

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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 May 2, 2020

OR

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

For the transition period from _____ to _____

Commission File Number: **001-36250**

Ciena Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)
7035 Ridge Road, Hanover, MD
(Address of principal executive offices)

23-2725311
(IRS Employer Identification No.)
21076
(Zip Code)

(410) 694-5700

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, \$0.01 par value	CIEN	New York Stock Exchange

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 determined in Rule 12b-2 of the Exchange Act). Yes No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

Class	Outstanding at June 5, 2020
common stock, \$0.01 par value	153,644,375

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

CIENA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(unaudited)

	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
Revenue:				
Products	\$ 739,892	\$ 710,688	\$ 1,427,107	\$ 1,353,220
Services	154,161	154,323	299,858	290,318
Total revenue	894,053	865,011	1,726,965	1,643,538
Cost of goods sold:				
Products	405,138	411,050	794,151	791,492
Services	75,589	79,284	148,953	154,028
Total cost of goods sold	480,727	490,334	943,104	945,520
Gross profit	413,326	374,677	783,861	698,018
Operating expenses:				
Research and development	131,530	137,969	262,430	266,602
Selling and marketing	101,214	103,502	208,280	201,615
General and administrative	42,030	42,154	84,498	81,397
Amortization of intangible assets	5,839	5,529	11,692	11,057
Significant asset impairments and restructuring costs	3,811	4,068	8,283	6,341
Acquisition and integration costs	1,414	1,135	3,233	2,743
Total operating expenses	285,838	294,357	578,416	569,755
Income from operations	127,488	80,320	205,445	128,263
Interest and other income (loss), net	(2,665)	(244)	981	4,009
Interest expense	(7,860)	(9,471)	(16,675)	(18,912)
Loss on extinguishment and modification of debt	—	—	(646)	—
Income before income taxes	116,963	70,605	189,105	113,360
Provision for income taxes	25,308	17,867	35,122	27,006
Net income	\$ 91,655	\$ 52,738	\$ 153,983	\$ 86,354
Basic net income per common share	\$ 0.60	\$ 0.34	\$ 1.00	\$ 0.55
Diluted net income per potential common share	\$ 0.59	\$ 0.33	\$ 0.99	\$ 0.55
Weighted average basic common shares outstanding	153,858	156,170	154,099	156,244
Weighted average dilutive potential common shares outstanding	155,141	158,289	155,443	158,211

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

CIENA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)
(unaudited)

	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
Net income	\$ 91,655	\$ 52,738	\$ 153,983	\$ 86,354
Change in unrealized gain on available-for-sale securities, net of tax	396	112	310	413
Change in unrealized gain (loss) on foreign currency forward contracts, net of tax	(6,940)	(856)	(8,019)	704
Change in unrealized loss on forward starting interest rate swaps, net of tax	(8,623)	(2,826)	(10,103)	(10,697)
Change in cumulative translation adjustments	(18,508)	(4,996)	(21,490)	(3,846)
Other comprehensive loss	(33,675)	(8,566)	(39,302)	(13,426)
Total comprehensive income	<u>\$ 57,980</u>	<u>\$ 44,172</u>	<u>\$ 114,681</u>	<u>\$ 72,928</u>

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

CIENA CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)
(unaudited)

	May 2, 2020	November 2, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 887,732	\$ 904,045
Short-term investments	100,742	109,940
Accounts receivable, net of allowance for doubtful accounts of \$10.4 million and \$20.1 million as of May 2, 2020 and November 2, 2019, respectively.	693,963	724,854
Inventories, net	325,753	345,049
Prepaid expenses and other	332,021	297,914
Total current assets	2,340,211	2,381,802
Long-term investments	—	10,014
Equipment, building, furniture and fixtures, net	260,867	286,884
Operating right-of-use assets	47,864	—
Goodwill	310,269	297,937
Other intangible assets, net	115,536	112,781
Deferred tax asset, net	689,416	714,942
Other long-term assets	92,599	88,986
Total assets	\$ 3,856,762	\$ 3,893,346
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 292,164	\$ 344,819
Accrued liabilities and other short-term obligations	288,773	382,740
Deferred revenue	107,023	111,381
Operating lease liabilities	18,096	—
Current portion of long-term debt	6,930	7,000
Total current liabilities	712,986	845,940
Long-term deferred revenue	42,894	45,492
Other long-term obligations	129,850	148,747
Long-term operating lease liabilities	51,100	—
Long-term debt, net	679,356	680,406
Total liabilities	\$ 1,616,186	\$ 1,720,585
Commitments and contingencies (Note 21)		
Stockholders' equity:		
Preferred stock – par value \$0.01; 20,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock – par value \$0.01; 290,000,000 shares authorized; 153,641,565 and 154,403,850 shares issued and outstanding	1,536	1,544
Additional paid-in capital	6,790,856	6,837,714
Accumulated other comprehensive loss	(61,386)	(22,084)
Accumulated deficit	(4,490,430)	(4,644,413)
Total stockholders' equity	2,240,576	2,172,761
Total liabilities and stockholders' equity	\$ 3,856,762	\$ 3,893,346

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

CIENA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands) (unaudited)

	Six Months Ended	
	May 2, 2020	May 4, 2019
Cash flows provided by operating activities:		
Net income	\$ 153,983	\$ 86,354
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	48,381	42,995
Share-based compensation costs	33,579	29,362
Amortization of intangible assets	19,361	17,778
Deferred taxes	25,420	18,293
Provision for inventory excess and obsolescence	12,640	10,245
Provision for warranty	13,793	9,276
Other	16,190	(2,259)
Changes in assets and liabilities:		
Accounts receivable	15,865	43,174
Inventories	5,618	(109,554)
Prepaid expenses and other	(54,839)	(33,241)
Operating lease right-of-use assets	8,642	—
Accounts payable, accruals and other obligations	(151,713)	(26,971)
Deferred revenue	(5,679)	4,560
Short and long-term operating lease liabilities	(10,311)	—
Net cash provided by operating activities	<u>130,930</u>	<u>90,012</u>
Cash flows provided by (used in) investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(45,458)	(35,289)
Purchase of available for sale securities	(40,894)	(97,897)
Proceeds from maturities of available for sale securities	60,000	90,000
Proceeds from sales of available for sale securities	—	98,263
Settlement of foreign currency forward contracts, net	(3,836)	(2,741)
Acquisition of business, net of cash acquired	(28,300)	—
Purchase of equity investment	—	(2,667)
Net cash provided by (used in) investing activities	<u>(58,488)</u>	<u>49,669</u>
Cash flows used in financing activities:		
Payment of long-term debt	(1,733)	(3,500)
Payment of debt issuance costs	(382)	—
Payment of finance lease obligations	(1,381)	(1,679)
Payment for debt conversion liability	—	(111,268)
Shares repurchased for tax withholdings on vesting of stock unit awards	(18,200)	(15,865)
Repurchases of common stock - repurchase program	(74,535)	(65,103)
Proceeds from issuance of common stock	12,290	11,235
Net cash used in financing activities	<u>(83,941)</u>	<u>(186,180)</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	<u>(4,876)</u>	<u>224</u>
Net decrease in cash, cash equivalents and restricted cash	<u>(16,375)</u>	<u>(46,275)</u>
Cash, cash equivalents and restricted cash at beginning of period	<u>904,161</u>	<u>745,423</u>
Cash, cash equivalents and restricted cash at end of period	<u>\$ 887,786</u>	<u>\$ 699,148</u>
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	\$ 17,590	\$ 19,978
Cash paid during the period for income taxes, net	\$ 22,011	\$ 9,258
Operating lease payments	\$ 11,409	\$ —
Non-cash investing and financing activities		
Purchase of equipment in accounts payable	\$ 4,480	\$ 2,793
Repurchase of common stock in accrued liabilities from repurchase program	\$ —	\$ 1,441
Conversion of debt conversion liability into 1,585,140 shares of common stock	\$ —	\$ 52,944
Operating lease right-of-use assets subject to lease liability	\$ 4,887	\$ —

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

CIENA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(in thousands, except share data)
(unaudited)

	Common Stock Shares	Par Value	Additional Paid-in-Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
Balance at November 2, 2019	154,403,850	\$ 1,544	\$ 6,837,714	\$ (22,084)	\$ (4,644,413)	\$ 2,172,761
Net income	—	—	—	—	153,983	153,983
Other comprehensive loss	—	—	—	(39,302)	—	(39,302)
Repurchase of common stock - repurchase program	(1,872,446)	(19)	(74,516)	—	—	(74,535)
Issuance of shares from employee equity plans	1,562,899	16	12,274	—	—	12,290
Share-based compensation expense	—	—	33,579	—	—	33,579
Shares repurchased for tax withholdings on vesting of stock unit awards	(452,738)	(5)	(18,195)	—	—	(18,200)
Balance at May 2, 2020	<u>153,641,565</u>	<u>\$ 1,536</u>	<u>\$ 6,790,856</u>	<u>\$ (61,386)</u>	<u>\$ (4,490,430)</u>	<u>\$ 2,240,576</u>

	Common Stock Shares	Par Value	Additional Paid-in-Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
Balance at November 3, 2018	154,318,531	\$ 1,543	\$ 6,881,223	\$ (5,780)	\$ (4,947,652)	\$ 1,929,334
Effect of adoption of new accounting standards	—	—	—	—	49,805	49,805
Net income	—	—	—	—	86,354	86,354
Other comprehensive loss	—	—	—	(13,426)	—	(13,426)
Repurchase of common stock - repurchase program	(1,752,525)	(17)	(66,527)	—	—	(66,544)
Issuance of shares from employee equity plans	1,875,159	19	11,216	—	—	11,235
Share-based compensation expense	—	—	29,362	—	—	29,362
Settlement of debt conversion liability	1,585,140	16	52,928	—	—	52,944
Shares repurchased for tax withholdings on vesting of stock unit awards	(459,604)	(5)	(15,860)	—	—	(15,865)
Balance at May 4, 2019	<u>155,566,701</u>	<u>\$ 1,556</u>	<u>\$ 6,892,342</u>	<u>\$ (19,206)</u>	<u>\$ (4,811,493)</u>	<u>\$ 2,063,199</u>

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

CIENA CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

(1) INTERIM FINANCIAL STATEMENTS

The interim financial statements included herein for Ciena Corporation and its wholly owned subsidiaries (“Ciena”) have been prepared by Ciena, without audit, pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (the “SEC”).

The preparation of financial statements and related disclosures in conformity with GAAP requires Ciena to make judgments, assumptions, and estimates that affect the amounts reported in the Condensed Consolidated Financial Statements and accompanying notes. The inputs into certain of Ciena’s judgments, assumptions and estimates reflected the information available to Ciena regarding the economic implications of the COVID-19 pandemic, and expectations as to its impact on Ciena’s business. The actual results that Ciena experiences may differ materially from such inputs into Ciena’s critical and significant accounting estimates. As the duration and severity of the COVID-19 pandemic are unclear, certain of such estimates could require further judgment or modification and therefore carry a higher degree of variability and volatility as compared to prior periods. As events continue to evolve, Ciena’s estimates may change materially in future periods.

In the opinion of management, the financial statements included in this report reflect all normal recurring adjustments that Ciena considers necessary for the fair statement of the results of operations of Ciena for the interim periods covered and of the financial position of Ciena at the date of the interim balance sheets. Certain information and footnote disclosures normally included in the annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) have been condensed or omitted pursuant to SEC rules and regulations. The Condensed Consolidated Balance Sheet as of November 2, 2019 was derived from audited financial statements, but does not include all disclosures required by GAAP. However, Ciena believes that the disclosures are adequate to understand the information presented herein. The operating results for interim periods are not necessarily indicative of the operating results for the entire year. These financial statements should be read in conjunction with Ciena’s audited consolidated financial statements and the notes thereto included in Ciena’s annual report on Form 10-K for fiscal 2019 (the “2019 Annual Report”).

Ciena has a 52 or 53-week fiscal year, with quarters ending on the Saturday nearest to the last day of January, April, July and October, respectively, of each year. Fiscal 2020 and 2019 are 52-week fiscal years. Effective the second quarter of fiscal 2020, Ciena changed the presentation of reporting for its financial statements and notes thereto to reflect the actual dates on which fiscal years and quarterly periods ended. Because these dates can change from period to period, for consistency purposes, Ciena previously presented such information indicating that its quarters ended on January 31, April 30, July 31 and October 31. This change, affecting only the presentation of such information, was made on a prospective basis and it does not impact comparability of previous financial results. References to prior reported periods have been changed to reflect the actual period end dates of May 2, 2020, May 4, 2019, November 2, 2019 and November 3, 2018 for periods reported herein.

(2) SIGNIFICANT ACCOUNTING POLICIES

Except for the changes in certain policies described below, there have been no material changes to Ciena’s significant accounting policies, compared to the accounting policies described in Note 1, Ciena Corporation and Significant Accounting Policies and Estimates, in Notes to Consolidated Financial Statements in Item 8 of Part II of the 2019 Annual Report.

Newly Issued Accounting Standards - Effective

Leases

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Codification ASC 842, *Leases*, which requires an entity to recognize assets and liabilities on the balance sheet for the rights and obligations created by leased assets and to provide additional disclosures. Effective November 3, 2019, Ciena adopted ASC 842 which requires right-of-use (“ROU”) assets and lease liabilities to be recorded on the balance sheet for leases. The guidance specifies that at the inception of a contract, an entity must determine whether the contract is or contains a lease. The contract is or contains a lease if the contract conveys the right to control the use of the property, plant, or equipment for a designated term in exchange for consideration. Ciena’s evaluation of its contracts followed the assessment of whether there was a right to obtain substantially all of the economic benefits from the use and the right to direct the use of the identified asset in the contract. Operating leases are included in the Operating right-of-use assets (“Operating ROU assets”), Operating lease liabilities and Long-term operating lease liabilities in the Condensed Consolidated Balance Sheets. Finance leases are included in Equipment, building, furniture and fixtures, net (“Finance ROU assets”), Accrued liabilities and other short-term obligations and Other long-term obligations are included in the Condensed Consolidated Balance Sheets.

Ciena adopted the guidance on a modified retrospective basis as of November 3, 2019, such that related amounts in prior periods have not been restated. Ciena has operating and finance leases that primarily relate to real property. As a practical expedient, Ciena has elected the “package of practical expedients” and, as a result, did not reassess existing lease identifications, lease classifications or initial direct costs. As a practical expedient, Ciena has elected not to capitalize leases with a term of 12 months or less without a purchase option that it is likely to exercise. Also as a practical expedient for disclosure, Ciena has elected not to separate lease and non-lease components on operating and finance leases. Lease components are payment items directly attributable to the use of the underlying asset, while non-lease components are explicit elements of a contract not directly related to the use of the underlying asset, including pass through operating expenses like common area maintenance and utilities.

Operating ROU assets and lease liabilities and Finance ROU assets and lease liabilities are recognized on the Condensed Consolidated Balance Sheets at the present value of the future lease payments over the life of the lease term. Ciena uses discount rates based on incremental borrowing rates, on a collateralized basis, for the respective underlying assets, for terms similar to the respective leases when implicit rates for leases are not determinable. Operating lease costs are included as rent expense in the Condensed Consolidated Statements of Operations. Fixed base payments on operating leases paid directly to the lessor are recorded as lease expense on a straight-line basis. Related variable payments based on usage, changes in an index, or market rate are expensed as incurred. Finance ROU assets are generally amortized on a straight line basis over the lease term with the interest expense on the lease liability recorded using the interest method. The amortization and interest expense are recorded separately in the Condensed Consolidated Statements of Operations.

Upon adoption, Ciena recorded Operating ROU assets of \$53.3 million and lease liabilities of \$76.0 million related to its operating leases. As of November 2, 2019, the restructuring reserve liability for vacated office space of \$11.1 million was included in Accrued liabilities and other short-term obligations and Other long-term obligations on the Condensed Consolidated Balance Sheet under prior accounting guidance. Upon adoption of the updated guidance, the existing lease reserve liability was reclassified as a reduction to the Operating ROU assets. ROU assets will be tested for impairment when circumstances indicate that the carrying values may not be recoverable. The adoption of this guidance did not require a cumulative effect adjustment or have an impact on the Condensed Consolidated Statements of Income or Condensed Consolidated Statements of Cash Flows.

Opening Balance Adjustments

The following table summarizes the cumulative effect of the changes made to Ciena’s Condensed Consolidated Balance Sheet in connection with the adoption of ASC 842 (in thousands):

	Balance at November 2, 2019	New Lease Accounting Standard	Adjusted Balance at November 3, 2019
ASSETS:			
Operating right-of-use assets	\$ —	\$ 53,334 ⁽¹⁾	\$ 53,334
Total assets	\$ 3,893,346	\$ 53,334	\$ 3,946,680
LIABILITIES AND STOCKHOLDERS’ EQUITY:			
Accrued liabilities and other short-term obligations	\$ 382,740	\$ (1,484) ⁽²⁾	\$ 381,256
Short-term lease liabilities	\$ —	20,498 ⁽³⁾	\$ 20,498
Other long-term obligations	\$ 148,747	(21,244) ⁽⁴⁾	\$ 127,503
Long-term operating lease liabilities	\$ —	55,564 ⁽⁵⁾	\$ 55,564
Total liabilities and stockholders’ equity	\$ 3,893,346	\$ 53,334	\$ 3,946,680

⁽¹⁾ Represents \$76.0 million of operating leases recognized as Operating ROU assets upon adoption of ASC 842, less \$5.4 million of deferred rent, \$6.2 million of tenant improvement allowances, \$1.5 million of short-term restructuring reserve liability and \$9.6 million of long-term restructuring reserve liability all recognized as a reduction to Right-of-use assets.

⁽²⁾ Represents \$1.5 million of short-term restructuring reserve liability recognized as a reduction to Operating ROU assets.

⁽³⁾ Represents \$20.5 million of lease liabilities for operating leases.

⁽⁴⁾ Represents \$9.6 million of long-term restructuring reserve liability, \$5.4 million of deferred rent, and \$6.2 million of tenant improvement allowances recognized as a reduction to Right-of-use assets.

⁽⁵⁾ Represents \$55.6 million of lease liabilities for operating leases.

See Note 15 for additional information.

Fair Value Measurement

In August 2018, the FASB issued ASU No. 2018-13 (“ASU 2018-13”), *Fair Value Measurement (Topic 820): Disclosure Framework* which modifies the disclosure requirements on fair value measurements. Ciena adopted ASU 2018-13 beginning the first quarter of fiscal year 2020. Adoption of ASU 2018-13 did not have a material effect on Ciena’s financial position or results of operations.

Newly Issued Accounting Standards - Not Yet Effective

In June 2016, the FASB issued ASU No. 2016-13 (“ASU 2016-13”), *Financial Instruments - Credit Losses*, which requires measurement and recognition of expected credit losses for financial assets held based on historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. ASU 2016-13 is effective for Ciena beginning in the first quarter of fiscal 2021, and early adoption is permitted. Ciena is currently evaluating the impact of this accounting standard update on its Consolidated Financial Statements and related disclosures.

(3) REVENUE

Disaggregation of Revenue

Ciena’s disaggregated revenue represents similar groups that depict the nature, amount, and timing of revenue and cash flows for Ciena’s various offerings. The sales cycle, contractual obligations, customer requirements, and go-to-market strategies may differ for each of its product categories, resulting in different economic risk profiles for each category.

The tables below (in thousands) set forth Ciena’s disaggregated revenue for the respective period:

	Quarter Ended May 2, 2020				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	\$ 654,294	\$ —	\$ —	\$ —	\$ 654,294
Packet Networking	64,167	—	—	—	64,167
Platform Software and Services	—	44,985	—	—	44,985
Blue Planet Automation Software and Services	—	—	15,017	—	15,017
Maintenance Support and Training	—	—	—	71,479	71,479
Installation and Deployment	—	—	—	34,242	34,242
Consulting and Network Design	—	—	—	9,869	9,869
Total revenue by product line	\$ 718,461	\$ 44,985	\$ 15,017	\$ 115,590	\$ 894,053
Timing of revenue recognition:					
Products and services at a point in time	\$ 718,461	\$ 16,978	\$ 4,745	\$ 4,677	\$ 744,861
Services transferred over time	—	28,007	10,272	110,913	149,192
Total revenue by timing of revenue recognition	\$ 718,461	\$ 44,985	\$ 15,017	\$ 115,590	\$ 894,053

Quarter Ended May 4, 2019

	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	\$ 623,838	\$ —	\$ —	\$ —	\$ 623,838
Packet Networking	73,138	—	—	—	73,138
Platform Software and Services	—	35,229	—	—	35,229
Blue Planet Automation Software and Services	—	—	12,473	—	12,473
Maintenance Support and Training	—	—	—	68,788	68,788
Installation and Deployment	—	—	—	41,322	41,322
Consulting and Network Design	—	—	—	10,223	10,223
Total revenue by product line	\$ 696,976	\$ 35,229	\$ 12,473	\$ 120,333	\$ 865,011

Timing of revenue recognition:

Products and services at a point in time	\$ 696,976	\$ 11,101	\$ 3,047	\$ 5,575	\$ 716,699
Services transferred over time	—	24,128	9,426	114,758	148,312
Total revenue by timing of revenue recognition	\$ 696,976	\$ 35,229	\$ 12,473	\$ 120,333	\$ 865,011

Six Months Ended May 2, 2020

	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	1,245,844	\$ —	\$ —	\$ —	\$ 1,245,844
Packet Networking	131,675	—	—	—	131,675
Platform Software and Services	—	96,873	—	—	96,873
Blue Planet Automation Software and Services	—	—	30,482	—	30,482
Maintenance Support and Training	—	—	—	133,271	133,271
Installation and Deployment	—	—	—	69,196	69,196
Consulting and Network Design	—	—	—	19,624	19,624
Total revenue by product line	\$ 1,377,519	\$ 96,873	\$ 30,482	\$ 222,091	\$ 1,726,965

Timing of revenue recognition:

Products and services at a point in time	\$ 1,377,518	\$ 30,092	\$ 8,482	\$ 8,874	\$ 1,424,966
Services transferred over time	—	66,781	22,001	213,217	301,999
Total revenue by timing of revenue recognition	\$ 1,377,518	\$ 96,873	\$ 30,483	\$ 222,091	\$ 1,726,965

Six Months Ended May 4, 2019

	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	\$ 1,172,835	\$ —	\$ —	\$ —	\$ 1,172,835
Packet Networking	144,707	—	—	—	144,707
Platform Software and Services	—	76,827	—	—	76,827
Blue Planet Automation Software and Services	—	—	27,447	—	27,447
Maintenance Support and Training	—	—	—	130,065	130,065
Installation and Deployment	—	—	—	71,944	71,944
Consulting and Network Design	—	—	—	19,713	19,713
Total revenue by product line	\$ 1,317,542	\$ 76,827	\$ 27,447	\$ 221,722	\$ 1,643,538
Timing of revenue recognition:					
Products and services at a point in time	\$ 1,317,542	\$ 27,145	\$ 9,275	\$ 9,141	\$ 1,363,103
Services transferred over time	—	49,682	18,172	212,581	280,435
Total revenue by timing of revenue recognition	\$ 1,317,542	\$ 76,827	\$ 27,447	\$ 221,722	\$ 1,643,538

Effective the beginning of fiscal 2020, Ciena's Global Sales and Marketing organization combined its previous North America and Caribbean and Latin America ("CALA") regions into a new "Americas" sales region. Accordingly, Ciena reflects its sales geographically around the following markets: (i) Americas; (ii) Europe, Middle East and Africa ("EMEA"); and (iii) Asia Pacific, Japan and India ("APAC"). Within each geographic area, Ciena maintains specific teams or personnel that focus on a particular region, country, customer or market vertical. These teams include sales management, account salespersons and sales engineers, as well as services professionals and commercial management personnel.

For the periods below, Ciena's geographic distribution of revenue was as follows (in thousands):

	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
Geographic distribution:				
Americas	\$ 650,381	\$ 615,492	\$ 1,224,385	1,131,973
EMEA	141,431	114,993	271,396	244,183
APAC	102,241	134,526	231,184	267,382
Total revenue by geographic distribution	\$ 894,053	\$ 865,011	\$ 1,726,965	\$ 1,643,538

- *Networking Platforms* reflects sales of Ciena's Converged Packet Optical and Packet Networking product lines.
 - Converged Packet Optical - includes the 6500 Packet-Optical Platform, 5430 Reconfigurable Switching System, Waveserver® stackable interconnect system ("Waveserver"), the family of CoreDirector® Multiservice Optical Switches and the OTN configuration for the 5410 Reconfigurable Switching System. This product line also includes sales of the Z-Series Packet-Optical Platform.
 - Packet Networking - includes the 3000 family of service delivery switches and service aggregation switches and the 5000 family of service aggregation switches. This product line also includes the 8700 Packetwave Platform, the Ethernet packet configuration for the 5410 Service Aggregation Switch, and the 6500 Packet Transport System (PTS), which combines packet switching, control plane operation, and integrated optics.

The Networking Platforms segment also includes sales of operating system software and enhanced software features embedded in each of the product lines above. Revenue from this segment is included in product revenue on the Condensed Consolidated Statements of Operations. Operating system software and enhanced software features embedded in Ciena hardware are each considered distinct performance obligations for which the revenue is generally recognized upfront at a point in time upon transfer of control.

- *Platform Software and Services* provides analytics, data, and planning tools to assist customers in managing Ciena’s Networking Platforms products in their networks. Ciena’s platform software includes its Manage, Control and Plan (MCP) domain controller solution, OneControl Unified Management System, ON-Center® Network and Service Management Suite, Ethernet Services Manager, Optical Suite Release and Planet Operate. Platform software-related services revenue includes sales of subscription, installation, support, and consulting services related to Ciena’s software platforms, operating system software and enhanced software features embedded in each of the Networking Platforms product lines above. Revenue from the software portion of this segment is included in product revenue on the Condensed Consolidated Statements of Operations. Revenue from services portions of this segment is included in services revenue on the Condensed Consolidated Statements of Operations.
- *Blue Planet® Automation Software and Services* is a comprehensive, open software suite, together with related services, that allows customers to use enhanced knowledge about their networks to drive adaptive optimization of their services and operations. Ciena’s Blue Planet Automation Platform includes multi-domain service orchestration (MDSO), network function virtualization (NFV), management and orchestration (NFV MANO), analytics, network health predictor (NHP), route optimization and assurance (ROA), inventory management, unified assurance and analytics (UAA) and Ciena’s SDN Multilayer Controller and virtual wide area network (V-WAN) application. Services revenue includes sales of subscription, installation, support, consulting and design services related to Ciena’s Blue Planet Automation Platform. Revenue from the software portion of this segment is included in product revenue on the Condensed Consolidated Statements of Operations. Revenue from services portions of this segment is included in services revenue on the Condensed Consolidated Statements of Operations.

Ciena’s software platform revenue typically reflects sales of either perpetual or term-based software licenses, and these sales are considered a distinct performance obligation where revenue is generally recognized upfront at a point in time upon transfer of control. Revenue from software subscription and support are recognized ratably over the period during which the services are performed. Revenue from professional services for solution customization, software and solution support services, consulting and design, and build-operate-transfer services relating to Ciena’s software offerings are recognized over time with Ciena applying the input method to determine the amount of revenue to be recognized in a given period.

- *Global Services* reflects sales of a broad range of Ciena’s services for maintenance support and training, installation and deployment, and consulting and network design activities. Revenue from this segment is included in services revenue on the Condensed Consolidated Statements of Operations. Ciena’s Global Services are considered a distinct performance obligation where revenue is generally recognized over time. Revenue from maintenance support is recognized ratably over the period during which the services are performed. Revenue from installation and deployment services and consulting and network design services are recognized over time with Ciena applying the input method to determine the amount of revenue to be recognized in a given period. Revenue from training services is generally recognized at a point in time upon completion of the service.

Contract Balances

The following table provides information about receivables, contract assets and contract liabilities (deferred revenue) from contracts with customers (in thousands):

	Balance at May 2, 2020	Balance at November 2, 2019
Accounts receivable, net	\$ 693,963	\$ 724,854
Contract assets for unbilled accounts receivable	\$ 87,746	\$ 84,046
Deferred revenue	\$ 149,917	\$ 156,873

Our contract assets represent unbilled accounts receivable where transfer of a product or service has occurred but invoicing is conditional upon completion of future performance obligations. These amounts are primarily related to installation and deployment and professional services arrangements where transfer of control has occurred, but Ciena has not yet invoiced the customer. Contract assets are included in prepaid expenses and other current assets in the Condensed Consolidated Balance Sheets.

Contract liabilities consist of deferred revenue and represent advanced payments against non-cancelable customer orders received prior to revenue recognition. Ciena recognized approximately \$76.5 million and \$73.0 million of revenue during the first six months of fiscal 2020 and 2019 that was included in the deferred revenue balance at November 2, 2019 and November 3, 2018, respectively. Revenue recognized due to changes in transaction price from performance obligations satisfied or partially satisfied in previous periods was immaterial during the six months ended May 2, 2020 and May 4, 2019.

Capitalized Contract Acquisition Costs

Capitalized contract acquisition costs consist of deferred sales commissions, and were \$13.3 million and \$15.7 million as of May 2, 2020 and November 2, 2019, respectively, and were included in other current assets and other assets. The amortization expense associated with these costs was \$10.1 million and \$8.4 million during the first six months of fiscal 2020 and 2019, respectively, and was included in sales and marketing expense.

Remaining Performance Obligations

Remaining Performance Obligations (RPO) are comprised of non-cancelable customer purchase orders for products and services that are awaiting transfer of control for revenue recognition under the applicable contract terms. As of May 2, 2020, the aggregate amount of RPO was \$1.078 billion. As of May 2, 2020, Ciena expects approximately 83% of the RPO to be recognized as revenue within the next twelve months.

(4) BUSINESS COMBINATIONS

Centina Systems, Inc. Acquisition

On November 2, 2019 Ciena acquired Centina Systems, Inc. (“Centina”), a provider of service assurance analytics and network performance management solutions, for approximately \$34.0 million in cash. This transaction has been accounted for as the acquisition of a business.

During the first six months of fiscal 2020, Ciena incurred approximately \$0.7 million of acquisition-related costs associated with this transaction. These costs primarily reflect fees associated with financial, legal and accounting advisors.

The following table summarizes the final purchase price allocation related to the acquisition based on the estimated fair value of the acquired assets and assumed liabilities (in thousands):

	Amount
Cash and cash equivalents	\$ 5,718
Accounts receivable	610
Prepaid expenses and other	536
Equipment, furniture and fixtures	17
Goodwill	13,055
Customer relationships and contracts	400
Developed technology	22,200
Accounts payable	(47)
Accrued liabilities	(286)
Deferred revenue	(1,493)
Deferred tax liability	(6,692)
Total purchase consideration	<u>\$ 34,018</u>

Customer relationships and contracts represent agreements with existing Centina customers and have an estimated useful life of two years.

Developed technology represents purchased technology that has reached technological feasibility and for which Centina had substantially completed development as of the date of acquisition. Fair value was determined using future discounted cash flows related to the projected income stream of the developed technology for a discrete projection period. Cash flows were discounted to their present value as of the closing date. Developed technology is amortized on a straight-line basis over its estimated useful life of five years.

The goodwill generated from the acquisition of Centina is primarily related to expected synergies. The total goodwill amount was recorded in the Blue Planet Automation Software and Services segment. The goodwill is not deductible for income tax purposes.

Pro forma disclosures have not been included due to immateriality.

(5) RESTRUCTURING COSTS

Ciena has undertaken a number of restructuring activities intended to reduce expense and to better align its workforce and costs with market opportunities, product development and business strategies. The following table sets forth the restructuring activity and balance of the restructuring liability accounts, which are included in Accrued liabilities and other short-term obligations on Ciena's Condensed Consolidated Balance Sheets, for the six months ended May 2, 2020 (in thousands):

	Workforce reduction	Consolidation of excess facilities and other restructuring activities	Total
Balance at November 2, 2019	\$ 3,983	\$ 11,160	\$ 15,143
Charges	4,426 ⁽¹⁾	3,857 ⁽²⁾	8,283
Adjustments related to ASC 842	—	(11,160) ⁽³⁾	(11,160)
Cash payments	(5,982)	(3,857)	(9,839)
Balance at May 2, 2020	\$ 2,427	\$ —	\$ 2,427
Current restructuring liabilities	\$ 2,427	\$ —	\$ 2,427
Non-current restructuring liabilities	\$ —	\$ —	\$ —

⁽¹⁾ Reflects a global workforce reduction of 86 employees during the six months ended May 2, 2020 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes.

⁽²⁾ Primarily represents variable costs and imputed interest expense related to restructured facilities.

⁽³⁾ Represents restructuring reserve liability recognized as a reduction to Operating right-of-use assets, net in relation to adoption of ASC 842. See Notes 2 and 15 for further discussion.

The following table sets forth the restructuring activity and balance of the restructuring liability accounts, which are included in Accrued liabilities and other short-term obligations on Ciena's Condensed Consolidated Balance Sheets for the six months ended May 4, 2019 (in thousands):

	Workforce reduction	Consolidation of excess facilities	Total
Balance at November 3, 2018	\$ 2,108	\$ 1,739	\$ 3,847
Charges	5,661 ⁽¹⁾	680 ⁽²⁾	6,341
Cash payments	(6,667)	(847)	(7,514)
Balance at May 4, 2019	\$ 1,102	\$ 1,572	\$ 2,674
Current restructuring liabilities	\$ 1,102	\$ 347	\$ 1,449
Non-current restructuring liabilities	\$ —	\$ 1,225	\$ 1,225

⁽¹⁾ Reflects a global workforce reduction of approximately 95 employees during the six months ended May 4, 2019 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes.

⁽²⁾ Reflects unfavorable lease commitments in connection with a portion of the facilities for certain locations in the United States and India where Ciena has vacated unused space.

(6) INTEREST AND OTHER INCOME (LOSS), NET

The components of interest and other income (loss), net, are as follows (in thousands):

	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
Interest income	\$ 2,023	\$ 3,519	\$ 5,413	\$ 7,391
Gains (losses) on non-hedge designated foreign currency forward contracts	1,086	(898)	1,723	(877)
Foreign currency exchange losses	(4,067)	(2,995)	(4,839)	(2,212)
Other	(1,707)	130	(1,316)	(293)
Interest and other income (loss), net	\$ (2,665)	\$ (244)	\$ 981	\$ 4,009

Ciena Corporation, as the U.S. parent entity, uses the U.S. Dollar as its functional currency; however, some of its foreign branch offices and subsidiaries use local currencies as their functional currencies. Ciena recorded \$4.8 million and \$2.2 million in foreign currency exchange rate losses during the first six months of fiscal 2020 and 2019, respectively, as a result of monetary assets and liabilities that were transacted in a currency other than the entity's functional currency, and the related remeasurement adjustments were recorded in interest and other income (loss), net, on the Condensed Consolidated Statements of Operations. From time to time, Ciena uses foreign currency forwards to hedge this type of balance sheet exposure. See Note 13 for further discussion. These forwards are not designated as hedges for accounting purposes, and any net gain or loss associated with these derivatives is reported in interest and other income (loss), net, on the Condensed Consolidated Statements of Operations. During the first six months of fiscal 2020, Ciena recorded gains of \$1.7 million from non-hedge designated foreign currency forward contracts. During the first six months of fiscal 2019, Ciena recorded losses of \$0.9 million from non-hedge designated foreign currency forward contracts.

(7) INCOME TAXES

On December 2, 2019, the U.S. Department of the Treasury released final regulations and proposed regulations under Section 59A of the Internal Revenue Code, the Base Erosion and Anti-Abuse Tax ("BEAT"). BEAT, which requires certain U.S. corporations to pay a minimum tax associated with deductible payments to non-U.S. related parties, was enacted as part of the Tax Cuts and Jobs Act (the "Tax Act"). Also, on December 2, 2019, the U.S. Department of the Treasury released final regulations that provide additional guidance with respect to the foreign tax credit regime under the Tax Act.

The effective tax rate for the second quarter and six months ended May 2, 2020 was lower than the effective tax rate for the second quarter and six months ended May 4, 2019, primarily due to reduced BEAT and the effect of the final regulations released on December 2, 2019.

(8) SHORT-TERM AND LONG-TERM INVESTMENTS

As of the dates indicated, investments are comprised of the following (in thousands):

	May 2, 2020			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	\$ 100,116	\$ 626	\$ —	\$ 100,742
	\$ 100,116	\$ 626	\$ —	\$ 100,742
	November 2, 2019			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	\$ 109,715	\$ 225	\$ —	\$ 109,940
Included in long-term investments	10,017	—	(3)	10,014
	\$ 119,732	\$ 225	\$ (3)	\$ 119,954

The following table summarizes the final legal maturities of debt investments at May 2, 2020 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	\$ 100,116	\$ 100,742
	<u>\$ 100,116</u>	<u>\$ 100,742</u>

(9) FAIR VALUE MEASUREMENTS

As of the date indicated, the following table summarizes the assets and liabilities that are recorded at fair value on a recurring basis (in thousands):

	May 2, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	\$ 699,957	\$ —	\$ —	\$ 699,957
Bond mutual fund	50,165	—	—	50,165
Deferred compensation plan assets	6,428	—	—	6,428
U.S. government obligations	—	100,742	—	100,742
Foreign currency forward contracts	—	345	—	345
Total assets measured at fair value	<u>\$ 756,550</u>	<u>\$ 101,087</u>	<u>\$ —</u>	<u>\$ 857,637</u>
Liabilities:				
Foreign currency forward contracts	\$ —	\$ 9,747	\$ —	\$ 9,747
Forward starting interest rate swaps	—	32,665	—	32,665
Contingent consideration	—	—	3,705	3,705
Total liabilities measured at fair value	<u>\$ —</u>	<u>\$ 42,412</u>	<u>\$ 3,705</u>	<u>\$ 46,117</u>

	November 2, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	\$ 759,114	\$ —	\$ —	\$ 759,114
Deferred compensation plan assets	4,974	—	—	4,974
U.S. government obligations	—	119,954	—	119,954
Foreign currency forward contracts	—	1,570	—	1,570
Total assets measured at fair value	<u>\$ 764,088</u>	<u>\$ 121,524</u>	<u>\$ —</u>	<u>\$ 885,612</u>
Liabilities:				
Foreign currency forward contracts	\$ —	\$ 35	\$ —	\$ 35
Forward starting interest rate swaps	—	21,093	—	21,093
Contingent consideration	—	—	3,705	3,705
Total liabilities measured at fair value	<u>\$ —</u>	<u>\$ 21,128</u>	<u>\$ 3,705</u>	<u>\$ 24,833</u>

As of the date indicated, the assets and liabilities above are presented on Ciena's Condensed Consolidated Balance Sheets as follows (in thousands):

	May 2, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 750,122	\$ —	\$ —	\$ 750,122
Short-term investments	—	100,742	—	100,742
Prepaid expenses and other	—	345	—	345
Other long-term assets	6,428	—	—	6,428
Total assets measured at fair value	\$ 756,550	\$ 101,087	\$ —	\$ 857,637
Liabilities:				
Accrued liabilities and other short-term obligations	\$ —	\$ 9,747	\$ 3,705	\$ 13,452
Other long-term obligations	—	32,665	—	32,665
Total liabilities measured at fair value	\$ —	\$ 42,412	\$ 3,705	\$ 46,117

	November 2, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 759,114	\$ —	\$ —	\$ 759,114
Short-term investments	—	109,940	—	109,940
Prepaid expenses and other	—	1,570	—	1,570
Long-term investments	—	10,014	—	10,014
Other long-term assets	4,974	—	—	4,974
Total assets measured at fair value	\$ 764,088	\$ 121,524	\$ —	\$ 885,612
Liabilities:				
Accrued liabilities and other short-term obligations	\$ —	\$ 35	\$ —	\$ 35
Other long-term obligations	—	21,093	3,705	24,798
Total liabilities measured at fair value	\$ —	\$ 21,128	\$ 3,705	\$ 24,833

Ciena did not have any transfers between Level 1 and Level 2 fair value measurements during the periods presented.

Ciena's Level 3 liability includes \$3.7 million in accrued liabilities and other short-term obligations as of May 2, 2020. This reflects a contingent consideration element of a three-year payout arrangement associated with Ciena's purchase of DonRiver Holdings, LLC ("DonRiver") in the fourth quarter of fiscal 2018. As of May 2, 2020, there was no material change to the fair value.

(10) INVENTORIES

As of the dates indicated, inventories are comprised of the following (in thousands):

	May 2, 2020	November 2, 2019
Raw materials	\$ 106,193	\$ 99,041
Work-in-process	11,471	13,657
Finished goods	194,532	226,622
Deferred cost of goods sold	56,904	53,051
Gross inventories	369,100	392,371
Provision for excess and obsolescence	(43,347)	(47,322)
Inventories, net	\$ 325,753	\$ 345,049

Ciena writes down its inventory for estimated obsolescence or unmarketable inventory by an amount equal to the difference between the cost of inventory and the estimated net realizable value based on assumptions about future demand, which are affected by changes in Ciena's strategic direction, discontinuance of a product or introduction of newer versions of products, declines in the sales of or forecasted demand for certain products, and general market conditions. During the first six months of fiscal 2020, Ciena recorded a provision for excess and obsolescence of \$12.6 million, primarily related to a decrease in the forecasted demand for certain Networking Platforms products. Deductions from the provision for excess and obsolete inventory relate primarily to disposal activities.

(11) PREPAID EXPENSES AND OTHER

As of the dates indicated, prepaid expenses and other are comprised of the following (in thousands):

	May 2, 2020	November 2, 2019
Contract assets for unbilled accounts receivable	\$ 87,746	\$ 84,046
Prepaid VAT and other taxes	78,275	84,706
Prepaid expenses	65,127	48,680
Other non-trade receivables	54,269	28,136
Product demonstration equipment, net	36,212	38,900
Capitalized contract acquisition costs	9,424	11,677
Deferred deployment expense	623	125
Derivative assets	345	1,570
Restricted cash	—	74
	<u>\$ 332,021</u>	<u>\$ 297,914</u>

Depreciation of product demonstration equipment was \$4.2 million and \$4.3 million during the first six months of fiscal 2020 and 2019, respectively.

For further discussion on contract assets and capitalized contract acquisition costs, see Note 3 above.

(12) OTHER BALANCE SHEET DETAILS

As of the dates indicated, accrued liabilities and other short-term obligations are comprised of the following (in thousands):

	May 2, 2020	November 2, 2019
Compensation, payroll related tax and benefits ⁽¹⁾	\$ 96,195	\$ 182,363
Warranty	51,863	48,498
Vacation	23,363	22,290
Foreign currency forward contracts	9,747	35
Contingent consideration	3,705	4,372
Contingent compensation	3,420	—
Finance lease obligations	2,585	2,764
Interest payable	808	1,007
Other	97,087	121,411
	<u>\$ 288,773</u>	<u>\$ 382,740</u>

⁽¹⁾ Reduction is primarily due to the timing of bonus payments to employees under Ciena's annual cash incentive compensation plan.

The following table summarizes the activity in Ciena's accrued warranty for the fiscal periods indicated (in thousands):

	Beginning Balance	Current Period Provisions	Settlements	Ending Balance
Six Months Ended May 4, 2019	\$ 44,740	9,276	(9,109)	\$ 44,907
Six Months Ended May 2, 2020	\$ 48,498	13,793	(10,428)	\$ 51,863

(13) DERIVATIVE INSTRUMENTS

Foreign Currency Derivatives

As of May 2, 2020 and November 2, 2019, Ciena had forward contracts to hedge its foreign exchange exposure in order to reduce the variability in its Canadian Dollar- and Indian Rupee-denominated expense, which principally relates to research and development activities. The notional amount of these contracts was approximately \$162.9 million and \$197.4 million as of May 2, 2020 and November 2, 2019, respectively. These foreign exchange contracts have maturities of 24 months or less and have been designated as cash flow hedges.

As of May 2, 2020 and November 2, 2019, Ciena had forward contracts to hedge its foreign exchange exposure in order to reduce the variability in various currencies of certain balance sheet items. The notional amount of these contracts was approximately \$202.0 million and \$206.0 million as of May 2, 2020 and November 2, 2019, respectively. These foreign exchange contracts have maturities of 12 months or less and have not been designated as hedges for accounting purposes.

Interest Rate Derivatives

Ciena is exposed to floating rates of LIBOR interest on its term loan borrowings (see Note 16 below) and has hedged such risk by entering into floating to fixed interest rate swap arrangements ("interest rate swaps"). The interest rate swaps fix the LIBOR rate for \$350.0 million of the New 2025 Term Loan (as defined in Note 16 below) at 2.957% through September 2023. The total notional amount of interest rate swaps in effect was \$350.0 million as of May 2, 2020 and November 2, 2019.

Ciena expects the variable rate payments to be received under the terms of the interest rate swaps to offset exactly the forecasted variable rate payments on the equivalent notional amounts of the term loan. These derivative contracts have been designated as cash flow hedges.

Other information regarding Ciena's derivatives is immaterial for separate financial statement presentation. See Note 6 and Note 9 above.

(14) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income ("AOCI"), net of tax, for the six months ended May 2, 2020:

	Unrealized Gain/(Loss) on			Cumulative	
	Available-for-sale Securities	Foreign Currency Forward Contracts	Forward Starting Interest Rate Swaps	Foreign Currency Translation Adjustment	Total
Balance at November 2, 2019	\$ 152	\$ 925	\$ (13,686)	\$ (9,475)	\$ (22,084)
Other comprehensive gain (loss) before reclassifications	310	(9,559)	(10,932)	(21,490)	(41,671)
Amounts reclassified from AOCI	—	1,540	829	—	2,369
Balance at May 2, 2020	\$ 462	\$ (7,094)	\$ (23,789)	\$ (30,965)	\$ (61,386)

The following table summarizes the changes in AOCI, net of tax, for the six months ended May 4, 2019:

	Unrealized Gain/(Loss) on			Cumulative	
	Available-for-sale Securities	Foreign Currency Forward Contracts	Forward Starting Interest Rate Swaps	Foreign Currency Translation Adjustment	Total
Balance at November 3, 2018	\$ (425)	\$ (3,060)	\$ 6,417	\$ (8,712)	\$ (5,780)
Other comprehensive income (loss) before reclassifications	413	(1,613)	(10,013)	(3,846)	(15,059)
Amounts reclassified from AOCI	—	2,317	(684)	—	1,633
Balance at May 4, 2019	\$ (12)	\$ (2,356)	\$ (4,280)	\$ (12,558)	\$ (19,206)

All amounts reclassified from AOCI related to settlement (gains) losses on foreign currency forward contracts designated as cash flow hedges impacted research and development expense on the Condensed Consolidated Statements of Operations. All amounts reclassified from AOCI related to settlement (gains) losses on forward starting interest rate swaps designated as cash flow hedges impacted interest and other income (loss), net, on the Condensed Consolidated Statements of Operations.

(15) LEASES

Ciena leases over 1.4 million square feet of facilities globally related to the ongoing operations of its business segments and related functions. Ciena's principal executive offices are located in Hanover, Maryland. Ciena's largest facilities are research and development centers located in Ottawa, Canada and Gurgaon, India. Ciena also has engineering and/or service delivery facilities located in San Jose, California; Petaluma, California; Alpharetta, Georgia; Quebec, Canada; Austin, Texas; and Pune and Bangalore, India. In addition, Ciena leases various smaller offices in regions throughout the world to support sales and services operations. Office facilities are leased under various non-cancelable operating or finance leases. Ciena's current leases have remaining terms that vary up to 13 years. Certain leases provide for options to extend up to 10 years and/or options to terminate within eight years.

As discussed in Note 2, the restructuring reserve liability related to Ciena's subleased space and vacated space for which subleases are being pursued was \$11.1 million as of November 2, 2019. Upon Ciena's adoption of ASC 842 on November 3, 2019, the existing Accrued liabilities and other short-term obligations and Other long-term obligations were reclassified as a reduction of the Operating right-of-use assets recorded in accordance with the updated guidance.

Leases included in the Condensed Consolidated Balance Sheets were as follows:

	Classification	As of May 2, 2020
Operating leases:		
Operating ROU Assets	Operating right-of-use assets	\$ 47,864
Operating lease liabilities	Operating lease liabilities and Long-term operating lease liabilities	69,196
Finance leases:		
Buildings, gross	Equipment, building, furniture and fixtures, net	\$ 66,931
Less: accumulated depreciation	Equipment, building, furniture and fixtures, net	(14,734)
Buildings, net		\$ 52,197
Finance lease liabilities	Accrued liabilities and other short-term obligations and other long-term obligations	\$ 62,152

The components of lease expense included in the Condensed Consolidated Statement of Operations were as follows:

	Classification	Quarter Ended	Six Months Ended
		May 2, 2020	May 2, 2020
Operating lease costs	Operating expense	\$ 4,744	\$ 9,201
Finance lease cost:			
Amortization of finance ROU asset	Operating expense	1,093	2,233
Interest on finance lease liabilities	Interest expense	1,168	2,412
Total finance lease cost		2,261	4,645
Non-capitalized lease cost	Operating expense	707	1,328
Variable lease cost ⁽¹⁾	Operating expense	1,324	2,635
Net lease cost ⁽²⁾		\$ 9,036	\$ 17,809

⁽¹⁾ Variable lease costs include expenses relating to insurance, taxes, maintenance and other costs required by the applicable operating lease. Variable lease costs are determined by whether they are to be included in base rent and if amounts are based on a consumer price index.

⁽²⁾ Excludes other operating expense of \$2.2 million and \$6.5 million for the quarter and six months ended May 2, 2020, respectively, related to amortization of leasehold improvements.

Future minimum lease payments and the present value of minimum lease payments related to operating and finance leases as of May 2, 2020 were as follows:

	Operating Leases	Finance Leases	Total
Remaining fiscal 2020	\$ 10,052	\$ 7,039	\$ 17,091
2021	18,592	7,089	25,681
2022	14,030	7,524	21,554
2023	10,867	7,524	18,391
2024	8,805	7,584	16,389
Thereafter	12,464	58,786	71,250
Total lease payments	74,810	95,546	170,356
Less: Imputed interest	(5,614)	(33,394)	(39,008)
Present value of lease liabilities	69,196	62,152	131,348
Less: Current portion of present value of minimum lease payments	(18,096)	(2,585)	(20,681)
Long-term portion of present value of minimum lease payments	\$ 51,100	\$ 59,567	\$ 110,667

As of May 2, 2020, the weighted average remaining lease terms and weighted average discount rates for operating and finance leases were as follows:

Weighted-average remaining lease term in years:

Operating leases	4.79
Finance leases	12.22
Weighted-average discount rates:	
Operating leases	3.12%
Finance leases	7.56%

As of November 2, 2019, minimum aggregate rentals under operating leases were as follows:

	2020	2021	2022	2023	2024	Thereafter	Total
Operating leases ⁽¹⁾	\$ 28,776	\$ 24,184	\$ 16,767	\$ 13,393	\$ 10,632	\$ 26,110	\$ 119,862

⁽¹⁾ The amount for operating lease commitments above include estimated variable expenses relating to insurance, taxes, maintenance and other costs required by the applicable operating lease.

(16) SHORT-TERM AND LONG-TERM DEBT

New 2025 Term Loan

On January 23, 2020, Ciena entered into a Refinancing Amendment to Credit Agreement pursuant to which Ciena refinanced the entire outstanding amount of its then existing senior secured term loan with an outstanding aggregate principal amount of \$693.0 million as of January 23, 2020 and maturing on September 28, 2025 (the "Old 2025 Term Loan") and incurred new senior secured term loans in an aggregate principal amount of \$693.0 million and maturing on September 28, 2025 (the "New 2025 Term Loan").

The net carrying values of Ciena's term loans were comprised of the following for the fiscal periods indicated (in thousands):

	May 2, 2020			November 2, 2019	
	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Value	Net Carrying Value
New 2025 Term Loan	\$ 691,268	\$ (1,742)	\$ (3,240)	\$ 686,286	\$ —
Old 2025 Term Loan	\$ —	\$ —	\$ —	\$ —	\$ 687,406

Deferred debt issuance costs that were deducted from the carrying amounts of the term loans totaled \$3.2 million at May 2, 2020 and \$3.6 million at November 2, 2019. Deferred debt issuance costs are amortized using the straight-line method, which approximates the effect of the effective interest rate, through the maturity of the term loans. The amortization of deferred debt issuance costs for these term loans are included in interest expense, and were \$0.3 million during the first six months of fiscal 2020 and fiscal 2019. The carrying value of the term loans listed above is also net of any unamortized debt discounts.

As of May 2, 2020, the estimated fair value of the New 2025 Term Loan was \$677.4 million. Ciena's term loan is categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its term loan using a market approach based on observable inputs, such as current market transactions involving comparable securities.

(17) EARNINGS PER SHARE CALCULATION

The following tables (in thousands except per share amounts) reconcile basic net income per common share ("Basic EPS") and diluted net income per potential common share ("Diluted EPS"). Basic EPS is computed using the weighted average number of common shares outstanding. Diluted EPS is computed using the weighted average number of the following, in each case, to the extent the effect is not anti-dilutive: (i) common shares outstanding; (ii) shares issuable upon vesting of stock unit awards; and (iii) shares issuable under Ciena's employee stock purchase plan and upon exercise of outstanding stock options, using the treasury stock method.

	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
Numerator				
Net income used to calculate Basic and Diluted EPS	\$ 91,655	\$ 52,738	\$ 153,983	\$ 86,354
Denominator	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
Basic weighted average shares outstanding	153,858	156,170	154,099	156,244
Add: Shares underlying outstanding stock options and stock unit awards and issuable under employee stock purchase plan	1,283	2,119	1,344	1,967
Dilutive weighted average shares outstanding	155,141	158,289	155,443	158,211

EPS	Quarter Ended		Six Months Ended	
	May 2,	May 4,	May 2,	May 4,
	2020	2019	2020	2019
Basic EPS	\$ 0.60	\$ 0.34	\$ 1.00	\$ 0.55
Diluted EPS	\$ 0.59	\$ 0.33	\$ 0.99	\$ 0.55

The following table summarizes the weighted average shares excluded from the calculation of the denominator for Diluted EPS due to their anti-dilutive effect for the periods indicated (in thousands):

	Quarter Ended		Six Months Ended	
	May 2,	May 4,	May 2,	May 4,
	2020	2019	2020	2019
Shares underlying stock options and stock unit awards	203	283	467	257
Total shares excluded due to anti-dilutive effect	203	283	467	257

(18) STOCKHOLDERS' EQUITY

Stock Repurchase Program

On December 13, 2018, Ciena announced that its Board of Directors authorized a program to repurchase up to \$500 million of Ciena's common stock. The program may be modified, suspended, or discontinued at any time. Due to the continued uncertainty surrounding the duration and severity of potential macroeconomic impacts of COVID-19, Ciena considered it prudent to temporarily suspend purchases of our common stock under our stock repurchase program effective as of March 17, 2020. The reinstatement of the program and the amount and timing of repurchases are subject to a variety of factors including liquidity, cash flow, stock price, and general business and market conditions.

The following table summarizes activity of the stock repurchase program, reported based on trade date:

	Shares Repurchased	Weighted-Average Price per Share	Amount Repurchased (in thousands)
Cumulative balance at November 2, 2019	3,838,466	\$ 39.10	\$ 150,076
Repurchase of common stock under the stock repurchase program	1,872,446	39.81	74,535
Cumulative balance at May 2, 2020	5,710,912	\$ 39.33	\$ 224,611

The purchase price for the shares of Ciena's stock repurchased is reflected as a reduction of common stock and additional paid-in capital.

Stock Repurchases Related to Stock Unit Award Tax Withholdings

Ciena repurchases shares of common stock to satisfy employee tax withholding obligations due on vesting of stock unit awards. The purchase price of \$18.2 million for the shares of Ciena's stock repurchased during the first six months of fiscal 2020 is reflected as a reduction to stockholders' equity. Ciena is required to allocate the purchase price of the repurchased shares as a reduction of common stock and additional paid-in capital.

(19) SHARE-BASED COMPENSATION EXPENSE

At Ciena's 2020 Annual Meeting of Stockholders on April 2, 2020, Ciena's stockholders approved an amendment to Ciena's 2017 Omnibus Incentive Plan (the "2017 Plan") to increase the number of shares available for issuance thereunder by 12.2 million shares, which became effective as of such date. As of May 2, 2020, the total number of shares authorized for issuance under the 2017 Plan is 21.1 million and approximately 14.9 million shares remained available for issuance thereunder.

The following table summarizes share-based compensation expense for the periods indicated (in thousands):

	Quarter Ended		Six Months Ended	
	May 2,	May 4,	May 2,	May 4,
	2020	2019	2020	2019
Product costs	\$ 827	\$ 702	\$ 1,498	\$ 1,339
Service costs	1,036	907	1,878	1,677
Share-based compensation expense included in cost of goods sold	1,863	1,609	3,376	3,016
Research and development	4,822	4,083	8,671	7,474
Sales and marketing	5,264	4,346	9,877	8,131
General and administrative	5,975	5,491	11,502	10,603
Share-based compensation expense included in operating expense	16,061	13,920	30,050	26,208
Share-based compensation expense capitalized in inventory, net	53	78	153	138
Total share-based compensation	\$ 17,977	\$ 15,607	\$ 33,579	\$ 29,362

As of May 2, 2020, total unrecognized share-based compensation expense was approximately \$135.1 million, which relates to unvested stock unit awards and is expected to be recognized over a weighted-average period of 1.6 years.

(20) SEGMENTS AND ENTITY-WIDE DISCLOSURES

Segment Reporting

Ciena has the following operating segments for reporting purposes: (i) Networking Platforms; (ii) Platform Software and Services; (iii) Blue Planet Automation Software and Services; and (iv) Global Services. During fiscal 2019, Ciena separated its previous Software and Software-Related Services segment into two stand-alone operating segments. Because Ciena previously disclosed its Platform Software and Services and Blue Planet Automation Software and Services as distinct product lines in its presentation of segment revenue for Software and Software-Related Services, there is no significant change to the presentation of segment revenues as a result of this separation. Comparative periods have been retrospectively adjusted to disclose segment profit for Platform Software and Services and Blue Planet Automation Software and Services. See Note 3 to Ciena's Condensed Consolidated Financial Statements.

Ciena's long-lived assets, including equipment, building, furniture and fixtures, right-of-use assets, finite-lived intangible assets and maintenance spares, are not reviewed by Ciena's chief operating decision maker for purposes of evaluating performance and allocating resources. As of May 2, 2020, equipment, building, furniture and fixtures, net, totaled \$260.9 million, and operating right-of-use assets totaled \$47.9 million both of which support asset groups within Ciena's four operating segments and unallocated selling and general and administrative activities. As of May 2, 2020, finite-lived intangible assets, goodwill and maintenance spares are assigned to asset groups within the following segments (in thousands):

	May 2, 2020				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Other intangible assets, net	\$ 15,586	\$ —	\$ 99,950	\$ —	\$ 115,536
Goodwill	\$ 65,029	\$ 156,191	\$ 89,049	\$ —	\$ 310,269
Maintenance spares, net	\$ —	\$ —	\$ —	\$ 58,476	\$ 58,476

Segment Revenue

The table below sets forth Ciena's segment revenue for the respective periods (in thousands):

	Quarter Ended		Six Months Ended	
	May 2,	May 4,	May 2,	May 4,
	2020	2019	2020	2019
Revenue:				
Networking Platforms				
Converged Packet Optical	\$ 654,294	\$ 623,838	\$ 1,245,844	\$ 1,172,835
Packet Networking	64,167	73,138	131,675	144,707
Total Networking Platforms	718,461	696,976	1,377,519	1,317,542
Platform Software and Services				
	44,985	35,229	96,873	76,827
Blue Planet Automation Software and Services				
	15,017	12,473	30,482	27,447
Global Services				
Maintenance Support and Training	71,479	68,788	133,271	130,065
Installation and Deployment	34,242	41,322	69,196	71,944
Consulting and Network Design	9,869	10,223	19,624	19,713
Total Global Services	115,590	120,333	222,091	221,722
Consolidated revenue	\$ 894,053	\$ 865,011	\$ 1,726,965	\$ 1,643,538

Segment Profit (Loss)

Segment profit (loss) is determined based on internal performance measures used by Ciena's chief executive officer to assess the performance of each operating segment in a given period. In connection with that assessment, the chief executive officer excludes the following items: selling and marketing costs; general and administrative costs; amortization of intangible assets; significant asset impairments and restructuring costs; acquisition and integration costs; interest and other income (loss), net; interest expense; loss on extinguishment and modification of debt and provision for income taxes.

The table below sets forth Ciena's segment profit (loss) and the reconciliation to consolidated net income during the respective periods indicated (in thousands):

	Quarter Ended		Six Months Ended	
	May 2,	May 4,	May 2,	May 4,
	2020	2019	2020	2019
Segment profit (loss):				
Networking Platforms	\$ 210,987	\$ 175,191	\$ 379,256	\$ 311,782
Platform Software and Services	21,668	12,477	50,619	32,940
Blue Planet Automation Software and Services	(4,399)	(5,941)	(7,512)	(7,988)
Global Services	53,540	54,981	99,068	94,682
Total segment profit	281,796	236,708	521,431	431,416
Less: Non-performance operating expenses				
Selling and marketing	101,214	103,502	208,280	201,615
General and administrative	42,030	42,154	84,498	81,397
Amortization of intangible assets	5,839	5,529	11,692	11,057
Significant asset impairments and restructuring costs	3,811	4,068	8,283	6,341
Acquisition and integration costs	1,414	1,135	3,233	2,743
Add: Other non-performance financial items				
Interest expense and other income (loss), net	(10,525)	(9,715)	(15,694)	(14,903)
Loss on extinguishment and modification of debt	—	—	(646)	—
Less: Provision for income taxes	25,308	17,867	35,122	27,006
Consolidated net income	\$ 91,655	\$ 52,738	\$ 153,983	\$ 86,354

Entity-Wide Reporting

Ciena's operating segments each engage in business across three geographic regions: Americas; Europe, Middle East and Africa ("EMEA"); and Asia-Pacific, Japan and India ("APAC"). Americas include activities in North America and South America (previously, Caribbean and Latin America ("CALA")). The following table reflects Ciena's geographic distribution of revenue principally based on the relevant location for Ciena's delivery of products and performance of services. For the periods below, Ciena's geographic distribution of revenue was as follows (in thousands):

	Quarter Ended		Six Months Ended	
	May 2,	May 4,	May 2,	May 4,
	2020	2019	2020	2019
Americas	650,381	615,492	1,224,385	1,131,973
EMEA	141,431	114,993	271,396	244,183
APAC	102,241	134,526	231,184	267,382
Total	\$ 894,053	\$ 865,011	\$ 1,726,965	\$ 1,643,538

Ciena's revenue includes \$598.4 million and \$545.6 million of United States revenue for the second quarter of fiscal 2020 and 2019, respectively. For the six months ended May 2, 2020 and May 4, 2019, United States revenue was \$1.1 billion and \$1.0 billion, respectively. No other country accounted for 10% or more of total revenue for the periods presented above.

The following table reflects Ciena's geographic distribution of equipment, building, furniture and fixtures, net, and operating right-of-use assets, with any country accounting for at least 10% of total equipment, building, furniture and fixtures, net, and operating right-of-use assets specifically identified. Equipment, building, furniture and fixtures, net, and operating right-of-use assets attributable to geographic regions outside of the U.S. and Canada are reflected as "Other International." For the periods below, Ciena's geographic distribution of equipment, building, furniture and fixtures, net, and operating right-of-use assets was as follows (in thousands):

	May 2, 2020	November 2, 2019
Canada	\$ 198,334	\$ 211,901
United States	75,110	58,119
Other International	35,287	16,864
Total	\$ 308,731	\$ 286,884

For the periods below, the only customers that accounted for at least 10% of Ciena’s revenue were as follows (in thousands):

	Quarter Ended		Six Months Ended	
	May 2, 2020	May 4, 2019	May 2, 2020	May 4, 2019
AT&T	\$ 105,630	\$ 108,416	\$ 189,640	\$ 195,125
Verizon	n/a	106,350	203,630	202,587
Web-scale provider	n/a	n/a	n/a	174,853
Total	\$ 105,630	\$ 214,766	\$ 393,270	\$ 572,565

n/a Denotes revenue representing less than 10% of total revenue for the period

The Web-scale provider noted above contributed greater than 10% of total revenue for the first time in fiscal 2019 and purchased products from each of Ciena’s operating segments excluding Blue Planet Automation Software and Services. The other customers identified above purchased products and services from each of Ciena’s operating segments.

(21) COMMITMENTS AND CONTINGENCIES

Canadian Grant

During fiscal 2018, Ciena entered into agreements related to the Evolution of Networking Services through a Corridor in Quebec and Ontario for Research and Innovation (“ENCQOR”) project with the Canadian federal government, the government of the province of Ontario and the government of the province of Quebec to develop a 5G technology corridor between Quebec and Ontario to promote research and development, small business enterprises and entrepreneurs in Canada. Under these agreements, Ciena can receive up to an aggregate CAD\$57.6 million (approximately \$40.9 million) in reimbursement from the three Canadian government entities for eligible costs over a period commencing on February 20, 2017 and ending on March 31, 2022. Ciena anticipates receiving recurring disbursements over this period. Amounts received under the agreements are subject to recoupment in the event that Ciena fails to achieve certain minimum investment, employment and project milestones. As of May 2, 2020, Ciena has recorded CAD\$34.5 million (approximately \$24.5 million) in cumulative benefits as a reduction in research and development expense of which CAD\$5.6 million (\$4.2 million) was recorded in the first six months of fiscal 2020. As of May 2, 2020, amounts receivable from this grant were CAD\$7.3 million (\$5.2 million).

Tax Contingencies

Ciena is subject to various tax liabilities arising in the ordinary course of business. Ciena does not expect that the ultimate settlement of these tax liabilities will have a material effect on its results of operations, financial position or cash flows.

Litigation

Ciena is subject to various legal proceedings, claims and other matters arising in the ordinary course of business, including those that relate to employment, commercial, tax and other regulatory matters. Ciena is also subject to intellectual property related claims, including claims against third parties that may involve contractual indemnification obligations on the part of Ciena. Ciena does not expect that the ultimate costs to resolve such matters will have a material effect on its results of operations, financial position or cash flows.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Cautionary Note Regarding Forward-Looking Statements

This report contains statements that discuss future events or expectations, projections of results of operations or financial condition, changes in the markets for our products and services, trends in our business, business prospects and strategies and other “forward-looking” information. In some cases, you can identify “forward-looking statements” by words like “may,” “will,” “can,” “should,” “could,” “expects,” “future,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intends,” “potential,” “projects,” “targets,” or “continue” or the negative of those words and other comparable words. These statements may relate to, among other things: our competitive landscape; market conditions and growth opportunities;

factors impacting our industry and markets; factors impacting the businesses of network operators and their network architectures; adoption of next-generation network technology and software programmability and automation of networks; our strategy, including our research and development, supply chain and go-to-market initiatives; efforts to increase application of our solutions in customer networks and to increase the reach of our business into new or growing customer and geographic markets; our backlog and seasonality in our business; expectations for our financial results, revenue, gross margin, operating expense and key operating measures in future periods; the adequacy of our sources of liquidity to satisfy our working capital needs, capital expenditures, and other liquidity requirements; business initiatives including information technology (IT) transitions or initiatives; the impact of the Tax Cuts and Jobs Act and changes in our effective tax rates; market risks associated with financial instruments and foreign currency exchange rates; and future responses to and effects of the COVID-19 pandemic on our business, operations, liquidity and financial results. These statements are subject to known and unknown risks, uncertainties and other factors, and actual events or results may differ materially due to factors such as:

- our ability to execute our business and growth strategies;
- fluctuations in our revenue, gross margin and operating results and our financial results generally;
- the loss of our customers, including the loss of a single large customer, a significant reduction in one or more customers' spending, or a material change in their networking or procurement strategies;
- the duration and severity of the COVID-19 pandemic and the impact of countermeasures taken to mitigate its spread on macroeconomic conditions, economic activity, demand for our technology solutions, short- and long-term changes in customer or end user needs, continuity of supply chain, our business operations, liquidity and financial results;
- the competitive environment in which we operate;
- market acceptance of products and services currently under development and delays in product or software development;
- lengthy sales cycles and onerous contract terms with communications service providers, Web-scale providers and other large customers;
- product performance or security problems and undetected errors;
- our ability to diversify our customer base beyond our traditional customers and to broaden the application for our solutions in communications networks;
- the level of growth in network traffic and bandwidth consumption and the corresponding level of investment in network infrastructures by network operators;
- the international scale of our operations;
- fluctuations in currency exchange rates;
- our ability to forecast accurately demand for our products for purposes of inventory purchase practices;
- the impact of pricing pressure and price compression that we regularly encounter in our markets;
- our ability to enforce our intellectual property rights, and costs we may incur in response to intellectual property right infringement claims made against us;
- the continued availability, on commercially reasonable terms, of software and other technology under third-party licenses;
- the potential failure to maintain the security of confidential, proprietary or otherwise sensitive business information or systems or to protect against cyber attacks;
- the performance of our third-party contract manufacturers;
- changes or disruption in components or supplies provided by third parties, including sole and limited source suppliers;
- our ability to manage effectively our relationships with third-party service partners and distributors;
- unanticipated risks and additional obligations in connection with our resale of complementary products or technology of other companies;
- our ability to grow and to maintain our new distribution relationships under which we will make available certain technology as a component;
- our exposure to the credit risks of our customers and our ability to collect receivables;
- modification or disruption of our internal business processes and information systems;
- the effect of our outstanding indebtedness on our liquidity and business;
- fluctuations in our stock price and our ability to access the capital markets to raise capital;
- unanticipated expenses or disruptions to our operations caused by facilities transitions or restructuring activities;
- our ability to attract and retain experienced and qualified personnel;
- disruptions to our operations caused by strategic acquisitions and investments or the inability to achieve the expected benefits and synergies of newly-acquired businesses;
- our ability to commercialize and to grow our software business and address networking strategies including software-defined networking and network function virtualization;

- changes in, and the impact of, government regulations, including with respect to: the communications industry generally; the business of our customers; the use, import or export of products; and the environment, potential climate change, and other social initiatives;
- the impact of the Tax Cuts and Jobs Act, future legislation or executive action in the U.S. relating to tax policy, changes in tax regulations and related accounting, and changes in our effective tax rates;
- future legislation or executive action in the U.S. or foreign countries relating to trade regulations, including the imposition of tariffs and duties or efforts to withdraw from or materially modify international trade agreements;
- factors beyond our control such as natural disasters, acts of war or terrorism, and public health emergencies, including the COVID-19 pandemic;
- the write-down of goodwill, long-lived assets, or our deferred tax assets;
- our ability to maintain effective internal controls over financial reporting and liabilities that result from the inability to comply with corporate governance requirements; and
- adverse results in litigation matters.

These are only some of the factors that may affect the forward-looking statements contained in this report. For a discussion identifying additional important factors that could cause actual results to vary materially from those anticipated in the forward-looking statements, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors” in this report. For a more complete understanding of the risks associated with an investment in our securities, you should review these factors and the rest of this report in combination with the more detailed description of our business and management’s discussion and analysis of financial condition and risk factors described in our annual report on Form 10-K for fiscal 2019, which we filed with the SEC on December 20, 2019 (the “2019 Annual Report”). However, we operate in a very competitive and rapidly changing environment and new risks and uncertainties emerge, are identified or become apparent from time to time. We cannot predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this report. You should be aware that the forward-looking statements contained in this report are based on our current views and assumptions. We undertake no obligation to revise or to update any forward-looking statements made in this report to reflect events or circumstances after the date hereof or to reflect new information or the occurrence of unanticipated events, except as required by law. The forward-looking statements in this report are intended to be subject to protection afforded by the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Unless the context requires otherwise, references in this report to “Ciena,” the “Company,” “we,” “us” and “our” refer to Ciena Corporation and its consolidated subsidiaries.

Overview

We are a networking systems, services and software company, providing solutions that enable a wide range of network operators to deploy and manage next-generation networks that deliver services to businesses and consumers. We provide hardware, software and services that support the transport, switching, aggregation, service delivery and management of video, data and voice traffic on communications networks. Our solutions are used by communications service providers, cable and multiservice operators, Web-scale providers, submarine network operators, governments, enterprises, research and education institutions and other emerging network operators.

Our solutions include our portfolio of Networking Platforms, including our Converged Packet Optical and Packet Networking products, that can be applied from the network core to end user access points, and that allow network operators to scale capacity, increase transmission speeds, allocate traffic and adapt dynamically to changing end-user service demands. We offer Platform Software that provides management and domain control of our hardware solutions and automates network lifecycle operations, including provisioning equipment and services. Through our Blue Planet® Automation Software, we enable network providers to use network data, analytics and policy-based assurance to achieve closed loop automation across multi-vendor and multi-domain network environments, streamlining key business and network processes. To complement our hardware and software products, we offer a broad range of services that help our customers build, operate and improve their networks and associated operational environments.

We refer to our complete portfolio vision as the Adaptive Network™. The Adaptive Network emphasizes a programmable network infrastructure, software control and automation capabilities, and network analytics and intelligence. By transforming network infrastructures into a dynamic, programmable environment driven by automation and analytics, network operators can realize greater business agility, dynamically adapt to changing end user service demands and rapidly introduce new revenue-generating services. They can also gain valuable real-time network insights, allowing them to optimize network operation and maximize the return on their network infrastructure investment.

Impact of the COVID-19 Pandemic

COVID-19 was declared a pandemic in March 2020 and continues to have a significant impact on the global economy, the industries we serve and our operations. In response to the COVID-19 pandemic, we have prioritized the safety of our employees and business partners, while continuing to support the needs of our customers and communities during this unprecedented period.

Employees. We have implemented travel bans and restrictions, temporarily closed offices and, as of June 10, 2020 approximately 96% of our employees globally were working from home on a regular basis. Given our long-standing practice of flexible working arrangements, our distributed workforce is accustomed to the digital platforms and virtual collaboration tools we use to maintain productivity and to remain in contact with one another and our business partners. For the small number of employees who need to be in offices, laboratory environments or at business partner sites to perform their roles, we are taking appropriate precautions to protect their health and safety. We have adopted new employee benefits and wellbeing initiatives to support our employees, including initiatives for those who are now working remotely. We also continue to hire and on-board new employees in a remote environment, including 229 new hires, which resulted in net headcount growth of approximately 96 employees, during the second quarter of fiscal 2020. We are proud of the way in which our employees have continued to productively execute on our innovation roadmap and operating goals, including achieving the commercial availability of our fifth-generation WaveLogic coherent modem technology. However, sustained restrictions on the ability of our research and development employees to work in our facilities as a result of restrictions imposed by governments, or us, could make it more difficult for them to collaborate as effectively in the development of new solutions.

Business & Operations. We have implemented business continuity plans designed to minimize potential business disruption from the COVID-19 pandemic and to protect our supply chain and customer fulfillment and support operations. During the second quarter of fiscal 2020, we experienced higher than typical orders for our products and services among a concentrated set of larger customers with whom we have existing positions as a supplier. We believe some portion of these orders, in the face of the pandemic, likely reflects short-term purchasing behaviors based on customer-specific considerations described below. However, our revenue for the second quarter of fiscal 2020 was negatively impacted by some disruption within our supply chain, customer fulfillment and logistics, and sales and marketing activities, which adversely impacted our business as described below.

Supply Chain. We rely on third-party manufacturing operations in Mexico, Thailand, the United States and Canada. We also rely on a global component supply network involving many vendors and countries throughout the world. During the second quarter of fiscal 2020, some of our component suppliers – particularly those with facilities in China and Malaysia – experienced challenges related to COVID-19 that resulted in temporary closures or reductions of supply capacity. Although in many cases we were able to overcome these conditions through execution of our mitigation planning, supply chain disruptions negatively impacted our revenue for the second fiscal quarter of 2020. We continue to take steps, including multi-sourcing and pre-ordering components and finished goods inventory, in an effort to reduce the impact should such conditions persist or exacerbate. However, such supply chain disruptions may continue, or worsen, in the future.

Services and Customer Fulfillment. During the second quarter of fiscal 2020, we experienced some disruption in our ability to provide installation, professional and fulfillment services to customers due to site access limitations, limited customer availability, project delays or re-prioritization by customers, and travel bans or restrictions on movement or gatherings, which adversely impacted revenue. These conditions have also made it more challenging to ramp and operationalize newer projects and recent customer design wins, primarily in international markets. We continue to take steps and work with customers to ensure their business needs are supported, while protecting the health and safety of our employees, customers and business partners. However, should restrictions or disruptions of transportation persist or worsen, such as reduced availability of air transport, port closures, or increased border controls or closures, our operations and ability to meet customer demand could be materially adversely affected.

Sales & Marketing. The competitive nature of our business depends on our ability to conduct sales and marketing activities with our customers. For instance, in the past few years, our ability to be first to market with leading networking solutions, and to conduct sales and marketing activities around these new technology offerings, has had a significant impact on our revenue and growth. However, restrictions on travel due to COVID-19 and limitations on interactions with customers, such as field and lab trials, have negatively impacted our ability to carry out certain sales and marketing activities, including our ability to secure new customers, to qualify and sell new products, and to grow sales with customers. This is particularly the case where we do not have longer-standing supply relationships, such as within international markets and for our Blue Planet Automation Software & Services segment and our Packet Networking product line.

Demand for Products & Services. As a result of the unique and increased demands placed on network infrastructures as a result of the COVID-19 pandemic and the related increase in remote working worldwide, we believe certain longer-term trends associated with cloud network adoption, networking resilience and flexibility, and the need to promote automation, may be accelerated. During the second quarter of fiscal 2020, we experienced higher than typical orders for our products and services among a concentrated set of larger customers with whom we have existing positions as a supplier. We believe some portion of these orders likely reflects short-term purchasing behaviors based on customer-specific considerations in the face of the pandemic, including: customer concerns about future continued availability of supply; implementation of customer business continuity actions; our desire for increased visibility into expected demand; customer consumption of existing inventory or spare equipment; additional network capacity requirements; acceleration of capital spending; and, possibly, increased bandwidth demands being placed on networks due to the pandemic. We cannot predict whether this increase in orders will continue and, if so, for how long. Due to the unprecedented nature of the COVID-19 pandemic, it is unclear whether the current bandwidth demand, or the increased demand for our solutions experienced in the second quarter of fiscal 2020, will continue or is sustainable during the pandemic or the remainder of fiscal 2020.

Liquidity & Balance Sheet. As of the end of the second quarter of fiscal 2020, we had \$988.5 million in cash and short-term investments. We believe our strong liquidity and balance sheet position is an important competitive differentiator at this time. It enables us to continue to invest in innovation, ensure a strong inventory position to support customers and provide for working capital needs. In light of the uncertainty surrounding the duration and severity of potential macroeconomic impacts of COVID-19, on March 17, 2020 we temporarily suspended purchases of our common stock under our stock repurchase program and have primarily reallocated our investments principally to U.S. government-backed funds.

Community. Our global workforce has undertaken a range of volunteering and charitable actions to support our neighbors, communities and front-line health care workers during this challenging time. We have enhanced by three times our corporate charitable matching program for employee donations and volunteering, and our employees have volunteered their time in important ways during this crisis. For example, we have donated personal protective equipment and have been 3-D printing and designing faces shields and components for health care workers.

The COVID-19 pandemic and resulting countermeasures taken to contain its spread have caused economic and financial disruptions globally. We continue to monitor the situation and actively assess further implications to our business, supply chain, fulfillment operations and customer demand. However, the COVID-19 situation remains dynamic, and the duration and severity of its impact on our business and results of operations during fiscal 2020 and beyond remains uncertain. If the COVID-19 pandemic or its adverse effects become more severe or prevalent or are prolonged in the locations where we, our customers, suppliers or manufacturers conduct business, or we experience more pronounced disruptions in our operations, or in economic activity and demand generally, our business and results of operations in future periods could be materially adversely affected.

Investment in Adaptive Network Offerings and 5G Innovation

We have continued to use our significant research and development investment capacity to push the pace of innovation in our markets and provide offerings that promote our Adaptive Network vision through further advances in programmable hardware, analytics, and control and automation. In the first quarter of fiscal 2020, we began market trials of our fifth-generation WaveLogic coherent modem technology, which is capable of delivering 800 gigabits of capacity per second over a single wavelength. In the second quarter of fiscal 2020, this technology became commercially available and began shipping on certain Converged Packet Optical platforms.

In February 2020, we also announced the future addition of several new routing platforms to support the demands of mobile xHaul (fronthaul, midhaul and backhaul) transport, which we expect to make available in the second half of calendar 2020. Designed to enable mobile network operators to migrate from 4G to 5G networks, these routers leverage our Adaptive Network vision and Blue Planet Automation Software to deliver end-to-end IP-based services in a more simplified and modular manner than traditional router-based IP network designs. In addition, we enhanced our Blue Planet Intelligent Automation software portfolio for 5G automation applications, including vendor-agnostic network slicing features and dynamic planning capabilities that are intended to better enable mobile network operators to deliver 5G mobile services.

Available Information. Our quarterly reports on Form 10-Q, annual reports on Form 10-K, current reports on Form 8-K, and any amendments thereto filed or furnished with the SEC are available through the SEC's website at www.sec.gov and are available free of charge on our website as soon as reasonably practicable after we file or furnish these documents. We routinely post the reports above, recent news and announcements, financial results and other information about Ciena that is important to investors in the "Investors" section of our website at www.ciena.com. Information on our website is not deemed to be incorporated by reference into this report. Investors are encouraged to review the "Investors" section of our website because, as

with the other disclosure channels that we use, from time to time we may post material information on that site that is not otherwise disseminated by us.

For additional information on our business, industry, market opportunity, competitive landscape, and strategy, see our 2019 Annual Report.

Consolidated Results of Operations

Operating Segments

Our results of operations are presented based on the following operating segments: (i) Networking Platforms; (ii) Platform Software and Services; (iii) Blue Planet Automation Software and Services; and (iv) Global Services. See Note 20 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Quarter ended May 2, 2020 compared to the quarter ended May 4, 2019

Revenue

Despite increases in revenue within certain segments in the second quarter of fiscal 2020 as compared to the second quarter of fiscal 2019, our revenue was adversely affected during the second quarter of fiscal 2020 due to the impact of the COVID-19 pandemic and its resulting supply chain and customer fulfillment disruptions described above.

During the second quarter of fiscal 2020, approximately 15.0% of our revenue was non-U.S. Dollar-denominated, primarily including sales in Euros, Canadian Dollars, Japanese Yen, British Pounds, and Brazilian Reals. During the second quarter of fiscal 2020, as compared to the second quarter of fiscal 2019, the U.S. Dollar generally strengthened against these currencies. Consequently, our revenue reported in U.S. Dollars was reduced slightly by approximately \$5.8 million, or 0.6%, as compared to the second quarter of fiscal 2019. The table below sets forth the changes in our operating segment revenue for the periods indicated (in thousands, except percentage data):

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Revenue:						
Networking Platforms						
Converged Packet Optical	\$ 654,294	73.2	\$ 623,838	72.1	\$ 30,456	4.9
Packet Networking	64,167	7.2	73,138	8.5	(8,971)	(12.3)
Total Networking Platforms	718,461	80.4	696,976	80.6	21,485	3.1
Platform Software and Services	44,985	5.0	35,229	4.0	9,756	27.7
Blue Planet Automation Software and Services	15,017	1.7	12,473	1.4	2,544	20.4
Global Services						
Maintenance Support and Training	71,479	8.0	68,788	8.0	2,691	3.9
Installation and Deployment	34,242	3.8	41,322	4.8	(7,080)	(17.1)
Consulting and Network Design	9,869	1.1	10,223	1.2	(354)	(3.5)
Total Global Services	115,590	12.9	120,333	14.0	(4,743)	(3.9)
Consolidated revenue	\$ 894,053	100.0	\$ 865,011	100.0	\$ 29,042	3.4

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Networking Platforms segment revenue** increased, reflecting a product line sales increase of \$30.5 million of our Converged Packet Optical products, partially offset by a product line sales decrease of \$9.0 million of our Packet Networking products.

- Converged Packet Optical sales increased, primarily reflecting an increase of \$42.2 million of our Waveserver products primarily to Web-scale providers and cable and multi service operators. This increase was partially offset by a sales decrease of \$8.8 million of our 5430 Reconfigurable Switching Systems to communications service providers.
- Packet Networking sales decreased, primarily reflecting sales decreases of \$11.2 million of our 6500 Packet Transport System (PTS) to communications service providers and \$3.4 million of our 8700 Packetwave Platform to communication service providers. These sales decreases were partially offset by a sales increase of \$6.1 million of our 3000 and 5000 families of service delivery and aggregation switches to cable and multiservice operators, enterprise customers and Web-scale providers.
- **Platform Software and Services segment revenue** increased, reflecting increases of \$6.1 million in software sales and \$3.7 million related to services.
- **Blue Planet Automation Software and Services segment revenue** increased, reflecting increases of \$1.6 million in software platforms and \$1.0 million in software services. Our entrance into the software automation market is in the early stages and, as such, revenue from our Blue Planet Automation Software platform has not been significant to date.
- **Global Services segment revenue** decreased, primarily reflecting a sales decrease of \$7.1 million of our installation and deployment services, in part due to impacts of COVID-19 as described above, offset by a sales increase of \$2.7 million of our maintenance support and training.

Our operating segments engage in business and operations across three geographic regions: Americas, EMEA and APAC. As discussed in Note 3, effective the beginning of fiscal 2020, our Global Sales and Marketing organization combined our previous North America and CALA regions into a new Americas sales region. The following table reflects our geographic distribution of revenue principally based on the relevant location for our delivery of products and performance of services. Our revenue, when considered by geographic distribution, can fluctuate significantly, and the timing of revenue recognition for large network projects, particularly outside of the United States, can result in large variations in geographic revenue results in any particular period. The table below sets forth the changes in geographic distribution of revenue for the periods indicated (in thousands, except percentage data):

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Americas	\$ 650,381	72.7	\$ 615,492	71.1	\$ 34,889	5.7
EMEA	141,431	15.8	114,993	13.3	26,438	23.0
APAC	102,241	11.5	134,526	15.6	(32,285)	(24.0)
Total	\$ 894,053	100.0	\$ 865,011	100.0	\$ 29,042	3.4

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Americas revenue** increased primarily reflecting sales increases of \$22.5 million within our Networking Platforms segment, \$9.7 million within our Platform Software and Services segment and \$4.1 million in our Global Services segment. The increase within our Networking Platforms segment reflects a product line sales increase of \$31.9 million of Converged Packet Optical products, primarily related to sales increases of \$18.2 million of our Waveserver products and \$17.3 million of our 6500 Packet-Optical Platform, partially offset by a decrease of \$5.7 million of our 5430 Reconfigurable Switching Systems. Our Waveserver sales increase primarily reflects increased sales to cable and multiservice operators. Our 6500 Packet-Optical Platform sales increase primarily reflects increased sales to government customers, cable and multiservice providers, communications service providers and Web-scale providers, partially offset by decreased sales to enterprise customers. Our 5430 Reconfigurable Switching Systems sales decrease primarily reflects decreased sales to communications service providers.
- **EMEA revenue** increased primarily reflecting an increase of \$29.1 million within our Networking Platforms segment partially offset by a decrease of \$3.8 million in our Global Services segment. The revenue increase within our Networking Platforms segment reflects a product line sales increase of \$28.4 million of Converged Packet Optical products, primarily related to sales increases of \$16.7 million of our Waveserver products and \$13.3 million of our 6500 Packet-Optical Platform, primarily to Web-scale providers.
- **APAC revenue** decreased primarily reflecting decreases of \$30.1 million within our Networking Platforms segment and \$5.0 million of our Global Services segment, partially offset by sales increases of \$3.1 million within our Blue

Planet Automation Software and Services segment. Our Networking Platforms segment revenue decrease primarily reflects a decrease of \$34.6 million in sales of our 6500 Packet-Optical Platform primarily to communications service providers in India and Japan, partially offset by an increase of \$7.4 million in sales of our Waveserver products primarily to Web-scale providers.

Cost of Goods Sold and Gross Profit

Product cost of goods sold consists primarily of amounts paid to third-party contract manufacturers, component costs, employee-related costs and overhead, shipping and logistics costs associated with manufacturing-related operations, warranty and other contractual obligations, royalties, license fees, amortization of intangible assets, cost of excess and obsolete inventory and, when applicable, estimated losses on committed customer contracts.

Services cost of goods sold consists primarily of direct and third-party costs associated with our provision of services including installation, deployment, maintenance support, consulting and training activities, and, when applicable, estimated losses on committed customer contracts. The majority of these costs relate to personnel, including employee and third-party contractor-related costs.

Our gross profit as a percentage of revenue, or “gross margin,” can fluctuate due to a number of factors, particularly when viewed on a quarterly basis. Our gross margin can fluctuate and be adversely impacted depending on our revenue concentration within a particular segment, product line, geography, or customer, including our success in selling software in a particular period. Our gross margin remains highly dependent on our continued ability to drive product cost reductions relative to the price erosion that we regularly encounter in our markets. Moreover, we are often required to compete with aggressive pricing and commercial terms, and, to secure business with new and existing customers, we may agree to pricing or other unfavorable commercial terms that adversely affect our gross margin. Success in taking share and winning new business can result in additional pressure on gross margin from these pricing dynamics and the early stages of these network deployments. Early stages of new network builds also often include an increased concentration of lower margin “common” equipment, photonics sales and installation services, with the intent to improve margin as we sell channel cards and maintenance services to customers adding capacity or services to their networks. Gross margin can be impacted by technology-based price compression and the introduction or substitution of new platforms with improved price for performance as compared to existing solutions that carry higher margins. Gross margin can also be impacted by changes in expense for excess and obsolete inventory and warranty obligations.

Service gross margin can be affected by the mix of customers and services, particularly the mix between deployment and maintenance services, geographic mix and the timing and extent of any investments in internal resources to support this business.

The tables below set forth the changes in revenue, cost of goods sold and gross profit for the periods indicated (in thousands, except percentage data):

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Total revenue	\$ 894,053	100.0	\$ 865,011	100.0	\$ 29,042	3.4
Total cost of goods sold	480,727	53.8	490,334	56.7	(9,607)	(2.0)
Gross profit	\$ 413,326	46.2	\$ 374,677	43.3	\$ 38,649	10.3

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Product revenue	\$ 739,892	100.0	\$ 710,688	100.0	\$ 29,204	4.1
Product cost of goods sold	405,138	54.8	411,050	57.8	(5,912)	(1.4)
Product gross profit	\$ 334,754	45.2	\$ 299,638	42.2	\$ 35,116	11.7

* Denotes % of product revenue

** Denotes % change from 2019 to 2020

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Service revenue	\$ 154,161	100.0	\$ 154,323	100.0	\$ (162)	(0.1)
Service cost of goods sold	75,589	49.0	79,284	51.4	(3,695)	(4.7)
Service gross profit	\$ 78,572	51.0	\$ 75,039	48.6	\$ 3,533	4.7

* Denotes % of services revenue

** Denotes % change from 2019 to 2020

- **Gross profit as a percentage of revenue** increased, as our gross margin benefited significantly from a favorable mix of customers and product lines that we believe to be a short-term effect due to COVID-19 related factors, as well as continued improvement in our service margin. Due to the impact of COVID-19 and related restrictions upon sales and marketing activities described in “Overview” above, during the second quarter of fiscal 2020, a higher proportion of our revenue consisted of sales of existing technology to existing customers, as compared to sales to new customers, early stage network deployments for recent design wins, or the introduction of new platforms. Efforts to expand our customer base or market share can adversely affect our gross margin as a result of the more aggressive pricing, commercial concessions and other unfavorable terms often required to be successful within our competitive markets. In recent periods, we have encountered fluctuations in our gross margin as a result of our ongoing strategy to leverage our technology leadership, displace competitors and to capture aggressively additional market share. The resulting mix of revenues from such new wins or early stage deployments during a particular period can adversely impact gross margins. However, the intent of this strategy would be to improve margin in the longer term, as we sell channel cards adding capacity or services to their networks, maintenance services, and other higher margin products over time.
- **Gross profit on products as a percentage of product revenue** increased, primarily due to a favorable mix of customers and product lines, as described above, and continued product cost reductions, partially offset by market-based price compression we encountered during the period.
- **Gross profit on services as a percentage of services revenue** increased, primarily due to a higher concentration of revenue from maintenance service contracts with relatively low incremental costs, and fewer early stage network deployment activities due to the impact of COVID-19.

Operating Expense

Operating expense consists of the component elements described below.

- *Research and development expense* primarily consists of salaries and related employee expense (including share-based compensation expense), prototype costs relating to design, development, product testing, depreciation expense, and third-party consulting costs.
- *Selling and marketing expense* primarily consists of salaries, commissions and related employee expense (including share-based compensation expense) and sales and marketing support expense, including travel, demonstration units, trade show expense, and third-party consulting costs.
- *General and administrative expense* primarily consists of salaries and related employee expense (including share-based compensation expense) and costs for third-party consulting and other services.
- *Amortization of intangible assets* primarily reflects the amortization of both purchased technology and the value of customer relationships derived from our acquisitions.
- *Significant asset impairments and restructuring costs* primarily reflect actions we have taken to improve the alignment of our workforce, facilities and operating costs with perceived market opportunities, business strategies, changes in market and business conditions and significant impairments of assets.

- *Acquisition and integration costs* consist of expenses for financial, legal and accounting advisors, severance and other employee-related costs associated with our acquisitions of DonRiver and Centina, including costs associated with a three-year earn-out arrangement related to the DonRiver acquisition.

During the second quarter of fiscal 2020, approximately 51.0% of our operating expense was non-U.S. Dollar-denominated, including expenses in Canadian Dollars, Indian Rupees and British Pounds. During the second quarter of fiscal 2020 as compared to the second quarter of fiscal 2019, the U.S. Dollar generally strengthened against these currencies. Consequently, our operating expense reported in U.S. Dollars was reduced slightly by approximately \$3.5 million, or 1.2%, as compared to the second quarter of fiscal 2019, due to the strengthening U.S. Dollar, net of hedging. The table below sets forth the changes in operating expense for the periods indicated (in thousands, except percentage data):

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Research and development	\$ 131,530	14.7	\$ 137,969	15.9	\$ (6,439)	(4.7)
Selling and marketing	101,214	11.3	103,502	12.0	(2,288)	(2.2)
General and administrative	42,030	4.7	42,154	4.9	(124)	(0.3)
Amortization of intangible assets	5,839	0.7	5,529	0.6	310	5.6
Significant asset impairments and restructuring costs	3,811	0.4	4,068	0.5	(257)	(6.3)
Acquisition and integration costs	1,414	0.2	1,135	0.1	279	24.6
Total operating expenses	\$ 285,838	32.0	\$ 294,357	34.0	\$ (8,519)	(2.9)

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Research and development expense** decreased by \$6.4 million, primarily reflecting a decrease in professional services.
- **Selling and marketing expense** decreased by \$2.3 million, primarily reflecting decreases in travel and entertainment costs due to restrictions on travel and limitations on our interactions with customers as a result of COVID-19. This decrease was partially offset by an increase in employee and compensation cost.
- **General and administrative expense** remained relatively unchanged.
- **Amortization of intangible assets** slightly increased due to additional intangibles acquired in connection with our acquisition of Centina in the first quarter of fiscal 2020.
- **Significant asset impairments and restructuring costs** reflect global workforce reductions as part of a business optimization strategy to improve gross margin, constrain operating expense, and redesign certain business processes.
- **Acquisition and integration costs** primarily reflect employment-related costs related to our acquisition of DonRiver.

Other Items

The table below sets forth the changes in other items for the periods indicated (in thousands, except percentage data):

	Quarter Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Interest and other income (loss), net	\$ (2,665)	(0.3)	\$ (244)	0.0	\$ (2,421)	992.2
Interest expense	\$ 7,860	0.9	\$ 9,471	1.1	\$ (1,611)	(17.0)
Provision for income taxes	\$ 25,308	2.8	\$ 17,867	2.1	\$ 7,441	41.6

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Interest and other income (loss), net** primarily reflects lower interest income due to reduced interest rates on our investments, partially offset by the impact of foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity.

- **Interest expense** decreased, primarily due to a reduction of LIBOR rates impacting our New 2025 Term Loan.
- **Provision for income taxes** increased, due to higher earnings for the second quarter of fiscal 2020. The effective tax rate for the second quarter of fiscal 2020 was lower compared to the second quarter of fiscal 2019, primarily due to reduced BEAT.

Six months ended May 2, 2020 compared to the six months ended May 4, 2019

Revenue

During the first six months of fiscal 2020, approximately 16.3% of our revenue was non-U.S. Dollar-denominated, including sales in Euros, Japanese Yen, Canadian Dollars, Brazilian Reals, British Pounds, Indian Rupees and United Arab Emirates Dirham. During the first six months of fiscal 2020, as compared to the first six months of fiscal 2019, the U.S. Dollar generally strengthened against these currencies. Consequently, our revenue reported in U.S. Dollars was reduced by approximately \$6.5 million or 0.4%. The table below sets forth the changes in our operating segment revenue for the periods indicated (in thousands, except percentage data):

	Six Months Ended				Increase (decrease)	%**
	May 2, 2020	%*	May 4, 2019	%*		
Revenue:						
Networking Platforms						
Converged Packet Optical	\$ 1,245,844	72.1	\$ 1,172,835	71.4	73,009	6.2
Packet Networking	131,675	7.6	144,707	8.8	(13,032)	(9.0)
Total Networking Platforms	1,377,519	79.7	1,317,542	80.2	59,977	4.6
Platform Software and Services	96,873	5.6	76,827	4.7	20,046	26.1
Blue Planet Automation Software and Services	30,482	1.8	27,447	1.6	3,035	11.1
Global Services						
Maintenance Support and Training	133,271	7.8	130,065	7.9	3,206	2.5
Installation and Deployment	69,196	4.0	71,944	4.4	(2,748)	(3.8)
Consulting and Network Design	19,624	1.1	19,713	1.2	(89)	(0.5)
Total Global Services	222,091	12.9	221,722	13.5	369	0.2
Consolidated revenue	\$ 1,726,965	100.0	\$ 1,643,538	100.0	\$ 83,427	5.1

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Networking Platforms segment revenue** increased, primarily reflecting a product line sales increase of \$73.0 million of our Converged Packet Optical products, partially offset by a product line sales decrease of \$13.0 million of our Packet Networking products.
 - Converged Packet Optical sales increased, reflecting increases of \$38.6 million of our 6500 Packet-Optical Platform primarily to government customers, Web-scale providers and cable and multi service operators, \$25.5 million of our 5430 Reconfigurable Switching Systems to communications service providers and \$6.8 million of our Waveserver products which benefited from increased sales to cable and multiservice operators.
 - Packet Networking sales decreased, primarily reflecting a sales decrease of \$25.6 million of our 6500 Packet Transport System (PTS) to communications service providers. These sales decreases were partially offset by a sales increase of \$14.2 million of our 3000 and 5000 families of service delivery and aggregation switches to communications service providers, cable and multiservice operators and enterprise customers.

- **Platform Software and Services segment revenue** increased, reflecting an increase of \$14.7 million in software sales and \$5.3 million primarily related to services to communications service providers.
- **Blue Planet Automation Software and Services segment revenue** increased, reflecting an increase of \$3.9 million in software services partially offset by a decrease in software sales of \$1.0 million. Our entrance into the software automation market is in the early stages and, as such, revenue from our Blue Planet Automation Software platform has not been significant to date.
- **Global Services segment revenue** slightly increased, primarily reflecting a sales increase of \$3.2 million of our maintenance support and training offset by a sales decrease of \$2.7 million of our installation and deployment services.

The following table reflects our geographic distribution of revenue principally based on the relevant location for our delivery of products and performance of services. Our revenue, particularly when considered by geographic distribution, can fluctuate significantly, and the timing of revenue recognition for large network projects, particularly outside of Americas, can result in large variations in geographic revenue results in any particular quarter. The increase in our EMEA region for the six months ended May 2, 2020 was primarily driven by increased sales in the Netherlands, the United Arab Emirates and Germany. The decrease in our APAC region for the six months ended May 2, 2020 was primarily driven by decreased sales in India and Japan, partially offset by increased sales in Singapore and Australia. The table below sets forth the changes in geographic distribution of revenue for the periods indicated (in thousands, except percentage data):

	Six Months Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
North America	\$ 1,224,385	70.9	\$ 1,131,973	68.8	\$ 92,412	8.2
EMEA	271,396	15.7	244,183	14.9	27,213	11.1
APAC	231,184	13.4	267,382	16.3	(36,198)	(13.5)
Total	\$ 1,726,965	100.0	\$ 1,643,538	100.0	\$ 83,427	5.1

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Americas revenue** increased, primarily reflecting sales increases of \$68.7 million within our Networking Platforms segment, \$16.9 million within our Platform Software and Services segment and \$10.5 million within our Global Services segment. These sales increases were slightly offset by a sales decrease of \$3.8 million within our Blue Planet Automation Software and Services segment. Our Networking Platforms segment revenue increase reflects a product line sales increase of \$83.3 million of Converged Packet Optical products, partially offset by a decrease of \$14.6 million of Packet Networking products. Our Converged Packet Optical revenue increase reflects sales increases of \$72.2 million of our 6500 Packet-Optical Platform and \$17.9 million of our 5430 Reconfigurable Switching Systems, partially offset by a decrease of \$10.5 million of our Waveserver products. Our 6500 Packet-Optical Platform revenue increase primarily reflects increased sales to communications service providers, government customers and cable and multiservice operators. Our 5430 Reconfigurable Switching Systems sales increase primarily reflect increased sales to communications service providers. Waveserver sales reflect decreased sales to Web-scale providers, partially offset by increased sales to cable and multiservice operators.
- **EMEA revenue** increased, primarily reflecting an increase of \$31.2 million within our Networking Platforms segment, partially offset by a decrease of \$5.2 million within our Global Services segment. Our Networking Platforms segment revenue increase reflects a product line sales increase of \$30.3 million of Converged Packet Optical products, primarily related to sales increases of \$17.7 million of our 6500 Packet-Optical Platform to Web-scale providers and communications service providers, \$8.4 million of our 5430 Reconfigurable Switching Systems to communication service providers and \$6.0 million of Waveserver to cable and multiservice operators.
- **APAC revenue** decreased, primarily reflecting decreases of \$39.9 million within our Networking Platforms segment and \$5.0 million of our Global Services segment. These decreases were partially offset by sales increases of \$6.2 million within our Blue Planet Automation Software and Services segment and \$2.5 million within our Platform Software and Services segment. Our Networking Platforms segment revenue decrease primarily reflects a decrease of \$51.3 million in sales of our 6500 Packet-Optical Platform, primarily to communications service providers in Japan and India, partially offset by an increase of \$11.3 million in sales of our Waveserver products primarily to Web-scale providers.

Cost of Goods Sold and Gross Profit

The tables below set forth the changes in revenue, cost of goods sold and gross profit for the periods indicated (in thousands, except percentage data):

	Six Months Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Total revenue	\$ 1,726,965	100.0	\$ 1,643,538	100.0	\$ 83,427	5.1
Total cost of goods sold	943,104	54.6	945,520	57.5	(2,416)	(0.3)
Gross profit	\$ 783,861	45.4	\$ 698,018	42.5	\$ 85,843	12.3

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

	Six Months Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Product revenue	\$ 1,427,107	100.0	\$ 1,353,220	100.0	\$ 73,887	5.5
Product cost of goods sold	794,151	55.6	791,492	58.5	2,659	0.3
Product gross profit	\$ 632,956	44.4	\$ 561,728	41.5	\$ 71,228	12.7

* Denotes % of product revenue

** Denotes % change from 2019 to 2020

	Six Months Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Service revenue	\$ 299,858	100.0	\$ 290,318	100.0	\$ 9,540	3.3
Service cost of goods sold	148,953	49.7	154,028	53.1	(5,075)	(3.3)
Service gross profit	\$ 150,905	50.3	\$ 136,290	46.9	\$ 14,615	10.7

* Denotes % of services revenue

** Denotes % change from 2019 to 2020

- **Gross profit as a percentage of revenue** reflects improved product and services gross profit as described below.
- **Gross profit on products as a percentage of product revenue** increased, primarily due to a favorable mix of customers and product lines and product cost reductions, partially offset by market-based price compression we encountered during the period.
- **Gross profit on services as a percentage of services revenue** increased, primarily due to higher revenues on maintenance contracts with relatively low incremental costs.

Operating Expense

During the first six months of fiscal 2020, approximately 50.9% of our operating expense was non-U.S. Dollar-denominated, including Canadian Dollars, Indian Rupees, British Pounds, and Euros. Consequently, our operating expense reported in U.S. Dollars was reduced by approximately \$3.7 million, or 0.6%, during the first six months of fiscal 2020 as compared to the first six months of fiscal 2019, due to the strengthening U.S. Dollar, net of hedging. The table below sets forth the changes in operating expense for the periods indicated (in thousands, except percentage data):

	Six Months Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Research and development	\$ 262,430	15.2	\$ 266,602	16.2	\$ (4,172)	(1.6)
Selling and marketing	208,280	12.1	201,615	12.3	6,665	3.3
General and administrative	84,498	4.9	81,397	5.0	3,101	3.8
Amortization of intangible assets	11,692	0.7	11,057	0.7	635	5.7
Significant asset impairments and restructuring costs	8,283	0.4	6,341	0.4	1,942	30.6
Acquisition and integration costs	3,233	0.2	2,743	0.2	490	17.9
Total operating expenses	\$ 578,416	33.5	\$ 569,755	34.8	\$ 8,661	1.5

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Research and development expense** decreased by \$4.2 million primarily reflecting a decrease in professional services, partially offset by an increase of employee and compensation costs.
- **Selling and marketing expense** benefited by \$2.2 million as a result of foreign exchange rates, net of hedging, primarily due to a stronger U.S. Dollar in relation to the Euro and Australian Dollar. Including the effect of foreign exchange rates, net of hedging, sales and marketing expense increased by \$6.7 million primarily reflecting an increase in employee and compensation costs partially offset by a decrease in travel and entertainment costs due to restrictions on travel as a result of COVID-19.
- **General and administrative expense** increased by \$3.1 million primarily reflecting an increase in bad debt expense and employee and compensation costs.
- **Amortization of intangible assets** increased due to additional intangibles acquired in connection with our acquisition of Centina in the first quarter of fiscal 2020.
- **Significant asset impairments and restructuring costs** reflect global workforce reductions as part of a business optimization strategy to improve gross margin, constrain operating expense, and redesign certain business processes.
- **Acquisition and integration costs** reflect employment-related costs related to our acquisition of DonRiver and legal, employee-related and other costs related to our acquisition of Centina in the first quarter of fiscal 2020.

Other items

The table below sets forth the changes in other items for the periods indicated (in thousands, except percentage data):

	Six Months Ended				Increase	
	May 2, 2020	%*	May 4, 2019	%*	(decrease)	%**
Interest and other income (loss), net	\$ 981	0.1	\$ 4,009	0.2	\$ (3,028)	(75.5)
Interest expense	\$ 16,675	1.0	\$ 18,912	1.2	\$ (2,237)	(11.8)
Loss on extinguishment of debt	\$ 646	—	\$ —	—	\$ 646	100.0
Provision for income taxes	\$ 35,122	2.0	\$ 27,006	1.6	\$ 8,116	30.1

* Denotes % of total revenue

** Denotes % change from 2019 to 2020

- **Interest and other income (loss), net** primarily reflects lower interest income due to reduced interest rates on our investments.
- **Interest expense** decreased, primarily due to a reduction of LIBOR rates impacting our 2025 Term Loan.
- **Loss on extinguishment of debt** reflects the refinance of our Old 2025 Term Loan into our New 2025 Term Loan in the first quarter of fiscal 2020.
- **Provision for income taxes** increased, due to higher earnings for the first six months of fiscal 2020. The effective tax rate for the first six months of fiscal 2020 was lower compared to the first six months of fiscal 2019, primarily due to reduced BEAT and the effect of the final regulations released on December 2, 2019.

Segment Profit (Loss)

The table below sets forth the changes in our segment profit (loss) for the respective periods (in thousands, except percentage data):

	Quarter Ended		Increase (decrease)	%*
	May 2, 2020	May 4, 2019		
Segment profit (loss):				
Networking Platforms	\$ 210,987	\$ 175,191	\$ 35,796	20.4
Platform Software and Services	\$ 21,668	\$ 12,477	\$ 9,191	73.7
Blue Planet Automation Software and Services	\$ (4,399)	\$ (5,941)	\$ 1,542	(26.0)
Global Services	\$ 53,540	\$ 54,981	\$ (1,441)	(2.6)

* Denotes % change from 2019 to 2020

- **Networking Platforms segment profit** increased, primarily due to higher sales volume, higher gross margin as described above and lower research and development costs.
- **Platform Software and Services segment profit** increased, primarily due to higher sales volume as described above.
- **Blue Planet Automation Software and Services segment loss** decreased, primarily due to improved gross margin and higher sales volume partially offset by higher research and development costs.
- **Global Services segment profit** decreased, primarily due to lower sales volume slightly offset by improved gross margin, as described above.

	Six Months Ended		Increase (decrease)	%*
	May 2, 2020	May 4, 2019		
Segment profit:				
Networking Platforms	\$ 379,256	\$ 311,782	\$ 67,474	21.6
Platform Software and Services	\$ 50,619	\$ 32,940	\$ 17,679	53.7
Blue Planet Automation Software and Services	\$ (7,512)	\$ (7,988)	\$ 476	(6.0)
Global Services	\$ 99,068	\$ 94,682	\$ 4,386	4.6

* Denotes % change from 2019 to 2020

- **Networking Platforms segment profit** increased, primarily due to higher sales volume and higher gross margin as described above and lower research and development costs.
- **Platform Software and Services segment profit** increased, primarily due to higher sales volume and improved gross margin on product sales, as described above, partially offset by reduced gross margin on software-related services.
- **Blue Planet Automation Software and Services segment loss** decreased, primarily due to higher gross margin on software-related services and higher sales volume, partially offset by higher research and development costs and lower gross margin on product sales.
- **Global Services segment profit** increased, primarily due to improved gross margin as described above.

Liquidity and Capital Resources

Overview. For the six months ended May 2, 2020, we generated \$130.9 million of cash from operating activities, as our net income (adjusted for non-cash charges) of \$323.3 million exceeded our working capital requirements of \$192.4 million. For additional details on our cash provided by operating activities, see the discussion below entitled “Cash Provided By Operating Activities.”

Despite our cash generated from operations, cash, cash equivalents and investments decreased by \$35.5 million during the first six months of fiscal 2020. The decrease in cash primarily reflects (i) cash used to fund our investing activities for capital expenditures totaling \$45.5 million, (ii) cash used for the acquisition of Centina of \$28.3 million, (iii) cash used for stock repurchases under our stock repurchase program of \$74.5 million, and (iv) stock repurchases on vesting of our stock unit awards to employees relating to tax withholding of \$18.2 million. Proceeds from the issuance of equity under our employee stock purchase plans provided \$12.3 million in cash during the six months ended May 2, 2020.

	May 2, 2020	November 2, 2019	Increase (decrease)
Cash and cash equivalents	\$ 887,732	\$ 904,045	\$ (16,313)
Short-term investments in marketable debt securities	100,742	109,940	(9,198)
Long-term investments in marketable debt securities	—	10,014	(10,014)
Total cash and cash equivalents and investments in marketable debt securities	<u>\$ 988,474</u>	<u>\$ 1,023,999</u>	<u>\$ (35,525)</u>

Principal Sources of Liquidity. Our principal sources of liquidity on hand include our cash, cash equivalents and investments, which as of May 2, 2020 totaled \$988.5 million, as well as the senior secured asset-backed revolving credit facility to which we and certain of our subsidiaries are parties (the “ABL Credit Facility”). The ABL Credit Facility provides for a total commitment of \$300 million with a maturity date of October 28, 2024. We principally use the ABL Credit Facility to support the issuance of letters of credit that arise in the ordinary course of our business and thereby to reduce our use of cash required to collateralize these instruments. As of May 2, 2020, letters of credit totaling \$80.8 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of May 2, 2020.

Foreign Liquidity. The amount of cash, cash equivalents, and short-term investments held by our foreign subsidiaries was \$81.4 million as of May 2, 2020. We intend to reinvest indefinitely our foreign earnings. If we were to repatriate the accumulated historical foreign earnings, the estimated amount of unrecognized deferred income tax liability related to foreign withholding taxes would be approximately \$27.0 million.

Stock Repurchase Authorization. On December 13, 2018, we announced that the Board of Directors authorized a program to repurchase up to \$500 million of its common stock, which replaced in its entirety the previous stock repurchase program authorized in fiscal 2018. In light of the uncertainty surrounding the duration and severity of potential macroeconomic impacts of COVID-19, on March 17, 2020, we temporarily suspended purchases of our common stock under this program. We repurchased \$74.5 million under this program during the first six months of fiscal 2020, and had \$275.4 million remaining under the current authorization as of May 2, 2020. The reinstatement of the program and amount and timing of repurchases are subject to a variety of factors including liquidity, cash flow, stock price and general business and market conditions. The program may be reinstated, modified, suspended, or discontinued at any time.

Liquidity Position. We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our operating or investment plans, and may consider capital raising and other market opportunities that may be available to us. We regularly evaluate alternatives to manage our capital structure and to reduce our debt. While the COVID-19 pandemic has not materially impacted our liquidity and capital resources to date, it has led to increased disruption and volatility in capital markets and credit markets. The duration and severity of any further economic or market impact of the COVID-19 pandemic remains uncertain and there can be no assurance that it will not have an adverse effect on our liquidity and capital resources, including our ability to access capital markets, in the future. Based on past performance and current expectations, we believe that cash from operations, cash, cash equivalents, investments, and other sources of liquidity, including our ABL Credit Facility, will satisfy our working capital needs, capital expenditures, and other liquidity requirements associated with our operations through at least the next 12 months.

Cash Provided By Operating Activities

The following sections set forth the components of our \$130.9 million of cash provided by operating activities during the first six months of fiscal 2020:

Net income (adjusted for non-cash charges)

The following table sets forth our net income (adjusted for non-cash charges) during the period (in thousands):

	Six Months Ended May 2, 2020
Net income	\$ 153,983
Adjustments for non-cash charges:	
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	48,381
Share-based compensation costs	33,579
Amortization of intangible assets	19,361
Deferred taxes	25,420
Provision for inventory excess and obsolescence	12,640
Provision for warranty	13,793
Other	16,190
Net income (adjusted for non-cash charges)	<u>\$ 323,347</u>

Working Capital

We used \$192.4 million of cash for working capital during the period. The following table sets forth the major components of the cash used in working capital (in thousands):

	Six Months Ended May 2, 2020
Cash provided by accounts receivable	\$ 15,865
Cash provided by inventories	5,618
Cash used in prepaid expenses and other	(54,839)
Cash used in accounts payable, accruals and other obligations	(151,713)
Cash used in deferred revenue	(5,679)
Cash used in operating lease assets and liabilities, net	(1,669)
Total cash used for working capital	<u>\$ (192,417)</u>

As compared to the end of fiscal 2019:

- The \$15.9 million of cash provided by accounts receivable during the first six months of fiscal 2020 reflects increased cash collections;
- The \$5.6 million of cash provided by inventory during the first six months of fiscal 2020 primarily reflects lower finished goods. During the second quarter of fiscal 2020, we experienced temporary closures of certain third-party facilities, reduced operation levels or capacity, lead time extensions for certain parts and component supply delays within our supply chain as a result of various COVID-19 safety countermeasures implemented globally;
- The \$54.8 million of cash used in prepaid expense and other during the first six months of fiscal 2020 primarily reflects increases in upfront future discounts paid to customers and higher non-customer receivables;
- The \$151.7 million of cash used in accounts payable, accruals and other obligations during the first six months of fiscal 2020 primarily reflects the timing of payments for bonuses to employees under our annual cash incentive compensation plan and inventory purchases;
- The \$5.7 million of cash used in deferred revenue during the first six months of fiscal 2020 represents a decrease in advanced payments received from customers prior to revenue recognition; and
- The \$1.7 million of cash used in operating lease assets and liabilities, net, during the first six months of fiscal 2020 represents cash paid for operating leases. For more details, see Note 15 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Our days sales outstanding (“DSOs”) for the first six months of fiscal 2020 were 81 days, and our inventory turns for the first six months of fiscal 2020 were 4.9. The calculation of DSOs includes accounts receivables and contract assets for unbilled receivables included in prepaid expenses and other.

Cash Paid for Interest

The following table sets forth the cash paid for interest during the period (in thousands):

	Six Months Ended	
	May 2, 2020	
Term Loan due September 28, 2025 (Old) ⁽¹⁾	\$	6,691
Term Loan due September 28, 2025 (New) ⁽²⁾		5,241
Interest rate swaps ⁽³⁾		2,462
ABL Credit Facility ⁽⁴⁾		779
Finance leases		2,417
Cash paid during period	\$	17,590

⁽¹⁾ Interest on the Old 2025 Term Loan was payable periodically based on the interest period selected for borrowing. The Old 2025 Term Loan bore interest at LIBOR for the chosen borrowing period plus a spread of 2.00% subject to a minimum LIBOR rate of 0.00%. On January 23, 2020, we refinanced and replaced this term loan with the New 2025 Term Loan. See Note 16 to our Condensed Consolidated Financial Statements included in Item I of Part I of this report for more information.

⁽²⁾ Interest on the New 2025 Term Loan is payable periodically based on the interest period selected for borrowing. The New 2025 Term Loan bears interest at LIBOR for the chosen borrowing period plus a spread of 1.75% subject to a minimum LIBOR rate of 0.00%. At the end of the second quarter of fiscal 2020, the interest rate on the New 2025 Term Loan was 2.47%.

⁽³⁾ The interest rate swaps fix the LIBOR rate for \$350.0 million of the New 2025 Term Loan at 2.957% through September 2023.

⁽⁴⁾ During the first six months of fiscal 2020, we utilized the ABL Credit Facility to collateralize certain standby letters of credit and paid \$0.8 million in commitment fees, interest expense and other administrative charges relating to the ABL Credit Facility.

Contractual Obligations

There have been no material changes to our contractual obligations since November 2, 2019. For a summary of our contractual obligations, see Item 7 of Part II of our 2019 Annual Report.

Off-Balance Sheet Arrangements

We do not engage in any off-balance sheet financing arrangements. In particular, we do not have any equity interests in so-called limited purpose entities, which include special purpose entities (SPEs) and structured finance entities.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expense, and related disclosure of contingent assets and liabilities. By their nature, these estimates and judgments are subject to an inherent degree of uncertainty. On an ongoing basis, we reevaluate our estimates, including those related to revenue recognition, share-based compensation, bad debts, inventories, intangible and other long-lived assets, goodwill, income taxes, warranty obligations, restructuring, derivatives and hedging, and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The inputs into certain of our judgments, assumptions, and estimates reflected the information available to us regarding the economic implications of the COVID-19 pandemic, expectations as to its impact on our business, and on our critical and significant accounting estimates. Among other things, these estimates form the basis for judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates under different assumptions or conditions. To the extent that there are material differences between our estimates and actual results, our consolidated financial statements will be affected. In addition, as the duration and severity of COVID-19 pandemic are uncertain, certain of our estimates could require further judgment or modification and therefore carry a higher degree of variability and volatility. As events continue to evolve our estimates may change materially in future periods.

Our critical accounting policies and estimates have not changed materially since November 2, 2019, except for items listed below. For a discussion of our critical accounting policies and estimates, see Item 7 of Part II of our 2019 Annual Report.

Leases

For our lease accounting policies due to ASC 842, see Notes 2 and 15 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Effects of Recent Accounting Pronouncements

See Note 2 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for information relating to our discussion of the effects of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. For a discussion of quantitative and qualitative disclosures about market risk, see Item 7A of Part II of the 2019 Annual Report.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

As of the end of the period covered by this report, we carried out an evaluation under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, 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). Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) during the most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any significant impact to our internal control over financial reporting despite the fact that most of our employees are working remotely due to the COVID-19 pandemic. The design of our processes and controls allow for remote execution with secure accessibility to data. We are continually monitoring and assessing the COVID-19 situation to minimize the impact, if any, on the design and operating effectiveness on our internal controls.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

The information set forth under the heading “Litigation” in Note 21, Commitments and Contingencies, to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report, is incorporated herein by reference.

Item 1A. Risk Factors

Investing in our securities involves a high degree of risk. Before investing in our securities, you should consider carefully the information contained in this report and in our 2019 Annual Report, including the risk factors identified in Item 1A of Part I thereof (Risk Factors). This report contains forward-looking statements that involve risks and uncertainties. See “Cautionary Note Regarding Forward-Looking Statements” in “Management’s Discussion and Analysis of Financial Conditions and Results of Operations” above. Our actual results could differ materially from those contained in the forward-looking statements. Any of the risks discussed in our 2019 Annual Report, in this report, in other reports we file with the SEC, and other risks we have not anticipated or discussed, could have a material adverse impact on our business, financial condition or results of operations. Except as set forth below, there has been no material change to our Risk Factors from those presented in our 2019 Annual Report.

The COVID-19 pandemic has impacted our business and results of operation and could have a material adverse effect on our business, results of operations and financial condition in the future.

On January 30, 2020, the WHO declared a global emergency due to the outbreak of COVID-19, and on March 11, 2020, the WHO characterized COVID-19 as a pandemic. Unprecedented actions have been taken by governments globally to try to contain the pandemic, such as travel bans and restrictions, business closures, social distancing measures, quarantines and shelter-in-place orders. This pandemic and these countermeasures to contain the virus have caused economic and financial disruptions globally, including in most of the regions in which we sell our products and services and conduct our business operations. In the second quarter of fiscal 2020, the COVID-19 pandemic adversely impacted our financial results and business operations, primarily due to supply chain disruptions, limitations on customer fulfillment activity and our level of success in obtaining new customers or selling into recent customer design wins on their original timelines. The magnitude and duration of disruption from the COVID-19 pandemic, and its impact on global business activity and our business and operations remains uncertain and could worsen.

As a result of the COVID-19 pandemic, we have temporarily closed Ciena offices globally, implemented travel restrictions and withdrawn from industry events. Our transition from existing flexible working arrangements to a work from home policy for most of our employees could impact the ability of our employees to advance research and development projects as efficiently or productively as they could in a lab environment or office setting. The extent and duration of ongoing workplace restrictions and limitations could adversely impact our ability to continue to push the pace of innovation in our industry. Continued restrictions on travel and limitations on interaction with customers, such as field and lab trials, may impact our sales and marketing activities, including our ability to secure new customers, to qualify and sell new products, or to grow sales with customers where or with whom we do not have a longer-standing supply relationship, such as within international markets and for our Blue Planet Automation Software & Services segment and our Packet Networking product line.

Also as a result of the COVID-19 pandemic, we have experienced some disruption and delays in our global supply chain and related operations. We rely on third-party manufacturing operations in Mexico, Thailand, the United States and Canada. We also rely on a global component supply network involving many vendors and countries throughout the world. During the second quarter of fiscal 2020, some of our component suppliers – particularly those with facilities in China and Malaysia – experienced challenges related to COVID-19 that resulted in temporary closures or reductions of supply capacity. Such disruptions may continue, or worsen, in the future. Limits on manufacturing availability or capacity, or delays in production or delivery of components or raw materials, due to COVID-related restrictions could delay or inhibit our ability to obtain supply of components and produce finished goods. If the COVID-19 pandemic worsens, it could also result in further disruptions or restrictions on our ability to source, manufacture or distribute our products, including temporary closures of our key manufacturing facilities, or the facilities of our suppliers and their manufacturers. If we experience more pronounced disruptions in our operations, we may experience constrained supply that may materially adversely impact our business and results of operations in future periods.

We have experienced some disruption in our ability to provide installation, professional and fulfillment services to customers due to site access limitations, limited customer availability, project delays or re-prioritization by customers, and travel bans or restrictions on movement or gatherings, which adversely impacted revenue. We have also experienced transportation disruptions, such as reduced availability of air transport, port closures, and increased border controls or closures. If any of these logistics or transportation disruptions persist or worsen, our operations and ability to meet customer demand could be materially adversely affected. Our customers have also experienced, and may continue to experience, disruptions in their operations, which can result in delayed, reduced, or canceled orders, and increased collection risks, and which may adversely affect our results of operations.

During the second quarter of fiscal 2020, we experienced higher than typical orders for our products and services among a concentrated set of larger customers with whom we have existing positions as a supplier. We believe some portion of these orders likely reflects short-term purchasing behaviors based on customer-specific considerations in the face of the pandemic, including: customer concerns about future continued availability of supply; implementation of customer business continuity actions; our desire for increased visibility into expected demand; customer consumption of existing inventory or spare equipment; additional network capacity requirements; acceleration of capital spending; and, possibly, increased bandwidth demands being placed on networks due to the pandemic. This level of orders may not continue in future periods and could decline. In addition, as our customers and their customers evaluate the ways in which networks and working environments will change even after the pandemic subsides, there may be long-lasting changes in customer behaviors and needs, including the end-users of our customers, which may impact the demand for our products and services in the long-term.

Our business and operating results depend significantly on general market and economic conditions. Market volatility and weakness in the regions in which we operate have previously resulted in sustained periods of decreased demand for our products and services, which has adversely affected our operating results. Macroeconomic and market conditions could be adversely affected by a variety of political, economic or other factors, including long-term factors emerging from the effects of the pandemic in the United States and international markets, which could in turn adversely affect spending levels of our customers and their end users, and could create volatility or deteriorating conditions in the markets in which we operate. Due to our concentration of revenue in the United States, and the increasing concentration of our customers experienced in the second quarter of fiscal 2020, we would expect to incur a more significant impact from any adverse change in the capital spending environment or macroeconomic or market weakness in the United States.

The COVID-19 pandemic has also led to increased disruption and volatility in capital markets and credit markets. The pandemic and resulting economic uncertainty could adversely affect our liquidity and capital resources in the future. While the COVID-19 pandemic has not materially impacted our liquidity and capital resources to date, it has led to increased disruption and volatility in capital markets and credit markets. The duration and severity of any further economic or market impact of the COVID-19 pandemic remains uncertain and there can be no assurance that it will not have an adverse effect on our liquidity and capital resources, including our ability to access capital markets, in the future. The inputs into certain of our judgments,

assumptions, and estimates considered the economic implications of the COVID-19 pandemic on our critical and significant accounting estimates. The actual results that we experience may differ materially from our estimates. As the COVID-19 pandemic continues to develop, many of our estimates could require increased judgment and carry a higher degree of variability and volatility. As events continue to evolve, our estimates may change materially in future periods. In addition, if COVID-19 impacts the financial position of our customers or resale channel partners, we may have difficulty collecting receivables, and our business and results of operations could be exposed to risks associated with uncollectible accounts. Lack of liquidity in the capital markets, macroeconomic weakness and market volatility, including disruption caused by the COVID-19 pandemic, may increase our exposure to these credit risks. Our attempts to monitor customer payment capability and to take appropriate measures to protect ourselves may not be sufficient, and it is possible that we may have to write down or write off accounts receivable. Such write-downs or write-offs could negatively affect our operating results for the period in which they occur, and, if large, could have a material adverse effect on our revenue and operating results.

The situation relating to the COVID-19 pandemic and its potential effects on our business remains dynamic, including in our third quarter of fiscal 2020 and thereafter. The broader implications for our business and results of operations remain uncertain and will depend on many factors outside our control, including, without limitation, the timing, extent, trajectory and duration of the pandemic, the development and availability of effective treatments and vaccines, the imposition of protective public safety measures, and the impact of the pandemic on the global economy and enterprise and consumer behaviors. If these and other effects of the COVID-19 pandemic, including its effect on broader economies, financial markets and overall demand environment for our products, continues or worsens, it could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

The COVID-19 pandemic may also increase the likelihood and severity of other risks discussed in in Item 1A of Part I of our 2019 Annual Report, including but not limited to risks related to competition, development of the market for and demand for our products, delays in the development and production of our products, reliance on third parties, our international scale, our exposure to currency exchange rate fluctuations and the credit risks of our customers and resellers, and volatility in the capital markets.

Our revenue, gross margin and operating results can fluctuate significantly and unpredictably from quarter to quarter.

Our revenue, gross margin and results of operations can fluctuate significantly and unpredictably from quarter to quarter. Our budgeted expense levels are based on our visibility into customer spending plans and our projections of future revenue and gross margin. Visibility into customer spending levels can be uncertain, spending patterns are subject to change, and reductions in our expense levels can take significant time to implement. A significant portion of our quarterly revenue is generated from customer orders received during that same quarter (which we refer to as “book to revenue”). Accordingly, our revenue for a particular quarter is difficult to predict, and a shortfall in expected orders in any given quarter can materially adversely affect our revenue and results of operations for that quarter or future quarterly periods. Additional factors that contribute to fluctuations in our revenue, gross margin and operating results include:

- changes in spending levels or network deployment plans by customers, particularly with respect to our service provider and Web-scale provider customers;
- order timing and volume, including book to revenue orders;
- shipment and delivery timing;
- backlog levels;
- the level of competition and pricing pressure in our industry;
- the pace and impact of price erosion that we regularly encounter in our markets;
- the impact of commercial concessions or unfavorable commercial terms required to maintain incumbency or secure new opportunities with key customers;
- the mix of revenue by product segment, geography and customer in any particular quarter;
- our level of success in achieving targeted cost reductions and improved efficiencies in our supply chain;
- our incurrence of start-up costs, including lower margin phases of projects required to support initial deployments, gain new customers or enter new markets;
- our level of success in accessing new markets and obtaining new customers;
- long- and short-term changing behaviors or customer needs that impact demand for our products and services or the products and services of our customers;
- technology-based price compression and our introduction of new platforms with improved price for performance;
- changing market, economic and political conditions, including the impact of tariffs and other trade restrictions or efforts to withdraw from or materially modify international trade agreements;
- factors beyond our control such as natural disasters, acts of war or terrorism, and epidemics, including the COVID-19 pandemic;

- the financial stability of our customers and suppliers;
- consolidation activity among our customers, suppliers and competitors;
- the timing of revenue recognition on sales, particularly relating to large orders;
- installation service availability and readiness of customer sites;
- availability of components and manufacturing capacity;
- adverse impact of foreign exchange; and
- seasonal effects in our business.

As a result of these factors and other conditions affecting our business and operating results, we believe that quarterly comparisons of our operating results are not necessarily a good indication of possible future performance. Quarterly fluctuations from the above factors may cause our revenue, gross margin and results of operations to underperform in relation to our guidance, long-term financial targets or the expectations of financial analysts or investors, which may cause volatility or decreases in our stock price. See the risk factor above entitled *“The COVID-19 pandemic has impacted our business and results of operation and could have a material adverse effect on our business, results of operations and financial condition the future”* for additional factors related to COVID-19 that could cause our revenue, gross margin and operating results to fluctuate.

A small number of customers account for a significant portion of our revenue. The loss of these customers or a significant reduction in their spending could have a material adverse effect on our business and results of operations.

A significant portion of our revenue is concentrated among a small number of customers. For example, our ten largest customers contributed 59.3% of our fiscal 2019 revenue, and we have seen a further concentration in our orders during the second quarter of fiscal 2020. Historically, our largest customers by revenue principally consisted of large communications service providers. For example, Verizon and AT&T accounted for approximately 12.9% and 10.9% of fiscal 2019 revenue, respectively. As a result of efforts in recent years to diversify our business, the customer segments and geographies that comprise our customer base and top customers by revenue have changed. During fiscal 2019, three Web-scale providers were among our top ten customers. Web-scale customers have been important contributors to our overall growth through both our direct sales to them, including for data center interconnection, and their indirect impact on purchases by other network operators. Consequently, our financial results and our ability to grow our business are closely correlated with the spending of a relatively small number of customers. Our business and results of operations could be materially adversely impacted by the loss of a large customer within or outside of these customer segments as well as by reductions in spending or capital expenditure budgets, changes in network deployment plans or changes in consumption models for acquiring networking solutions by our largest customers.

Because of our concentration of revenue with communications service providers and Web-scale providers, our business and results of operations can be significantly affected by market, industry or competitive dynamics adversely affecting these customer segments. For example, communications service providers continue to face a rapidly shifting competitive landscape as cloud service operators, “over-the-top” (OTT) providers, and other content providers challenge their traditional business models and network infrastructures. These dynamics have in the past had an adverse effect on network spending levels by certain of our largest service provider customers. Several of these, including AT&T, with whom we experienced declines in annual revenue during fiscal 2017 and fiscal 2018, have announced various initiatives that seek to modify how they purchase networking infrastructure or reduce capital expenditures on network infrastructure in future periods that may adversely affect our results of operations. Similarly, certain of our largest Web-scale customers have announced an intention to reduce capital spending in future periods and we expect our revenue from this customer segment to moderate from the level achieved in fiscal 2019. Web-scale providers are also under consumer and government scrutiny and have been the subject of regulatory and other government actions, including antitrust investigations. There can be no assurance that these government actions will not adversely impact the network spending, procurement strategies, or business practices of our Web-scale customers in a manner adverse to us. Our business and results of operations could be materially adversely affected by these factors and other market, industry or competitive dynamics adversely impacting our customers.

In addition, the negative effects of the COVID-19 pandemic on global economic conditions may affect the network spending, procurement strategies, or business practices of our largest customers. For example, our service provider customers rely in part upon the sale of services to consumers and enterprises, including those in the retail, entertainment, and travel industries, which have been acutely impacted by the negative economic effects of the COVID-19 pandemic. Similarly, certain of our Web-scale customers have business models that heavily rely upon advertising revenue from enterprises, including those in industries acutely affected by the COVID-19 pandemic. If any of our large customers experience a loss in revenue due to the impact of COVID-19 on their consumer or enterprise customers, they may reduce capital spending generally or with respect to our products, which could materially adversely affect our business and results of operations.

Our business and operating results could be adversely affected by unfavorable changes in macroeconomic and market conditions and reductions in the level of spending by customers in response to these conditions.

Our business and operating results depend significantly on general market and economic conditions. Market volatility and weakness in the regions in which we operate have previously resulted in sustained periods of decreased demand for our products and services, which has adversely affected our operating results. The current global macroeconomic environment is challenging and volatile, and is being significantly and adversely impacted by the COVID-19 pandemic. Macroeconomic and market conditions could also be adversely affected by a variety of political, economic or other factors in the United States and international markets, which could in turn adversely affect spending levels of our customers and their end users, and could create volatility or deteriorating conditions in the markets in which we operate. Due to our concentration of revenue in the United States, we would expect to incur a more significant impact from any adverse change in the capital spending environment or macroeconomic or market weakness in the United States. Macroeconomic uncertainty or weakness could result in:

- reductions in customer spending and delay, deferral or cancellation of network infrastructure initiatives;
- increased competition for fewer network projects and sales opportunities;
- increased pricing pressure that may adversely affect revenue, gross margin and profitability;
- decreased ability to forecast operating results and make decisions about budgeting, planning and future investments;
- increased overhead and production costs as a percentage of revenue;
- tightening of credit markets needed to fund capital expenditures by us or our customers;
- customer financial difficulty, including longer collection cycles and difficulties collecting accounts receivable or write-offs of receivables; and
- increased risk of charges relating to excess and obsolete inventories and the write-off of other intangible assets.

Each of our customers has a unique set of circumstances, and it is unclear how the macroeconomic and market conditions created by COVID-19 may impact their purchasing volumes or behaviors. Reductions in customer spending in response to unfavorable or uncertain macroeconomic and market conditions, globally or in a particular region where we operate, would adversely affect our business, results of operations and financial condition.

COVID-19-related restrictions on travel and gatherings could adversely impact our ability to compete for business, particularly with customers where we are not an incumbent supplier.

Competition for sales of communications networking equipment, software and services is intense on a global basis, as we and our competitors aggressively seek to capture market share and displace incumbent equipment vendors. Our strategy is to leverage our technology leadership and to aggressively capture additional market share and displace competitors, particularly with communications service providers internationally. This market share capture has been an important contributor to our growth in recent years. Restrictions on travel and gatherings due to COVID-19 countermeasures have impacted our interaction with customers, and the timing of certain field and lab trials. Restrictions have impacted and may continue to impact our ability to carry out certain sales and marketing activities, and adversely impacted our ability to secure new customers, to qualify and sell new products, and to grow sales with customers where we do not have longer-standing supply relationships, including within our Blue Planet Automation Software and Services segment and our Packet Networking product line. If we fail to win new business or to compete successfully in our markets, our business and results of operations could suffer.

Investment of research and development resources in communications networking technologies for which there is not an adequate market demand, or failure to sufficiently or timely invest in technologies for which there is market demand, would adversely affect our revenue and profitability.

The market for communications networking hardware and software solutions is characterized by rapidly evolving technologies, changes in market demand and increasing adoption of software-based networking solutions. We continually invest in research and development to sustain or enhance our existing hardware and software solutions and to develop or acquire new technologies including new software platforms. There is often a lengthy period between commencing these development initiatives and bringing new or improved solutions to market. Accordingly, there is no guarantee that our new products, including our Blue Planet Automation Software and Services, or enhancements to other solutions, will achieve market acceptance or that the timing of market adoption will be as predicted. As a result of the COVID-19 pandemic, technology preferences, customer demand and the markets for our solutions may move in directions that we had not anticipated. As a general matter, there is a significant possibility that some of our development decisions, including significant expenditures on acquisitions, research and development, or investments in technologies, will not meet our expectations, and that our investment in some projects will be unprofitable. There is also a possibility that we may miss a market opportunity because we failed to invest or invested too late in a technology, product or enhancement sought by our customers or the markets into which we sell.

Changes in market demand or investment priorities may also cause us to discontinue existing or planned development for new products or features, which can have a disruptive effect on our relationships with customers.

Restrictions on the ability of our research and development employees to work in our facilities as a result of restrictions imposed by governments or us to combat the COVID-19 pandemic could reduce their effectiveness including, for example, by making it more difficult for them to collaborate as effectively in the development of new solutions. Failure to develop, on a cost-effective basis, innovative new or enhanced solutions that are attractive to customers and profitable to us could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We rely on third-party contract manufacturers, and our business and results of operations may be adversely affected by risks associated with their businesses, financial condition and the geographies in which they operate.

We rely on third-party contract manufacturers with Mexico, Thailand, the United States and Canada to perform a substantial portion of our supply chain activities, including component sourcing, manufacturing, product testing and quality, and fulfillment and logistics relating to the distribution and support of our products. There are a number of risks associated with our dependence on contract manufacturers, including:

- reduced control over delivery schedules and planning;
- reliance on the quality assurance procedures of third parties;
- potential uncertainty regarding manufacturing yields and costs;
- availability of manufacturing capability and capacity, particularly during periods of high demand;
- risks and uncertainties associated with the locations or countries where our products are manufactured, including potential manufacturing disruptions caused by social, geopolitical, environmental or health factors, including pandemics or widespread health epidemics such as the COVID-19 pandemic;
- changes in U.S. law or policy governing tax, trade, manufacturing, development and investment in the countries where we currently manufacture our products, including the World Trade Organization Information Technology Agreement or other free trade agreements;
- inventory liability for excess and obsolete supply;
- limited warranties provided to us; and
- potential misappropriation of our intellectual property.

These and other risks could impair our ability to fulfill orders, harm our sales and impact our reputation with customers. If our contract manufacturers are unable or unwilling to continue manufacturing our products or components of our products, or if we experience a disruption of manufacturing or our contract manufacturers discontinue operations, we may be required to identify and qualify alternative manufacturers, which could cause us to be delayed in or unable to meet our supply requirements to our customers and result in the breach of our customer agreements. The process of qualifying a new contract manufacturer and commencing volume production is expensive and time-consuming, and if we are required to change or qualify a new contract manufacturer, we would likely experience significant business disruption and could lose revenue and damage our existing customer relationships. See the risk factor above entitled *“The COVID-19 pandemic has impacted our business and results of operation and could have a material adverse effect on our business, results of operations and financial condition the future”* for additional factors related to COVID-19 and our third-party contract manufacturers that could adversely affect our business and financial results.

The international scale of our sales and operations exposes us to additional risk and expense that could adversely affect our results of operations.

We market, sell and service our products globally, maintain personnel in numerous countries, and rely on a global supply chain for sourcing important components and manufacturing our products. Our international sales and operations are subject to inherent risks, including:

- adverse social, political and economic conditions;
- effects of adverse changes in currency exchange rates;
- greater difficulty in collecting accounts receivable and longer collection periods;
- difficulty and cost of staffing and managing foreign operations;
- higher incidence of corruption or unethical business practices;
- less protection for intellectual property rights in some countries;
- tax and customs changes that adversely impact our global sourcing strategy, manufacturing practices, transfer-pricing, or competitiveness of our products for global sales;
- compliance with certain testing, homologation or customization of products to conform to local standards;

- significant changes to free trade agreements, trade protection measures, tariffs, export compliance, domestic preference procurement requirements, qualification to transact business and additional regulatory requirements; and
- natural disasters, acts of war or terrorism, and epidemics, including the COVID-19 pandemic.

Our international operations are subject to complex foreign and U.S. laws and regulations, including anti-bribery and corruption laws, antitrust or competition laws, data privacy laws, such as the EU General Data Protection Regulation, and environmental regulations, among others. In particular, recent years have seen a substantial increase in anti-bribery law enforcement activity by U.S. regulators, and we currently operate and seek to operate in many parts of the world that are recognized as having greater potential for corruption. Violations of any of these laws and regulations could result in fines and penalties, criminal sanctions against us or our employees, prohibitions on the conduct of our business and on our ability to offer our products and services in certain geographies, and significant harm to our business reputation. Our policies and procedures to ensure compliance with these laws and regulations and to mitigate these risks may not protect us from all acts committed by our employees or third-party vendors, including contractors, agents and services partners. Additionally, the costs of complying with these laws (including the costs of investigations, auditing and monitoring) could adversely affect our current or future business.

The success of our international sales and operations will depend, in large part, on our ability to anticipate and manage these risks effectively. Our failure to manage any of these risks could harm our international operations, reduce our international sales, and could give rise to liabilities, costs or other business difficulties that could adversely affect our operations and financial results.

If we are unable to attract and retain qualified personnel, or if our existing personnel are harmed by COVID-19, we may be unable to manage our business effectively.

Our future success and ability to maintain a technology leadership position depends upon our ability to recruit and retain the services of executive, engineering, sales and marketing, and support personnel. Competition to attract and retain highly skilled technical, engineering and other personnel with experience in our industry is intense, and our employees have been the subject of targeted hiring by our competitors. Competition is particularly intense in certain jurisdictions where we have research and development centers, including the Silicon Valley area of northern California, and we may experience difficulty retaining and motivating existing employees and attracting qualified personnel to fill key positions. Because we rely on equity awards as a significant component of compensation, particularly for our executive team, a lack of positive performance in our stock price, reduced grant levels, or changes to our compensation program may adversely affect our ability to attract and retain key employees. In addition, none of our executive officers is bound by an employment agreement for any specific term. We have a number of workforce planning initiatives underway and our failure to manage these programs effectively could result in the loss of key personnel. Similarly, the failure to properly manage the necessary knowledge transfer required from these employee transitions could impact our ability to maintain industry and innovation leadership. The loss of members of our management team or other key personnel, including due to COVID-19, could be disruptive to our business and, were it necessary, it could be difficult to replace such individuals. If we are unable to attract and retain qualified personnel, we may be unable to manage our business effectively, and our operations and financial results could suffer.

In addition, a number of our team members are foreign nationals who rely on visas and entry permits in order to legally work in the United States and other countries. Global events such as pandemics may interfere with our ability to hire or retain personnel who require these visas or entry permits. For example, in response to the COVID-19 pandemic, the United States has recently suspended entry of foreign nationals who have recently been in China, the United Kingdom, numerous countries within the European Union, and other countries into the United States, which could impact our ability to attract, develop, integrate and retain highly skilled employees with appropriate qualifications from other countries. In addition, on April 22, 2020, in a stated effort to protect Americans from competition from foreign workers during the COVID-19 pandemic, the U.S. President signed an executive order to pause the issuance of green cards for 60 days.

Data security breaches and cyber-attacks could compromise our intellectual property or other sensitive information and cause significant damage to our business and reputation.

In the ordinary course of our business, we maintain on our network systems, and on the networks of our third-party providers, certain information that is confidential, proprietary or otherwise sensitive in nature. This information includes intellectual property, financial information and confidential business information relating to us and our customers, suppliers and other business partners. Companies in the technology industry have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access to networks or sensitive information. Our network systems and storage and other business applications, and the systems and storage and other business applications maintained by our third-party providers, have been in the past, and may be in the future, subject to attempts to gain unauthorized access, breach, malfeasance or other system disruptions. In some cases, it is difficult to anticipate or to detect immediately such

incidents and the damage caused thereby. If an actual or perceived breach of security occurs in our network or any of our third-party providers' networks, we could incur significant costs and our reputation could be harmed. In addition, the internet has experienced an increase in cyber threats during the COVID-19 pandemic in the form of phishing emails, malware attachments and malicious websites. While we work to safeguard our internal network systems and validate the security of our third party providers to mitigate these potential risks, including through information security policies and employee awareness and training, there is no assurance that such actions will be sufficient to prevent cyber-attacks or security breaches. We have been subjected in the past to a range of incidents including phishing, emails purporting to come from a company executive or vendor seeking payment requests, and communications from look-alike corporate domains. While these have not had a material effect on our business or our network security to date, security incidents involving access or improper use of our systems, networks or products could compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. These security events could also negatively impact our reputation and our competitive position and could result in litigation with third parties, regulatory action, loss of business, potential liability and increased remediation costs, any of which could have a material adverse effect on our financial condition and results of operations.

Changes in trade policy, including the imposition of tariffs and efforts to withdraw from or materially modify international trade agreements, may adversely affect our business, operations and financial condition.

The United States and various foreign governments have established certain trade and tariff requirements under which we have implemented a global approach to the sourcing and manufacture of our products, as well as distribution and fulfillment to customers around the world. Recently, the U.S. government has indicated a willingness to revise, renegotiate, or terminate various existing multilateral trade agreements and to impose new taxes on certain goods imported into the U.S. Because we rely on a global sourcing strategy and third-party contract manufacturers in markets outside of the U.S. to perform substantially all of the manufacturing of our products, such steps, if adopted, could adversely impact our business and operations, increase our costs, and make our products less competitive in the U.S. and other markets.

For example, the U.S. government has threatened to undertake a number of actions relating to trade with Mexico, including the closure of the border and the imposition of escalating tariffs on goods imported into the U.S. from Mexico. A substantial portion of our products are manufactured and distributed by third-party contract manufacturers in Mexico. If adopted, such actions could adversely impact our business and significantly disrupt our operations. These actions may also make our products less competitive in the United States and other markets. In addition, the U.S. government reached a new trade agreement with the Canadian and Mexican governments to replace the North American Free Trade Agreement ("NAFTA") with the United States-Mexico-Canada Agreement ("USMCA"). There can be no assurance that a transition from NAFTA to the USMCA would not adversely impact our business or disrupt our operations.

In addition, as a result of our global sourcing strategy, our supply chain includes certain direct and indirect suppliers based in China who supply goods to us, our manufacturers or our third-party suppliers. Recently, there have been a number of significant geopolitical events, including trade tensions and regulatory actions, involving the governments of the United States and China. The U.S. government has raised tariffs, and imposed new tariffs, on a wide range of imports of Chinese products, including component elements of our solutions and certain finished goods products that we sell. Effective September 1, 2019, a new 15% tariff was imposed on approximately \$120 billion of China-origin imports covered by the so called "List 4A," which includes certain of our products. In December 2019, the U.S. government announced that as part of a so called "Phase One" agreement between the U.S. and China on trade matters, this tariff was expected to be reduced to 7.5%. In May 2020, the U.S. introduced significant further restrictions limiting access to controlled U.S. technology to additional Chinese government and commercial entities, including certain of our competitors based in China. The situation involving U.S.-China trade relations remains volatile and uncertain and there can be no assurance that further actions by either country will not have an adverse impact on our business, operations and access to technology, or components thereof, sourced from China.

At this time, it remains unclear what additional actions, if any, will be taken by the U.S. or other governments with respect to international trade agreements, the imposition of tariffs on goods imported into the U.S., tax policy related to international commerce, or other trade matters. Based on our manufacturing practices and locations, there can be no assurance that any future executive or legislative action in the United States or other countries relating to tax policy and trade regulation would not adversely affect our business, operations and financial results.

Government regulation of usage, import or export of our products, or our technology within our products, changes in that regulation, or our failure to obtain required approvals for our products, could harm our international and domestic sales and adversely affect our revenue and costs of sales. Failure to comply with such regulations could result in enforcement actions, fines, penalties or restrictions on export privileges. In addition, costly tariffs on our equipment, restrictions on importation, trade protection measures and domestic preference requirements of certain countries could limit our access to these markets and harm our sales. These regulations could adversely affect the sale or use of our products, substantially increase our cost of sales and adversely affect our business and revenue.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

The following table provides a summary of repurchases of our common stock during the second quarter of fiscal 2020:

Period	Total Number of Shares Purchased⁽¹⁾	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in Thousands)
February 2, 2020 to February 29, 2020	344,079	\$ 42.31	344,079	\$ 284,664
March 1, 2020 to March 28, 2020	240,256	\$ 38.60	240,256	\$ 275,389
March 29, 2020 to May 2, 2020	—	\$ —	—	\$ 275,389
	<u>584,335</u>	<u>\$ 40.78</u>	<u>584,335</u>	

⁽¹⁾ On December 13, 2018, we announced that our Board of Directors authorized a program to repurchase up to \$500 million of our common stock. Due to the continued uncertainty surrounding the duration and severity of potential macroeconomic impacts of COVID-19, Ciena considered it prudent to temporarily suspend purchases of our common stock under our stock repurchase program effective as of March 17, 2020. The reinstatement of the program and amount and timing of repurchases are subject to a variety of factors including liquidity, cash flow, stock price and general business and market conditions. The program may be reinstated, modified, suspended, or discontinued at any time.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

10.1	<u>Amendment to Ciena Corporation 2017 Omnibus Incentive Plan (Incorporated by reference from Exhibit 10.1 of Ciena's Current Report on Form 8-K, filed with the SEC on April 6, 2020).*</u>
31.1	<u>Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934 as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
31.2	<u>Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934 as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
32.1	<u>Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
32.2	<u>Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
101.INS	Inline XBRL Instance Document - The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Represents 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.

Ciena Corporation

Date: June 10, 2020

By: /s/ Gary B. Smith

Gary B. Smith
President, Chief Executive Officer
and Director
(Duly Authorized Officer)

Date: June 10, 2020

By: /s/ James E. Moylan, Jr.

James E. Moylan, Jr.
Senior Vice President, Finance and
Chief Financial Officer
(Principal Financial Officer)

CIENA CORPORATION
CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Gary B. Smith, certify that:

1. I have reviewed this quarterly report of Ciena Corporation;
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: June 10, 2020

/s/ Gary B. Smith

Gary B. Smith

President and Chief Executive Officer

CIENA CORPORATION
CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, James E. Moylan, Jr., certify that:

1. I have reviewed this quarterly report of Ciena Corporation;
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.

Date: June 10, 2020

/s/ James E. Moylan, Jr.

James E. Moylan, Jr.

Senior Vice President and Chief Financial Officer

CIENA CORPORATION

Written Statement of Chief Executive Officer

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

The undersigned, the Chief Executive Officer of Ciena Corporation (the "Company"), hereby certifies that, to his knowledge, on the date hereof:

- (a) the Report on Form 10-Q of the Company for the quarter ended May 2, 2020 filed on the date hereof with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (b) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Gary B. Smith

Gary B. Smith

President and Chief Executive Officer

June 10, 2020

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Ciena Corporation and will be retained by Ciena Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

CIENA CORPORATION

Written Statement of Chief Financial Officer

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

The undersigned, the Chief Financial Officer of Ciena Corporation (the "Company"), hereby certifies that, to his knowledge, on the date hereof:

- (a) the Report on Form 10-Q of the Company for the quarter ended May 2, 2020 filed on the date hereof with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (b) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ James E. Moylan, Jr.

James E. Moylan, Jr.

Senior Vice President and Chief Financial Officer

June 10, 2020

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Ciena Corporation and will be retained by Ciena Corporation and furnished to the Securities and Exchange Commission or its staff upon request.