21.6)	(0.1)	(0.2)	(21.9)
Foreign exchange and other non-cash items	—	(0.3)	—	(0.3)
Balance at June 30, 2019	$ 7.4	$ —	$ —	$ 7.4

The BNS integration actions include 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 $151.3 million since the BNS acquisition for integration actions. No additional restructuring actions or charges are expected in connection with the BNS integration initiatives. The Company expects to make cash payments of $5.6 million during the remainder of 2019 and additional cash payments of $1.8 million between 2020 and 2022.

ARRIS Integration Restructuring Actions

In anticipation of and following the ARRIS 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	Lease Termination Costs	Total
Balance at March 31, 2019	$ 4.0	$ —	$ 4.0
Obligation assumed in ARRIS acquisition	2.3	—	2.3
Additional charge recorded	46.4	0.4	46.8
Cash paid	(19.4)	(0.4)	(19.8)
Balance at June 30, 2019	$ 33.3	$ —	$ 33.3
Balance at December 31, 2018	$ —	$ —	$ —
Obligation assumed in ARRIS acquisition	2.3	—	2.3
Additional charge recorded	58.5	0.4	58.9
Cash paid	(27.5)	(0.4)	(27.9)
Balance at June 30, 2019	$ 33.3	$ —	$ 33.3

The ARRIS integration actions include headcount reductions in sales, engineering, marketing and administrative functions. The Company expects to make cash payments of $21.9 million during the remainder of 2019 and additional cash payments of $11.4 million between 2020 and 2022 to settle the announced ARRIS integration initiatives. 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.

12. 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 Partners VII S1 Holdings, L.P. (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 Investment Agreement). In connection with the issuance of the Convertible Preferred Stock, the Company incurred direct and incremental expenses of $3.0 million, including financial advisory fees, closing costs, legal expenses and other offering-related expenses on behalf of Carlyle, and therefore treated these incremental expenses as a deemed dividend during the three and six months ended June 30, 2019.

The Convertible Preferred Stock ranks senior to the shares of the Company's common stock, with respect to dividend rights and rights on the distribution of assets on any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company. The Convertible Preferred Stock has a liquidation preference of $1,000 per share. Holders of the Convertible Preferred Stock are entitled to a cumulative dividend at the rate of 5.5% per year, payable quarterly in arrears. If CommScope does not declare and pay a dividend, the dividend rate will increase by 2.5% to 8.0% per year (and that rate will increase by an additional 0.50% every three months until such unpaid dividend is declared and paid, subject to a cap of 11.0% per year) until all accrued but unpaid dividends have been paid in full. Dividends can be paid in cash, in-kind through the issuance of additional shares of Convertible Preferred Stock or any combination of the two, at the Company's option. During the three months ended June 30, 2019, the Company authorized and declared the $13.1 million in dividends due for the Convertible Preferred Stock for the dividend payment date in the second quarter of 2019 to be payable in cash, and the dividends were reflected as a dividend payable as of June 30, 2019 in accrued and other liabilities in the Condensed Consolidated Balances Sheets. The dividends were paid on July 1, 2019, the first business day following the initial dividend payment date, pursuant to the terms of the Certificate of Designations.

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. At any time after the third anniversary of the issuance of the Convertible Preferred Stock, if the volume weighted average price of CommScope's common stock exceeds the conversion price of $49.50, as may be adjusted pursuant to the Certificate of Designations, for at least thirty trading days in any period of forty-five consecutive trading days (including the final five trading days of any such forty-five-trading day period) all of the Convertible Preferred Stock may be converted at the election of CommScope into the relevant number of shares of CommScope common stock. Pending shareholder approval, to the extent required under Nasdaq listing rules, the issuance of shares of CommScope common stock upon conversion of the Convertible Preferred Stock and the 2,100,000 shares of common stock issuable by CommScope from capacity assumed under the existing share plans of ARRIS in connection with the Acquisition is capped at 19.9% of the CommScope common stock outstanding immediately prior to the Acquisition. On any date during the three months following the eight year and six-month anniversary of the Investment Agreement closing date and the three months following each anniversary thereafter, holders of the Convertible Preferred Stock will have the right to require CommScope to redeem all or any portion of the Convertible Preferred Stock at 100% of the liquidation preference thereof plus all accrued and unpaid dividends. The redemption price is payable, at the Company's option, in cash or a combination of cash and common stock, subject to certain restrictions.

Upon certain change of control events involving CommScope, CommScope has the right, subject to the holder's right to convert prior to such redemption, to redeem all of the Convertible Preferred Stock for the greater of (i) an amount in cash equal to the sum of the liquidation preference of the Convertible Preferred Stock, all accrued but unpaid dividends and, if the applicable redemption date is prior to the fifth anniversary of the first dividend payment date, the present value, discounted at a rate of 10%, of any remaining scheduled dividends through the five year anniversary of the first dividend payment date, assuming CommScope chose to pay such dividends in cash and (ii) the consideration the holders would have received if they had converted their shares of Convertible Preferred Stock into CommScope common stock immediately prior to the change of control event. To the extent that CommScope does not exercise the redemption right described in the foregoing sentence, following the effective date of any such change of control event, the holders of Convertible Preferred Stock can require CommScope to repurchase the Convertible Preferred Stock at the greater of (i) an amount in cash equal to 100% of the liquidation preference thereof plus all accrued but unpaid dividends and (ii) the consideration the holders would have received if they had converted their shares of Convertible Preferred Stock into CommScope common stock immediately prior to the change of control event.

Holders of the Convertible Preferred Stock are entitled to vote with the holders of the Company's common stock on an as-converted basis. Holders of the Convertible Preferred Stock are entitled to a separate class vote with respect to, among other things, amendments to CommScope's organizational documents that have an adverse effect on the Convertible Preferred Stock, issuances by CommScope of securities that are senior to, or equal in priority with, the Convertible Preferred Stock and issuances of shares of the Convertible Preferred Stock after the closing date of the Acquisition, other than shares issued as dividends with respect to shares of the Convertible Preferred Stock.

13. STOCKHOLDERS' EQUITY

Equity-Based Compensation Plans

Effective June 21, 2019, the Company's stockholders approved the 2019 Long-Term Incentive Plan (the 2019 Plan) authorizing 8.0 million shares for issuance, plus additional shares underlying awards outstanding under the predecessor plans that are forfeited or cancelled after the effective date of the 2019 Plan. Awards under the 2019 Plan may include stock options, stock appreciation rights, restricted stock, stock units (including restricted stock units (RSUs) and deferred stock units), performance awards (represents any of the awards already listed with a performance-vesting component), other stock-based awards and cash-based awards. Shares remaining available for grant under the predecessor plans were carried over into the 2019 Plan and all future equity awards will be made from the 2019 Plan. Awards granted prior to June 21, 2019 remain subject to the provisions of the predecessor plans.

As of June 30, 2019, $175.0 million of unrecognized compensation costs related to unvested stock options, restricted stock units (RSUs) and performance share units (PSUs) are expected to be recognized over a remaining weighted average period of 2.1 years. There were no significant capitalized equity-based compensation costs at June 30, 2019.

The following table shows the location of equity-based compensation expense on the statement of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Selling, general and administrative	$ 15.0	$ 9.0	$ 20.9	$ 17.1
Cost of sales	3.1	1.6	4.0	2.8
Research and development	5.0	1.3	5.8	2.5
Total equity-based compensation expense	$ 23.1	$ 11.9	$ 30.7	$ 22.4

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. In prior years, these awards have generally vested over three years following the grant date and have a contractual term of ten years.

On May 15, 2019, the Company granted 7.2 million stock options that vest over five years with a contractual term of ten years. The awards also contain an accelerated vesting term for a qualifying retirement during the period. Half of these awards vest based on a time-based component and the other half vest based on a performance-based component which is defined for each year but also includes a catchup feature over the five years. The number of shares that is expected to be issued is adjusted based on the probable achievement of the performance target. The final number of shares issued and the related compensation will be based on the final performance metrics.

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 March 31, 2019	4.2	$ 16.10		
Granted	7.2	18.60		
Exercised	(0.2)	8.13		
Options outstanding at June 30, 2019	11.2	$ 17.76	7.7	$ 23.8
Options outstanding at December 31, 2018	4.7	$ 15.51		
Granted	7.2	$ 18.60		
Exercised	(0.5)	$ 5.27		
Expired	(0.1)	$ 31.02		
Forfeited	(0.1)	$ 38.21		
Options outstanding at June 30, 2019	11.2	$ 17.76	7.7	$ 23.8
Options vested at June 30, 2019	3.6	$ 13.79	3.1	$ 23.8
Options unvested at June 30, 2019	7.6	$ 19.62	9.8	$ —

The exercise prices of outstanding options at June 30, 2019 were in the following ranges (in millions, except per share data and years):

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	**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	1.6	$ 5.74	2.1	$ 5.74
$5.75 to $22.99	7.6	9.5	$ 18.13	0.4	$ 8.61
$23.00 to $42.32	1.5	7.2	$ 33.10	1.1	$ 31.25
$2.96 to $42.32	11.2	7.7	$ 17.76	3.6	$ 13.79

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.

The following table presents the weighted average assumptions used to estimate the fair value of stock option awards granted during the three and six months ended June 30, 2019 and 2018.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Expected option term (in years)	6.3	6.0	6.3	6.0
Risk-free interest rate	2.2%	2.6%	2.2%	2.7%
Expected volatility	40.0%	35.0%	40.0%	35.0%
Weighted average exercise price	$ 18.60	$ 39.46	$ 18.60	$ 38.42
Weighted average fair value at grant date	$ 8.06	$ 15.19	$ 8.06	$ 14.86

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.

On April 4, 2019, the Company granted 3.6 million RSUs to ARRIS employees to replace a portion of their outstanding awards under ARRIS equity-compensation plans as of the Acquisition date. These awards assumed the same terms and vesting schedule as the ARRIS RSUs they replaced. In general, these awards are time-vesting over a four-year period, but they contain several provisions that are not in the standard CommScope awards, including restrictive covenants and special age-based provisions for some participants. These awards also contain a provision that accelerates vesting in the event of termination of employment without cause (and for executives, resignation for good reason) within one year following the closing of the Acquisition.

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 RSUs at March 31, 2019	2.3	$ 29.27
Granted	3.8	$ 23.40
Vested and shares issued	(0.3)	$ 25.02
Forfeited	(0.2)	$ 26.59
Non-vested RSUs at June 30, 2019	5.6	$ 26.16
Non-vested RSUs at December 31, 2018	2.0	$ 35.43
Granted	5.1	$ 23.41
Vested and shares issued	(1.2)	$ 31.33
Forfeited	(0.3)	$ 30.48
Non-vested RSUs at June 30, 2019	5.6	$ 26.16

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 PSUs at March 31, 2019	0.1	$ 38.23
Granted	—	$ —
Vested and shares issued	—	$ —
Non-vested PSUs at June 30, 2019	0.1	$ 38.23
Non-vested PSUs at December 31, 2018	0.3	$ 33.52
Granted	—	$ —
Vested and shares issued	(0.2)	$ 25.10
Non-vested PSUs at June 30, 2019	0.1	$ 38.23

14. SUBSEQUENT EVENTS

On July 26, 2019, the Company informed holders of its 5.00% senior notes due 2021 (the 2021 Notes) that it will redeem $100.0 million of the outstanding 2021 Notes on August 7, 2019. On August 7, 2019, the Company informed holders of the 2021 Notes that it will redeem another $100.0 million on August 17, 2019. Both redemptions will include the accrued and unpaid interest up to the dates of redemption. Following the redemptions, $450.0 million of the 2021 Notes will remain 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 six months ended June 30, 2019 compared to the three and six months ended June 30, 2018. 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 2018 Annual Report on Form 10-K.

We discuss certain financial measures in management's discussion and analysis of financial condition and results of operations, including Adjusted Operating Income and 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 combined company is expected to drive profitable growth in new markets, shape the future of wired and wireless communications, and be in a position to benefit from key industry trends, including network convergence, fiber and mobility everywhere, 5G, Internet of Things (IoT) and rapidly changing network and technology architectures. The operations of ARRIS are included in our consolidated operating results for the three and six months ended June 30, 2019 from the date of the acquisition, April 4, 2019. Following the acquisition of ARRIS, we operated and managed CommScope in the following reportable segments: Connectivity Solutions (Connectivity), Mobility Solutions (Mobility), Customer Premises Equipment (CPE), Network & Cloud (N&C) and Ruckus Networks (Ruckus). We are re-evaluating our reportable segments as a result of the on-going integration of the ARRIS acquisition. Prior to the Acquisition, we operated and reported based on two operating segments: Connectivity and Mobility.

To fund the Acquisition, in February 2019, we issued $1.25 billion of 5.50% senior secured notes due 2024 (the 2024 Secured Notes), $1.5 billion of 6.00% senior secured notes due 2026 (the 2026 Secured Notes) and $1.0 billion of 8.25% senior unsecured notes due 2027 (the New Unsecured Notes and, together with the 2024 Secured Notes and the 2026 Secured Notes, the New Notes), the proceeds from which were released from escrow on the date of the Acquisition. As of the date of the Acquisition, we borrowed $3.2 billion under a new senior secured term loan due 2026 (the 2026 Term Loan) with an interest rate of LIBOR plus 3.25% and entered into a new asset-based revolving credit facility with availability of $971.9 million as of June 30, 2019, reflecting a borrowing base of $1.0 billion reduced by $28.1 million of letters of credit under the facility. Also as of April 4, 2019, we issued $1.0 billion in Series A Convertible Preferred Stock (the Convertible Preferred Stock) to Carlyle Partners VII S1 Holdings, L.P. (Carlyle). During the three and six months ended June 30, 2019, we recognized $167.0 million and $187.7 million, respectively, of transaction and integration costs primarily related to the Acquisition. We will continue to incur transaction and integration costs and such costs are expected to be material. In addition, we expect to incur restructuring costs to integrate ARRIS and those costs may be material.

CRITICAL ACCOUNTING POLICIES

Interim Impairment Review of Goodwill

We test goodwill for impairment at the reporting unit level on an interim basis when events occur or circumstances exist that indicate the carrying value may no longer be recoverable. The goodwill impairment test consists of the comparison of the carrying value of a reporting unit to its estimated fair value. We estimate the fair value of a reporting unit using a discounted cash flow (DCF) valuation model. The significant assumptions in the DCF model primarily include, but are not limited to, forecasts of annual revenue growth rates, annual operating income margin 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. The assumptions used in the DCF model are subject to significant judgment and uncertainty. 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 technology or other factors could negatively affect the fair value in one or more of our reporting units and result in an impairment charge in the future.

Since the closing of our acquisition of ARRIS at the beginning of the second quarter of 2019, the ARRIS reporting units (CPE, N&C and Ruckus) have continued to experience challenges that have impacted our performance. The challenges include declines in spending by our cable operator customers that have resulted in recent declines in revenue and operating income for these reporting units and the loss of key leaders of these reporting units following the Acquisition. Certain of these challenges are expected to persist throughout the remainder of 2019 and will impact management's ability to grow these businesses at the rate that was originally estimated when we completed the acquisition of ARRIS. Based on these factors, management determined that indicators of possible goodwill impairment existed for the reporting units from the recently acquired ARRIS business, and a goodwill impairment test was performed for these reporting units using a DCF valuation model. As a result, management developed a revised forecast for 2019 and updated the annual financial forecasts for the years beyond 2019 that take into account these challenges. The projections assume a recovery of spending by these customers that begins in 2020. The extent and timing of this recovery are key assumptions in the determination of the fair value of the reporting units.

Though we believe the financial projections used in the DCF valuation model are reasonable and achievable, these reporting units may continue to face challenges that may affect our ability to grow these businesses at the rate we estimated in our revised projections that were used to perform the goodwill impairment test. If we do not achieve our forecast, it is reasonably possible in the near term that the goodwill of the ARRIS reporting units could be deemed to be impaired. We considered the sensitivity to changes in key assumptions for each of the recently acquired ARRIS reporting units. The following table provides a summary of the excess or deficit of the estimated fair value over the carrying value of the reporting unit as of the interim test date and the effect of a change in certain key assumptions, assuming all other assumptions remain constant. A deficit implies an impairment of that reporting unit's goodwill.

		Excess (Deficit) of Fair Value to Carrying Value				
Reporting Unit	Goodwill Balance at June 30, 2019	Actual Interim Test Valuation	Decrease of 0.5% in Annual Revenue Growth Rate	Decrease of 0.5% in Annual Operating Income Margin	Decrease of 0.5% in Long-term Growth Rate	Increase of 0.5% in Discount Rate
CPE	$ 378.4	$ 63.4	$ (16.0)	$ (87.8)	$ 15.7	$ (24.8)
N&C	2,114.7	49.4	(158.7)	(53.8)	(114.9)	(196.5)
Ruckus	402.3	41.4	(74.0)	(1.8)	(14.6)	(27.0)

Other Updates

During the second quarter of 2019, we made an accounting principle change to reclassify certain internal handling costs from selling, general and administrative (SG&A) expense to cost of sales. We also enhanced our revenue recognition policy as a result of the Acquisition. Effective January 1, 2019, we adopted Accounting Standards Update (ASU) No. 2016-02, *Leases*, which changed our policy related to leases. Other than the changes to our internal handling costs policy, the enhancements to our revenue recognition policy and changes to our leases policy, there have been no material changes in our critical accounting policies or significant accounting estimates as disclosed in our 2018 Annual Report on Form 10-K. See the discussion in Note 1 in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Form 10-Q for further information regarding our change in accounting principle related to certain internal handling costs, our enhancements of our revenue recognition policy and the impact of our adoption of ASU No. 2016-02 on our policy related to leases.

COMPARISON OF RESULTS OF OPERATIONS FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2019 WITH THE THREE AND SIX MONTHS ENDED JUNE 30, 2018

	Three Months Ended June 30,					
	2019		2018			
	Amount	% of Net Sales	Amount	% of Net Sales	$ Change	% Change
	(dollars in millions, except per share amounts)					
Net sales	$ 2,566.7	100.0%	$ 1,239.9	100.0%	$ 1,326.8	107.0%
Gross profit	660.0	25.7	457.2	36.9	202.8	44.4
Operating income (loss)	(209.2)	(8.2)	164.7	13.3	(373.9)	(227.1)
Non-GAAP adjusted operating income (1)	355.5	13.9	251.1	20.3	104.4	41.6
Non-GAAP adjusted EBITDA (1)	395.6	15.4	271.1	21.9	124.5	45.9
Net income (loss)	(334.0)	(13.0)%	65.9	5.3%	(399.9)	(606.8)
Diluted earnings (loss) per share	$ (1.81)		$ 0.34		$ (2.15)	(632.4)%

	Six Months Ended June 30,					
	2019		2018			
	Amount	% of Net Sales	Amount	% of Net Sales	$ Change	% Change
	(dollars in millions, except per share amounts)					
Net sales	$ 3,666.3	100.0%	$ 2,360.4	100.0%	$ 1,305.9	55.3%
Gross profit	1,058.1	28.9	855.0	36.2	203.1	23.8
Operating income (loss)	(118.5)	(3.2)	268.4	11.4	(386.9)	(144.2)
Non-GAAP adjusted operating income (1)	546.2	14.9	439.7	18.6	106.5	24.2
Non-GAAP adjusted EBITDA (1)	604.0	16.5	479.2	20.3	124.8	26.0
Net income (loss)	(336.3)	(9.2)%	99.7	4.2%	(436.0)	(437.3)
Diluted earnings (loss) per share	$ (1.82)		$ 0.51		$ (2.33)	(456.9)%

(1) See “Reconciliation of Non-GAAP Measures.”

Net sales

	Three Months Ended June 30,		$ Change	% Change	Six Months Ended June 30,		$ Change	% Change
	2019	2018			2019	2018		
Net sales	$2,566.7	$1,239.9	$1,326.8	107.0%	$ 3,666.3	$ 2,360.4	$ 1,305.9	55.3%
Domestic	1,565.7	714.6	851.1	119.1	2,204.9	1,322.1	882.8	66.8
International	1,001.0	525.3	475.7	90.6	1,461.4	1,038.3	423.1	40.7

Net sales for the three and six months ended June 30, 2019 included ARRIS net sales of $1.4 billion. Excluding the ARRIS business, CommScope’s net sales were lower for the three and six months ended June 30, 2019 compared to the same prior year periods primarily due to pricing pressure and unfavorable impacts of foreign exchange rate changes of approximately 1% and 2%, respectively. From a regional perspective, we saw lower net sales in the Asia Pacific (APAC) region and the Europe, Middle East and Africa (EMEA) region. These decreases were partially offset by higher net sales in the United States (U.S.). The decrease in the APAC region was driven by projects in 2018 that did not recur in 2019. The decrease in the EMEA region was driven by unfavorable impacts of foreign exchange rate changes and lower sales of our enterprise solutions. The increase in the U.S. was driven mainly by the continued build out of next generation 4G networks that support commercial and public safety markets but was partially offset by reductions in certain selling prices.

Net sales to customers located outside of the U.S. comprised 41.5% and 41.6% of total net sales for the three and six months ended June 30, 2019, respectively, compared to 42.4% and 44.0% for the three and six months ended June 30, 2018, 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 June 30,		$	%	Six Months Ended June 30,		$	%
	2019	2018	Change	Change	2019	2018	Change	Change
Gross profit	$ 660.0	$ 457.2	$202.8	44.4%	$1,058.1	$ 855.0	$203.1	23.8%
As a percent of sales	25.7%	36.9%			28.9%	36.2%		
SG&A expense	480.9	171.1	309.8	181.1	666.3	342.6	323.7	94.5
As a percent of sales	18.7%	13.8%			18.2%	14.5%		
R&D expense	177.8	47.8	130.0	272.0	228.0	97.6	130.4	133.6
As a percent of sales	6.9%	3.9%			6.2%	4.1%		

Gross profit (net sales less cost of sales)

Gross profit for the three and six months ended June 30, 2019 was negatively affected by ARRIS acquisition accounting adjustments of $164.1 million, primarily related to the markup of inventory to its estimated fair value less the estimated costs associated with its sale. Excluding this additional cost, for the three and six months ended June 30, 2019, gross profit for CommScope was $824.2 million and $1.2 billion, respectively, and gross profit as a percent of sales was 32.1% and 33.3%, respectively. Excluding the ARRIS business as a whole, for the three and six months ended June 30, 2019, CommScope's gross profit was $453.7 million and $851.7 million, respectively, and gross profit as a percentage of sales was 37.8% and 37.0%, respectively. Despite lower net sales, for both the three and six months ended June 30, 2019, gross profit for the legacy CommScope business was essentially unchanged and gross profit as a percentage of sales increased due to lower material costs and favorable product mix.

The Connectivity segment experienced lower gross profit for the three and six months ended June 30, 2019 compared to prior year periods primarily as a result of lower volumes, reductions in certain selling prices and unfavorable impacts of foreign exchange rate changes offset partially by favorable mix. Gross profit in the Mobility segment was higher for the three and six months ended June 30, 2019 compared to prior year periods as a result of higher net sales due to higher volumes offset partially by reductions in certain selling prices, lower material costs and favorable impacts of foreign exchange rate changes on costs.

As discussed in Note 1 in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Form 10-Q, we changed our accounting principle to reclassify certain internal handling costs from selling, general and administrative (SG&A) expense to cost of sales. The impact of this change increased cost of sales and decreased gross profit by $14.2 million and $27.7 million for the three and six months ended June 30, 2018, respectively. All comparisons presented in this management's discussion and analysis have been adjusted to reflect the impact of this change in accounting principle.

Selling, general and administrative expense

SG&A expense for the three and six months ended June 30, 2019 increased compared to the prior year periods primarily due to transaction and integration costs of $167.0 million and $187.7 million, respectively, and the inclusion of ARRIS SG&A expense (excluding transaction and integration costs) of $160.1 million. Excluding transaction and integration costs, SG&A expense as a percentage of sales was 12.2% and 13.1% for the three and six months ended June 30, 2019, respectively. Excluding transaction and integration costs as well as ARRIS SG&A expense, SG&A expense decreased $16.3 million and $21.5 million for the three and six months ended June 30, 2019, respectively, compared to the prior year periods primarily due to lower incentive compensation and cost savings initiatives.

Research and development expense

Research and development (R&D) expense increased for the three and six months ended June 30, 2019 compared to the prior year periods due to the addition of ARRIS R&D of $131.6 million. Excluding ARRIS, R&D expense for CommScope was relatively unchanged. 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 and Restructuring costs, net

	Three Months Ended June 30,		$	Six Months Ended June 30,		$
	2019	2018	Change	2019	2018	Change
Amortization of purchased intangible assets	$ 164.1	$ 66.4	$ 97.7	$ 223.5	$ 133.7	$ 89.8
Restructuring costs, net	46.4	7.2	39.2	58.8	12.7	46.1

Amortization of purchased intangible assets

The amortization of purchased intangible assets was higher in the three and six months ended June 30, 2019 compared to the prior year periods primarily due to the additional amortization resulting from the Acquisition. Excluding ARRIS, amortization related to CommScope was lower by $8.4 million and $16.4 million for the three and six months ended June 30, 2019, respectively, compared to the prior year periods because certain of our intangible assets became fully amortized.

Restructuring costs, net

The restructuring costs recorded in the three and six months ended June 30, 2019 were primarily related to integrating the ARRIS business. The restructuring costs recognized in the prior year periods were primarily related to the integration of the BNS business.

No additional restructuring charges are expected to be incurred to complete the previously announced BNS integration initiatives. Additional restructuring actions related to the acquisition of ARRIS are expected to be identified and the resulting charges and cash requirements are expected to be material. From a cash perspective, we paid $24.0 million and $49.8 million to settle restructuring liabilities during the three and six months ended June 30, 2019, respectively, and expect to pay an additional $27.5 million by the end of 2019 related to restructuring actions that have been initiated. In addition, we expect to pay $13.2 million between 2020 and 2022 related to restructuring actions that have been initiated.

Other income (expense), net

	Three Months Ended June 30,		$	Six Months Ended June 30,		$
	2019	2018	Change	2019	2018	Change
Foreign currency gain (loss)	0.1	(6.4)	6.5	(5.6)	(8.7)	3.1
Other income, net	0.6	3.2	(2.6)	0.7	6.6	(5.9)

Foreign currency gain (loss)

Foreign currency gain (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.

Other income, net

The change in other income, net for the three and six months ended June 30, 2019 compared to the prior year periods was primarily due to non-service related net periodic benefit income of $2.3 million and $4.6 million for the three and six months ended June 30, 2018. Non-service net periodic benefit cost was not material for the three and six months ended June 30, 2019.

Interest expense, Interest income and Income taxes

	Three Months Ended June 30,		$	Six Months Ended June 30,		$
	2019	2018	Change	2019	2018	Change
Interest expense	$ (165.3)	$ (60.7)	$ (104.6)	$ (262.8)	$ (120.5)	$ (142.3)
Interest income	2.3	2.1	0.2	14.1	3.5	10.6
Income tax (expense) benefit	37.5	(37.0)	74.5	35.9	(49.6)	85.5

Interest expense and interest income

Interest expense for the three and six months ended June 30, 2019 increased compared to the prior year periods due to the financing of the Acquisition. In February 2019, we issued the New Notes, which were held in escrow until the acquisition date, April 4, 2019. In February 2019, we also secured the borrowing of $3.2 billion, less $32.0 million of original issue discount, under the 2026 Term Loan which was funded on April 4, 2019 as well. We began accruing interest on the New Notes and ticking fees related to the 2026 Term Loan in February 2019. We incurred $107.8 million and $150.5 million of incremental interest expense during the three and six months ended June 30, 2019, respectively, as a result of this acquisition-related debt.

We used the proceeds from the New Notes and a portion of the 2026 Term Loan, together with cash on hand and proceeds from the issuance of the Convertible Preferred Stock to finance the acquisition of ARRIS. The remaining proceeds from the 2026 Term Loan were used to pay off the existing senior secured term loan due 2022 (the 2022 Term Loan). We also made a voluntary payment on the 2022 Term Loan in the first quarter of 2019. In connection with the repayment of the 2022 Term Loan, $4.1 million and $7.7 million of original issue discount and debt issuance costs were written off and included in interest expense in the three and six months ended June 30, 2019, respectively.

Our weighted average effective interest rate on outstanding borrowings, including the amortization of debt issuance costs and original issue discount, was 6.26% at June 30, 2019, 5.73% at December 31, 2018 and 5.58% at June 30, 2018.

Interest income increased during the six months ended June 30, 2019 due to $10.9 million of interest earned on the proceeds of the New Notes that were held in an interest-bearing escrow account until the Acquisition date.

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 June 30, 2019 was $600 million with outstanding maturities of up to fifty-seven months.

Income tax expense

For the three and six months ended June 30, 2019, our effective tax rate was 10.1% and 9.6%, respectively, and we recognized a tax benefit of $37.5 million on a net loss of $371.5 million and a tax benefit of $35.9 million on a net loss of $372.2 million, respectively. Our tax benefit was unfavorably impacted by the impact of U.S. anti-deferral provisions and foreign withholding taxes but this impact was partially offset by the favorable impact of federal tax credits for the three and six months ended June 30, 2019. The impact of excess tax costs related to equity-based compensation awards was not material for the three or six months ended June 30, 2019.

The effective income tax rate of 36.0% and 33.2% for the three and six months ended June 30, 2018, respectively, was higher than the statutory rate of 21.0% primarily due to the effect of the provision for state income taxes, the impact of earnings in foreign jurisdictions that are taxed at rates higher than the U.S., the impact of the U.S. anti-deferral provisions and the impact of repatriation taxes. These increases to the effective tax rate were partially offset by the favorable impact of $0.4 million and $4.7 million of excess tax benefits related to equity-based compensation awards for the three and six months ended June 30, 2018.

Segment Results

	Three Months Ended June 30,					
	2019		2018			
	Amount	% of Net Sales	Amount	% of Net Sales	$ Change	% Change
	(dollars in millions)					
Net sales by segment:						
Connectivity	$ 670.9	26.1 %	$ 740.5	59.7 %	$ (69.6)	(9.4) %
Mobility	529.4	20.6	499.4	40.3	30.0	6.0
CPE	889.0	34.6	—	—	889.0	NM
N&C	330.6	12.9	—	—	330.6	NM
Ruckus	146.8	5.7	—	—	146.8	NM
Consolidated net sales	$ 2,566.7	100.0 %	$ 1,239.9	100.0 %	$ 1,326.8	107.0 %
Operating income (loss) by segment:						
Connectivity	$ 60.5	9.0 %	$ 85.4	11.5 %	$ (24.9)	(29.2) %
Mobility	98.5	18.6	79.3	15.9	19.2	24.2
CPE	(25.0)	(2.8)	—	NM	(25.0)	NM
N&C	(229.6)	(69.4)	—	NM	(229.6)	NM
Ruckus	(113.6)	(77.4)	—	NM	(113.6)	NM
Consolidated operating income (loss)	$ (209.2)	(8.2) %	$ 164.7	13.3 %	$ (373.9)	(227.0) %
Non-GAAP adjusted operating income by segment: (1)						
Connectivity	$ 129.7	19.3 %	$ 142.9	19.3	$ (13.2)	(9.2) %
Mobility	134.8	25.5	108.2	21.7	26.6	24.6
CPE	52.5	5.9	—	NM	52.5	NM
N&C	35.8	10.8	—	NM	35.8	NM
Ruckus	2.7	1.8	—	NM	2.7	NM
Non-GAAP consolidated adjusted operating income (1)	$ 355.5	13.9 %	$ 251.1	20.3	$ 104.4	41.6 %
Non-GAAP adjusted EBITDA by segment: (1)						
Connectivity	$ 142.2	21.2 %	$ 157.2	21.2 %	$ (15.0)	(9.5) %
Mobility	140.4	26.5	113.9	22.8	26.5	23.3
CPE	62.1	7.0	—	NM	62.1	NM
N&C	45.0	13.6	—	NM	45.0	NM
Ruckus	5.9	4.0	—	NM	5.9	NM
Non-GAAP consolidated adjusted EBITDA (1)	$ 395.6	15.4 %	$ 271.1	21.9 %	$ 124.5	45.9 %

	Six Months Ended June 30,					
	2019		2018			
	Amount	% of Net Sales	Amount	% of Net Sales	$ Change	% Change
	(dollars in millions)					
Net sales by segment:						
Connectivity	$ 1,317.0	35.9 %	$ 1,414.1	59.9 %	$ (97.1)	(6.9) %
Mobility	982.9	26.8	946.3	40.1	36.6	3.9
CPE	889.0	24.2	—	—	889.0	NM
N&C	330.6	9.0	—	—	330.6	NM
Ruckus	146.8	4.0	—	—	146.8	NM
Consolidated net sales	$ 3,666.3	100.0 %	$ 2,360.4	100.0 %	$ 1,305.9	55.3 %
Operating income (loss) by segment:						
Connectivity	$ 90.5	6.9 %	$ 138.5	9.8 %	$ (48.0)	(34.7) %
Mobility	159.2	16.2	129.9	13.7	29.3	22.6
CPE	(25.0)	(2.8)	—	NM	(25.0)	NM
N&C	(229.6)	(69.4)	—	NM	(229.6)	NM
Ruckus	(113.6)	(77.4)	—	NM	(113.6)	NM
Consolidated operating income (loss)	$ (118.5)	(3.2) %	$ 268.4	11.4 %	$ (386.9)	(144.2) %
Non-GAAP adjusted operating income by segment: (1)						
Connectivity	$ 225.2	17.1 %	$ 251.6	17.8 %	$ (26.4)	(10.5) %
Mobility	230.0	23.4	188.1	19.9	41.9	22.3
CPE	52.5	5.9	—	NM	52.5	NM
N&C	35.8	10.8	—	NM	35.8	NM
Ruckus	2.7	1.8	—	NM	2.7	NM
Non-GAAP consolidated adjusted operating income (1)	$ 546.2	14.9 %	$ 439.7	18.6 %	$ 106.5	24.2 %
Non-GAAP adjusted EBITDA by segment: (1)						
Connectivity	$ 249.9	19.0 %	$ 279.8	19.8 %	$ (29.9)	(10.7) %
Mobility	241.2	24.5	199.4	21.1	41.8	21.0
CPE	62.1	7.0	—	NM	62.1	NM
N&C	45.0	13.6	—	NM	45.0	NM
Ruckus	5.9	4.0	—	NM	5.9	NM
Non-GAAP consolidated adjusted EBITDA (1)	$ 604.1	16.5 %	$ 479.2	20.3 %	$ 124.9	26.1 %

(1) See “Reconciliation of Non-GAAP Measures.” Components may not sum to total due to rounding.
NM – Not meaningful

Connectivity Solutions Segment

Our Connectivity segment provides innovative fiber optic and copper cable and connectivity solutions for use in data centers and business enterprise, telecommunications, cable television and residential broadband networks. The Connectivity portfolio includes network solutions for indoor and outdoor network applications. Indoor network solutions are found in commercial buildings and data centers, while outdoor network solutions are found in both local-area and wide-area networks, central offices and headends, and “last-mile” fiber-to-the-x (FTTX) installations.

Connectivity segment net sales were lower in the three and six months ended June 30, 2019 compared to the prior year periods primarily due to pricing pressure and lower sales volumes. Foreign exchange rate changes negatively impacted net sales by approximately 2% for both the three and six months ended June 30, 2019. From a regional perspective, net sales in the EMEA region were lower due to decreases in sales of enterprise solutions and to a lesser extent the impact of unfavorable foreign exchange rate changes. The APAC region experienced lower net sales primarily due to lower sales of our enterprise solutions but these declines were partially offset by increases in our other connectivity solutions. Net sales in the U.S. were also down due to declines in spending by our cable operator customers. The Caribbean and Latin America (CALA) region saw a less significant decrease than the other regions and there were modest increases in Canada for the three and six months ended June 30, 2019. The CALA region experienced increased sales volumes for the six months ended June 30, 2019 but these increases were largely offset by the impacts of unfavorable foreign exchange rate changes.

Connectivity segment operating income and non-GAAP adjusted EBITDA decreased during the three and six months ended June 30, 2019 compared to the prior year periods primarily due to lower sales volumes and reductions in certain selling prices as well as unfavorable foreign exchange rate changes on costs offset partially by lower incentive compensation and favorable product mix. Connectivity segment operating income was also negatively impacted by higher transaction and integration costs and restructuring costs, which are excluded from non-GAAP adjusted EBITDA. See "Reconciliation of Non-GAAP Measures."

We expect demand for our enterprise Connectivity products to be driven by global information technology spending, particularly for hyperscale and cloud data center networks, as the ongoing need for bandwidth and intelligence in the network continues to create demand for high-performance connectivity solutions. We expect demand for our service provider Connectivity products to be driven by global deployment of fiber-optic solutions for FTTX applications, fiber deployments that support wireless distribution and backhaul, new services, competitive dynamics in the access market, ongoing maintenance requirements of cable networks and residential construction market activity in North America. The increasing demand for fiber solutions is expected to be somewhat offset by decelerating demand for copper solutions in networks. Uncertain global economic conditions, variability in the levels of commercial and residential construction activity, consolidation among service providers, uncertain levels of information technology spending and reductions in the levels of distributor inventories may negatively affect demand for our products. As a result of these business dynamics and ongoing pricing pressure, we expect near-term net sales in the Connectivity segment to decline modestly.

Mobility Solutions Segment

Our Mobility segment provides the integral building blocks for cellular base station sites and related connectivity, while focusing on all aspects of the radio access network (RAN) from the macro through the metro to the indoor layer. Macro cell solutions can be found at wireless tower sites and on rooftops. Metro cell solutions can be found on street poles and on other urban, outdoor structures and include radio frequency (RF) delivery and connectivity solutions, equipment housing and concealment. Distributed antenna systems and small cell indoor solutions allow wireless operators to increase spectral efficiency and thereby extend and enhance cellular coverage and capacity in challenging network conditions.

Mobility segment net sales increased during the three and six months ended June 30, 2019 compared to the prior year periods, driven by stronger sales volumes in the U.S. due to the continued build out of next generation 4G networks that support commercial and public safety markets. These stronger volumes were partially offset by reductions in certain selling prices. Mobility segment net sales also saw increases, though less pronounced, in the EMEA and CALA regions during the three and six months ended June 30, 2019. The EMEA region experienced increased sales volumes for the three and six months ended June 30, 2019 but these increases were largely offset by the impacts of unfavorable foreign exchange rate changes. The increases in Mobility segment net sales were partially offset by a decrease in APAC region net sales during the three and six months ended June 30, 2019 compared to the prior year periods due to projects in 2018 that did not recur in 2019. Foreign exchange rate changes negatively impacted Mobility segment net sales by approximately 1% for both the three and six months ended June 30, 2019 compared to the prior year periods.

Mobility segment operating income and non-GAAP adjusted EBITDA increased for the three and six months ended June 30, 2019 compared to the prior year periods primarily due to higher sales volumes, lower material costs, lower incentive compensation and the impact of favorable foreign exchange rate changes on costs offset partially by reductions in certain selling prices. Mobility segment operating income was also negatively impacted by higher transaction and integration costs and restructuring costs, which are excluded from non-GAAP adjusted EBITDA. See "Reconciliation of Non-GAAP Measures."

Our sales to wireless operators can be project-based and volatile. We expect longer-term demand for our Mobility products to be positively affected by wireless coverage and capacity expansion and growth in mobile data services and network capacity requirements. In addition, we expect demand for our Mobility products to continue to be favorably affected by initiatives to promote the expansion of wireless networks, new spectrum deployments and a venue refresh cycle over the next couple of years. We also expect longer-term demand for our Mobility products to be positively affected by the introduction of 5G technology. In preparation for 5G networks, we continue to invest heavily in R&D, support customer trials and participate in industry forums to help shape 5G standards. We expect near-term net sales in our Mobility segment to remain flat or decline modestly. In addition, pricing pressure, uncertainty in the global economy or a particular region or consolidation among operators or other investments by wireless operators may slow the growth or cause a decline in capital spending by wireless operators and negatively impact our net sales.

Customer Premises Equipment Segment

Our CPE 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 (DSL) 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 (DVRs), high definition set top boxes and hybrid set top devices.

Net sales to customers outside the U.S. comprised 42.0% of total CPE segment net sales for the three and six months ended June 30, 2019. These sales to international customers were primarily to customers in the EMEA and CALA regions. CPE segment net sales were unfavorably impacted by acquisition accounting adjustments related to deferred revenue of $0.7 million for the three and six months ended June 30, 2019.

Operating income for the CPE segment was negatively impacted by $24.0 million related to acquisition accounting adjustments related to the mark-up of inventory to its estimated fair value and deferred revenue and $15.1 million of restructuring costs. These charges are not reflected in non-GAAP adjusted EBITDA.

We expect near-term sales in our CPE segment to remain flat or to decline modestly primarily due to a continued reduction in the U.S. PayTV market as it continues to be impacted by the growth in over-the-top streaming and net video subscriber reductions and slower international video deployments. We expect these dynamics to be partially offset by a slightly increasing broadband market.

Network & Cloud Segment

Our N&C segment's product solutions include cable modem termination systems, video infrastructure, distribution and transmission equipment and cloud solutions that enable facility-based service providers to construct a state-of-the-art residential and metro distribution network. The portfolio also includes a full suite of global services that offer technical support, professional services and system integration to enable solutions sales of our end-to-end product portfolio.

Net sales to customers outside the U.S. comprised 45.9% of total N&C segment net sales for the three and six months ended June 30, 2019. These sales to international customers originated in all major geographic regions. N&C segment net sales were unfavorably impacted by acquisition accounting adjustments related to deferred revenue of $13.3 million for the three and six months ended June 30, 2019.

Operating income for the N&C segment was negatively impacted by $99.9 million of transaction and integration costs, $80.0 million related to acquisition accounting adjustments related to the mark-up of inventory to its estimated fair value and deferred revenue and $21.5 million of restructuring costs. These charges are not reflected in non-GAAP adjusted EBITDA.

We expect near-term sales for the N&C segment to improve modestly although not at the same pace as we originally contemplated. We anticipate that the reduced network spend we have seen so far this year will continue in the short term and a return to higher level of capital spend by cable operators will push farther out than we had originally anticipated. The cable industry is going through a process of transformation and evaluating a variety of new network architectures to further expand plant capacity. Distributed Access Architecture (DAA) is complex and there are a variety of approaches. As different models for plant upgrades are assessed, cable operators are spending cautiously to keep inventories in check during the transition. We benefit from a large footprint of outside plant electronics as well as of field upgradeable nodes which makes a move to DAA as simple as plugging in a module. The fundamental drivers for investing in the broadband network remain unchanged. Increased subscriber count, capacity utilization and increased access speeds continue to grow. We believe we are positioned to capture our share of this market demand given our advantaged product portfolio and deep customer relationship, and we expect better N&C segment performance in 2020.

Ruckus Networks Segment

Our Ruckus segment provides converged wired (LAN) and wireless (WLAN, IoT) networks for enterprises and service providers. Product offerings include indoor and outdoor Wi-Fi and LTE access points, access, aggregation and core switches; on-premises and cloud-based control and management systems; and software and software-as-a-service (SaaS) applications addressing security, location, reporting and analytics.

Net sales to customers outside the U.S. comprised 44.8% of total Ruckus segment net sales for the three and six months ended June 30, 2019. Ruckus segment net sales were unfavorably impacted by acquisition accounting adjustments related to deferred revenue of $4.3 million for the three and six months ended June 30, 2019.

Operating income for the Ruckus segment was negatively impacted by $60.1 million related to acquisition accounting adjustments related to the mark-up of inventory to its estimated fair value and deferred revenue and $35.1 million related to transaction and integration costs. These charges are not reflected in non-GAAP adjusted EBITDA.

We expect near-term net sales to be flat for our Ruckus segment. While we remain confident in the long-term growth of this business, we are focused on optimizing the cost structure to align to current sales trends to preserve profitability.

LIQUIDITY AND CAPITAL RESOURCES

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

	June 30, 2019	December 31, 2018	$ Change	% Change
Cash and cash equivalents	$ 348.0	$ 458.2	$ (110.2)	(24.1) %
Working capital (1), excluding cash and cash equivalents and current portion of long-term debt	1,691.8	729.0	962.8	132.1
Availability under revolving credit facility	971.9	463.1	508.8	109.9
Long-term debt, including current portion	10,326.5	3,985.9	6,340.6	159.1
Total capitalization (2)	11,751.4	5,742.7	6,008.7	104.6
Long-term debt as a percentage of total capitalization	87.9%	69.4%		

(1) Working capital consisted of current assets of $4,301.2 million less current liabilities of $2,285.4 million at June 30, 2019. Working capital consisted of current assets of $1,877.8 million less current liabilities of $690.6 million at December 31, 2018.

(2) Total capitalization includes long-term debt 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 credit facilities. To fund the Acquisition, on February 19, 2019 we issued the New Notes, the proceeds from which were held in escrow until they were released on April 4, 2019, the Acquisition date. In February 2019, we also secured the borrowing of $3.2 billion under the 2026 Term Loan with an interest rate of LIBOR plus 3.25% that was funded as of the Acquisition date. In addition, at the closing of the Acquisition, we entered into a new asset-based revolving credit facility. Availability under the new asset-based revolving credit facility was $971.9 million as of June 30, 2019, reflecting a borrowing base of $1.0 billion reduced by $28.1 million of letters of credit issued under the facility. We did not borrow under the new asset-based revolving credit facility to fund the Acquisition, but we did borrow and repay $15.0 million under the facility in June 2019. In addition to incremental new debt, we funded the Acquisition by issuing the Convertible Preferred Stock to Carlyle for an aggregate investment of $1.0 billion. The Convertible Preferred Stock pays dividends at an annual rate of 5.50%, with dividends payable quarterly, and is convertible at the option of the holders at any time into shares of CommScope common stock at a price of $27.50 per share, subject to certain limits on the number of shares that may be issued unless we obtain shareholder approval. 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 and income tax payments. We believe that our existing cash, cash equivalents and cash flows from operations, combined with availability under our new asset-based 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 under our 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 those presented in the "Reconciliation of Non-GAAP Measures" section below, including adjusted EBITDA and adjusted pro forma EBITDA as measured pursuant to the indentures governing our senior notes, and reflecting the pro forma effect of certain events, including acquisitions, synergies and savings from cost reduction initiatives such as facility closures and headcount reductions. In addition to limitations under these indentures, our senior secured credit facilities contain customary negative covenants. We believe we are in compliance with the covenants under our indentures and senior secured credit facilities at June 30, 2019.

Cash and cash equivalents decreased during the first six months of 2019 primarily due to funding the Acquisition, settling assumed ARRIS debt, payments on the 2022 Term Loan, acquisition-related payments and restructuring payments all partially offset by the addition of cash and cash equivalents from the ARRIS business. As of June 30, 2019, approximately 81% 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, increased in the first half of 2019 due to the Acquisition. Excluding the ARRIS business, working capital, excluding cash and cash equivalents, increased mainly due to higher accounts receivable balances related to higher sales and modestly slower collections. In addition, inventory balances increased during the quarter in anticipation of sales expected in the second half of 2019. The increase was partially offset by higher accrued interest balances as of June 30, 2019 compared to December 31, 2018 due to the timing of interest payments and interest related to the debt incurred to finance the Acquisition. Accounts payable balances also increased primarily due to the higher inventory purchases. The increase in total capitalization during the first half of 2019 reflected the proceeds from the New Notes funded in the first quarter and the 2026 Term Loan which was funded as of the Acquisition date that were utilized to fund a substantial portion of the Acquisition on April 4, 2019.

Cash Flow Overview

	Six Months Ended June 30,		$	%
	2019	2018	Change	Change
Net cash generated by (used in) operating activities	$ (261.6)	$ 135.1	$ (396.7)	(293.6)%
Net cash used in investing activities	(5,101.5)	(23.3)	(5,078.2)	NM
Net cash generated by (used in) financing activities	5,252.0	(10.6)	5,262.6	NM

NM – Not meaningful

Operating Activities

	Six Months Ended June 30,	
	2019	2018
Operating Activities:		
Net income (loss)	$ (336.3)	$ 99.7
Adjustments to reconcile net income (loss) to net cash generated by (used in) operating activities:		
Depreciation and amortization	301.0	178.3
Equity-based compensation	30.7	22.4
Deferred income taxes	(105.4)	(24.6)
Changes in assets and liabilities:		
Accounts receivable	(304.0)	(137.0)
Inventories	132.2	(48.0)
Prepaid expenses and other assets	24.2	(0.6)
Accounts payable and other liabilities	(1.0)	40.9
Other	(3.0)	4.0
Net cash generated by (used in) operating activities	$ (261.6)	$ 135.1

During the six months ended June 30, 2019, we used $261.6 million of cash in operating activities compared to generating cash in operating activities of $135.1 million for the six months ended June 30, 2018 despite the addition of the ARRIS business during the second quarter of 2019. Cash flow from operations for the six months ended June 30, 2019 includes the payment of transaction and integration costs primarily related to the Acquisition of $195.2 million. We have also experienced slower collections in the first half of 2019 compared with the first half of 2018. Cash paid for interest expense increased $36.8 million for the six months ended June 30, 2019 compared to the prior year period, primarily as a result of the acquisition-related debt. We also paid $26.3 million more in restructuring costs for the six months ended June 30, 2019 compared to the prior year period.

Investing Activities

	Six Months Ended June 30,	
	2019	2018
Investing Activities:		
Additions to property, plant and equipment	$ (48.0)	$ (30.8)
Proceeds from sale of property, plant and equipment	0.8	6.2
Cash paid for current year acquisitions, net of cash acquired	(5,049.9)	—
Cash paid for prior year acquisition	(11.0)	—
Other	6.6	1.3
Net cash used in investing activities	$ (5,101.5)	$ (23.3)

During the six months ended June 30, 2019, we paid $5.0 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. Our investment in property, plant and equipment during the six months ended June 30, 2019 was $17.2 million higher than the six months ended June 30, 2018, primarily as a result of the addition of ARRIS' investment in property, plant and equipment during the second quarter of 2019. 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 six months ended June 30, 2019, we also paid $11.0 million of the $14.5 million liability for remaining payments due related to the August 2017 acquisition of Cable Exchange. During the six months ended June 30, 2019 and 2018, we sold property and equipment no longer being utilized for $0.8 million and $6.2 million, respectively.

Financing Activities

	Six Months Ended June 30,	
	2019	2018
Financing Activities:		
Long-term debt repaid	$ (2,553.3)	$ —
Long-term debt proceeds	6,933.0	—
Debt issuance costs	(118.1)	—
Series A convertible preferred stock proceeds	1,000.0	—
Deemed dividend paid on Series A convertible preferred stock	(3.0)	—
Proceeds from the issuance of common shares under equity-based compensation plans	2.7	4.9
Tax withholding payments for vested equity-based compensation awards	(9.3)	(15.5)
Net cash generated by (used in) financing activities	$ 5,252.0	$ (10.6)

During the six months ended June 30, 2019, we received proceeds from the issuance of the New Notes and the 2026 Term Loan of approximately $7.0 billion to fund the Acquisition. As of the date of the Acquisition, we also entered into a new asset-based revolving credit facility, which had availability of $971.9 million as of June 30, 2019, reflecting a borrowing base of $1.0 billion reduced by $28.1 million of letters of credit issued under the facility. We borrowed and repaid $15.0 million under the new asset-based revolving credit facility during the second quarter of 2019. We had no outstanding borrowings under the new asset-based revolving credit facility as of June 30, 2019. In connection with these financing transactions, we incurred $120.8 million of debt issuance costs, of which $118.1 million was paid during the six months ended June 30, 2019.

We repaid $225.0 million of the 2022 Term Loan in the first quarter of 2019 and we repaid the remaining balance of $261.3 million on April 4, 2019 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. In addition to the new debt, we funded the Acquisition by issuing the Convertible Preferred Stock to Carlyle for an aggregate investment of $1.0 billion. We paid $3.0 million in transaction fees on Carlyle's behalf related to the Convertible Preferred Stock and we treated that as a deemed dividend during the six months ended June 30, 2019.

On July 26, 2019, we announced that we plan to redeem $100.0 million of our 5.00% senior notes due 2021 on August 7, 2019 and on August 7, 2019 we announced that we plan to redeem another $100.0 million on August 17, 2019. We expect to voluntarily repay debt in the future and may repurchase more of our senior notes if market conditions are favorable and the applicable indenture and the credit agreements governing the senior secured credit facilities permit such repayment or repurchase. In addition, we may 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 six months ended June 30, 2019, we received proceeds of $2.7 million related to the exercise of stock options. Also during the six months ended June 30, 2019, employees surrendered 0.4 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 $9.3 million. During the six months ended June 30, 2018, we received proceeds of $4.9 million related to the exercise of stock options and employees surrendered 0.4 million shares of our common stock to satisfy their tax withholding requirements on vested restricted stock units, which reduced cash flows by $15.5 million.

Off-Balance Sheet Arrangements

We are not party to any significant off-balance sheet arrangements. Other than the adoption of the new leasing guidance as of January 1, 2019 that requires all leases to be recorded on the balance sheet, there have not been any material changes to our off-balance sheet arrangements during the six months ended June 30, 2019.

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 terms non-GAAP adjusted operating income, non-GAAP adjusted EBITDA and non-GAAP pro forma 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 June 30, 2019 provides an additional tool for assessing our recent performance. Such amounts are unaudited and are derived by subtracting the data for the six months ended June 30, 2018 from the data for the year ended December 31, 2018 and then adding the data for the six months ended June 30, 2019.

In addition, we have limitations on certain future borrowings and other actions based on ratios that use financial measures similar to non-GAAP adjusted EBITDA but also give pro forma effect to certain events, including acquisitions, anticipated synergies from acquisitions and savings from cost reduction initiatives such as facility closures and headcount reductions. The impacts of certain material pro forma adjustments are reflected below in the twelve-month period used in the calculation of the ratios.

Consolidated

	Three Months Ended June 30,		Six Months Ended June 30,		Year Ended December 31,	Twelve Months Ended June 30,
	2019	2018	2019	2018	2018	2019
Operating income (loss)	$ (209.2)	$ 164.7	$ (118.5)	$ 268.4	$ 450.0	$ 63.1
Adjustments:						
Amortization of purchased intangible assets	164.1	66.4	223.5	133.7	264.6	354.4
Restructuring costs, net	46.4	7.2	58.8	12.7	44.0	90.1
Equity-based compensation	23.1	11.9	30.7	22.4	44.9	53.2
Asset impairments	—	—	—	—	15.0	15.0
Transaction and integration costs (1)	167.0	1.0	187.7	2.5	19.5	204.7
Purchase accounting adjustments	164.1	—	164.1	—	—	164.1
Non-GAAP adjusted operating income	$ 355.5	$ 251.1	$ 546.2	$ 439.7	$ 838.0	$ 944.5
Depreciation	40.1	19.9	57.8	39.5	75.6	93.9
Non-GAAP adjusted EBITDA	$ 395.6	$ 271.1	$ 604.1	$ 479.2	$ 913.6	$ 1,038.5
ARRIS acquisition (2)						473.9
ARRIS synergies (3)						135.0
Cost reduction initiatives (4)						31.1
Non-GAAP pro forma adjusted EBITDA						$ 1,678.5

(1) Primarily reflects transaction and integration costs related to the Acquisition in 2019 and BNS acquisition integration costs in 2018.
(2) Reflects adjusted EBITDA related to the ARRIS business from July 1, 2018 to the Acquisition date calculated in accordance with CommScope's definition.
(3) Reflects annualized synergies expected to be realized in the three years following the close of the Acquisition.
(4) Represents annualized savings expected from announced cost reduction initiatives.

Connectivity Segment

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating income	$ 60.5	$ 85.4	$ 90.5	$ 138.5
Adjustments:				
Amortization of purchased intangible assets	40.3	45.0	81.3	90.5
Restructuring costs, net	3.3	4.7	10.6	7.1
Equity-based compensation	6.4	7.2	10.9	13.6
Transaction and integration costs	19.2	0.7	31.9	1.9
Non-GAAP adjusted operating income	$ 129.7	$ 142.9	$ 225.2	$ 251.6
Depreciation	12.5	14.2	24.7	28.3
Non-GAAP adjusted EBITDA	$ 142.2	$ 157.2	$ 249.9	$ 279.8

Mobility Segment

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating income	$ 98.5	$ 79.3	$ 159.2	$ 129.9
Adjustments:				
Amortization of purchased intangible assets	17.7	21.4	36.1	43.2
Restructuring costs, net	2.6	2.5	7.7	5.6
Equity-based compensation	4.4	4.6	7.5	8.8
Transaction and integration costs	11.6	0.3	19.6	0.7
Non-GAAP adjusted operating income	$ 134.8	$ 108.2	$ 230.0	$ 188.1
Depreciation	5.7	5.7	11.2	11.2
Non-GAAP adjusted EBITDA	$ 140.4	$ 113.9	$ 241.2	$ 199.4

CPE Segment

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating loss	$ (25.0)	$ —	$ (25.0)	$ —
Adjustments:				
Amortization of purchased intangible assets	33.7	—	33.7	—
Restructuring costs, net	15.1	—	15.1	—
Equity-based compensation	3.6	—	3.6	—
Transaction and integration costs	1.2	—	1.2	—
Purchase accounting adjustments	24.0	—	24.0	—
Non-GAAP adjusted operating income	$ 52.5	$ —	$ 52.5	$ —
Depreciation	9.5	—	9.5	—
Non-GAAP adjusted EBITDA	$ 62.1	$ —	$ 62.1	$ —

N&C Segment

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating loss	$ (229.6)	$ —	$ (229.6)	$ —
Adjustments:				
Amortization of purchased intangible assets	57.2	—	57.2	—
Restructuring costs, net	21.5	—	21.5	—
Equity-based compensation	6.7	—	6.7	—
Transaction and integration costs	99.9	—	99.9	—
Purchase accounting adjustments	80.0	—	80.0	—
Non-GAAP adjusted operating income	$ 35.8	$ —	$ 35.8	$ —
Depreciation	9.2	—	9.2	—
Non-GAAP adjusted EBITDA	$ 45.0	$ —	$ 45.0	$ —

Ruckus Segment

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating loss	$ (113.6)	$ —	$ (113.6)	$ —
Adjustments:				
Amortization of purchased intangible assets	15.2	—	15.2	—
Restructuring costs, net	3.9	—	3.9	—
Equity-based compensation	2.0	—	2.0	—
Transaction and integration costs	35.1	—	35.1	—
Purchase accounting adjustments	60.1	—	60.1	—
Non-GAAP adjusted operating income	$ 2.7	$ —	$ 2.7	$ —
Depreciation	3.2	—	3.2	—
Non-GAAP adjusted EBITDA	$ 5.9	$ —	$ 5.9	$ —

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

Contractual Obligations

In February 2019, we issued the New Unsecured Notes, the 2026 Secured Notes and the 2024 Secured Notes and repaid $225.0 million of the 2022 Term Loan. In April 2019, we completed the Acquisition and borrowed $3.2 billion under the 2026 Term Loan. The following table summarizes our contractual obligations at June 30, 2019:

		Amount of Payments Due per Period			
Contractual Obligations	**Total Payments Due**	**Remainder of 2019**	**2020-2021**	**2022-2023**	**Thereafter**
			(in millions)		
Long-term debt, including current maturities (a)	$ 10,500.0	$ 8.0	$ 714.0	$ 64.0	$ 9,714.0
Interest on long-term debt (a)(b)	3,928.5	310.7	1,222.3	1,168.1	1,227.4
Operating leases	301.3	39.8	138.6	75.3	47.6
Purchase obligations and other supplier agreements (c)	333.0	329.4	3.6	—	—
Pension and other postretirement benefit liabilities (d)	6.8	3.7	1.0	0.8	1.3
Restructuring costs, net (e)	40.7	27.5	11.2	2.0	—
Unrecognized tax benefits (f)	—	—	—	—	—
Total contractual obligations	$ 15,110.3	$ 719.1	$ 2,090.7	$ 1,310.2	$ 10,990.3

(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 6 in the Notes to Consolidated Financial Statements included in our 2018 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 June 30, 2019.

(c) Purchase obligations and other supplier agreements include $304.3 million related to obligations, primarily to our contract manufacturers, with non-cancelable terms to purchase goods or services; payments of $25.1 million due in 2019 for minimum amounts owed under take-or-pay or requirements contracts; and $3.6 million of purchase price payments due in 2020 related to the acquisition of Cable Exchange. 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 2028 and expected pension contributions of $3.4 million during the remainder of 2019 (see Note 10 in the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K).

(e) Future restructuring payments exclude payments due under lease arrangements which are included in operating leases above.

(f) Due to the uncertainty in predicting the timing of tax payments related to our unrecognized tax benefits, $155.4 million has been excluded from the presentation. We anticipate a reduction of up to $10.9 million of unrecognized tax benefits during the remainder of 2019 (see Note 11 in the Notes to Consolidated Financial Statements included in our 2018 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 forward-looking statements are generally identified by their use of such terms and phrases as "intend," "goal," "estimate," "expect," "project," "projections," "plans," "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 statements are subject to various risks and uncertainties, many of which are outside our control, including, without limitation, risks related to the ARRIS acquisition; 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; 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 implement major systems initiatives successfully; 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; 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 maintaining compliance with 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; costs 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. Such forward-looking statements are also subject to additional risks and uncertainties related to the recently acquired ARRIS business, many of which are outside of our control, including, without limitation: the risk that we will not successfully integrate ARRIS or that we will not realize estimated cost savings, synergies, growth or other anticipated benefits, or that such benefits may take longer to realize than expected; risks relating to unanticipated costs of integration; the potential impact of the acquisition on relationships with third parties, including customers, employees and competitors; failure to manage potential conflicts of interest between or among customers; integration of information technology systems; and other factors beyond our control. These and other factors are discussed in greater detail in our 2018 Annual Report on Form 10-K and in our Quarterly Report on Form 10-Q for the three months ended March 31, 2019. 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 2018 Annual Report on Form 10-K, as filed with the SEC on February 21, 2019.

Interest Rate Risk

The table below summarizes the expected interest and principal payments associated with our variable rate debt outstanding at June 30, 2019 (mainly the $3.2 billion variable rate term loan and new 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 June 30, 2019. 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 2019	2020	2021	2022	2023	There-after
Principal and interest payments on variable rate debt	$ 100.2	$ 215.2	$ 213.3	$ 212.5	$ 210.6	$ 3,459.1
Average cash interest rate	5.77%	5.77%	5.77%	5.77%	5.77%	5.77%
Impact of 1% increase in interest rate index	$ 16.0	$ 31.8	$ 31.4	$ 31.3	$ 31.0	$ 68.5

We also have $7.3 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 June 30, 2019.

	Remainder of 2019	2020	2021	2022	2023	There-after
Principal and interest payments on fixed rate debt	$ 218.5	$ 437.0	$ 1,070.8	$ 404.5	$ 404.5	$ 7,482.3
Average cash interest rate	5.99%	5.99%	6.03%	6.08%	6.08%	6.50%

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 June 30, 2019 was $600 million with outstanding maturities of up to fifty-seven months. As of June 30, 2019, the combined fair value of the interest rate swaps was a $16.7 million loss. The table above excludes the impact of these interest rate swap derivatives.

Foreign Currency Risk

During the six months ended June 30, 2019, we entered into foreign exchange forward contracts and cross currency swaps, with outstanding maturities of up to twenty-seven 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 June 30, 2019, the notional value of these derivative contracts was $545 million and the unrealized gain on the contracts was $0.3 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

In conjunction with the integration of ARRIS, the Company is making changes to processes, policies and other components of its internal control over financial reporting, including the consolidation of such operations into the Company's financial statements. Management continues to make changes to the design of the control procedures relating to ARRIS and assess their effectiveness. Except for the activities described above, there have been no changes in the Company's internal control over financial reporting during the quarter ended June 30, 2019 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 material set forth under "Commitments and Contingencies" in Note 1 of the Notes to the Condensed Consolidated Financial Statements in Part 1, Item 1 of this Quarterly Report on Form 10-Q is incorporated herein by reference.

ITEM 1A. RISK FACTORS

There have been no material changes from our risk factors as previously reported in Item 1A of our Quarterly Report on Form 10-Q for the quarter ended March 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 June 30, 2019:

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
April 1, 2019 - April 30, 2019	53,278	$ 24.93	—	$ —
May 1, 2019 - May 31, 2019	21,180	$ 17.52	—	$ —
June 1, 2019 - June 30, 2019	18,290	$ 15.74	—	$ —
Total	92,748	$ 21.43	—	

(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

3.1	Certificate of Designations Designating Series A Preferred Stock (Incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on April 4, 2019).
4.1	First Supplemental Indenture, dated as of April 4, 2019, by and among CommScope, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee (Incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on April 4, 2019).
4.2	First Supplemental Indenture, dated as of April 4, 2019, by and among CommScope, Inc., CommScope Holding Company, Inc., the other guarantors party thereto, Wilmington Trust, National Association, as trustee, and Wilmington Trust, National Association, as collateral agent (Incorporated by reference to Exhibit 4.4 to the Company's Current Report on Form 8-K filed with the SEC on April 4, 2019).
10.1	Registration Rights Agreement, dated as of April 4, 2019, by and between CommScope Holding Company, Inc. and Carlyle Partners VII S1 Holdings, L.P. (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on April 4, 2019).
10.2	Revolving Credit Agreement, dated as of April 4, 2019, among CommScope Holding Company, Inc., CommScope, Inc., the co-borrowers named therein, JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, and the other agents and lenders party thereto (Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC on April 4, 2019).
10.3	Term Loan Credit Agreement, dated as of April 4, 2019, among CommScope, Inc., as the borrower, CommScope Holding Company, Inc., as holdings, JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, and the other agents and lenders party thereto (Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the SEC on April 4, 2019).
10.4	Amended and Restated Employment Agreement, dated as of August 23, 2016, by and between ARRIS Group, Inc. and Mr. McClelland (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K/A filed with the SEC on April 4, 2019).***
10.5 **	Form of Non-Qualified Stock Option Certificate under the CommScope Holding Company, Inc. Amended and Restated 2013 Long-Term Incentive Plan (for grants to senior executive officers in 2019).***
18.1 **	Preferability Letter from Ernst & Young LLP, Independent Registered Public Accounting Firm
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	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	XBRL Schema Document, furnished herewith.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase 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.

COMMSCOPE HOLDING COMPANY, INC.

August 7, 2019	/s/ Alexander W. Pease
Date	Alexander W. Pease *Executive Vice President and Chief Financial Officer* *(Principal Financial Officer and duly authorized officer)*

Exhibit 10.5

N O N Q U A L I F I E D S T O C K O P T I O N C E R T I F I C A T E

2019 Senior Executive Officer Award

Non-transferable

G R A N T T O

[●]

("Optionee")

the right to purchase from CommScope Holding Company, Inc. (the "Company")

[●] shares (the "Shares") of its common stock, par value $0.01 (the "Common Stock"), at the price of $**[●]** per share (the "Exercise Price").

This Option is granted pursuant to and subject to the provisions of the CommScope Holding Company, Inc. Amended and Restated 2013 Long-Term Incentive Plan (the "Plan") and to the terms and conditions set forth on the following pages (the "Terms and Conditions"). By accepting the Option, Optionee shall be deemed to have agreed to the Terms and Conditions, including the restrictive covenants included in Appendix A to this Award Certificate, and the Plan. Capitalized terms used herein and not otherwise defined shall have the meanings assigned to such terms in the Plan. For purposes of this Award Certificate and the following Terms and Conditions, "Employer" shall mean the Affiliate that employs Optionee (to the extent Optionee is not directly employed by the Company).

Time-Vesting Options: **[●]** (50%)

Performance-Vesting Options: **[●]** **(**50%)

The Time-Vesting Options and the Performance-Vesting Options may be referred to herein collectively as the "Option."

IN WITNESS WHEREOF, CommScope Holding Company, Inc., acting by and through its duly authorized officers, has caused this Award Certificate to be duly executed.

COMMSCOPE HOLDING COMPANY, INC.

By:
Frank B. Wyatt, II
Senior Vice President

Grant Date: May 15, 2019

TERMS AND CONDITIONS

1 . Vesting of Time-Vesting Options. Unless vesting is accelerated as provided in the Plan, the Time-Vesting Options will vest and become exercisable on the earliest to occur of the following (each, a "Vesting Date"):

(a)as to 20% of the Time-Vesting Options on each of March 1, 2020, March 1, 2021, March 1, 2022, March 1, 2023 and March 1, 2024, subject to Optionee's Continuous Service on the applicable Vesting Date;

(b)as to all of the Time-Vesting Options, on the termination of Optionee's Continuous Service due to death or Disability;

(c)as to the following amount, on the termination of Optionee's Continuous Service due to Qualifying Retirement, provided such termination occurs on or after March 1, 2020:

(i)as to 20% of the Time-Vesting Options if Optionee's Qualifying Retirement occurs on or after March 1, 2020 but before March 1, 2021;

(ii)as to 40% of the Time-Vesting Options if Optionee's Qualifying Retirement occurs on or after March 1, 2021 but before March 1, 2022; and

(iii)as to all of the Time-Vesting Options if Optionee's Qualifying Retirement occurs on or after March 1, 2022;

(d)as to all of the Time-Vesting Options, on the occurrence of a Change in Control, unless the Time-Vesting Options are assumed by the surviving entity or otherwise equitably converted or substituted in connection with the Change in Control; or

(e)as to all of the Time-Vesting Options, if the Time-Vesting Options are assumed by the surviving entity or otherwise equitably converted or substituted in connection with a Change in Control, on the termination of Optionee's employment by the Employer without Cause or Optionee's resignation for Good Reason within two years after the effective date of the Change in Control.

For purposes of this Award Certificate, "Retirement" shall mean any termination of Optionee's Continuous Service (other than for Cause or on account of Optionee's death or Disability) after (i) attainment of age 65 ("Normal Retirement"), or (ii) attainment of age 55 and completion of at least ten (10) years of service with the Company ("Early Retirement"), or (iii) attainment of age 60 and completion of at least ten (10) years of service with the Company ("Qualifying Retirement").

If Optionee's Continuous Service terminates prior to a Vesting Date for any reason other than as described in (b), (c), (d) or (e) above, Optionee shall forfeit all right, title and interest in and to the then unvested portion of the Time-Vesting Options as of the date of such termination and the unvested portion of the Time-Vesting Options will expire immediately without further consideration or any act or action by Optionee.

2. Vesting of Performance-Vesting Options. Unless vesting is accelerated as provided in the Plan, the Performance-Vesting Options will vest as follows (each, a "Vesting Date").

(a) Annual Performance-Based Vesting. Up to 20% of the Performance-Vesting Options shall be eligible to vest and become exercisable with respect to each of Fiscal Years 2019, 2020, 2021, 2022 and 2023 (each, a "Performance Year"), as follows (such vesting, the "Annual Performance-Based Vesting"), provided Optionee is then still providing Continuous Service to the Company or any Affiliate or has met the applicable Qualifying Retirement conditions under Section 2(c)(iii):

(i)0% of the Performance-Vesting Options shall vest if the Committee determines that Adjusted EBITDA for the applicable Performance Year is less than "Minimum Adjusted EBITDA," as set forth in Appendix B to this Award Certificate;

(ii)5% of the Performance-Vesting Options shall vest if the Committee determines that Adjusted EBITDA for the applicable Performance Year is equal to Minimum Adjusted EBITDA;

(iii) Between 5% and 10% of the Performance-Vesting Options shall vest if the Committee determines that Adjusted EBITDA for the applicable Performance Year is between Minimum Adjusted EBITDA and " Target Adjusted EBITDA," as set forth in Appendix B to this Award Certificate (the portion of the Performance-Vesting Options that shall vest and become exercisable in the applicable Performance Year being determined by the Committee to the nearest tenth of a percentage point using linear interpolation);

(iv)10% of the Performance-Vesting Options shall vest if the Committee determines that Adjusted EBITDA for the applicable Performance Year is equal to Target Adjusted EBITDA;

(v) Between 10% and 20% of the Performance-Vesting Options shall vest if the Committee determines that Adjusted EBITDA for the applicable Performance Year is between Target Adjusted EBITDA and " Stretch Adjusted EBITDA," as set forth in Appendix B to this Award Certificate (the portion of the Performance-Vesting Options that shall vest and become exercisable in the applicable Performance Year being determined by the Committee to the nearest tenth of a percentage point using linear interpolation);

(vi) 20% of the Performance-Vesting Options shall vest if the Committee determines that Adjusted EBITDA for the applicable Performance Year is equal to or exceeds Stretch Adjusted EBITDA.

(b) Cumulative Performance-Based Vesting. Except as provided below, the Performance-Vesting Options which fail to become vested and exercisable due to failure to meet performance goals under Section 2(a) ("Carry-Forward Options")

shall be eligible for vesting each Performance Year, other than the 2019 Performance Year, in accordance with this Section 2(b) (such vesting, the "Cumulative Performance-Based Vesting"), provided Optionee is then still providing Continuous Service to the Company or any Affiliate or has met the applicable Qualifying Retirement conditions under Section 2(c)(iii):

(i)0% of the then-outstanding Carry-Forward Options shall vest if the Committee determines that Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years is less than "Minimum Cumulative Adjusted EBITDA," as set forth in Appendix B to this Award Certificate;

(ii)25% of the then-outstanding Carry-Forward Options shall vest if the Committee determines that Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years is equal to Minimum Cumulative Adjusted EBITDA;

(iii) between 25% and 50% of the then-outstanding Carry-Forward Options shall vest if the Committee determines that Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years is between Minimum Cumulative Adjusted EBITDA and "Target Cumulative Adjusted EBITDA," as set forth in Appendix B to this Award Certificate (the portion of the Carry-Forward Options that shall vest and become exercisable in the applicable Performance Year being determined by the Committee to the nearest tenth of a percentage point using linear interpolation);

(iv)50% of the then-outstanding Carry-Forward Options shall vest if the Committee determines that Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years is equal to Target Cumulative Adjusted EBITDA

(v) between 50% and 100% of the then-outstanding Carry-Forward Options shall vest if the Committee determines that Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years is between Target Cumulative Adjusted EBITDA and " Stretch Cumulative Adjusted EBITDA," as set forth in Appendix B to this Award Certificate (the portion of the Carry-Forward Options that shall vest and become exercisable in the applicable Performance Year being determined by the Committee to the nearest tenth of a percentage point using linear interpolation);

(vi) 100% of the then-outstanding Carry-Forward Options shall vest if the Committee determines that Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years is equal to or exceeds Stretch Cumulative Adjusted EBITDA.

Notwithstanding anything to the contrary, in no event shall more than 100% of the Performance-Vesting Options vest and become exercisable pursuant to this Option.

(c)Certification and Vesting Date. The Performance-Vesting Options will vest and become non-forfeitable on the earliest to occur of the following (each, a "Vesting Date"):

(i)Annual Performance-Based Vesting and Cumulative Performance-Based Vesting for a given Performance Year, if any, shall occur on the date on which the Committee determines the Company's Adjusted EBITDA for such Performance Year (or Cumulative Adjusted EBITDA for such Performance Year and all previous Performance Years, as the case may be) and certifies the level of vesting pursuant to Section 2(a) or Section 2(b), as applicable (each, a "Certification Date"), provided Optionee is still providing Continuous Service to the Company or any Affiliate on such Certification Date.

(ii)If Optionee's Continuous Service is terminated due to death or Disability, then the Performance-Vesting Options shall remain outstanding and eligible for continued Annual Performance-Based Vesting and Cumulative Performance-Based Vesting based upon actual performance over the then-current Performance Year and the remainder of the Performance Years (or, for Cumulative Performance-Based Vesting, over such Performance Years and all previous Performance Years, as the case may be), with any such vesting occurring on the Certification Dates for such Performance Years.

(iii)If Optionee's Continuous Service is terminated due to Optionee's Qualifying Retirement, provided such termination occurs on or after March 1, 2020, then the Performance-Vesting Options shall remain outstanding and eligible for continued Annual Performance-Based Vesting and Cumulative Performance-Based Vesting based on actual performance over:

(A)the then-current Performance Year (or, for Cumulative Performance-Based Vesting, over such Performance Year and all previous Performance Years, as the case may be), if Optionee's Qualifying Retirement occurs on or after March 1, 2020 but before March 1, 2021, with any such vesting occurring on the Certification Date for such Performance Year;

(B)the then-current Performance Year and the immediately following Performance Year (or, for Cumulative Performance-Based Vesting, over such Performance Years and all previous Performance Years, as the case may be), if Optionee's Qualifying Retirement occurs on or after March 1, 2021 but before March 1, 2022, with any such vesting occurring on the applicable Certification Dates for such Performance Years; and

(C)the then-current Performance Year and the remainder of the Performance Years (or, for Cumulative Performance-Based Vesting, over such Performance Years and all previous Performance Years, as the case may be), if Optionee's Qualifying Retirement occurs on or after March 1, 2022, with any such vesting occurring on the applicable Certification Dates for such Performance Years.

(d)Change in Control Vesting. Except as provided below, in the event of a Change in Control, a percentage of Performance-Vesting Options shall be eligible to vest if the value of the per Share consideration paid to the Company's stockholders pursuant to such Change in Control (the "Acquisition Price") is equal to or exceeds a certain multiple of the Exercise Price, as follows:

(i)If, in connection with a Change in Control, the Acquisition Price is equal to 2.0 times the Exercise Price, then the Performance-Vesting Options shall be eligible to vest with respect to that percentage of the Performance-Vesting Options equal to the excess, if any, of (x) 40% of the Performance-Vesting Options, over (y) the percentage of Performance-Vesting Options that vested pursuant to Section 2(a) and 2(b) prior to the date of the Change in Control;

(ii)If, in connection with a Change in Control, the Acquisition Price is between 2.0 times the Exercise Price and 3.5 times the Exercise Price, then the Performance-Vesting Options shall be eligible to vest with respect to that percentage of the Performance-Vesting Options equal to the excess, if any, of (x) between 40% and 100% of the Performance-Vesting Options (such portion being determined by the Committee to the nearest tenth of a percentage point using linear interpolation), over (y) the percentage of Performance-Vesting Options that vested pursuant to Section 2(a) and 2(b) prior to the date of the Change in Control;

(iii)If, in connection with a Change in Control, the Acquisition Price is equal to or greater than 3.5 times the Exercise Price, then all Performance-Vesting Options outstanding and unvested at such time shall be eligible to vest.

Any Performance-Vesting Options which become eligible to vest pursuant to this Section 2(d) shall vest and become exercisable on the earliest to occur of the following:

(A)on the occurrence of the Change in Control, unless such Performance-Vesting Options are assumed by the surviving entity or otherwise equitably converted or substituted in connection with the Change in Control; or

(B)if such Performance-Vesting Options are assumed by the surviving entity or otherwise equitably converted or substituted in connection with the Change in Control, on the earliest to occur of (w) the first anniversary of the Change in Control, provided Optionee is still providing Continuous Service to the Company or any Affiliate on such date; (x) on the termination of Optionee's employment due to death or Disability; (y) on the termination of Optionee's employment by the Company without Cause; or (z) on Optionee's Retirement or resignation for Good Reason.

3 . Adjusted EBITDA and Adjustments in Adjusted EBITDA Targets . For purposes of this Award Certificate, the term "Adjusted EBITDA" shall mean "Operating Income (Loss)," as such term appears on the Company's Consolidated Statement of Operations for the applicable fiscal year, increased or reduced by each of the following to the extent that any such item is used to determine "Operating Income (Loss)": (i) depreciation; (ii) amortization; (iii) certain extraordinary, unusual or non-recurring charges, expenses or losses (including Impairment Charges in the Consolidated Statement of Operations); (iv) certain restructuring costs, integration costs and equity-based compensation expenses; (v) transaction fees and expenses and purchase accounting adjustments; and (vi) income or gains corresponding to certain extraordinary, unusual or non-recurring items. In the event of an acquisition of any business, line of business or assets by the Company after the Grant Date, the Committee may, subject to Section 10.2 of the Plan, in good faith and in such manner as it may deem equitable, adjust the Adjusted EBITDA Targets and Cumulative Adjusted EBITDA Targets specified in Appendix B to reflect the projected effect of such transaction(s) or event(s) on such targets. In the event that, after the Grant Date, the Committee determines, in its sole discretion, that any disposition of any business, line of business or assets by the Company, any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), recapitalization, reclassification, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Common Stock or other securities of the Company, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, any unusual or nonrecurring transactions or events affecting the Company or the financial statements of the Company, or change in applicable laws, regulations, or changes in generally accepted accounting principles applicable to, or the accounting policies used by, the Company has occurred such that an adjustment to the Adjusted EBITDA Targets is determined by the Committee to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available with respect to the Option, then the Committee may, subject to Section 10.2 of the Plan, in good faith and in such manner as it may deem equitable, adjust the Adjusted EBITDA Targets specified in Appendix B to reflect the projected effect of such transaction(s) or event(s) on the Adjusted EBITDA Targets.

4 . Term of Option and Limitations on Right to Exercise. The term of the Option will be for a period of ten years, expiring at 5:00 p.m., Eastern Time, on the tenth anniversary of the Grant Date (the "Expiration Date"). To the extent not previously exercised, the Option will lapse upon the earliest to occur of the following circumstances:

(a)the Expiration Date;

(b)three months after the termination of Optionee's Continuous Service for any reason other than (i) for Cause or (ii) by reason of Optionee's death, Disability or Retirement;

(c)five years after the termination of Optionee's Continuous Service by reason of his or her Normal Retirement;

(d)two years after the termination of Optionee's Continuous Service by reason of his or her Early Retirement;

(e)five years after the termination of Optionee's Continuous Service by reason of his or her Disability;

(f)five years after Optionee's death, if Optionee dies during his or her Continuous Service or during an applicable period described in subsections 4(b)-(e) above (upon Optionee's death, the Option may be exercised by Optionee's estate or other beneficiary designated pursuant to the Plan);

(g)immediately upon the termination of Optionee's Continuous Service if such termination is for Cause; or

(h)immediately if Optionee breaches any of the covenants set forth in Appendix A.

The Committee may, prior to the lapse of the Option under the circumstances described in subsections (b) through (h) above, extend the time to exercise the Option as determined by the Committee in writing, but in no event may the Option be extended beyond the Expiration Date. If Optionee or his or her beneficiary exercises an Option after the termination of Optionee's Continuous Service, the Option may be exercised only with respect to the Shares that were otherwise vested on the date of such termination or, if applicable, that become vested following a termination Optionee's Continuous Service due to Qualifying Retirement pursuant to the terms of this Award Certificate.

5. Exercise of Option. The Option shall be exercised by (a) written notice directed to the Secretary of the Company or his or her designee at the address and in the form specified by the Company from time to time and (b) payment to the Company in full for the Shares subject to such exercise. If the person exercising an Option is not Optionee, such person shall also deliver with the notice of exercise appropriate proof of his or her right to exercise the Option. Payment for such Shares shall be (i) in cash, (ii) by delivery (actual or by attestation) of Shares previously acquired by the purchaser, (iii) by withholding of Shares from the Option, in accordance with such procedures as the Company may establish from time to time, (iv) to the extent permitted by the Committee, through a broker-assisted cashless exercise program, or (v) any combination thereof, for the number of Shares specified in such written notice; provided that payment pursuant to clauses (ii), (iii), (iv) and (v) shall be subject to any contractual or legal limitations or restrictions imposed on the Company (including under any credit or similar agreement). Shares surrendered or withheld for this purpose shall be valued at their Fair Market Value on the date of exercise.

6. No Right of Continued Service. Nothing in this Award Certificate shall interfere with or limit in any way the right of the Company or any Affiliate to terminate Optionee's service at any time, nor confer upon Optionee any right to continue to provide services to, the Company or any Affiliate

7. Payment of Taxes.

(a)Regardless of any action the Company or the Employer takes with respect to any or all income tax (including U.S. federal, state and local taxes and/or non-U.S. taxes), social insurance, payroll tax, payment on account or other tax-related items resulting from the Options ("Tax-Related Items"), Optionee acknowledges that the ultimate liability for all Tax-Related Items legally due by Optionee is and remains Optionee's responsibility and may exceed the amount actually withheld by the Company or the Employer, if any. Optionee also acknowledges that the Company and the Employer (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Option, including the grant of the Option, the vesting of the Option, the exercise of the Option, the subsequent sale of any Shares acquired pursuant to the Option and the receipt of any dividends, and (ii) do not commit to structure the terms of the grant or any aspect of the Option to reduce or eliminate Optionee's liability for Tax-Related Items.

(b) If Optionee's country of residence (and/or country of employment, if different) requires withholding of Tax-Related Items, the Company and/or the Employer shall withhold Shares or in the case of a sell to cover exercise of the Option, shall withhold a portion of the cash proceeds, that have an aggregate Fair Market Value sufficient to pay the Tax-Related Items required to be withheld (as determined by the Company in good faith and in its sole discretion) with respect to the exercised Option. For purposes of the foregoing, no fractional Shares will be withheld or issued pursuant to the grant of the Option and the issuance of Shares hereunder. In the event withholding in Shares is prohibited or problematic under applicable law or otherwise may trigger adverse consequences to the Company or the Employer, the Company and/or Employer shall withhold an amount from Optionee's regular salary and/or wages, or from any other amounts payable to Optionee, equivalent to the Tax-Related Items required to be withheld with respect to the exercised Option. Optionee will have no entitlement to the equivalent amount in Shares in the case of over withholding. In the event the withholding requirements for Tax-Related Items are not satisfied through the withholding of Shares, sell to cover exercise or through withholding from Optionee's regular salary and/or wages or other amounts payable to Optionee, no Shares will be issued to Optionee unless and until satisfactory arrangements (as determined by the Committee) have been made by Optionee with respect to the payment of any Tax-Related Items which the Company determines, in its sole discretion, must be withheld or collected with respect to the Options.

(c) If Optionee becomes subject to taxation in more than one jurisdiction, Optionee acknowledges and agrees that the Company and the Employer may be required to withhold or account for Tax-Related Items in more than one jurisdiction. By accepting the grant of the Option, Optionee expressly consents to the withholding of Shares, cash in the case of sell to cover exercise and/or the withholding of amounts from Optionee's regular salary and/or wages, or other amounts payable to Optionee, as provided for hereunder. All other Tax-Related Items related to any Shares acquired pursuant to the Option exercise are Optionee's sole responsibility.

(d)By accepting the Option, (i) Optionee agrees that he or she shall be subject to, and consents to the application of, any policy adopted by the Company that requires Optionee to sell Shares to satisfy any withholding obligations for Tax Related Items that arise with respect to this Award (a "Sell to Cover Policy"), and (ii) in connection with any such Sell to Cover Policy, Optionee hereby authorizes the plan administrator or other entity designated by the Company in its sole discretion to sell a number of Shares issued in connection with the exercise of the Option, which the Company determines, in its sole discretion, is sufficient to generate an amount to satisfy any tax withholding obligations for Tax Related Items, and to pay such amounts to the Company.

8. Restrictions on Transfer and Pledge. No right or interest of Optionee in the Option may be pledged, encumbered, or hypothecated to or in favor of any party other than the Company or an Affiliate, or shall be subject to any lien, obligation, or liability of Optionee to any other party other than the Company or an Affiliate. The Option is not assignable or transferable by Optionee other than to a beneficiary or by will or the laws of descent and distribution, but the Committee may (but need not) permit other transfers. The Option may be exercised during the lifetime of Optionee only by Optionee or any permitted transferee.

9. Restrictions on Issuance of Shares. If at any time the Committee shall determine in its discretion, that registration, listing or qualification of the Shares covered by the Option upon any Exchange or under any foreign, federal, or local law or practice, or the consent or approval of any governmental regulatory body, is necessary or desirable as a condition to the exercise of the Option, the Option may not be exercised in whole or in part unless and until such registration, listing, qualification, consent or approval shall have been effected or obtained free of any conditions not acceptable to the Committee.

10. Stockholders Agreement; Registration Rights Agreement. As a condition to the issuance of Shares hereunder, Optionee agrees that such Shares shall be subject to all of the terms, conditions and restrictions contained in any Stockholders Agreement by and among the Company and the Company's stockholders and in any Registration Rights Agreement by and among the Company and the Company's stockholders and that Optionee will become a party to and subject to such Stockholders Agreement and such Registration Rights Agreement.

11. Plan Controls. The terms contained in the Plan are incorporated into and made a part of this Award Certificate, and this Award Certificate shall be governed by and construed in accordance with the Plan. In the event of any actual or alleged conflict between the provisions of the Plan and the provisions of this Award Certificate, the provisions of the Plan shall be controlling and determinative.

12. Successors. This Award Certificate shall be binding upon any successor of the Company, in accordance with the terms of this Award Certificate and the Plan.

13. Severability. If any one or more of the provisions contained in this Award Certificate are invalid, illegal or unenforceable, the other provisions of this Award Certificate will be construed and enforced as if the invalid, illegal or unenforceable provision had never been included.

14. Notice. Notices hereunder must be in writing, delivered personally or sent by registered or certified U.S. mail, return receipt requested, postage prepaid. Notices to the Company must be addressed to CommScope Holding Company, Inc., 1100 CommScope Place, SE, Hickory, North Carolina 28602, Attn: Corporate Secretary, or any other address designated by the Company in a written notice to Optionee. Notices to Optionee will be directed to the address of Optionee then currently on file with the Company, or at any other address given by Optionee in a written notice to the Company.

15. Compensation Recoupment Policy. The Option and any Shares issued thereunder shall be subject to any compensation recoupment policy of the Company that is applicable by its terms to Optionee and to awards of this type. For purpose of the foregoing, Optionee expressly and explicitly authorizes the Company to issue instructions, on Optionee's behalf, to any brokerage firm and/or third party administrator engaged by the Company to hold the Shares and other amounts acquired under the Plan to reconvey, transfer or otherwise return such Shares and/or other amounts to the Company.

16. Restrictive Covenants. As a condition to Optionee's receipt of the Option, Optionee agrees to the restrictive covenants set forth in Appendix A to this Award Certificate. In the event Optionee breaches any of the covenants set forth in Appendix A, all Options covered by this Award Certificate, whether vested or unvested, shall be immediately forfeited. Such forfeiture shall be in addition to any other right the Company may have with respect to any such violation or breach.

17. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to the Options granted to Optionee by electronic means and Optionee hereby consents to receive such documents by electronic delivery.

18. Discretionary Nature of Plan; No Vested Rights. Optionee acknowledges and agrees that the Plan is discretionary in nature and limited in duration, and may be amended, cancelled, or terminated by the Company, in its sole discretion, at any time. The grant of the Option under the Plan is a one-time benefit and does not create any contractual or other right to receive Options or benefits in lieu of the Option in the future. Future awards, if any, will be at the sole discretion of the Company, including, but not limited to, the form and timing of an award, the number of shares of Stock subject to an award, the form of payment of an award, the vesting and exercise provisions. Optionee further acknowledges and agrees that any amendment, modification or termination of the Plan shall not constitute a change or impairment of the terms and conditions of Optionee's employment with the Employer.

19. Extraordinary Item of Compensation. Optionee's participation in the Plan is voluntary. The value of the Option is an extraordinary item of compensation outside the scope of Optionee's employment (and Optionee's employment contract, if any). As

such, the Option is not part of Optionee's normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension, retirement payments or similar payments.

20. Additional Requirements. The Company reserves the right to impose other requirements on the Options to the extent the Company determines, in its sole discretion, that such other requirements are necessary or advisable in order to comply with applicable laws, rules and regulations, or to facilitate the operation and administration of the Options. Such requirements may include (but are not limited to) requiring Optionee to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

APPENDIX A

Restrictive Covenants

As a condition of Optionee's receipt of this Option, Optionee agrees to the following restrictions. This Appendix A constitutes part of the Terms and Conditions of the Award Certificate relating to the Option.

1. Acknowledgments.

(a) Access to Confidential Information and Relationships. Optionee acknowledges and agrees that as a result of Optionee's employment with the Company or an Affiliate, Optionee's knowledge of and access to confidential and proprietary information, and Optionee's relationships with the Company's or its Affiliate's customers and employees, Optionee would have an unfair competitive advantage if Optionee were to engage in activities in violation of the Restrictive Covenants. Optionee also acknowledges and agrees that these Restrictive Covenants are necessary to protect the trade secrets of Company.

(a) No Undue Hardship. Optionee acknowledges and agrees that, in the event that his/her employment with the Company terminates, Optionee possesses marketable skills and abilities that will enable Optionee to find suitable employment without violating the Restrictive Covenants.

(b) Voluntary Execution . Optionee acknowledges and affirms that he/she is entering into the Restrictive Covenants voluntarily by way of his/her acceptance of the Option, that he/she has read the Award Certificate and this Appendix A carefully and had a full and reasonable opportunity to consider the Option and the Restrictive Covenants (including an opportunity to consult with legal counsel), and that he/she has not been pressured or in any way coerced, threatened or intimidated into accepting the Option or entering into the Restrictive Covenants.

2. Definitions. The following capitalized terms used in this Appendix A shall have the meanings assigned to them below, which definitions shall apply to both the singular and the plural forms of such terms:

(a) *"Business"* means the business of designing, building, and selling (i) wired and wireless networks, (ii) radio frequency wireless networks including macro, metro, DAS and small cell solutions, (iii) indoor network solutions for commercial buildings, data centers, central offices and cable television head ends, (iv) outdoor network solutions for telecom service providers and cable TV networks, including FTTX solutions, (v) appliances at homes that deliver internet or paid TV, (vi) software and appliances in cable and telecom networks to create and manage signals for internet and video, and (vii) appliances in enterprises that deliver wired and wireless connectivity to end users, as well as the business of providing any other activities, products, or services of the type conducted, authorized, offered, or provided by the Company as of Optionee's Termination Date, or during the two (2) years immediately prior to Optionee's Termination Date.

(b) *"Confidential Information"* means any and all data and information relating to the Company, its activities, business, or clients that (i) is disclosed to Optionee or of which Optionee becomes aware as a consequence of his/her employment with the Company; (ii) has value to the Company; and (iii) is not generally known outside of the Company. "Confidential Information" shall include, but is not limited to the following types of information regarding, related to, or concerning the Company: trade secrets (as defined by N.C. Gen. Stat. § 66-152(3)); financial plans and data; management planning information; business plans; operational methods; market studies; marketing plans or strategies; pricing information; product development techniques or plans; customer lists; customer files, data and financial information; details of customer contracts; current and anticipated customer requirements; identifying and other information pertaining to business referral sources; past, current and planned research and development; computer aided systems, software, strategies and programs; business acquisition plans; management organization and related information (including, without limitation, data and other information concerning the compensation and benefits paid to officers, directors, employees and management); personnel and compensation policies; new personnel acquisition plans; and other similar information. "Confidential Information" also includes combinations of information or materials which individually may be generally known outside of the Company, but for which the nature, method, or procedure for combining such information or materials is not generally known outside of the Company. In addition to data and information relating to the Company, "Confidential Information" also includes any and all data and information relating to or concerning a third party that otherwise meets the definition set forth above, that was provided or made available to the Company by such third party, and that the Company has a duty or obligation to keep confidential. This definition shall not limit any definition of "confidential information" or any equivalent term under state or federal law. "Confidential Information" shall not include information that has become generally available to the public by the act of one who has the right to disclose such information without violating any right or privilege of the Company.

(c) *"Material Contact"* means (i) having dealings with a customer or potential customer on behalf of the Company; (ii) coordinating or supervising dealings with a customer or potential customer on behalf of the Company; (iii) obtaining Confidential Information about a customer or potential customer in the ordinary course of business as a result of Optionee's employment with the Company; or (iv) receiving compensation, commissions, or earnings within the two (2) years prior to Optionee's Termination Date that resulted from the sale or provision of products or services of the Company to a customer.

(d) *"Person"* means any individual or any corporation, partnership, joint venture, limited liability company, association or other entity or enterprise.

(e) *“Principal or Representative”* means a principal, owner, partner, shareholder, joint venturer, investor, member, trustee, director, officer, manager, employee, agent, representative or consultant.

(f) *“Protected Customer”* means any Person to whom the Company has sold its products or services or actively solicited to sell its products or services, and with whom Optionee has had Material Contact on behalf of the Company during his/her employment with the Company.

(g) *“Restrictive Covenants”* means the restrictive covenants contained in Sections 3 through 6 of this Appendix A.

(h) *“Restricted Period”* means any time during Optionee’s employment with the Company, as well as two (2) years from Optionee’s Termination Date.

(i) *Restricted Territory”* means:

(i) the geographic area where the Company or an Affiliate engages in the Business on a material basis, which Optionee and the Company agree includes the United States of America (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and District of Columbia), Canada, Mexico, Argentina, Columbia, Brazil, the United Kingdom, Ireland, Italy, Belgium, France, Germany, the Netherlands, Spain, India, China, Japan, and Australia.; and

(ii) any other territory where Optionee is working on behalf of the Company during the one (1) year preceding the conduct in question (if the conduct occurs while Optionee is still employed by the Company) or Optionee’s Termination Date (if the conduct occurs after Optionee’s Termination).

(j) *“Termination”* means the termination of Optionee’s employment with the Company, for any reason, whether with or without cause, upon the initiative of either party.

(k) *“Termination Date”* means the date of Optionee’s Termination.

3. Restriction on Disclosure and Use of Confidential Information. Optionee agrees that Optionee shall not, directly or indirectly, use any Confidential Information on Optionee’s own behalf or on behalf of any Person other than Company, or reveal, divulge, or disclose any Confidential Information to any Person not expressly authorized by the Company to receive such Confidential Information. This obligation shall remain in effect for as long as the information or materials in question retain their status as Confidential Information. Optionee further agrees that he/she shall fully cooperate with the Company in maintaining the Confidential Information to the extent permitted by law. The parties acknowledge and agree that this Award Certificate is not intended to, and does not, alter either the Company’s rights or Optionee’s obligations under any state or federal statutory or common law regarding trade secrets and unfair trade practices. Anything herein to the contrary notwithstanding, Optionee shall not be restricted from: (i) disclosing information that is required to be disclosed by law, court order or other valid and appropriate legal process; *provided, however*, that in the event such disclosure is required by law, Optionee shall provide the Company with prompt notice of such requirement so that the Company may seek an appropriate protective order prior to any such required disclosure by Optionee; (ii) reporting possible violations of federal, state, or local law or regulation to any governmental agency or entity, or from making other disclosures that are protected under the whistleblower provisions of federal, state, or local law or regulation, and Optionee shall not need the prior authorization of the Company to make any such reports or disclosures and shall not be required to notify the Company that Optionee has made such reports or disclosures; (iii) disclosing a trade secret (as defined by 18 U.S.C. § 1839) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney, in either event solely for the purpose of reporting or investigating a suspected violation of law; or (iv) disclosing a trade secret (as defined by 18 U.S.C. § 1839) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

4. Non-Competition. Optionee agrees that, during the Restricted Period, he/she will not, without prior written consent of the Company, directly or indirectly (i) carry on or engage in business activities that are competitive with any aspect of the Business within the Restricted Territory on his/her own or on behalf of any Person or any Principal or Representative of any Person; (ii) hold a position with any Person engaging in any business activities that are competitive with any aspect of the Business, whether as employee, consultant, or otherwise, in which (A) Optionee will have duties, or will perform or be expected to perform services for such Person, that relate to such business activities that are competitive with any aspect of the Business within the Restricted Territory (for the avoidance of doubt, to the extent Optionee will only have duties with respect to, and will only perform or be expected to perform services for, aspects of such Person’s business that are not competitive with any aspect of the Business, such activity shall not be restricted by the foregoing clause (A)), or (B) Optionee will use or disclose or be reasonably expected to use or disclose any Confidential Information for the purpose of providing, or attempting to provide, such Person with a competitive advantage with respect to such business activities that are competitive with any aspect of the Business within the Restricted Territory; or (iii) own any interest in or organize any Person which engages in any business activities that are competitive with any aspect of the Business within the Restricted Territory; provided, however, that nothing in this Section 4 shall prohibit or limit Optionee’s ability to purchase or hold, solely for investment purposes, up to two percent (2%) of the stock of any publicly traded entity (whether or not it engages in any business activities that are competitive with any aspect of the Business within the Restricted Territory) so long as Optionee is not actively involved in the management, operations or business thereof.

5. Non-Solicitation of Protected Customers. Optionee agrees that, during the Restricted Period, he/she shall not, without the prior written consent of the Company, directly or indirectly, on his/her own behalf or as a Principal or Representative of any Person, solicit,

divert, take away, or attempt to solicit, divert, or take away a Protected Customer for the purpose of engaging in, providing, or selling Competitive Services.

6 . Non-Recruitment of Employees and Independent Contractors. Optionee agrees that during the Restricted Period, he/she shall not, directly or indirectly, whether on his/her own behalf or as a Principal or Representative of any Person, recruit, solicit, or induce or attempt to recruit, solicit or induce any employee or independent contractor of the Company to terminate his/her employment or other relationship with the Company or to enter into employment or any other kind of business relationship with the Optionee or any other Person.

7. Enforcement of Restrictive Covenants.

(a) Rights and Remedies Upon Breach. The parties specifically acknowledge and agree that the remedy at law for any breach of the Restrictive Covenants will be inadequate, and that in the event Optionee breaches, or threatens to breach, any of the Restrictive Covenants, the Company shall have the right and remedy, without the necessity of proving actual damage or posting any bond, to enjoin, preliminarily and permanently, Optionee from violating or threatening to violate the Restrictive Covenants and to have the Restrictive Covenants specifically enforced by any court of competent jurisdiction, it being agreed that any breach or threatened breach of the Restrictive Covenants would cause irreparable injury to the Company and that money damages would not provide an adequate remedy to the Company. Optionee understands and agrees that if he/she violates any of the obligations set forth in the Restrictive Covenants, the period of restriction applicable to each obligation violated shall cease to run during the pendency of any litigation over such violation, provided that such litigation was initiated during the period of restriction. Such rights and remedies shall be in addition to, and not in lieu of, any other rights and remedies available to the Company at law or in equity. Optionee understands and agrees that, if the Parties become involved in legal action regarding the enforcement of the Restrictive Covenants and if the Company prevails in such legal action, the Company will be entitled, in addition to any other remedy, to recover from Optionee its reasonable costs and attorneys' fees incurred in enforcing such covenants. The Company's ability to enforce its rights under the Restrictive Covenants or applicable law against Optionee shall not be impaired in any way by the existence of a claim or cause of action on the part of Optionee based on, or arising out of, this Award Certificate or any other event or transaction.

(b) Severability and Modification of Covenants. Optionee acknowledges and agrees that each of the Restrictive Covenants is reasonable and valid in time and scope and in all other respects. The parties agree that it is their intention that the Restrictive Covenants be enforced in accordance with their terms to the maximum extent permitted by law. Each of the Restrictive Covenants shall be considered and construed as a separate and independent covenant. Should any part or provision of any of the Restrictive Covenants be held invalid, void, or unenforceable, such invalidity, voidness, or unenforceability shall not render invalid, void, or unenforceable any other part or provision of this Award Certificate or such Restrictive Covenant. If any of the provisions of the Restrictive Covenants should ever be held by a court of competent jurisdiction to exceed the scope permitted by the applicable law, such provision or provisions shall be automatically modified to such lesser scope as such court may deem just and proper for the reasonable protection of the Company's legitimate business interests and may be enforced by the Company to that extent in the manner described above and all other provisions of this Award Certificate shall be valid and enforceable.

8. Miscellaneous.

(a) Applicable Law; Forum Selection; Consent to Jurisdiction. The Company and Optionee agree that this Award Certificate shall be governed by and construed and interpreted in accordance with the laws of the State of North Carolina without giving effect to its conflicts of law principles. Optionee agrees that the exclusive forum for any action to enforce this Award Certificate, as well as any action relating to or arising out of this Award Certificate, shall be the state or federal courts of the State of North Carolina. With respect to any such court action, Optionee hereby (a) irrevocably submits to the personal jurisdiction of such courts; (b) consents to service of process; (c) consents to venue; and (d) waives any other requirement (whether imposed by statute, rule of court, or otherwise) with respect to personal jurisdiction, service of process, or venue. Both parties hereto further agree that the state and federal courts of the State of North Carolina are convenient forums for any dispute that may arise herefrom and that neither party shall raise as a defense that such courts are not convenient forums.

(b) Severability. The invalidity or unenforceability of any provision of this Award Certificate shall not affect the validity or enforceability of any other provision of this Award Certificate.

(c) Waiver. Failure of either party to insist, in one or more instances, on performance by the other in strict accordance with the terms and conditions of this Award Certificate shall not be deemed a waiver or relinquishment of any right granted in this Award Certificate or of the future performance of any such term or condition or of any other term or condition of this Award Certificate, unless such waiver is contained in a writing signed by the party making the waiver.

Exhibit 18.1

August 7, 2019

Board of Directors
CommScope Holding Company, Inc.
1100 10th Ave Ct SE
Hickory, North Carolina 28602

Ladies and Gentlemen:

Note 1 of Notes to the condensed consolidated financial statements of CommScope Holding Company, Inc. (the Company) included in its Form 10-Q for the three and six months ended June 30, 2019 describes a change in the method of accounting for internal handling costs to prepare goods for shipment from being reported within selling, general and administrative costs to being reported within cost of sales. There are no authoritative criteria for determining a 'preferable' classification method of these costs based on the particular circumstances; however, we conclude that such change in the method of accounting is to an acceptable alternative method which, based on your business judgment to make this change and for the stated reasons, is preferable in your circumstances. We have not conducted an audit in accordance with the standards of the Public Company Accounting Oversight Board (United States) of any financial statements of the Company as of any date or for any period subsequent to December 31, 2018, and therefore we do not express any opinion on any financial statements of CommScope Holding Company, Inc. subsequent to that date.

Very truly yours,

/s/ Ernst & Young LLP
Charlotte, NC

Exhibit 31.1

MANAGEMENT CERTIFICATION

I, Marvin S. Edwards, Jr., 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: August 7, 2019

/s/ Marvin S. Edwards, Jr.

Name: Marvin S. Edwards, Jr.
Title: President, Chief Executive Officer and Director
(Principal Executive Officer)

Exhibit 31.2

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: August 7, 2019

/s/ Alexander W. Pease

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

Exhibit 32.1

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 June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Marvin S. Edwards, Jr., 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: August 7, 2019

/s/ Marvin S. Edwards, Jr.
Marvin S. Edwards, Jr.
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)