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 1, 2021

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	**23-2725311**
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification No.)
7035 Ridge Road, Hanover, MD	**21076**
(Address of principal executive offices)	(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(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	**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 4, 2021
Common Stock, par value $0.01 per share	154,767,152

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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 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Revenue:				
Products	$ 670,043	$ 739,892	$ 1,267,263	$ 1,427,107
Services	163,884	154,161	323,794	299,858
Total revenue	833,927	894,053	1,591,057	1,726,965
Cost of goods sold:				
Products	339,601	405,138	654,699	794,151
Services	81,907	75,589	166,048	148,953
Total cost of goods sold	421,508	480,727	820,747	943,104
Gross profit	412,419	413,326	770,310	783,861
Operating expenses:				
Research and development	110,246	131,530	242,987	262,430
Selling and marketing	110,387	101,214	207,665	208,280
General and administrative	43,635	42,030	83,628	84,498
Amortization of intangible assets	6,019	5,839	11,929	11,692
Significant asset impairments and restructuring costs	8,209	3,811	14,076	8,283
Acquisition and integration costs	294	1,414	601	3,233
Total operating expenses	278,790	285,838	560,886	578,416
Income from operations	133,629	127,488	209,424	205,445
Interest and other income (loss), net	(1,274)	(2,665)	(2,395)	981
Interest expense	(7,785)	(7,860)	(15,145)	(16,675)
Loss on extinguishment and modification of debt	—	—	—	(646)
Income before income taxes	124,570	116,963	191,884	189,105
Provision for income taxes	21,453	25,308	33,419	35,122
Net income	$ 103,117	$ 91,655	$ 158,465	$ 153,983
Basic net income per common share	$ 0.66	$ 0.60	$ 1.02	$ 1.00
Diluted net income per potential common share	$ 0.66	$ 0.59	$ 1.01	$ 0.99
Weighted average basic common shares outstanding	155,331	153,858	155,257	154,099
Weighted average dilutive potential common shares outstanding	156,876	155,141	156,734	155,443

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

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

	Quarter Ended		Six Months Ended	
	May 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Net income	$ 103,117	$ 91,655	$ 158,465	$ 153,983
Change in unrealized gain (loss) on available-for-sale securities, net of tax	42	396	(7)	310
Change in unrealized gain (loss) on foreign currency forward contracts, net of tax	3,817	(6,940)	10,434	(8,019)
Change in unrealized gain (loss) on forward starting interest rate swaps, net of tax	2,649	(8,623)	4,031	(10,103)
Change in cumulative translation adjustments	10,400	(18,508)	26,261	(21,490)
Other comprehensive gain (loss)	16,908	(33,675)	40,719	(39,302)
Total comprehensive income	$ 120,025	$ 57,980	$ 199,184	$ 114,681

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 1, 2021	October 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,202,974	$ 1,088,624
Short-term investments	151,816	150,667
Accounts receivable, net of allowance for credit losses of $10.4 million and $10.6 million as of May 1, 2021 and October 31, 2020, respectively.	716,779	719,405
Inventories, net	401,233	344,379
Prepaid expenses and other	321,651	308,084
Total current assets	2,794,453	2,611,159
Long-term investments	91,715	82,226
Equipment, building, furniture and fixtures, net	298,329	272,377
Operating right-of-use assets	50,997	57,026
Goodwill	311,734	310,847
Other intangible assets, net	82,879	96,647
Deferred tax asset, net	653,922	647,805
Other long-term assets	103,984	102,830
Total assets	$ 4,388,013	$ 4,180,917
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 279,247	$ 291,904
Accrued liabilities and other short-term obligations	330,060	334,132
Deferred revenue	147,075	108,700
Operating lease liabilities	19,364	19,035
Current portion of long-term debt	6,930	6,930
Total current liabilities	782,676	760,701
Long-term deferred revenue	57,224	49,663
Other long-term obligations	127,700	123,185
Long-term operating lease liabilities	53,795	61,415
Long-term debt, net	673,355	676,356
Total liabilities	$ 1,694,750	$ 1,671,320
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; 154,962,122 and 154,563,005 shares issued and outstanding	1,550	1,546
Additional paid-in capital	6,813,215	6,826,531
Accumulated other comprehensive gain (loss)	5,361	(35,358)
Accumulated deficit	(4,126,863)	(4,283,122)
Total stockholders' equity	2,693,263	2,509,597
Total liabilities and stockholders' equity	$ 4,388,013	$ 4,180,917

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 1, 2021	May 2, 2020
Cash flows provided by operating activities:		
Net income	$ 158,465	$ 153,983
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	47,295	48,381
Share-based compensation costs	40,499	33,579
Amortization of intangible assets	18,517	19,361
Deferred taxes	(9,606)	25,420
Provision for inventory excess and obsolescence	10,402	12,640
Provision for warranty	7,937	13,793
Other	5,928	16,190
Changes in assets and liabilities:		
Accounts receivable	(180)	15,865
Inventories	(66,934)	5,618
Prepaid expenses and other	(8,565)	(54,839)
Operating lease right-of-use assets	8,253	8,642
Accounts payable, accruals and other obligations	(30,108)	(151,713)
Deferred revenue	45,482	(5,679)
Short- and long-term operating lease liabilities	(9,726)	(10,311)
Net cash provided by operating activities	217,659	130,930
Cash flows used in investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(51,651)	(45,458)
Purchase of available for sale securities	(102,429)	(40,894)
Proceeds from maturities of available for sale securities	91,810	60,000
Settlement of foreign currency forward contracts, net	9,414	(3,836)
Acquisition of business, net of cash acquired	—	(28,300)
Proceeds from sale of equity investment	4,678	—
Net cash used in investing activities	(48,178)	(58,488)
Cash flows used in financing activities:		
Payment of long-term debt	(3,465)	(1,733)
Payment of debt issuance costs	—	(382)
Payment of finance lease obligations	(1,463)	(1,381)
Shares repurchased for tax withholdings on vesting of stock unit awards	(27,893)	(18,200)
Repurchases of common stock - repurchase program	(38,498)	(74,535)
Proceeds from issuance of common stock	13,480	12,290
Net cash used in financing activities	(57,839)	(83,941)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	2,696	(4,876)
Net increase (decrease) in cash, cash equivalents and restricted cash	114,338	(16,375)
Cash, cash equivalents and restricted cash at beginning of period	1,088,708	904,161
Cash, cash equivalents and restricted cash at end of period	$ 1,203,046	$ 887,786
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	$ 14,949	$ 17,590
Cash paid during the period for income taxes, net	$ 27,666	$ 22,011
Operating lease payments	$ 10,785	$ 11,409
Non-cash investing and financing activities		
Purchase of equipment in accounts payable	$ 4,966	$ 4,480
Repurchase of common stock in accrued liabilities from repurchase program	$ 900	$ —
Operating lease right-of-use assets subject to lease liability	$ 1,770	$ 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 Gain (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at October 31, 2020	154,563,005	$ 1,546	$ 6,826,531	$ (35,358)	$ (4,283,122)	$ 2,509,597
Net income	—	—	—	—	158,465	158,465
Other comprehensive income	—	—	—	40,719	—	40,719
Repurchase of common stock - repurchase program	(735,075)	(8)	(39,390)	—	—	(39,398)
Issuance of shares from employee equity plans	1,667,160	17	13,463	—	—	13,480
Share-based compensation expense	—	—	40,499	—	—	40,499
Shares repurchased for tax withholdings on vesting of stock unit awards	(532,968)	(5)	(27,888)	—	—	(27,893)
Effect of adoption of new accounting standard (Note 2)	—	—	—	—	(2,206)	(2,206)
Balance at May 1, 2021	154,962,122	$ 1,550	$ 6,813,215	$ 5,361	$ (4,126,863)	$ 2,693,263

	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	153,641,565	$ 1,536	$ 6,790,856	$ (61,386)	$ (4,490,430)	$ 2,240,576

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

(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 accounting principles generally accepted in the United States of America ("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 reflect, among other things, the information available to Ciena regarding the economic implications of the COVID-19 pandemic, and expectations as to its impact on Ciena's business. 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 Ciena's estimates and actual results, Ciena's consolidated financial statements will be affected. In addition, including because the duration and severity of COVID-19 pandemic are uncertain, certain of such estimates could require further judgment or modification and therefore carry a higher degree of variability and volatility. 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 GAAP have been condensed or omitted pursuant to SEC rules and regulations. The Condensed Consolidated Balance Sheet as of October 31, 2020 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 2020 (the "2020 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 2021 and 2020 are 52-week fiscal years.

(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 2020 Annual Report.

Newly Issued Accounting Standards - Effective

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update 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. Ciena adopted ASU 2016-13 on a modified retrospective basis in the first quarter of fiscal year 2021 through a cumulative-effect adjustment at the beginning of the period of adoption and did not restate prior periods. The standard primarily impacts the value of Ciena's accounts receivable, net and contract assets, net. Adoption of ASU 2016-13 did not have a material effect on Ciena's financial position or results of operations.

Ciena's significant accounting policies updated as a result of adopting this standard are as follows:

Allowance for Credit Losses for Accounts Receivable and Contract Assets

Ciena estimates its allowances for credit losses using relevant available information from internal and external sources, related to past events, current conditions and reasonable and supportable forecasts. Historical credit loss experience provides the basis for the estimation of expected credit losses. When assessing for credit losses, Ciena determines collectability by pooling assets with similar characteristics. The allowances for credit losses are each measured on a collective basis when similar risk characteristics exist. The allowances for credit losses are each measured by multiplying the exposure probability of default, the probability the asset will default within a given time frame, by the loss given default rate, the percentage of the asset not expected to be collected due to default, based on the pool of assets.

Probability of default rates are published by third-party credit rating agencies. Adjustments to Ciena's exposure probability may take into account including, but not limited to, various customer-specific factors, the potential sovereign risk of the geographic locations in which the customer is operating and macroeconomic conditions. These factors are updated regularly or when facts and circumstances indicate that an update is deemed necessary.

Newly Issued Accounting Standards - Not Yet Effective

In March 2020, the FASB issued ASU No. 2020-04 (*"ASU 2020-04"*), *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. ASU 2020-04 provides temporary optional guidance on contract modifications and hedging accounting to ease the financial reporting burdens of the expected market transition from the London Interbank Offered Rate ("LIBOR") to alternative reference rates. In January 2021, the FASB issued ASU 2021-01, which refines the scope of Topic 848 and clarifies some of its guidance as part of the FASB's monitoring of global reference rate activities. The new guidance was effective upon issuance, and Ciena is allowed to elect to apply the amendments prospectively through December 31, 2022. Ciena is currently evaluating the impact of this accounting standard update on its consolidated financial statements and related disclosures.

In December 2019, the FASB issued ASU No. 2019-12 (*"ASU 2019-12"), Income Taxes (ASC 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in ASC 740. The amendments also improve consistent application of and simplify U.S. GAAP for other areas of ASC 740 by clarifying and amending existing guidance. ASU 2019-12 is effective for Ciena beginning in the first quarter of fiscal year 2022, and early adoption is permitted. Most amendments within this standard are required to be applied on a prospective basis, while certain amendments must be applied on a retrospective or modified retrospective basis. 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 lines, resulting in different economic risk profiles for each line. Effective as of the beginning of fiscal 2021, Ciena renamed its "Packet Networking" product line to "Routing and Switching." This change, affecting only the presentation of such information, was made on a prospective basis and does not impact comparability of previous financial results. References to prior reported "Packet Networking" product line have been changed herein to"Routing and Switching."

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

	Quarter Ended May 1, 2021				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	$ 573,657	$ —	$ —	$ —	$ 573,657
Routing and Switching	63,628	—	—	—	63,628
Platform Software and Services	—	56,688	—	—	56,688
Blue Planet Automation Software and Services	—	—	23,958	—	23,958
Maintenance Support and Training	—	—	—	70,418	70,418
Installation and Deployment	—	—	—	37,999	37,999
Consulting and Network Design	—	—	—	7,579	7,579
Total revenue by product line	$ 637,285	$ 56,688	$ 23,958	$ 115,996	$ 833,927
Timing of revenue recognition:					
Products and services at a point in time	$ 637,285	$ 20,765	$ 10,765	$ 1,411	$ 670,226
Services transferred over time	—	35,923	13,193	114,585	163,701
Total revenue by timing of revenue recognition	$ 637,285	$ 56,688	$ 23,958	$ 115,996	$ 833,927

	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
Routing and Switching	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

	Six Months Ended May 1, 2021				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	$ 1,085,981	$ —	$ —	$ —	$ 1,085,981
Routing and Switching	127,934	—	—	—	127,934
Platform Software and Services	—	106,527	—	—	106,527
Blue Planet Automation Software and Services	—	—	40,892	—	40,892
Maintenance Support and Training	—	—	—	138,049	138,049
Installation and Deployment	—	—	—	77,610	77,610
Consulting and Network Design	—	—	—	14,064	14,064
Total revenue by product line	$ 1,213,915	$ 106,527	$ 40,892	$ 229,723	$ 1,591,057
Timing of revenue recognition:					
Products and services at a point in time	$ 1,213,915	$ 36,828	$ 15,939	$ 3,268	$ 1,269,950
Services transferred over time	—	69,699	24,953	226,455	321,107
Total revenue by timing of revenue recognition	$ 1,213,915	$ 106,527	$ 40,892	$ 229,723	$ 1,591,057

	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
Routing Switching	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	$ 1,377,519	$ 30,092	$ 8,481	$ 8,874	$ 1,424,966
Services transferred over time	—	66,781	22,001	213,217	301,999
Total revenue by timing of revenue recognition	$ 1,377,519	$ 96,873	$ 30,482	$ 222,091	$ 1,726,965

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”). Americas includes activities in North America and South America. 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. The following table reflects Ciena’s geographic distribution of revenue based principally 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 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Geographic distribution:				
Americas	$ 587,475	$ 650,381	$ 1,084,086	$ 1,224,385
EMEA	155,054	141,431	310,472	271,396
APAC	91,398	102,241	196,499	231,184
Total revenue by geographic distribution	$ 833,927	$ 894,053	$ 1,591,057	$ 1,726,965

Ciena's revenue includes $518.6 million and $598.4 million of United States revenue for the second quarter of fiscal 2021 and 2020, respectively. For the six months ended May 1, 2021 and May 2, 2020, United States revenue was $1.0 billion and $1.1 billion, respectively. No other country accounted for 10% or more of total revenue for the periods presented above.

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 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
AT&T	$ 125,138	$ 105,630	$ 193,941	$ 189,640
Verizon	n/a	n/a	n/a	203,630
Total	$ 125,138	$ 105,630	$ 193,941	$ 393,270

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

The customers identified above purchased products and services from each of Ciena's operating segments.

- *Networking Platforms* revenue reflects sales of Ciena's Converged Packet Optical and Routing and Switching product lines.
    - Converged Packet Optical - includes the 6500 Packet-Optical Platform, the Waveserver® stackable interconnect system, the 6500 Reconfigurable Line System (RLS) and the 5400 family of Packet-Optical Platforms. This product line also includes sales of the Z-Series Packet-Optical Platform.
    - Routing and Switching - 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, as well as planning tools and a number of legacy software solutions that support Ciena's installed base of network solutions. 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, micro-services, standards-based open software suite, together with related services, that enables customers to implement large-scale software and IT-led operations support system (OSS) transformations by transforming legacy networks into "service ready" networks, accelerating the creation, delivery and lifecycle management of new, cloud-based services. Ciena's Blue Planet Automation Platform includes multi-domain service orchestration (MDSO), inventory management (BPI), route optimization and analysis (ROA), network function virtualization orchestration (NFVO), and unified assurance and analytics (UAA). 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 either perpetual or term-based software licenses, and these sales are considered distinct performance obligations where revenue is generally recognized upfront at a point in time upon transfer of control. Revenue from software subscription and support is 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 is recognized over time with Ciena applying the input method to determine the amount of revenue to be recognized in a given period.

- *Global Services* revenue 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 is 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 1, 2021	Balance at October 31, 2020
Accounts receivable, net	$ 716,779	$ 719,405
Contract assets for unbilled accounts receivable, net	$ 81,437	$ 85,843
Deferred revenue	$ 204,299	$ 158,363

Ciena's contract assets represent unbilled accounts receivable, net 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. See Note 11 below.

Contract liabilities consist of deferred revenue and represent advanced payments against non-cancelable customer orders received prior to revenue recognition. Ciena recognized approximately $78.0 million and $76.5 million of revenue during the first six months of fiscal 2021 and 2020, respectively, that was included in the deferred revenue balance as of October 31, 2020 and November 2, 2019, 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 1, 2021 and May 2, 2020.

Capitalized Contract Acquisition Costs

Capitalized contract acquisition costs consist of deferred sales commissions, were $18.4 million and $15.3 million as of May 1, 2021 and October 31, 2020, respectively, and were included in prepaid expenses and other and other long-term assets. The amortization expense associated with these costs was $10.7 million and $10.1 million during the first six months of fiscal 2021 and 2020, 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 1, 2021, the aggregate amount of RPO was $1.4 billion. As of May 1, 2021, Ciena expects approximately 83% of the RPO to be recognized as revenue within the next twelve months.

(4) CANADIAN EMERGENCY WAGE SUBSIDY

In April 2020, the Canadian government introduced the Canada Emergency Wage Subsidy ("CEWS") to help employers offset a portion of their employee wages for a limited period in response to the COVID-19 outbreak, retroactive to March 15, 2020. The CEWS program has been extended through June 2021, with a proposed extension through September 2021. The subsidy covers employers of all sizes and across all sectors.

Ciena accounts for proceeds from government grants as a reduction of expense when there is reasonable assurance that Ciena has met the required conditions associated with the grant and that grant proceeds will be received. Grant benefits are recorded to the particular line item of the Condensed Consolidated Statement of Operations to which the grant activity relates. During the second quarter and six months ended May 1, 2021, Ciena recorded a CAD$51.1 million ($40.4 million) benefit, net of certain fees, related to CEWS for claim periods beginning March 15, 2020, including CAD$43.9 million ($34.7 million) related to employee wages during fiscal 2020. As of May 1, 2021, amounts receivable from this subsidy were CAD$4.8 million ($3.9 million).

The following table summarizes CEWS for the periods indicated (in thousands):

	Quarter Ended		Six Months Ended	
	May 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Product	$ 4,189	$ —	$ 4,189	$ —
Service	2,620	—	2,620	—
CEWS benefit in cost of goods sold	6,809	—	6,809	—
Research and development	28,923	—	28,923	—
Sales and marketing	2,551	—	2,551	—
General and administrative	2,161	—	2,161	—
CEWS benefit in operating expense	33,635	—	33,635	—
Total CEWS benefit	$ 40,444	$ —	$ 40,444	$ —

(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 1, 2021 (in thousands):

	Workforce reduction	Consolidation of excess facilities and other restructuring activities	Total
Balance at October 31, 2020	$ 2,915	$ —	$ 2,915
Charges	2,617 (1)	11,459 (2)	14,076
Cash payments	(4,696)	(11,459)	(16,155)
Balance at May 1, 2021	$ 836	$ —	$ 836
Current restructuring liabilities	$ 836	$ —	$ 836

(1) Reflects a global workforce reduction of 66 employees during the six months ended May 1, 2021 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes.

(2) Primarily represents the redesign of certain business processes and costs and imputed interest expense related to restructured facilities.

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	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

(1) Reflects a global workforce reduction of approximately 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 ("ROU") assets, net in relation to adoption of ASC 842.

(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 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Interest income	$ 554	$ 2,023	$ 1,088	$ 5,413
Gains on non-hedge designated foreign currency forward contracts	5,180	1,086	9,709	1,723
Foreign currency exchange losses	(6,575)	(4,067)	(13,493)	(4,839)
Other	(433)	(1,707)	301	(1,316)
Interest and other income (loss), net	$ (1,274)	$ (2,665)	$ (2,395)	$ 981

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 $13.5 million and $4.8 million in foreign currency exchange rate losses during the first six months of fiscal 2021 and 2020, respectively, as a result of monetary assets and liabilities that were transacted in a currency other than Ciena's functional currency. 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. 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 2021 and 2020, respectively, Ciena recorded gains of $9.7 million and $1.7 million from non-hedge designated foreign currency forward contracts.

(7) INCOME TAXES

The effective tax rate for the quarter and six months ended May 1, 2021 was lower than the effective tax rate for the second quarter and six months ended May 2, 2020, primarily due to an increased deduction for foreign-derived intangible income ("FDII") as well as a decrease in the foreign effective tax rate.

Ciena's future income tax provisions and deferred tax balances may be affected by the amount of pre-tax income, the jurisdictions where it is earned, the existence and ability to utilize tax attributes and changes in tax laws and business reorganizations. Ciena continues to monitor these items and will adopt strategies to address their impact as appropriate.

To better accommodate the requirements of a global business, Ciena is evaluating a plan to reorganize its global supply chain and distribution structure, which would include a legal entity reorganization and related system upgrade. Ciena expects to adopt the plan in the third quarter of fiscal 2021. This reorganization could have a material effect on Ciena’s financial position and operating results, including a significant one-time tax benefit associated with the recognition of a net deferred tax asset and potential reversal of a portion of the valuation allowance.

(8) SHORT-TERM AND LONG-TERM INVESTMENTS

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

	May 1, 2021			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	$ 151,764	$ 52	$ —	$ 151,816
Included in long-term investments	91,695	22	(2)	91,715
	$ 243,459	$ 74	$ (2)	$ 243,531

	October 31, 2020			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	$ 150,559	$ 109	$ (1)	$ 150,667
Included in long-term investments	82,252	—	(26)	82,226
	$ 232,811	$ 109	$ (27)	$ 232,893

The following table summarizes the final legal maturities of debt investments at May 1, 2021 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	$ 151,764	$ 151,816
Due in 1-2 years	91,695	91,715
	$ 243,459	$ 243,531

(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 1, 2021			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 933,403	$ —	$ —	$ 933,403
Bond mutual fund	75,370	—	—	75,370
Time deposits	30,018	—	—	30,018
Deferred compensation plan assets	11,799	—	—	11,799
U.S. government obligations	—	243,531	—	243,531
Foreign currency forward contracts	—	13,785	—	13,785
Total assets measured at fair value	$ 1,050,590	$ 257,316	$ —	$ 1,307,906
Liabilities:				
Foreign currency forward contracts	$ —	$ 285	$ —	$ 285
Forward starting interest rate swaps	—	22,794	—	22,794
Total liabilities measured at fair value	$ —	$ 23,079	$ —	$ 23,079

	October 31, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 889,293	$ —	$ —	$ 889,293
Bond mutual fund	50,361	—	—	50,361
Deferred compensation plan assets	8,213	—	—	8,213
U.S. government obligations	—	232,893	—	232,893
Foreign currency forward contracts	—	82	—	82
Total assets measured at fair value	$ 947,867	$ 232,975	$ —	$ 1,180,842
Liabilities:				
Foreign currency forward contracts	$ —	$ 681	$ —	$ 681
Forward starting interest rate swaps	—	28,513	—	28,513
Total liabilities measured at fair value	$ —	$ 29,194	$ —	$ 29,194

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

	May 1, 2021			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 1,038,791	$ —	$ —	$ 1,038,791
Short-term investments	—	151,816	—	151,816
Prepaid expenses and other	—	13,785	—	13,785
Long-term investments	—	91,715	—	91,715
Other long-term assets	11,799	—	—	11,799
Total assets measured at fair value	$ 1,050,590	$ 257,316	$ —	$ 1,307,906
Liabilities:				
Accrued liabilities and other short-term obligations	$ —	$ 285	$ —	$ 285
Other long-term obligations	—	22,794	—	22,794
Total liabilities measured at fair value	$ —	$ 23,079	$ —	$ 23,079

	October 31, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 939,654	$ —	$ —	$ 939,654
Short-term investments	—	150,667	—	150,667
Prepaid expenses and other	—	82	—	82
Other long-term assets	8,213	82,226	—	90,439
Total assets measured at fair value	$ 947,867	$ 232,975	$ —	$ 1,180,842
Liabilities:				
Accrued liabilities and other short-term obligations	$ —	$ 681	$ —	$ 681
Other long-term obligations	—	28,513	—	28,513
Total liabilities measured at fair value	$ —	$ 29,194	$ —	$ 29,194

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

(10) INVENTORIES

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

	May 1, 2021	October 31, 2020
Raw materials	$ 139,430	$ 119,481
Work-in-process	10,809	13,738
Finished goods	234,220	210,050
Deferred cost of goods sold	57,390	40,747
Gross inventories	441,849	384,016
Provision for excess and obsolescence	(40,616)	(39,637)
Inventories, net	$ 401,233	$ 344,379

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 2021, Ciena recorded a provision for excess and obsolescence of $10.4 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 1, 2021	October 31, 2020
Contract assets for unbilled accounts receivable, net	$ 81,437	$ 85,843
Prepaid expenses	77,389	70,647
Prepaid VAT and other taxes	72,325	72,838
Product demonstration equipment, net	45,151	44,793
Other non-trade receivables	14,193	21,981
Derivative assets	13,785	82
Capitalized contract acquisition costs	13,008	11,296
CEWS receivable	3,942	—
Deferred deployment expense	421	604
	$ 321,651	$ 308,084

Depreciation of product demonstration equipment was $5.1 million during the first six months of fiscal 2021 and $4.2 million during the first six months of fiscal 2020.

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 1, 2021	October 31, 2020
Compensation, payroll related tax and benefits [(1)]	$ 114,119	$ 135,462
Warranty	48,123	49,868
Vacation	30,612	26,945
Finance lease obligations	3,245	2,836
Interest payable	665	672
Other	133,296	118,349
	$ 330,060	$ 334,132

[(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 periods indicated (in thousands):

	Beginning Balance	Current Period Provisions	Settlements	Ending Balance
Six Months Ended May 2, 2020	$ 48,498	13,793	(10,428)	$ 51,863
Six Months Ended May 1, 2021	$ 49,868	7,937	(9,682)	$ 48,123

As of the dates indicated, deferred revenue is comprised of the following (in thousands):

	May 1, 2021	October 31, 2020
Products	$ 13,257	$ 17,534
Services	191,042	140,829
	204,299	158,363
Less current portion	(147,075)	(108,700)
Long-term deferred revenue	$ 57,224	$ 49,663

(13) DERIVATIVE INSTRUMENTS

Foreign Currency Derivatives

Ciena conducts business globally in numerous currencies, and thus is exposed to adverse foreign currency exchange rate changes. To limit this exposure, Ciena enters into foreign currency contracts. Ciena does not enter into such contracts for speculative purposes.

As of May 1, 2021 and October 31, 2020, Ciena had forward contracts to hedge its foreign exchange exposure in order to reduce variability principally related to research and development activities. The notional amount of these contracts was approximately $239.1 million and $254.9 million as of May 1, 2021 and October 31, 2020, respectively. These foreign exchange contracts have maturities of 24 months or less and have been designated as cash flow hedges.

As of May 1, 2021 and October 31, 2020, 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 $244.8 million and $212.0 million as of May 1, 2021 and October 31, 2020, 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 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 1, 2021 and October 31, 2020.

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 1, 2021 (in thousands):

	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 October 31, 2020	$ 45	$ (219)	$ (21,535)	$ (13,649)	$ (35,358)
Other comprehensive gain (loss) before reclassifications	(7)	14,690	(494)	26,261	40,450
Amounts reclassified from AOCI	—	(4,256)	4,525	—	269
Balance at May 1, 2021	$ 38	$ 10,215	$ (17,504)	$ 12,612	$ 5,361

The following table summarizes the changes in AOCI, net of tax, for the six months ended May 2, 2020 (in thousands):

	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 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)

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 1.3 million square feet of facilities globally. 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; Alpharetta, Georgia; Quebec, Canada; 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 11 years. Certain leases provide for options to extend up to ten years and/or options to terminate within five years.

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

	Classification	As of May 1, 2021	As of October 31, 2020
Operating leases:			
Operating ROU assets	Operating right-of-use assets	$ 50,997	$ 57,026
Operating lease liabilities	Operating lease liabilities and Long-term operating lease liabilities	73,159	80,450
Finance leases:			
Buildings, gross	Equipment, building, furniture and fixtures, net	$ 76,711	$ 70,791
Less: accumulated depreciation	Equipment, building, furniture and fixtures, net	(21,771)	(17,837)
Buildings, net		$ 54,940	$ 52,954
Finance lease liabilities	Accrued liabilities and other short-term obligations and other long-term obligations	$ 68,271	$ 64,401

ROU assets that involve subleased or vacant space aggregate to $4.6 million as of May 1, 2021. These assets may become impaired if tenants are unable to service their obligations under the sublease, and/or if the estimates as to occupancy are not realized, either of which may be more likely as COVID-19 impacts evolve.

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

		Quarter Ended		Six Months Ended	
	Classification	May 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Operating lease costs	Operating expense	$ 4,202	$ 4,744	$ 8,431	$ 9,201
Finance lease cost:					
Amortization of finance ROU asset	Operating expense	1,191	1,093	2,356	2,233
Interest on finance lease liabilities	Interest expense	1,207	1,168	2,428	2,412
Total finance lease cost		2,398	2,261	4,784	4,645
Non-capitalized lease cost	Operating expense	333	707	626	1,328
Variable lease cost[1]	Operating expense	1,452	1,324	3,051	2,635
Net lease cost[2]		$ 8,385	$ 9,036	$ 16,892	$ 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 $2.6 million and $2.2 million for the second quarter of fiscal 2021 and 2020, respectively and $4.9 million and $6.5 million for the six months ended May 1, 2021 and 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 1, 2021 were as follows (in thousands):

	Operating Leases	Finance Leases	Total
Remaining fiscal 2021	$ 10,772	$ 8,125	$ 18,897
2022	19,462	8,623	28,085
2023	16,020	8,624	24,644
2024	13,371	8,693	22,064
2025	9,058	8,832	17,890
Thereafter	9,434	58,544	67,978
Total lease payments	78,117	101,441	179,558
Less: Imputed interest	(4,958)	(33,170)	(38,128)
Present value of lease liabilities	73,159	68,271	141,430
Less: Current portion of present value of minimum lease payments	(19,364)	(3,245)	(22,609)
Long-term portion of present value of minimum lease payments	$ 53,795	$ 65,026	$ 118,821

The weighted average remaining lease terms and weighted average discount rates for operating and finance leases were as follows:

	As of May 1, 2021	As of October 31, 2020
Weighted-average remaining lease term in years:		
Operating leases	4.53	4.87
Finance leases	11.22	11.71
Weighted-average discount rates:		
Operating leases	2.79 %	2.82 %
Finance leases	7.56 %	7.56 %

(16) SHORT-TERM AND LONG-TERM DEBT

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 and incurred a new senior secured term loan in an aggregate principal amount of $693.0 million and maturing on September 28, 2025 (the “2025 Term Loan”).

The net carrying value of Ciena’s term loan was comprised of the following for the periods indicated (in thousands):

	May 1, 2021				October 31, 2020
	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Value	Net Carrying Value
2025 Term Loan	$ 684,337	$ (1,414)	$ (2,638)	$ 680,285	$ 683,286

Deferred debt issuance costs that were deducted from the carrying amounts of the term loan totaled $2.6 million as of May 1, 2021 and $2.9 million at October 31, 2020. 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 loan. The amortization of deferred debt issuance costs for this term loan is included in interest expense, and was $0.3 million during the first six months of each of fiscal 2021 and fiscal 2020. The carrying value of the term loan listed above is also net of any unamortized debt discounts.

As of May 1, 2021, the estimated fair value of the 2025 Term Loan was $685.2 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 table presents the calculation of basic and diluted net income per share (in thousands, except per share amounts):

	Quarter Ended		Six Months Ended	
	May 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Net income	$ 103,117	$ 91,655	$ 158,465	$ 153,983
Basic weighted average shares outstanding	155,331	153,858	155,257	154,099
Effect of dilutive potential common shares	1,545	1,283	1,477	1,344
Diluted weighted average shares	156,876	155,141	156,734	155,443
Basic EPS	$ 0.66	$ 0.60	$ 1.02	$ 1.00
Diluted EPS	$ 0.66	$ 0.59	$ 1.01	$ 0.99
Antidilutive employee share-based awards, excluded	30	203	82	467

Basic net income per common share ("Basic EPS") is computed using the weighted average number of common shares outstanding. Diluted net income per potential common share ("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.

(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. After temporarily suspending repurchases of Ciena's common stock during fiscal 2020, Ciena reinstituted its stock repurchase program in the first quarter of 2021. 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 program may be modified, suspended, or discontinued at any time.

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 October 31, 2020	5,710,912	$ 39.33	$ 224,611
Repurchase of common stock under the stock repurchase program	735,075	53.60	39,398
Cumulative balance at May 1, 2021	6,445,987	$ 40.96	$ 264,009

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 $27.9 million for the shares of Ciena's stock repurchased during the first six months of fiscal 2021 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

Amended and Restated ESPP

Ciena makes shares of its common stock available for purchase under its Amended and Restated Ciena Corporation Employee Stock Purchase Plan (the "ESPP"). Under the ESPP, eligible employees may enroll in a twelve-month offer period that begins in December and June of each year. Each offer period includes two six-month purchase periods. Employees may purchase a limited number of shares of Ciena common stock at 85% of the fair market value on either the day immediately preceding the offer date or the purchase date, whichever is lower. The ESPP is considered compensatory for purposes of share-based compensation expense. On January 29, 2021, Ciena's Board of Directors adopted an amendment and restatement of the ESPP to increase the number of shares available for issuance thereunder by 8.7 million and eliminate the evergreen mechanism thereunder, which became effective upon its approval by Ciena's stockholders on April 1, 2021. Unless earlier terminated, the ESPP will terminate on April 1, 2031.

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

	Quarter Ended		Six Months Ended	
	May 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Product	$ 498	$ 827	$ 1,451	$ 1,498
Service	1,421	1,036	2,626	1,878
Share-based compensation expense included in cost of goods sold	1,919	1,863	4,077	3,376
Research and development	5,844	4,822	10,638	8,671
Sales and marketing	6,610	5,264	12,426	9,877
General and administrative	6,743	5,975	13,101	11,502
Share-based compensation expense included in operating expense	19,197	16,061	36,165	30,050
Share-based compensation expense capitalized in inventory, net	419	53	257	153
Total share-based compensation	$ 21,535	$ 17,977	$ 40,499	$ 33,579

As of May 1, 2021, total unrecognized share-based compensation expense was approximately $155.6 million, which relates to unvested stock unit awards and is expected to be recognized over a weighted-average period of 1.57 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.

Ciena's long-lived assets, including equipment, building, furniture and fixtures, ROU 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 1, 2021, equipment, building, furniture and fixtures, net, totaled $298.3 million, and operating ROU assets totaled $51.0 million both of which support asset groups within Ciena's four operating segments and unallocated selling and general and administrative activities. As of May 1, 2021, finite-lived intangible assets, goodwill and maintenance spares are assigned to asset groups within the following segments (in thousands):

	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Other intangible assets, net	$ 11,395	$ —	$ 71,484	$ —	$ 82,879
Goodwill	$ 66,493	$ 156,191	$ 89,050	$ —	$ 311,734
Maintenance spares, net	$ —	$ —	$ —	$ 63,003	$ 63,003

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 for the periods indicated (in thousands):

	Quarter Ended		Six Months Ended	
	May 1, 2021	May 2, 2020	May 1, 2021	May 2, 2020
Segment profit (loss):				
Networking Platforms	$ 211,412	$ 210,987	$ 367,843	$ 379,256
Platform Software and Services	36,506	21,668	64,166	50,619
Blue Planet Automation Software and Services	5,688	(4,399)	3,254	(7,512)
Global Services	48,567	53,540	92,060	99,068
Total segment profit	302,173	281,796	527,323	521,431
Less: Non-performance operating expenses				
Selling and marketing	110,387	101,214	207,665	208,280
General and administrative	43,635	42,030	83,628	84,498
Amortization of intangible assets	6,019	5,839	11,929	11,692
Significant asset impairments and restructuring costs	8,209	3,811	14,076	8,283
Acquisition and integration costs	294	1,414	601	3,233
Add: Other non-performance financial items				
Interest expense and other income (loss), net	(9,059)	(10,525)	(17,540)	(15,694)
Loss on extinguishment and modification of debt	—	—	—	(646)
Less: Provision for income taxes	21,453	25,308	33,419	35,122
Consolidated net income	$ 103,117	$ 91,655	$ 158,465	$ 153,983

Entity-Wide Reporting

The following table reflects Ciena's geographic distribution of equipment, building, furniture and fixtures, net, and operating ROU assets, with any country accounting for at least 10% of total equipment, building, furniture and fixtures, net, and operating ROU assets specifically identified. Equipment, building, furniture and fixtures, net, and operating ROU 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 ROU assets was as follows (in thousands):

	May 1, 2021	October 31, 2020
Canada	$ 247,309	$ 214,188
United States	59,229	65,321
Other International	42,788	49,894
Total	$ 349,326	$ 329,403

(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 $46.9 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 1, 2021, Ciena has recorded CAD$45.5 million (approximately $37.0 million) in cumulative benefits as a reduction in research and development expense of which CAD$4.9 million ($3.8 million) was recorded in the first six months of fiscal 2021. As of May 1, 2021, amounts receivable from this grant were CAD$2.7 million ($2.2 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.

(22) SUBSEQUENT EVENTS

Stock Repurchase Program

From the end of the second quarter of fiscal 2021 through June 4, 2021, Ciena repurchased an additional 195,920 shares of its common stock, for an aggregate purchase price of $10.4 million at an average price of $52.84 per share, inclusive of repurchases pending settlement. As of June 4, 2021, Ciena has repurchased an aggregate of 6,641,907 shares and has an aggregate of $225.6 million of authorized funds remaining under its stock repurchase program.

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. Forward-looking statements may appear throughout this report, including in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors." 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. You should be aware that the forward-looking statements contained in this report are based on our current views and assumptions, and are subject to known and unknown risks, uncertainties and other factors that may cause actual events or results to differ materially.

For a discussion identifying some of the 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 2020, which we filed with the SEC on December 18, 2020 (our "2020 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, and 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

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read in conjunction with, our Condensed Consolidated Financial Statements and the accompanying notes thereto included in Item 1 of Part I of this report and our 2020 Annual Report.

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 enable the transport, routing, switching, aggregation, service delivery and management of video, data and voice traffic on communications networks. Our solutions include Networking Platforms, including our Converged Packet Optical and Routing and Switching portfolios, which can be applied from the network core to end-user access points, and which allow network operators to scale capacity, increase transmission speeds, allocate traffic and adapt dynamically to changing end-user service demands. To complement these solutions, we offer Platform Software, which provides management, domain control and specialized applications that automate network lifecycle operations, including provisioning equipment and services, network data, analytics and policy-based assurance to achieve closed loop automation across multi-vendor and multi-domain network environments. Through our Blue Planet® Software suite, we enable customers to transform their business and operations support systems through software-based automation of their network and IT infrastructures. 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, including network optimization and migration offerings.

Impact of the COVID-19 Pandemic

Demand for Products & Services. The demand environment for our products and services remains dynamic and continues to be impacted by the effects of the COVID-19 pandemic. For example, constrained spending in the second half of fiscal 2020 and the first quarter of fiscal 2021 contributed to lower revenue in the second quarter of fiscal 2021 as compared to the second quarter of fiscal 2020. However, during the second quarter of fiscal 2021, we experienced higher than typical orders for our products and services among a concentrated set of larger customers with which we have existing positions as a supplier. We believe some portion of these orders likely reflects certain short-term purchasing behaviors based on customer-specific considerations including possible acceleration of future orders due to the implementation of security of supply strategies as a result of the recent strain on the global supply market for semiconductor components and increased quarterly demand to address network requirements following a period of constrained spending in recent quarters. It is unclear whether the increased level of demand we experienced in the second quarter of fiscal 2021 will continue during the remainder of fiscal 2021. Over the longer term, we continue to believe that 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, have accelerated certain trends, including cloud network adoption, networking resilience and flexibility, and enhanced network automation.

Services and Customer Fulfillment. We continue to experience some disruption in our ability to provide installation, professional and fulfillment services to customers due to site readiness and access limitations, limited customer availability, project delays or re-prioritization by customers, and travel bans or restrictions on movement or gatherings. We expect these conditions to persist in the short term and, as a result, to continue to adversely impact our revenue and results of operations.

Sales & Marketing. Restrictions on travel due to COVID-19 and limitations on interactions with customers, such as field and lab trials, have continued to negatively impact 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. Delays in customers operationalizing new network projects that we anticipated occurring on their original timelines continue to adversely affect our revenue. Conversely, our recent gross margin performance has benefited from these dynamics, with a larger percentage of our revenue comprised of existing business, as compared to new design wins and early in life projects, which tend to have lower margins.

Market Growth & Conditions. As a result of the impact of the COVID-19 pandemic on market dynamics, particularly in the enterprise business segments of our communications service provider customers, the growth rates in our addressable markets were adversely impacted during the first half of fiscal 2021. It is unclear whether these trends will continue into the second half of fiscal 2021.

Canada Emergency Wage Subsidy ("CEWS"). In April 2020, the government of Canada introduced the CEWS program to help employers offset a portion of their employee wages for a limited period in response to the COVID-19 outbreak, retroactive to March 15, 2020. Amounts from the CEWS program positively impacted our operating expense and measures of profit in the second quarter of fiscal 2021. In the second quarter of fiscal 2021, we recorded CEWS benefits of CAD$51.1 million ($40.4 million), net of certain fees, related to CEWS for claim periods beginning March 15, 2020, including CAD$43.9 million ($34.7 million) related to employee wages from fiscal 2020. The CEWS program is of a limited duration. We do not anticipate a similar proportionate impact on our financial results in future periods and may not receive any benefits from the CEWS program in the future.

The COVID-19 pandemic and 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 in future periods 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, such as the new outbreak in India, or we experience more pronounced disruptions in our business or operations, or in economic activity and demand for our products and services generally, our business and results of operations in future periods could be materially adversely affected.

Supply Chain Constraints. Due to increased demand across a range of industries, the global supply market for semiconductor components, which we use in most of our products, has experienced significant strain in recent periods. The market shortage for semiconductor components has impacted lead times and cost of components. We believe these supply chain challenges will persist at least through the second half of fiscal 2021. In addition, some of our suppliers have indicated that as a result of this shortage they intend to cease manufacturing of certain components used in our products. In response to these dynamics, we have implemented mitigation strategies, increased our purchases of inventory for certain components and taken other steps to promote security of supply and resiliency. These dynamics and our resulting mitigating actions may also result in increased product costs of goods sold and inventory levels in the future.

Supply Chain and Distribution Structure. To better accommodate the requirements of a global business, we are evaluating a plan to reorganize our global supply chain and distribution structure more substantially, which would include a legal entity reorganization and related system upgrade. We expect to adopt the plan in the third quarter of fiscal 2021. This reorganization could have a material effect on our financial position and operating results, including a significant one-time tax benefit associated with the recognition of a net deferred tax asset and potential reversal of a portion of the valuation allowance.

For additional information regarding our business, industry, market opportunity, competitive landscape, and strategy, see our 2020 Annual Report, including the discussion in that report of the impact of the COVID-19 pandemic on our business, supply chain, and market conditions.

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. Effective as of the beginning of fiscal 2021, we renamed our “Packet Networking” product line “Routing and Switching.” This change was made on a prospective basis and does not impact comparability of previous financial results or the composition of this product line. References to our “Packet Networking” product line in prior periods have been changed to “Routing and Switching” in this report. See Note 3 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Revenue

Currency Fluctuations

Approximately 18.0% of our revenue was non-U.S. Dollar-denominated during both the second quarter and first six months of fiscal 2021, primarily including sales in Euros, Canadian Dollars, Brazilian Reais and British Pounds. During the second quarter of fiscal 2021, as compared to the second quarter of fiscal 2020, and during the first six months of fiscal 2021, as compared to the first six months of fiscal 2020, the U.S. Dollar fluctuated against these currencies. Consequently, our revenue for the second quarter and first six months of fiscal 2021 reported in U.S. Dollars was adversely impacted by approximately $6.8 million, or 0.8%, and $8.7 million or 0.6%, respectively.

Operating Segment Revenue

The table below sets forth the changes in our operating segment revenue for the periods indicated (in thousands, except percentage data):

	Quarter Ended			Six Months Ended		
	May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Revenue:						
Networking Platforms						
Converged Packet Optical	$ 573,657	$ 654,294	(12.3)%	$ 1,085,981	$ 1,245,844	(12.8)%
%**	68.8 %	73.2 %		68.2 %	72.1 %	
Routing and Switching	63,628	64,167	(0.8)%	127,934	131,675	(2.8)%
%**	7.6 %	7.2 %		8.0 %	7.6 %	
Total Networking Platforms	637,285	718,461	(11.3)%	1,213,915	1,377,519	(11.9)%
%**	76.4 %	80.4 %		76.2 %	79.7 %	
Platform Software and Services	56,688	44,985	26.0 %	106,527	96,873	10.0 %
%**	6.8 %	5.0 %		6.7 %	5.6 %	
Blue Planet Automation Software and Services	23,958	15,017	59.5 %	40,892	30,482	34.2 %
%**	2.9 %	1.7 %		2.6 %	1.8 %	
Global Services						
Maintenance Support and Training	70,418	71,479	(1.5)%	138,049	133,271	3.6 %
%**	8.4 %	8.0 %		8.7 %	7.8 %	
Installation and Deployment	37,999	34,242	11.0 %	77,610	69,196	12.2 %
%**	4.6 %	3.8 %		4.9 %	4.0 %	
Consulting and Network Design	7,579	9,869	(23.2)%	14,064	19,624	(28.3)%
%**	0.9 %	1.1 %		0.9 %	1.1 %	
Total Global Services	115,996	115,590	0.4 %	229,723	222,091	3.4 %
%**	13.9 %	12.9 %		14.5 %	12.9 %	
Consolidated revenue	$ 833,927	$ 894,053	(6.7)%	$ 1,591,057	$ 1,726,965	(7.9)%

* Denotes % change from 2020 to 2021
** Denotes % of Total Revenue

Quarter ended May 1, 2021 as compared to the quarter ended May 2, 2020

- **Networking Platforms segment revenue** decreased, primarily reflecting product line sales decreases of $80.6 million of our Converged Packet Optical products.
    - Converged Packet Optical sales decreased, primarily reflecting a sales decrease of $91.7 million of our 6500 Packet-Optical Platform to communications service providers and Web-scale providers. This sales decrease was partially offset by a sales increase of $9.4 million of our Waveserver® products, primarily to communications service providers and Web-scale providers.
    - Routing and Switching sales remained relatively unchanged.
- **Platform Software and Services segment revenue** increased by $11.7 million, reflecting increases of $8.0 million in software services and $3.7 million in sales of software platforms.
- **Blue Planet Automation Software and Services segment revenue** increased by $8.9 million, primarily reflecting increases of $7.6 million in sales of software platforms and $1.3 million in related services.
- **Global Services segment revenue** remained relatively unchanged.

Six months ended May 1, 2021 as compared to the six months ended May 2, 2020

- **Networking Platforms segment revenue** decreased, reflecting product line sales decreases of $159.9 million of our Converged Packet Optical products and $3.7 million of our Routing and Switching products.
    - Converged Packet Optical sales decreased, primarily reflecting decreases of $190.2 million of our 6500 Packet-Optical Platform, primarily to communications service providers and Web-Scale providers, and $46.9 million of our 5430 Reconfigurable Switching Systems to communications service providers. These sales decreases were partially offset by sales increases of $63.2 million of our Waveserver products, which benefited from increased sales to communications service providers and Web-scale providers, and $17.3 million of our 6500 Reconfigurable Line Service (RLS) primarily to communications service providers.
    - Routing and Switching sales decreased, primarily reflecting sales decreases of $7.0 million of our 6500 Packet Transport System (PTS) and $6.7 million of our 3000 and 5000 families of service delivery and aggregation switches, each to communications service providers. These decreases were partially offset by a sales increase of $9.1 million of our platform independent software to a communications service provider.
- **Platform Software and Services segment revenue** increased by $9.7 million, reflecting an increase of $14.8 million in software services, offset by a decrease of $5.1 million in sales of software platforms.
- **Blue Planet Automation Software and Services segment revenue** increased by $10.4 million, reflecting increases of $8.8 million in software sales and $1.6 million in software sales.
- **Global Services segment revenue** increased, primarily reflecting sales increases of $8.4 million of our installation and deployment services and $4.8 million of our maintenance support and training, partially offset by a sales decrease of $5.6 million of our consulting and network design services.

Revenue by Geographic Region

Our operating segments engage in business and operations across three geographic regions: Americas; EMEA; and APAC. 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 increase in our EMEA region revenue for the quarter and six months ended May 1, 2021 was primarily driven by increased sales in Great Britain and France. The decrease in our APAC region revenue for the quarter and six months ended May 1, 2021 was primarily driven by decreased sales in Singapore and Japan, partially offset by increased sales in India. The decrease in our Americas region revenue for the quarter and six months ended May 1, 2021 was primarily driven by decreased sales in the United States, partially offset by increased sales in Brazil.

The following table reflects our geographic distribution of revenue, principally based on the relevant location for our delivery of products and performance of services. The table sets forth the changes in geographic distribution of revenue for the periods indicated (in thousands, except percentage data):

		Quarter Ended			Six Months Ended		
		May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Americas		$ 587,475	$ 650,381	*(9.7)%*	$ 1,084,086	$ 1,224,385	*(11.5)%*
	%**	*70.4 %*	*72.7 %*		*68.1 %*	*70.9 %*	
EMEA		155,054	141,431	*9.6 %*	310,472	271,396	*14.4 %*
	%**	*18.6 %*	*15.8 %*		*19.5 %*	*15.7 %*	
APAC		91,398	102,241	*(10.6)%*	196,499	231,184	*(15.0)%*
	%**	*11.0 %*	*11.5 %*		*12.4 %*	*13.4 %*	
Total		$ 833,927	$ 894,053	*(6.7)%*	$ 1,591,057	$ 1,726,965	*(7.9)%*

* Denotes % change from 2020 to 2021
** Denotes % of Total Revenue

Quarter ended May 1, 2021 as compared to the quarter ended May 2, 2020

- **Americas revenue** decreased by $62.9 million, primarily reflecting sales decreases of $70.8 million within our Networking Platforms segment and $3.2 million within our Global Services segment, partially offset by sales increases of $5.7 million within our Platform Software and Services segment and $5.4 million within our Blue Planet

Automation Software and Services segment. The decrease within our Networking Platforms segment reflects a product line sales decrease of $67.7 million of our Converged Packet Optical products, primarily related to a sales decrease of $66.6 million of our 6500 Packet-Optical Platform to communications service providers.

- **EMEA revenue** increased by $13.6 million, primarily reflecting sales increases of $4.5 million within our Blue Planet Automation Software and Services segment, $4.0 million within our Global Services segment, $3.0 million within our Platform Software and Services segment and $2.1 million within our Networking Platforms segment.
- **APAC revenue** decreased by $10.8 million, primarily reflecting a sales decrease of $12.5 million within our Networking Platforms segment. Our Networking Platforms segment revenue decrease primarily reflects a decrease of $16.2 million in sales of our 6500 Packet-Optical Platform, partially offset by an increase of $4.3 million in sales of our 3000 and 5000 families of service delivery and aggregation switches.

Six months ended May 1, 2021 as compared to the six months ended May 2, 2020

- **Americas revenue** decreased by $140.3 million, primarily reflecting a sales decrease of $149.3 million within our Networking Platforms segment, which was partially offset by a sales increase of $7.1 million within our Blue Planet Automation Software and Services segment. Our Networking Platforms segment revenue decrease reflects product line sales decreases of $141.3 million of Converged Packet Optical products and $7.9 million of Routing and Switching products. Our Converged Packet Optical revenue decrease primarily reflects sales decreases of $143.9 million of our 6500 Packet-Optical Platform and $31.6 million of our 5430 Reconfigurable Switching Systems, partially offset by a sales increase of $22.5 million of our Waveserver products. Our 6500 Packet-Optical Platform revenue decrease primarily reflects decreased sales to communications service providers.
- **EMEA revenue** increased by $39.1 million, reflecting increases of $21.1 million within our Networking Platforms segment, $7.5 million within our Global Services segment, $5.3 million within our Platform Software and Services segment and $5.2 million within our Blue Planet Automation Software and Services segment.
- **APAC revenue** decreased by $34.7 million, primarily reflecting decreases of $35.4 million within our Networking Platforms segment, $1.9 million within our Blue Planet Automation Software and Services segment and $1.8 million of our Global Services segment. These decreases were partially offset by a sales increase of $4.4 million within our Platform Software and Services segment. Our Networking Platforms segment revenue decrease primarily reflects a decrease of $43.9 million in sales of our 6500 Packet-Optical Platform to communications service providers in Japan, partially offset by an increase of $8.3 million in sales of our Waveserver products primarily to communications service providers and submarine network operators.

Cost of Goods Sold and Gross Profit

The component elements that comprise our product cost of goods and services costs of goods sold are set forth in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of our 2020 Annual Report. There are a number of important factors or conditions that can adversely affect or cause our gross profit as a percentage of product or service revenue, or "gross margin," to fluctuate on a quarterly basis. These are similarly described in detail in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" sections of our 2020 Annual Report.

CEWS benefits, recorded to the particular line item within cost of goods sold in our Condensed Consolidated Statement of Operations to which the activity relates, were $6.8 million in the second quarter and first six months of fiscal 2021, net of certain fees. For further information relating to our receipt of amounts under the CEWS program, see Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report. 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			Six Months Ended		
	May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Total revenue	$ 833,927	$ 894,053	(6.7)%	$ 1,591,057	$ 1,726,965	(7.9)%
Total cost of goods sold	421,508	480,727	(12.3)%	820,747	943,104	(13.0)%
Gross profit	$ 412,419	$ 413,326	(0.2)%	$ 770,310	$ 783,861	(1.7)%
%**	49.5 %	46.2 %		48.4 %	45.4 %	

* Denotes % change from 2020 to 2021
** Denotes % of Total Revenue

	Quarter Ended			Six Months Ended		
	May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Product revenue	$ 670,043	$ 739,892	(9.4)%	$ 1,267,263	$ 1,427,107	(11.2)%
Product cost of goods sold	339,601	405,138	(16.2)%	654,699	794,151	(17.6)%
Product gross profit	$ 330,442	$ 334,754	(1.3)%	$ 612,564	$ 632,956	(3.2)%
%**	49.3 %	45.2 %		48.3 %	44.4 %	

* Denotes % change from 2020 to 2021
** Denotes % of Product Revenue

	Quarter Ended			Six Months Ended		
	May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Service revenue	$ 163,884	$ 154,161	6.3 %	$ 323,794	$ 299,858	8.0 %
Service cost of goods sold	81,907	75,589	8.4 %	166,048	148,953	11.5 %
Service gross profit	$ 81,977	$ 78,572	4.3 %	$ 157,746	$ 150,905	4.5 %
% **	50.0 %	51.0 %		48.7 %	50.3 %	

* Denotes % change from 2020 to 2021
** Denotes % of Service Revenue

Quarter ended May 1, 2021 as compared to the quarter ended May 2, 2020

- **Gross profit** decreased by $0.9 million, partially as a result of lower revenues. Gross profit as a percentage of total revenue ("gross margin") increased by 330 basis points. Our gross margin benefited significantly from a favorable mix of customers and products, as well as a $6.8 million benefit from the CEWS program which we do not expect to continue at this level. Due to the impact of COVID-19 and related restrictions on sales and marketing activities described in "Overview" above, we continue to see a higher proportion of our revenue consisting of sales of existing technology offerings deployed in the networks of existing customers, as compared to sales to new customers, early stage network deployments for recent design wins, or the introduction of new platforms, which tend to carry lower margins. We expect our gross margins to reduce from these elevated short-term levels as the adverse impact of the pandemic on new business lessens and our overall revenue resumes a more typical composition of revenue from existing and new business.
- **Gross profit on products** decreased by $4.3 million. Gross profit on products as a percentage of product revenue ("product gross margin") increased by 410 basis points, primarily due to a favorable mix of customers and products, as described above, continued product cost reductions and a $4.2 million benefit from the CEWS program, partially offset by market-based price compression we encountered during the period.
- **Gross profit on services** increased by $3.4 million. Gross profit as a percentage of services revenue ("services gross margin") decreased by 100 basis points, primarily due to lower installation and deployment margins and a lower mix of higher margin consulting and network design services. The lower margins on installation and deployment services were primarily due to certain customer site readiness delays that caused cost inefficiencies. These lower margins were partially offset by increased higher margin maintenance revenues and a $2.6 million benefit from the CEWS program.

Six months ended May 1, 2021 as compared to the six months ended May 2, 2020

- **Gross profit** decreased by $13.6 million largely due to lower revenues. Gross margin increased by 300 basis points, as our gross margin benefited significantly from product cost reductions, a favorable mix of customers and product lines that we believe to be a short-term effect due to COVID-19 related factors and a $6.8 million benefit from the CEWS program, partially offset by a reduction in our services gross margin.
- **Gross profit on products** decreased by $20.4 million. Product gross margin increased by 390 basis points, primarily due to product cost reductions, a favorable mix of customers and product lines as described above and a $4.2 million benefit from the CEWS program, partially offset by market-based price compression we encountered during the period.

- **Gross profit on services** increased by $6.8 million. Services gross margin decreased by 160 basis points, primarily due to lower installation and deployment margins and a lower mix of higher margin consulting and network design services. The lower margins on installation and deployment services were primarily due to certain customer site readiness delays that caused cost inefficiencies. These lower margins were partially offset by increased higher margin maintenance revenues and a $2.6 million benefit from the CEWS program.

Operating Expense

Currency Fluctuations

Approximately 42.7% and 47.3% of our operating expense was non-U.S. Dollar-denominated during the second quarter and first six months of fiscal 2021, respectively, including expenses in Canadian Dollars, Indian Rupees and British Pounds. During the second quarter of fiscal 2021, as compared to the second quarter of fiscal 2020, and the first six months of fiscal 2021, as compared to the first six months of fiscal 2020, the U.S. Dollar fluctuated against these currencies. Consequently, our operating expense reported in U.S. Dollars slightly increased by approximately $3.4 million, or 1.2%, and $4.8 million, or 0.9%, respectively.

CEWS Benefits

CEWS benefits, recorded to the particular line item within operating expense in our Condensed Consolidated Statement of Operations to which the activity relates, were $33.6 million in the second quarter and first six months of fiscal 2021, net of certain fees. For further information relating to our receipt of amounts under the CEWS program, see Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

The component elements that comprise each of our operating expense categories in the table below are set forth in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of our 2020 Annual Report. The table below sets forth the changes in operating expense for the periods indicated (in thousands, except percentage data):

	Quarter Ended			Six Months Ended		
	May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Research and development	$ 110,246	$ 131,530	*(16.2)%*	$ 242,987	$ 262,430	*(7.4)%*
%**	*13.2 %*	*14.7 %*		*15.3 %*	*15.2 %*	
Selling and marketing	110,387	101,214	*9.1 %*	207,665	208,280	*(0.3)%*
%**	*13.2 %*	*11.3 %*		*13.1 %*	*12.1 %*	
General and administrative	43,635	42,030	*3.8 %*	83,628	84,498	*(1.0)%*
%**	*5.2 %*	*4.7 %*		*5.3 %*	*4.9 %*	
Amortization of intangible assets	6,019	5,839	*3.1 %*	11,929	11,692	*2.0 %*
%**	*0.7 %*	*0.7 %*		*0.7 %*	*0.7 %*	
Significant asset impairments and restructuring costs	8,209	3,811	*115.4 %*	14,076	8,283	*69.9 %*
%**	*1.0 %*	*0.4 %*		*0.9 %*	*0.4 %*	
Acquisition and integration costs	294	1,414	*(79.2)%*	601	3,233	*(81.4)%*
%**	*— %*	*0.2 %*		*— %*	*0.2 %*	
Total operating expenses	$ 278,790	$ 285,838	*(2.5)%*	$ 560,886	$ 578,416	*(3.0)%*
%**	*33.4 %*	*32.0 %*		*35.3 %*	*33.5 %*	

* Denotes % change from 2020 to 2021
** Denotes % of Total Revenue

Quarter ended May 1, 2021 as compared to the quarter ended May 2, 2020

- **Research and development expense** was adversely affected by $0.8 million as a result of foreign exchange rates, primarily due to fluctuations in the U.S. Dollar in relation to the Canadian Dollar. Including the effect of foreign exchange rates, net of hedging, research and development expense decreased by $21.3 million. This decrease primarily reflects $28.9 million received for CEWS, partially offset by increases in compensation costs primarily driven by increases in headcount.

- **Selling and marketing expense** was adversely affected by $2.2 million as a result of foreign exchange rates, primarily due to fluctuations in the U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, sales and marketing expenses increased by $9.2 million. This increase reflects increases in compensation costs primarily driven by increases in headcount, and professional services, partially offset by decreases in travel and entertainment costs due to restrictions on travel as a result of COVID-19 and $2.6 million received for CEWS.
- **General and administrative expense** was adversely affected by $0.5 million as a result of foreign exchange rates, primarily due to fluctuations in the U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, general and administrative expense increased by $1.6 million primarily as a result of legal fees, partially offset by $2.2 million received for CEWS and reduced bad debt expense.
- **Amortization of intangible assets** remained relatively unchanged.
- **Significant asset impairments and restructuring costs** reflect global workforce reductions as part of a business optimization strategy to improve gross margin and constrain operating expense, and redesign certain business processes.
- **Acquisition and integration costs** primarily reflect reduced acquisition compensation associated with a three-year earn-out arrangement related to the acquisition of DonRiver Holdings, LLC (“Don River”) in fiscal 2018.

Six months ended May 1, 2021 as compared to the six months ended May 2, 2020

- **Research and development expense** was adversely affected by $0.5 million as a result of foreign exchange rates, net of hedging, primarily due to fluctuations in the U.S. Dollar in relation to the Canadian Dollar. Including the effect of foreign exchange rates, net of hedging, research and development expenses decreased by $19.4 million. This decrease primarily reflects $28.9 million received for CEWS, partially offset by increases in compensation costs primarily driven by increases in headcount.
- **Selling and marketing expense** was adversely affected by $3.6 million as a result of foreign exchange rates, primarily due to fluctuations in the U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, sales and marketing expense decreased by $0.6 million. This decrease primarily reflects decreases in travel and entertainment costs due to restrictions on travel as a result of COVID-19 and $2.6 million received for CEWS, partially offset by increases in compensation costs primarily driven by increases in headcount.
- **General and administrative expense** was adversely affected by $0.7 million as a result of foreign exchange rates, primarily due to a weaker U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, general and administrative expenses decreased by $0.9 million. This decrease primarily reflects reduced bad debt expense, decreases in travel and entertainment costs due to restrictions on travel as a result of COVID-19 and $2.2 million received for CEWS, partially offset by increased legal fees.
- **Amortization of intangible assets** remained relatively unchanged.
- **Significant asset impairments and restructuring costs** reflect global workforce reductions as part of a business optimization strategy to improve gross margin and constrain operating expense, and redesign of certain business processes.
- **Acquisition and integration costs** primarily reflect reduced acquisition compensation associated with a three-year earn-out arrangement related to the acquisition of DonRiver in fiscal 2018 and other fees related to the acquisition of Centina Systems, Inc. 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):

	Quarter Ended			Six Months Ended		
	May 1, 2021	May 2, 2020	%*	May 1, 2021	May 2, 2020	%*
Interest and other income (loss), net	$ (1,274)	$ (2,665)	*(52.2)%*	$ (2,395)	$ 981	*(344.1)%*
%**	*(0.2)%*	*(0.3)%*		*(0.2)%*	*0.1 %*	
Interest expense	$ 7,785	$ 7,860	*(1.0)%*	$ 15,145	$ 16,675	*(9.2)%*
%**	*0.9 %*	*0.9 %*		*1.0 %*	*1.0 %*	
Loss on extinguishment and modification of debt	$ —	$ —	*— %*	$ —	$ 646	*(100.0)%*
%**	*— %*	*— %*		*— %*	*— %*	
Provision for income taxes	$ 21,453	$ 25,308	*(15.2)%*	$ 33,419	$ 35,122	*(4.8)%*
%**	*2.6 %*	*2.8 %*		*2.1 %*	*2.0 %*	

* Denotes % change from 2020 to 2021
** Denotes % of Total Revenue

Quarter ended May 1, 2021 as compared to the quarter ended May 2, 2020

- **Interest and other income (loss), net** increased by $1.4 million, primarily reflecting 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** remained relatively unchanged.
- **Provision for income taxes** decreased by $3.9 million, primarily due to an increased deduction for foreign-derived intangible income for the second quarter of fiscal 2021. The effective tax rate for the second quarter of 2021 was lower as compared to the second quarter of fiscal 2020, primarily due to an increased deduction for foreign-derived intangible income and a decrease in the foreign effective tax rate.

Six months ended May 1, 2021 as compared to the six months ended May 2, 2020

- **Interest and other income, net** decreased by $3.4 million, primarily reflecting lower interest income due to reduced interest rates on our investments and 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 by $1.5 million, primarily due to a reduction of LIBOR rates impacting our 2025 Term Loan.
- **Loss on extinguishment and modification of debt** reflects the refinance of our 2025 Term Loan in the first quarter of fiscal 2020.
- **Provision for income taxes** decreased by $1.7 million, primarily due to an increased deduction for foreign-derived intangible income for the first six months of fiscal 2021. The effective tax rate for the first six months of fiscal 2021 was lower as compared to the first six months of fiscal 2020, primarily due to an increased deduction for foreign-derived intangible income and a decrease in the foreign effective tax rate.

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		%*	Six Months Ended		%*
	May 1, 2021	May 2, 2020		May 1, 2021	May 2, 2020	
Segment profit (loss):						
Networking Platforms	$ 211,412	$ 210,987	*0.2 %*	$ 367,843	$ 379,256	*(3.0)%*
Platform Software and Services	$ 36,506	$ 21,668	*68.5 %*	$ 64,166	$ 50,619	*26.8 %*
Blue Planet Automation Software and Services	$ 5,688	$ (4,399)	*229.3 %*	$ 3,254	$ (7,512)	*143.3 %*
Global Services	$ 48,567	$ 53,540	*(9.3)%*	$ 92,060	$ 99,068	*(7.1)%*

* Denotes % change from 2020 to 2021

Segment profit (loss) includes CEWS benefits of $35.7 million in the second quarter and first six months of fiscal 2021, net of certain fees. For further discussion of CEWS, see Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Quarter ended May 1, 2021 as compared to the quarter ended May 2, 2020

- **Networking Platforms segment profit** increased by $0.4 million, primarily due to CEWS benefit of $29.7 million and improved gross margin, offset by lower sales volume as described above and higher research and development costs.
- **Platform Software and Services segment profit** increased by $14.8 million, primarily due to higher sales volume, services margin and a CEWS benefit of $2.5 million.
- **Blue Planet Automation Software and Services segment profit** increased by $10.1 million, primarily due to higher sales volume, higher gross margin on product sales and a CEWS benefit of $1.2 million, partially offset by lower gross margin on software-related services.
- **Global Services segment profit** decreased by $5.0 million, primarily due to reduced gross margin, as described above, partially offset by a CEWS benefit of $2.3 million.

Six months ended May 1, 2021 as compared to the six months ended May 2, 2020

- **Networking Platforms segment profit** decreased by $11.4 million, primarily due to lower sales volume as described above and higher research and development costs, partially offset by a CEWS benefit of $29.7 million and improved gross margin.
- **Platform Software and Services segment profit** increased by $13.5 million, primarily due to higher sales volume, a CEWS benefit of $2.5 million and improved gross margin as described above.
- **Blue Planet Automation Software and Services segment profit** increased by $10.8 million, primarily due to higher sales volume, higher gross margin on product sales and a CEWS benefit of $1.2 million, partially offset by lower gross margin on software-related services.
- **Global Services segment profit** decreased by $7.0 million, primarily due to reduced gross margin as described above, partially offset by higher sales volume and a CEWS benefit of $2.3 million.

Liquidity and Capital Resources

Overview. For the six months ended May 1, 2021, we generated $217.7 million of cash in operating activities, which included $36.5 million of cash from a CEWS benefit. Our net income (adjusted for non-cash charges) of $279.4 million exceeded our working capital requirements of $61.7 million. For additional details, see “Cash Provided By Operating Activities” below. For further information relating to our receipt of amounts under the CEWS program, see Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Cash, cash equivalents and investments increased by $125.0 million during the first six months of fiscal 2021. The cash from operations above was partially offset by the following items: (i) cash used to fund our investing activities for capital expenditures totaling $51.7 million; (ii) cash used for stock repurchases under our stock repurchase program of $38.5 million; and (iii) stock repurchases on vesting of our stock unit awards to employees relating to tax withholding of $27.9 million.

Proceeds from the issuance of equity under our employee stock purchase plan provided $13.5 million in cash during the six months ended May 1, 2021.

The following table sets forth changes in our cash and cash equivalents and investments in marketable debt securities for the respective periods (in thousands):

	May 1, 2021	October 31, 2020	Increase (decrease)
Cash and cash equivalents	$ 1,202,974	$ 1,088,624	$ 114,350
Short-term investments in marketable debt securities	151,816	150,667	1,149
Long-term investments in marketable debt securities	91,715	82,226	9,489
Total cash and cash equivalents and investments in marketable debt securities	$ 1,446,505	$ 1,321,517	$ 124,988

Principal Sources of Liquidity. Our principal sources of liquidity on hand include our cash, cash equivalents and investments, which as of May 1, 2021 totaled $1.4 billion, 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 $300.0 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 1, 2021, letters of credit totaling $84.0 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of May 1, 2021.

Foreign Liquidity. The amount of cash, cash equivalents, and short-term investments held by our foreign subsidiaries was $120.4 million as of May 1, 2021. 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 $25.0 million.

Stock Repurchase Authorization. On December 13, 2018, we announced that the Board of Directors authorized a program to repurchase up to $500.0 million of its common stock. After temporarily suspending repurchases of our common stock during fiscal 2020, we reinstituted our stock repurchase program in the first quarter of 2021 and are currently targeting repurchases in the range of $150 million of our common stock during fiscal 2021. We repurchased $39.4 million under this program during the first six months of fiscal 2021, and had $236.0 million remaining under the current authorization as of May 1, 2021. 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 program may be reinstated, modified, suspended, or discontinued at any time.

Liquidity Position. 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. We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our operating or investment plans, and will continue to consider capital raising and other market opportunities that may be available to us. We regularly evaluate alternatives to manage our capital structure and market opportunities to enhance our liquidity and provide further operational and strategic flexibility. While the COVID-19 pandemic has not materially impacted our liquidity and capital resources to date, it has led to disruptions 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.

Cash Provided By Operating Activities

The following sections set forth the components of our $217.7 million of cash provided by operating activities during the first six months of fiscal 2021:

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 1, 2021
Net income	$ 158,465
Adjustments for non-cash charges:	
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	47,295
Share-based compensation costs	40,499
Amortization of intangible assets	18,517
Deferred taxes	(9,606)
Provision for inventory excess and obsolescence	10,402
Provision for warranty	7,937
Other	5,928
Net income (adjusted for non-cash charges)	$ 279,437

Working Capital

We used $61.7 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 1, 2021
Cash used in accounts receivable	$ (180)
Cash used in inventories	(66,934)
Cash used in prepaid expenses and other	(8,565)
Cash used in accounts payable, accruals and other obligations	(30,108)
Cash provided by deferred revenue	45,482
Cash used in operating lease assets and liabilities, net	(1,473)
Total cash used for working capital	$ (61,778)

As compared to the end of fiscal 2020:

- Cash used in accounts receivable was not material during the first six months of fiscal 2021;
- The $66.9 million of cash used in inventories during the first six months of fiscal 2021 primarily reflects increases in finished goods to meet customer delivery schedules and related to some of the actions that we have taken since early fiscal 2020 to mitigate the risk of adverse supply chain impact on our business and operations due to COVID-19 related disruptions;
- The $8.6 million of cash used in prepaid expense and other during the first six months of fiscal 2021 primarily reflects increases in foreign currency forward contracts and CEWS receivable of $3.9 million, partially offset by a reduction in contract assets and other receivables;
- The $30.1 million of cash used in accounts payable, accruals and other obligations during the first six months of fiscal 2021 primarily reflects the payment to employees under our annual cash incentive compensation plan in the first quarter, as well as inventory purchases;
- The $45.5 million of cash provided by deferred revenue during the first six months of fiscal 2021 represents an increase in advanced payments received from customers prior to revenue recognition; and
- The $1.5 million of cash used in operating lease assets and liabilities, net, during the first six months of fiscal 2021 represents cash paid for operating lease payments in excess of operating lease costs. 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 2021 were 90 days, and our inventory turns for the first six months of fiscal 2021 were 3.3. The calculation of DSOs includes accounts receivables, net and contract assets for unbilled receivables, net 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 1, 2021
Term Loan due September 28, 2025[1]	$ 6,547
Interest rate swaps[2]	4,995
ABL Credit Facility[3]	979
Finance leases	2,428
Cash paid during period	$ 14,949

[1] Interest on the 2025 Term Loan is payable periodically based on the interest period selected for borrowing. The 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 2021, the interest rate on the 2025 Term Loan was 1.86%.

[2] The interest rate swaps fix the LIBOR rate for $350.0 million of the 2025 Term Loan at 2.957% through September 2023.

[3] During the first six months of fiscal 2021, we utilized the ABL Credit Facility to collateralize certain standby letters of credit and paid $1.0 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 October 31, 2020. For a summary of our contractual obligations, see Item 7 of Part II of our 2020 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 reflect, among other things, the information available to us regarding the economic implications of the COVID-19 pandemic, and 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, because the duration, severity, and impact of the COVID-19 pandemic remain 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.

Except for items listed below, our critical accounting policies and estimates have not changed materially since October 31, 2020. For a discussion of our critical accounting policies and estimates, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of Part II of our 2020 Annual Report.

Allowance for Credit Losses for Accounts Receivable and Contract Assets

See Note 2 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for information regarding the change in our allowance for credit losses for accounts receivable and contract assets accounting policies as a result of our adoption of ASU 2016-13, *Financial Instruments - Credit Losses*.

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 our 2020 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 2020 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 2020 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 2020 Annual Report.

Our reliance on third-party component suppliers, including sole and limited source suppliers, exposes our business to additional risk and could limit our sales, increase our costs and harm our customer relationships.

We maintain a global sourcing strategy and depend on a diverse set of third-party suppliers in international markets that comprise our supply chain. We rely on these third parties for activities relating to product design, development and support, and in the sourcing of products, components, subcomponents and related raw materials. Our products include optical and electronic components for which reliable, high-volume supply is often available only from sole or limited sources. We do not have any guarantees of supply from our third-party suppliers, and in certain cases we have limited contractual arrangements or are relying on standard purchase orders. As a result, there is no assurance that we will be able to secure the components or subsystems that we require, in sufficient quantity and quality, and on reasonable terms.

The loss of a source of supply, or lack of sufficient availability of key components, could require that we locate an alternate source or redesign our products, either of which could result in business interruption and increased costs and could negatively affect our product gross margin and results of operations. There are a number of significant technology trends or developments underway or emerging – including the Internet of Things, autonomous vehicles, and advances in mobile communications such as the emergence of 5G – that have previously resulted in, and can be expected in the future to result in, increased market demand for key raw materials or components upon which we rely.

By way of example, due to increased demand across a range of industries, the global supply market for semiconductor components, which we use in most of our products, has experienced significant strain in recent periods. Partly in response to these dynamics, in February 2021, the Biden Administration issued an executive order on U.S. supply chains, implementing a 100-day review of certain supply chain risks, including with respect to semiconductor manufacturing and advanced packaging supply chains. The market shortage for semiconductor components has affected, and could further affect, lead times and cost of components, and could impact our ability to meet customer demand for our products if we cannot secure supply of these components in a timely fashion. In addition, some suppliers have indicated that as a result of current shortages they intend to cease manufacture of certain components used in our products. These challenges relating to semiconductor supply could result in delays, increased material costs, inability to fulfill customer demand, or engineering design changes, each of which could adversely impact our financial results.

Increases in market demand or scarcity of raw materials or components have resulted, and may in the future result, in shortages in availability of important components for our solutions, supply allocation challenges, deployment delays and increased cost, lead times and delivery cycle timelines. These and other industry, market and regulatory disruptions and challenges affecting our suppliers could expose our business to increased costs, loss or lack of supply, or discontinuation of components, lost revenue, increased lead times and deployment delays that could harm our business, results of operations and customer relationships.

The resurgence of COVID-19 in India or other countries where we or our supply chain partners have operations could have a material adverse effect on our business, results of operations and financial condition.

New and potentially more contagious variants of the COVID-19 virus are developing in several countries, including regions in which we have significant operations. We operate a large research and development facility in Gurgaon, India and have significant headcount there across a range of functions, including research and development, information technology, finance and accounting, and operations. In March 2021, a new, serious outbreak of COVID-19 began affecting India, which has led to a significant spike in illness and death rates and has put a significant strain on the healthcare infrastructure in India. We are experiencing higher than normal levels of employee absenteeism due to illness or employees caring for family members. In addition, the Indian government has reinstated lockdowns and other restrictions, limiting in certain cases the movement of our employees. If there is any further deterioration of the situation in India or if the current situation persists for an extended period, our employees could be significantly impacted. The business continuity procedures we have implemented across a range of functions may not be sufficient and the resurgence of COVID-19 in India or other countries where we or our supply chain partners have operations could have a material adverse effect on our business, results of operations and financial condition.

Changes in tax law or regulation, effective tax rates and other adverse outcomes with taxing authorities could adversely affect our results of operations.

Our future effective tax rates could be subject to volatility or adversely affected by changes in tax laws, regulations, accounting principles, or interpretations thereof. The impact of income taxes on our business can also be affected by a number of items relating to our business. These may include estimates for and the actual geographic mix of our earnings; changes in the valuation of our deferred tax assets; the use or expiration of net operating losses or research and development credit arrangements applicable to us in certain geographies; and changes in our methodology for transfer pricing, valuing developed technology or conducting intercompany arrangements.

On December 22, 2017, the Tax Cuts and Jobs Act (the “Tax Act”) was signed into law and introduced significant changes to U.S. federal corporate tax law. These changes include a reduction to the federal corporate income tax rate, the current taxation of certain foreign earnings, the imposition of base-erosion prevention measures which may limit the deductions relating to certain intercompany transactions, and possible limitations on the deductibility of net interest expense or corporate debt obligations. Accounting for the income tax effects of the Tax Act requires significant judgments and estimates that are based on then current interpretations of the Tax Act and could be affected by changing interpretations of the Tax Act, as well as additional legislation and guidance around the Tax Act. Any refinements to tax estimates are difficult to predict and could impact our financial results. In April 2021, President Joseph R. Biden, released the Made in America Tax Plan, which includes significant modifications to key provisions of the existing U.S. corporate income tax regime including an increased tax rate, promotion of a global minimum tax and other changes that address taxes on profits from intangible assets and activities of foreign subsidiaries. In June 2021, finance leaders for the Group of 7 countries agreed to back a new global minimum tax rate that would apply regardless of headquarters location or physical presence. Although it is uncertain if some or all of these proposals will be enacted, a significant change in U.S. tax law, or that of other countries where we operate or have a presence may materially and adversely impact our income tax liability, provision for income taxes and effective tax rate.

We are also subject to the continuous examination of our income tax and other returns by the Internal Revenue Service and other tax authorities and have a number of such reviews underway at any time. It is possible that tax authorities may disagree with certain positions we have taken and an adverse outcome of such a review or audit could have a negative effect on our financial position and operating results. There can be no assurance that the outcomes from such examinations, or changes in tax law or regulation impacting our effective tax rates, will not have an adverse effect on our business, financial condition and results of operations.

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 2021:

Period	Total Number of Shares Purchase [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)
January 31, 2021 to February 27, 2021	141,221	$ 54.54	141,221	$ 254,480
February 28, 2021 to March 27, 2021	164,057	$ 53.05	164,057	$ 245,778
March 28, 2021 to May 1, 2021	178,219	$ 54.92	178,219	$ 235,990
	483,497	$ 54.17	483,497	

[1] On December 13, 2018, we announced that our Board of Directors authorized a program to repurchase up to $500.0 million of our common stock. After temporarily suspending repurchases of our common stock during fiscal 2020, we reinstituted our stock repurchase program in the first quarter of 2021. 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 program may be 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	Ciena Corporation Incentive Bonus Plan, as amended and restated February 23, 2021 (Incorporated by reference from Exhibit 10.1 to Ciena's Quarterly Report on Form 10-Q, filed with the SEC on March 10, 2021)*
10.2	Amended and Restated Ciena Corporation Employee Stock Purchase Plan (Incorporated by reference from Exhibit 10.1 of Ciena's Current Report on Form 8-K, filed with the SEC on April 6, 2021)*
31.1	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
31.2	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
32.1	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
32.2	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
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 9, 2021	By:	/s/ Gary B. Smith
		Gary B. Smith
		President, Chief Executive Officer and Director (Duly Authorized Officer)
Date: June 9, 2021	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 9, 2021

/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 9, 2021

/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 1, 2021 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 9, 2021

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 1, 2021 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 9, 2021

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.