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 July 30, 2022

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 defined 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 September 2, 2022
Common Stock, par value $0.01 per share	148,141,810

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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		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Revenue:				
Products	$ 684,284	$ 804,414	$ 2,109,239	$ 2,071,677
Services	183,697	183,727	552,412	507,521
Total revenue	867,981	988,141	2,661,651	2,579,198
Cost of goods sold:				
Products	434,756	420,236	1,259,378	1,074,935
Services	92,446	93,355	275,526	259,403
Total cost of goods sold	527,202	513,591	1,534,904	1,334,338
Gross profit	340,779	474,550	1,126,747	1,244,860
Operating expenses:				
Research and development	150,025	146,225	457,758	389,212
Selling and marketing	105,880	114,924	344,700	322,589
General and administrative	41,121	48,863	131,191	132,491
Significant asset impairments and restructuring costs	7,692	9,789	20,203	23,865
Amortization of intangible assets	8,919	5,967	26,757	17,896
Acquisition and integration costs	35	259	598	860
Total operating expenses	313,672	326,027	981,207	886,913
Income from operations	27,107	148,523	145,540	357,947
Interest and other income (loss), net	366	795	4,860	(1,600)
Interest expense	(12,642)	(7,776)	(33,275)	(22,921)
Income before income taxes	14,831	141,542	117,125	333,426
Provision (benefit) for income taxes	4,319	(96,690)	21,868	(63,271)
Net income	$ 10,512	$ 238,232	$ 95,257	$ 396,697
Basic net income per common share	$ 0.07	$ 1.53	$ 0.63	$ 2.55
Diluted net income per potential common share	$ 0.07	$ 1.52	$ 0.62	$ 2.53
Weighted average basic common shares outstanding	149,862	155,271	152,083	155,277
Weighted average dilutive potential common shares outstanding	150,463	156,744	153,209	156,742

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

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

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Net income	$ 10,512	$ 238,232	$ 95,257	$ 396,697
Change in unrealized loss on available-for-sale securities, net of tax	(79)	(21)	(2,184)	(28)
Change in unrealized gain (loss) on foreign currency forward contracts, net of tax	(91)	(4,766)	(6,776)	5,667
Change in unrealized gain (loss) on forward starting interest rate swaps, net of tax	(1,613)	1,620	9,425	5,650
Change in cumulative translation adjustments	(4,037)	(6,823)	(22,783)	19,439
Other comprehensive gain (loss)	(5,820)	(9,990)	(22,318)	30,728
Total comprehensive income	$ 4,692	$ 228,242	$ 72,939	$ 427,425

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)

	July 30, 2022	October 30, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 859,687	$ 1,422,546
Short-term investments	321,823	181,483
Accounts receivable, net of allowance for credit losses of $11.7 million and $10.9 million as of July 30, 2022 and October 30, 2021, respectively.	802,484	884,958
Inventories, net	826,673	374,265
Prepaid expenses and other	377,709	325,654
Total current assets	3,188,376	3,188,906
Long-term investments	77,723	70,038
Equipment, building, furniture and fixtures, net	281,690	284,968
Operating right-of-use assets	45,452	44,285
Goodwill	328,978	311,645
Other intangible assets, net	76,918	65,314
Deferred tax asset, net	797,924	800,180
Other long-term assets	103,721	99,891
Total assets	$ 4,900,782	$ 4,865,227
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 439,229	$ 356,176
Accrued liabilities and other short-term obligations	301,589	409,285
Deferred revenue	147,808	118,007
Operating lease liabilities	19,786	18,632
Current portion of long-term debt	6,930	6,930
Total current liabilities	915,342	909,030
Long-term deferred revenue	61,845	57,457
Other long-term obligations	150,767	166,803
Long-term operating lease liabilities	42,639	41,564
Long-term debt, net	1,062,453	670,355
Total liabilities	$ 2,233,046	$ 1,845,209
Commitments and contingencies (Note 22)		
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; 148,293,357 and 154,858,981 shares issued and outstanding	1,483	1,549
Additional paid-in capital	6,378,007	6,803,162
Accumulated other comprehensive income (loss)	(21,879)	439
Accumulated deficit	(3,689,875)	(3,785,132)
Total stockholders' equity	2,667,736	3,020,018
Total liabilities and stockholders' equity	$ 4,900,782	$ 4,865,227

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

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

	Nine Months Ended	
	July 30 2022	July 31 2021
Cash flows provided by (used in) operating activities:		
Net income	$ 95,257	$ 396,697
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	68,280	71,918
Share-based compensation costs	77,827	62,970
Amortization of intangible assets	36,521	27,341
Deferred taxes	(19,824)	(139,543)
Provision for inventory excess and obsolescence	12,038	13,460
Provision for warranty	12,416	12,726
Other	(442)	6,350
Changes in assets and liabilities:		
Accounts receivable	74,478	(163,149)
Inventories	(464,664)	(38,821)
Prepaid expenses and other	(39,805)	(17,272)
Operating lease right-of-use assets	12,504	12,340
Accounts payable, accruals and other obligations	(37,587)	31,388
Deferred revenue	34,949	24,969
Short- and long-term operating lease liabilities	(15,197)	(14,618)
Net cash provided by (used in) operating activities	(153,249)	286,756
Cash flows used in investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(66,908)	(67,290)
Purchase of available-for-sale securities	(614,333)	(132,895)
Proceeds from maturities of available-for-sale securities	460,000	122,063
Settlement of foreign currency forward contracts, net	4,450	7,326
Purchase of cost method equity investments	(8,000)	—
Proceeds from sale of cost method equity investments	—	4,678
Acquisition of business, net of cash acquired	(62,043)	—
Net cash used in investing activities	(286,834)	(66,118)
Cash flows used in financing activities:		
Proceeds from issuance of senior notes	400,000	—
Payment of long-term debt	(3,465)	(5,197)
Payment of debt issuance costs	(5,159)	—
Payment of finance lease obligations	(2,555)	(2,243)
Shares repurchased for tax withholdings on vesting of stock unit awards	(41,280)	(36,484)
Repurchases of common stock - repurchase program	(487,792)	(64,555)
Proceeds from issuance of common stock	30,224	28,289
Net cash used in financing activities	(110,027)	(80,190)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(12,780)	1,344
Net increase (decrease) in cash, cash equivalents and restricted cash	(562,890)	141,792
Cash, cash equivalents and restricted cash at beginning of period	1,422,604	1,088,708
Cash, cash equivalents and restricted cash at end of period	$ 859,714	$ 1,230,500
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	$ 24,823	$ 22,392
Cash paid during the period for income taxes, net	$ 28,593	$ 46,165
Operating lease payments	$ 16,342	$ 16,162
Non-cash investing and financing activities		
Purchase of equipment in accounts payable	$ 9,320	$ 5,517
Repurchase of common stock in accrued liabilities from repurchase program	$ 5,000	$ 800
Operating right-of-use assets subject to lease liability	$ 8,226	$ 4,182

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 Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at October 30, 2021	154,858,981	$ 1,549	$ 6,803,162	$ 439	$ (3,785,132)	$ 3,020,018
Net income	—	—	—	—	95,257	95,257
Other comprehensive loss	—	—	—	(22,318)	—	(22,318)
Repurchase of common stock - repurchase program	(8,279,710)	(83)	(491,909)	—	—	(491,992)
Issuance of shares from employee equity plans	2,359,326	23	30,201	—	—	30,224
Share-based compensation expense	—	—	77,827	—	—	77,827
Shares repurchased for tax withholdings on vesting of stock unit awards	(645,240)	(6)	(41,274)	—	—	(41,280)
Balance at July 30, 2022	148,293,357	$ 1,483	$ 6,378,007	$ (21,879)	$ (3,689,875)	$ 2,667,736

	Common Stock Shares	Par Value	Additional Paid-in-Capital	Accumulated Other Comprehensive Income (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	—	—	—	—	396,697	396,697
Other comprehensive income	—	—	—	30,728	—	30,728
Repurchase of common stock - repurchase program	(1,203,439)	(12)	(65,343)	—	—	(65,355)
Issuance of shares from employee equity plans	2,430,224	24	28,265	—	—	28,289
Share-based compensation expense	—	—	62,970	—	—	62,970
Shares repurchased for tax withholdings on vesting of stock unit awards	(686,475)	(7)	(36,477)	—	—	(36,484)
Effect of adoption of new accounting standard	—	—	—	—	(2,206)	(2,206)
Balance at July 31, 2021	155,103,315	$ 1,551	$ 6,815,946	$ (4,630)	$ (3,888,631)	$ 2,924,236

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

CIENA CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

(1) INTERIM FINANCIAL STATEMENTS

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

The preparation of financial statements and related disclosures in conformity with 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, because the duration and severity of COVID-19 pandemic are uncertain, certain of these 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 30, 2021 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 2021 (the "2021 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 2022 and 2021 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 above, Ciena Corporation and Significant Accounting Policies and Estimates, in Notes to Consolidated Financial Statements in Item 8 of Part II of the 2021 Annual Report.

Newly Issued Accounting Standards - Effective

In December 2019, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update 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 GAAP for other areas of ASC 740 by clarifying and amending existing guidance. 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. ASU 2019-12 was effective for Ciena beginning in the first quarter of fiscal 2022. Ciena adopted ASU 2019-12 beginning in the first quarter of fiscal 2022 without any material impact on its financial position and results of operations.

In November 2021, the FASB issued ASU No. 2021-10 ("ASU 2021-10"), *Government Assistance*, to increase transparency of government assistance including the disclosure of (1) the types of assistance, (2) an entity's accounting for the assistance, and (3) the effect of the assistance on an entity's financial statements. ASU 2021-10 was effective for annual periods beginning after December 15, 2021. Early adoption was permitted. Ciena adopted ASU 2021-10 in the first quarter of fiscal 2022 without any material impact on its financial position and results of operations.

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 No. 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 may be applied prospectively through December 31, 2022. Ciena adopted Topic 848 beginning in the first quarter of fiscal 2022 without any material impact on its financial position and results of operations.

Newly Issued Accounting Standards - Not Yet Effective

In October 2021, the FASB issued ASU No. 2021-08 ("ASU 2021-08"), *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* to improve the accounting for acquired revenue contracts with customers in a business combination to address recognition of an acquired contract liability and payment terms and their effect on subsequent revenue recognized by the acquirer. ASU 2021-08 is effective for annual periods beginning after December 15, 2022 on a prospective basis. Early adoption is permitted. Ciena is currently evaluating the impact of this ASU on its condensed consolidated financial statements and related disclosures.

(3) REVENUE

Disaggregation of Revenue

Ciena's disaggregated revenue as presented below depicts the nature, amount, and timing of revenue and cash flows for similar groupings of Ciena's various offerings. The sales cycle, contractual obligations, customer requirements, and go-to-market strategies may differ across Ciena's product lines, resulting in different economic risk profiles for each line.

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

	Quarter Ended July 30, 2022				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	$ 563,837	$ —	$ —	$ —	$ 563,837
Routing and Switching	100,741	—	—	—	100,741
Platform Software and Services	—	63,483	—	—	63,483
Blue Planet Automation Software and Services	—	—	17,342	—	17,342
Maintenance Support and Training	—	—	—	72,760	72,760
Installation and Deployment	—	—	—	38,704	38,704
Consulting and Network Design	—	—	—	11,114	11,114
Total revenue by product line	$ 664,578	$ 63,483	$ 17,342	$ 122,578	$ 867,981
Timing of revenue recognition:					
Products and services at a point in time	$ 664,578	$ 15,230	$ 4,632	$ 9,408	$ 693,848
Services transferred over time	—	48,253	12,710	113,170	174,133
Total revenue by timing of revenue recognition	$ 664,578	$ 63,483	$ 17,342	$ 122,578	$ 867,981

	Quarter Ended July 31, 2021				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	$ 712,906	$ —	$ —	$ —	$ 712,906
Routing and Switching	69,698	—	—	—	69,698
Platform Software and Services	—	56,945	—	—	56,945
Blue Planet Automation Software and Services	—	—	16,607	—	16,607
Maintenance Support and Training	—	—	—	74,006	74,006
Installation and Deployment	—	—	—	46,653	46,653
Consulting and Network Design	—	—	—	11,326	11,326
Total revenue by product line	$ 782,604	$ 56,945	$ 16,607	$ 131,985	$ 988,141
Timing of revenue recognition:					
Products and services at a point in time	$ 782,604	$ 17,928	$ 4,558	$ 6,508	$ 811,598
Services transferred over time	—	39,017	12,049	125,477	176,543
Total revenue by timing of revenue recognition	$ 782,604	$ 56,945	$ 16,607	$ 131,985	$ 988,141

	Nine Months Ended July 30, 2022				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	$ 1,730,066	$ —	$ —	$ —	$ 1,730,066
Routing and Switching	295,638	—	—	—	295,638
Platform Software and Services	—	205,557	—	—	205,557
Blue Planet Automation Software and Services	—	—	55,334	—	55,334
Maintenance Support and Training	—	—	—	219,270	219,270
Installation and Deployment	—	—	—	120,504	120,504
Consulting and Network Design	—	—	—	35,282	35,282
Total revenue by product line	$ 2,025,704	$ 205,557	$ 55,334	$ 375,056	$ 2,661,651
Timing of revenue recognition:					
Products and services at a point in time	$ 2,025,704	$ 66,655	$ 17,442	$ 31,368	$ 2,141,169
Services transferred over time	—	138,902	37,892	343,688	520,482
Total revenue by timing of revenue recognition	$ 2,025,704	$ 205,557	$ 55,334	$ 375,056	$ 2,661,651

	Nine Months Ended July 31, 2021				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Converged Packet Optical	$ 1,798,888	$ —	$ —	$ —	$ 1,798,888
Routing and Switching	197,632	—	—	—	197,632
Platform Software and Services	—	163,472	—	—	163,472
Blue Planet Automation Software and Services	—	—	57,499	—	57,499
Maintenance Support and Training	—	—	—	212,054	212,054
Installation and Deployment	—	—	—	124,263	124,263
Consulting and Network Design	—	—	—	25,390	25,390
Total revenue by product line	$ 1,996,520	$ 163,472	$ 57,499	$ 361,707	$ 2,579,198
Timing of revenue recognition:					
Products and services at a point in time	$ 1,996,520	$ 54,756	$ 20,497	$ 9,776	$ 2,081,549
Services transferred over time	—	108,716	37,002	351,931	497,649
Total revenue by timing of revenue recognition	$ 1,996,520	$ 163,472	$ 57,499	$ 361,707	$ 2,579,198

Ciena reports its sales geographically using 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		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Geographic distribution:				
Americas	$ 617,366	$ 692,853	$ 1,913,350	$ 1,776,939
EMEA	124,185	189,180	420,075	499,652
APAC	126,430	106,108	328,226	302,607
Total revenue by geographic distribution	$ 867,981	$ 988,141	$ 2,661,651	$ 2,579,198

Ciena's revenue includes $574.3 million and $623.9 million of United States revenue for the third quarter of fiscal 2022 and 2021, respectively. For the nine months ended July 30, 2022 and July 31, 2021, United States revenue was $1.8 billion and $1.6 billion, respectively. No other country accounted for 10% or more of total revenue for the periods presented above.

For the periods below, customers accounting for at least 10% of Ciena's revenue were as follows (in thousands):

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Verizon	$ 108,495	$ 131,892	$ 273,158	n/a
AT&T	100,293	119,199	314,358	313,140
Web-scale provider	n/a	119,728	n/a	n/a
Total	$ 208,788	$ 370,819	$ 587,516	$ 313,140

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

The Web-scale provider noted in the above table purchased products from each of Ciena’s operating segments excluding Blue Planet® Automation Software and Services. The other customers identified above purchased products and services from each of Ciena’s operating segments for each of the periods presented.

- *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), the 5400 family of Packet-Optical Platforms, and the Coherent ELS open line system (OLS). This product line also includes the Z-Series Packet-Optical Platform and Optical Microsystems products.

  - Routing and Switching - includes the 3000 family of service delivery platforms and the 5000 family of service aggregation. This product line also includes the 6500 Packet Transport System (PTS), which combines packet switching, control plane operation, and integrated optics, the 8100 Coherent IP networking platforms, and the 8700 Packetwave Platform. This product line also includes the Vyatta (as defined in Note 4 below) virtual routing and switching products acquired from AT&T during the first quarter of fiscal 2022.

  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 and its 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 described 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 in which 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 for which 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 also 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 July 30, 2022	Balance at October 30, 2021
Accounts receivable, net	$ 802,484	$ 884,958
Contract assets for unbilled accounts receivable, net	$ 157,448	$ 101,355
Deferred revenue	$ 209,653	$ 175,464

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 in the Condensed Consolidated Balance Sheets. See Note 12 below.

Contract liabilities consist of deferred revenue and represent advanced payments against non-cancelable customer orders received prior to revenue recognition. Ciena recognized approximately $98.9 million and $94.7 million of revenue during the first nine months of fiscal 2022 and 2021, respectively, that was included in the deferred revenue balance as of October 30, 2021 and October 31, 2020, respectively. Revenue recognized due to changes in transaction price from performance obligations satisfied or partially satisfied in previous periods was immaterial during the nine months ended July 30, 2022 and July 31, 2021.

Capitalized Contract Acquisition Costs

Capitalized contract acquisition costs consist of deferred sales commissions, and were $36.1 million and $27.6 million as of July 30, 2022 and October 30, 2021, respectively. Capitalized contract acquisition costs were included in (i) prepaid expenses and other and (ii) other long-term assets. The amortization expense associated with these costs was $20.5 million and $16.8 million during the first nine months of fiscal 2022 and 2021, respectively, and was included in selling and marketing expense on the Condensed Consolidated Statement of Operations.

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 July 30, 2022, the aggregate amount of RPO was $2.9 billion. As of July 30, 2022, Ciena expects approximately 91% of the RPO to be recognized as revenue within the next 12 months.

(4) BUSINESS COMBINATIONS

Vyatta and Xelic Acquisitions

On November 1, 2021, Ciena acquired AT&T's Vyatta Software Technology ("Vyatta"), a provider of software-based virtual routing and switching technology. AT&T is a customer of Ciena, see Note 3 above. On March 9, 2022, Ciena acquired Xelic, Inc., a provider and developer of field programmable gate array (FPGA) and application-specific integrated circuit (ASIC) technology and optical networking IP cores. These businesses were acquired for an aggregate of approximately $64.3 million, of which $63.5 million was paid in cash and $0.8 million represents a future payable arrangement. These transactions have each been accounted for as the acquisition of a business.

Ciena incurred approximately $1.7 million in acquisition-related costs associated with these acquisitions. These costs and expenses primarily include fees associated with financial, legal and accounting advisors. These costs were recorded in acquisition and integration costs in the Condensed Consolidated Statement of Operations.

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

	Amount
Cash and cash equivalents	$ 201
Prepaid expenses and other	1,614
Equipment, furniture and fixtures	694
Customer relationships and contracts	15,800
Developed technology	32,491
Goodwill	17,982
Accrued liabilities	(4,434)
Total purchase consideration	$ 64,348

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

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

The goodwill generated from these acquisitions are primarily related to expected economic synergies. The total goodwill amount was recorded in the Networking Platforms segment. The goodwill is not deductible for income tax purposes.

Pro forma disclosures have not been included due to immateriality. The amounts of revenue and earnings for these acquisitions since the acquisition dates, which are included in the Condensed Consolidated Statement of Operations for the reporting period are immaterial.

(5) 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 expired in October 2021. The subsidy covered 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 nine months ended July 31, 2021, Ciena recorded a CAD$52.2 million ($41.3 million) benefit, net of certain fees, related to CEWS for claim periods beginning March 15, 2020, including CAD$43.9 million ($35.2 million) related to employee wages during fiscal 2020.

The following table summarizes CEWS for the periods indicated (in thousands, U.S. Dollar):

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Product	$ —	$ 94	$ —	$ 4,283
Service	—	47	—	2,667
CEWS benefit in cost of goods sold	—	141	—	6,950
Research and development	—	596	—	29,519
Sales and marketing	—	53	—	2,604
General and administrative	—	46	—	2,207
CEWS benefit in operating expense	—	695	—	34,330
Total CEWS benefit	$ —	$ 836	$ —	$ 41,280

(6) SIGNIFICANT ASSET IMPAIRMENT AND RESTRUCTURING COSTS

Restructuring Costs

Ciena has undertaken a number of restructuring activities intended to reduce expense and to 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 the Condensed Consolidated Balance Sheets, for the nine months ended July 30, 2022 (in thousands):

	Workforce reduction	Other restructuring activities	Total
Balance at October 30, 2021	$ 781	$ —	$ 781
Charges	2,224 [1]	13,992 [2]	16,216
Cash payments	(2,423)	(13,115)	(15,538)
Balance at July 30, 2022	$ 582	$ 877	$ 1,459
Current restructuring liabilities	$ 582	$ 877	$ 1,459

[1] Reflects employee costs associated with workforce reductions during the nine months ended July 30, 2022 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 associated with Ciena's supply chain and distribution structure reorganization and costs related to restructured real estate 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 the Condensed Consolidated Balance Sheets for the nine months ended July 31, 2021 (in thousands):

	Workforce reduction	Other restructuring activities	Total
Balance at October 30, 2020	$ 2,915	$ —	$ 2,915
Charges	5,306 [1]	18,558 [2]	23,864
Cash payments	(7,051)	(18,558)	(25,609)
Balance at July 31, 2021	$ 1,170	$ —	$ 1,170
Current restructuring liabilities	$ 1,170	$ —	$ 1,170

[1] Reflects employee costs associated with workforce reductions during the nine months ended July 31, 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 associated with Ciena's supply chain and distribution structure reorganization and costs related to restructured real estate facilities.

Significant Asset Impairments

In February 2022, armed conflict escalated between Russia and Ukraine. The United States and certain other countries have imposed sanctions on Russia and could impose further sanctions. On March 7, 2022, Ciena announced its decision to suspend its business operations in Russia immediately. As a result, Ciena recorded impairment charges of approximately $4.1 million of which $2.0 million was a provision for credit losses.

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

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

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Interest income	$ 2,774	$ 465	$ 4,962	$ 1,553
Gains (losses) on non-hedge designated foreign currency forward contracts	(985)	(4,414)	(2,911)	5,295
Foreign currency exchange gains (losses)	(788)	4,959	2,711	(8,534)
Unrealized gain on cost method equity investment	—	—	4,120	—
Other	(635)	(215)	(4,022)	86
Interest and other income (loss), net	$ 366	$ 795	$ 4,860	$ (1,600)

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 $2.7 million in foreign currency exchange rate gains for the first nine months of fiscal 2022 and during the first nine months of fiscal 2021, Ciena recorded $8.5 million in foreign currency exchange rate losses, both 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 nine months of fiscal 2022, Ciena recorded losses of $2.9 million and during the first nine months of fiscal 2021, Ciena recorded gains of $5.3 million from non-hedge designated foreign currency forward contracts. During the first nine months of fiscal 2022, Ciena recorded an unrealized gain of $4.1 million on its cost method equity investment.

(8) INCOME TAXES

The effective tax rate for the quarter and nine months ended July 30, 2022 was higher than the effective tax rate for the quarter and nine months ended July 31, 2021, primarily due to the tax benefit associated with recording a deferred tax asset in the third quarter of fiscal 2021.

To accommodate the requirements of a global business, Ciena is reorganizing its global supply chain and distribution structure, which has included a legal entity reorganization and related system upgrade. During the third quarter of fiscal 2021, Ciena completed an internal transfer of certain of its non-U.S. intangible assets, which created amortizable tax basis resulting in the discrete recognition of a $124.2 million deferred tax asset with a corresponding tax benefit. The impact of this transfer is reflected in Ciena's effective tax rate for the quarter and nine months ended July 31, 2021, which had a significant, one-time impact on its net income for these periods.

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. In certain jurisdictions, Ciena provides a valuation allowance for its deferred tax assets in excess of deferred tax liabilities because Ciena has concluded that it is more likely than not that such deferred tax assets will ultimately not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income (including the reversals of deferred tax liabilities) during the periods in which those deferred tax assets will become deductible. Ciena assesses available positive and negative evidence regarding its ability to realize deferred tax assets and record a valuation allowance when it is more likely than not that deferred tax assets will not be realized. To form a conclusion, management considers its recent financial results and trends and makes judgments and estimates related to projections of profitability, the timing and extent of the use of net operating loss carryforwards, and tax planning strategies.

Ciena will continue to evaluate future financial performance to determine whether such profitability is both sustainable and significant enough to provide sufficient evidence to support reversal of all or a portion of the valuation allowance. Any future release of valuation allowance may be recorded as a tax benefit increasing net income or as an adjustment to paid-in capital, based on tax ordering requirements.

(9) CASH EQUIVALENT, SHORT-TERM AND LONG-TERM INVESTMENTS

As of the dates indicated, investments classified as available-for-sale are comprised of the following (in thousands):

	July 30, 2022			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations	$ 361,659	$ 11	$ (2,945)	$ 358,725
Corporate debt securities	33,969	5	(100)	33,874
Time deposits	121,913	1	(26)	121,888
	$ 517,541	$ 17	$ (3,071)	$ 514,487
Included in cash equivalents	$ 114,941	$ —	$ —	$ 114,941
Included in short-term investments	322,820	14	(1,011)	321,823
Included in long-term investments	79,780	3	(2,060)	77,723
	$ 517,541	$ 17	$ (3,071)	$ 514,487

	October 30, 2021			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations	$ 251,713	$ 5	$ (197)	$ 251,521
Time deposits	71,226	—	—	71,226
	$ 322,939	$ 5	$ (197)	$ 322,747
Included in cash equivalents	$ 71,226	$ —	$ —	$ 71,226
Included in short-term investments	181,488	5	(10)	181,483
Included in long-term investments	70,225	—	(187)	70,038
	$ 322,939	$ 5	$ (197)	$ 322,747

The following table summarizes the final legal maturities of debt investments as of July 30, 2022 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	$ 437,761	$ 436,764
Due in 1-2 years	79,780	77,723
	$ 517,541	$ 514,487

(10) FAIR VALUE MEASUREMENTS

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

	July 30, 2022			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 531,686	$ —	$ —	$ 531,686
Bond mutual fund	70,717	—	—	70,717
Time deposits	121,888	—	—	121,888
Deferred compensation plan assets	13,184	—	—	13,184
U.S. government obligations	—	358,725	—	358,725
Corporate debt securities	—	33,874	—	33,874
Foreign currency forward contracts	—	3,024	—	3,024
Forward starting interest rate swaps	—	759	—	759
Total assets measured at fair value	$ 737,475	$ 396,382	$ —	$ 1,133,857
Liabilities:				
Foreign currency forward contracts	$ —	$ 3,399	$ —	$ 3,399
Forward starting interest rate swaps	—	4,337	—	4,337
Total liabilities measured at fair value	$ —	$ 7,736	$ —	$ 7,736

	October 30, 2021			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 1,120,851	$ —	$ —	$ 1,120,851
Bond mutual fund	75,425	—	—	75,425
Time deposits	71,226	—	—	71,226
Deferred compensation plan assets	12,968	—	—	12,968
U.S. government obligations	—	251,521	—	251,521
Foreign currency forward contracts	—	14,935	—	14,935
Total assets measured at fair value	$ 1,280,470	$ 266,456	$ —	$ 1,546,926
Liabilities:				
Foreign currency forward contracts	$ —	$ 716	$ —	$ 716
Forward starting interest rate swaps	—	15,928	—	15,928
Total liabilities measured at fair value	$ —	$ 16,644	$ —	$ 16,644

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

	July 30, 2022			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 717,344	$ —	$ —	$ 717,344
Short-term investments	6,947	314,876	—	321,823
Prepaid expenses and other	—	3,024	—	3,024
Long-term investments	—	77,723	—	77,723
Other long-term assets	13,184	759	—	13,943
Total assets measured at fair value	$ 737,475	$ 396,382	$ —	$ 1,133,857
Liabilities:				
Accrued liabilities and other short-term obligations	$ —	$ 3,399	$ —	$ 3,399
Other long-term obligations	—	4,337	—	4,337
Total liabilities measured at fair value	$ —	$ 7,736	$ —	$ 7,736

	October 30, 2021			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 1,267,502	$ —	$ —	$ 1,267,502
Short-term investments	—	181,483	—	181,483
Prepaid expenses and other	—	14,935	—	14,935
Long-term investments	—	70,038	—	70,038
Other long-term assets	12,968	—	—	12,968
Total assets measured at fair value	$ 1,280,470	$ 266,456	$ —	$ 1,546,926
Liabilities:				
Accrued liabilities and other short-term obligations	$ —	$ 716	$ —	$ 716
Other long-term obligations	—	15,928	—	15,928
Total liabilities measured at fair value	$ —	$ 16,644	$ —	$ 16,644

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

(11) INVENTORIES

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

	July 30, 2022	October 30, 2021
Raw materials	$ 621,849	$ 175,399
Work-in-process	19,462	10,260
Finished goods	187,008	180,800
Deferred cost of goods sold	33,800	44,765
Gross inventories	862,119	411,224
Reserve for inventory excess and obsolescence	(35,446)	(36,959)
Inventories, net	$ 826,673	$ 374,265

Ciena has been expanding its manufacturing capacity and accumulating raw materials inventory of components that are available, in some cases with expanded lead times, in an effort to prepare Ciena to produce finished goods more quickly when supply constraints ease for certain common components, including integrated circuit components, for which delivery continues to be delayed. The increase in raw materials inventory is related to these steps to mitigate the impact of current supply chain constraints and the global market shortage of semiconductor parts. 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 nine months of fiscal 2022, Ciena recorded a provision for inventory excess and obsolescence of $12.0 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 the sale of previously reserved items and disposal activities.

(12) PREPAID EXPENSES AND OTHER

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

	July 30, 2022	October 30, 2021
Contract assets for unbilled accounts receivable, net	$ 157,448	$ 101,355
Prepaid VAT and other taxes	71,140	77,388
Prepaid expenses	64,498	62,189
Product demonstration equipment, net	35,722	29,362
Capitalized contract acquisition costs	30,425	21,753
Other non-trade receivables	14,878	18,408
Derivative assets	3,024	14,935
Deferred deployment expense	574	264
	$ 377,709	$ 325,654

Depreciation of product demonstration equipment was $6.8 million during the first nine months of fiscal 2022 and $7.6 million during the first nine months of fiscal 2021.

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

(13) INTANGIBLE ASSETS

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

	July 30, 2022			October 30, 2021		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	$ 428,218	$ (382,090)	$ 46,128	$ 395,726	$ (359,828)	$ 35,898
Patents and licenses	7,815	(3,991)	3,824	7,815	(3,321)	4,494
Customer relationships, covenants not to compete, outstanding purchase orders and contracts	390,822	(363,856)	26,966	375,329	(350,407)	24,922
Total intangible assets	$ 826,855	$ (749,937)	$ 76,918	$ 778,870	$ (713,556)	$ 65,314

The aggregate amortization expense of intangible assets was $36.5 million during the first nine months of fiscal 2022 and $27.3 million during the first nine months of fiscal 2021. Expected future amortization of intangible assets for the fiscal years indicated is as follows (in thousands):

Fiscal Year	Amount
2022 (remaining three months)	$ 7,757
2023	28,821
2024	19,187
2025	13,323
2026	7,105
Thereafter	725
	$ 76,918

(14) OTHER BALANCE SHEET DETAILS

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

	July 30, 2022	October 30, 2021
Compensation, payroll related tax and benefits [1]	$ 98,174	$ 201,119
Warranty	45,689	48,019
Vacation	27,721	31,200
Interest payable	9,386	598
Income taxes payable	4,830	13,577
Finance lease liabilities	3,923	3,620
Foreign currency forward contracts	3,399	716
Other	108,467	110,436
	$ 301,589	$ 409,285

[1] Reduction is primarily due to bonus payments to employees under Ciena's 2021 annual cash incentive compensation plan in the first quarter of fiscal 2022, and a lower accrual rate related to Ciena's 2022 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
Nine Months Ended July 31, 2021	$ 49,868	12,726	(14,455)	$ 48,139
Nine Months Ended July 30, 2022	$ 48,019	12,416	(14,746)	$ 45,689

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

	July 30, 2022	October 30, 2021
Products	$ 27,432	$ 12,859
Services	182,221	162,605
Total deferred revenue	209,653	175,464
Less current portion	(147,808)	(118,007)
Long-term deferred revenue	$ 61,845	$ 57,457

(15) 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 July 30, 2022 and October 30, 2021, Ciena had forward contracts to hedge its foreign exchange exposure in order to reduce variability that is principally related to research and development activities. The notional amount of these contracts was approximately $238.8 million and $288.6 million as of July 30, 2022 and October 30, 2021, respectively. These foreign exchange contracts have maturities of 24 months or less and have been designated as cash flow hedges.

As of July 30, 2022 and October 30, 2021, 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 $111.7 million and $296.1 million as of July 30, 2022 and October 30, 2021, 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 July 30, 2022 and October 30, 2021.

In April 2022, Ciena entered into floating to fixed forward starting interest rate swap arrangements (“forward starting swaps”). The forward starting swaps fix the Secured Overnight Funding Rate (“SOFR”) for $350.0 million of the 2025 Term Loan (as defined in Note 16 below) at 2.968% from September 2023 through the 2025 Term Loan maturity. The total notional amount of forward starting swaps effective September 2023 was $350.0 million as of July 30, 2022. Ciena entered into the forward starting swaps to hedge its anticipated SOFR rate risk from the 2025 Term Loan because the LIBOR rate is expected to be discontinued in 2023.

Ciena expects the variable rate payments to be received under the terms of the interest rate swaps and forward starting swaps to offset exactly the forecasted variable rate payments on the equivalent notional amounts of the 2025 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 7 and Note 10 above.

(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 the 2025 Term Loan was comprised of the following for the periods indicated (in thousands):

	July 30, 2022				October 30, 2021
	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Value	Net Carrying Value
2025 Term Loan	$ 677,407	$ (1,008)	$ (1,887)	$ 674,512	$ 677,285

Deferred debt issuance costs that were deducted from the carrying amounts of the 2025 Term Loan totaled $1.9 million as of July 30, 2022 and $2.3 million at October 30, 2021. 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 2025 Term Loan. The amortization of deferred debt issuance costs for the 2025 Term Loan is included in interest expense, and was $0.5 million during the first nine months of each of fiscal 2022 and fiscal 2021. The carrying value of the 2025 Term Loan listed above is also net of any unamortized debt discounts.

As of July 30, 2022, the estimated fair value of the 2025 Term Loan was $674.1 million. The 2025 Term Loan is categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of the 2025 Term Loan using a market approach based on observable inputs, such as current market transactions involving comparable securities.

2030 Notes

On January 18, 2022, Ciena entered into an Indenture among Ciena, as issuer, certain domestic subsidiaries of Ciena, as guarantors (collectively, the “Guarantors”), and U.S. Bank National Association, as trustee (the “Trustee”), pursuant to which Ciena issued $400.0 million in aggregate principal amount of 4.00% senior notes due 2030 (the “2030 Notes”).

Ciena’s obligations under the 2030 Notes and the Indenture are irrevocably and unconditionally guaranteed, jointly and severally, on an unsecured senior basis by each of its domestic subsidiaries that is a borrower under or guarantor with respect to the 2025 Term Loan and Ciena’s senior secured asset-based revolving credit facility (the “ABL Credit Facility”).

The net proceeds from the sale of the 2030 Notes, after deducting costs, were approximately $395.5 million. Ciena intends to use the net proceeds from the Offering for general corporate purposes.

The 2030 Notes bear interest at a rate of 4.00% per annum and mature on January 31, 2030. Interest is payable on the 2030 Notes in arrears on January 31 and July 31 of each year, commencing on July 31, 2022.

The 2030 Notes and related subsidiary guarantees are the general unsubordinated unsecured senior obligations of Ciena and the Guarantors, respectively, and (i) rank equally in right of payment with all other existing and future senior indebtedness of Ciena and the Guarantors; (ii) are effectively subordinated to all existing and future secured indebtedness of Ciena and the Guarantors, including indebtedness under the 2025 Term Loan and the ABL Credit Facility, to the extent of the value of the assets securing such indebtedness; (iii) are structurally subordinated to all existing and future obligations, including indebtedness, of Ciena's subsidiaries that do not guarantee the 2030 Notes; and (iv) are senior in right of payment to all of Ciena's existing and future unsecured indebtedness that is, by its terms, expressly subordinated in right of payment to the 2030 Notes.

The Indenture contains restrictive covenants that limit the ability of Ciena and the Restricted Subsidiaries (as defined in the Indenture) or the Guarantors, as applicable, to, among other things, create certain liens or consolidate or merge with or into, or sell, lease, transfer, convey or otherwise dispose of all or substantially all the assets of Ciena or Ciena and its subsidiaries taken as a whole. These covenants are subject to a number of important exceptions and qualifications as set forth in the Indenture.

The Indenture provides for events of default (subject in certain cases to customary grace and cure periods) that include, among others, nonpayment of principal or interest when due, breach of covenants or other agreements in the Indenture, defaults in payment of certain other indebtedness and certain events of bankruptcy or insolvency. Generally, if an event of default occurs, the Trustee or the holders of at least 25% in principal amount of the outstanding 2030 Notes may declare the principal amount of and accrued but unpaid interest on all of the 2030 Notes to be due and payable immediately, provided that such amounts become due and payable without any further action or notice in the case of an event of bankruptcy or insolvency that constitutes an event of default.

Prior to January 31, 2025, Ciena may redeem the 2030 Notes, in whole or part, at a redemption price equal to 102% of the principal amount of the notes to be redeemed, plus any accrued and unpaid interest. On or after January 31, 2025, Ciena may redeem the 2030 Notes, in whole or part, at the redemption prices set forth in the Indenture and form of the 2030 Notes, plus any accrued and unpaid interest. In addition, until January 31, 2025, Ciena may redeem up to 40% of the aggregate principal amount of the 2030 Notes with the net cash proceeds of certain equity offerings, as described in the Indenture, at a redemption price equal to 104% of the principal amount of the 2030 Notes to be redeemed, plus any accrued and unpaid interest. If a change of control triggering event occurs, as described in the Indenture, Ciena must offer to repurchase all of the 2030 Notes (unless otherwise redeemed) at a price equal to 101% of the principal amount thereof, plus any accrued and unpaid interest.

The net carrying value of the 2030 Notes was comprised of the following for the period indicated (in thousands):

	July 30, 2022		
	Principal Balance	Deferred Debt Issuance Costs	Net Carrying Value
2030 Senior Notes 4.00% fixed-rate	$ 400,000	$ (5,129)	$ 394,871

Deferred debt issuance costs that were deducted from the carrying amount of the 2030 Notes totaled $5.1 million as of July 30, 2022. 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 2030 Notes. The amortization of deferred debt issuance costs for the 2030 Notes is included in interest expense, and was $0.4 million during the first nine months of fiscal 2022.

As of July 30, 2022, the estimated fair value of the 2030 Notes was $368.0 million. The 2030 Notes are categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its 2030 Notes using a market approach based on observable inputs, such as current market transactions involving comparable securities.

(17) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income ("AOCI"), net of tax, for the nine months ended July 30, 2022 (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 30, 2021	$ (164)	$ 6,216	$ (12,179)	$ 6,566	$ 439
Other comprehensive gain (loss) before reclassifications	(2,184)	(5,207)	2,786	(22,783)	(27,388)
Amounts reclassified from AOCI	—	(1,569)	6,639	—	5,070
Balance at July 30, 2022	$ (2,348)	$ (560)	$ (2,754)	$ (16,217)	$ (21,879)

The following table summarizes the changes in AOCI, net of tax, for the nine months ended July 31, 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	(28)	13,574	(1,399)	19,439	31,586
Amounts reclassified from AOCI	—	(7,907)	7,049	—	(858)
Balance at July 31, 2021	$ 17	$ 5,448	$ (15,885)	$ 5,790	$ (4,630)

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.

(18) EARNINGS PER SHARE CALCULATION

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 that 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.

The following table presents the calculation of Basic and Diluted EPS (in thousands, except per share amounts):

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Net income	$ 10,512	$ 238,232	$ 95,257	$ 396,697
Basic weighted average shares outstanding	149,862	155,271	152,083	155,277
Effect of dilutive potential common shares	601	1,473	1,126	1,465
Diluted weighted average shares	150,463	156,744	153,209	156,742
Basic EPS	$ 0.07	$ 1.53	$ 0.63	$ 2.55
Diluted EPS	$ 0.07	$ 1.52	$ 0.62	$ 2.53
Antidilutive employee share-based awards, excluded	1,640	131	1,264	99

(19) STOCKHOLDERS' EQUITY

Stock Repurchase Program and Accelerated Share Repurchase Agreement

On December 9, 2021, Ciena announced that its Board of Directors authorized a program to repurchase up to $1.0 billion of its common stock. On December 13, 2021, Ciena entered into an accelerated share repurchase agreement (the "ASR Agreement") with Goldman, Sachs & Co. LLC ("Goldman") to repurchase $250.0 million (the "Repurchase Price") of its common stock as part of the repurchase program. Under the terms of the ASR Agreement, Ciena paid the Repurchase Price to Goldman, and received approximately 3.6 million shares of its common stock from Goldman, calculated based on the average of the volume-weighted average prices of Ciena's common stock of $69.78 for the period from December 14, 2021 to February 11, 2022, less a discount, which completed the repurchases contemplated by the ASR Agreement. Shares repurchased pursuant to the ASR Agreement were immediately retired upon receipt.

During the first nine months of fiscal 2022, Ciena repurchased an additional 4.7 million shares of its common stock, for an aggregate purchase price of $242.0 million at an average price of $51.50 per share. As of July 30, 2022, Ciena has repurchased an aggregate of 8.3 million shares for an aggregate purchase price of $492.0 million at an average price of $59.42 per share and has an aggregate of $508.0 million of authorized funds remaining under its stock repurchase program. 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 its common stock to satisfy employee tax withholding obligations due on vesting of stock unit awards. The related purchase price of $41.3 million for the shares of Ciena's stock repurchased during the first nine months of fiscal 2022 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.

(20) SHARE-BASED COMPENSATION EXPENSE

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

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Products	$ 1,002	$ 1,037	$ 2,960	$ 2,488
Services	1,940	1,315	5,467	3,941
Share-based compensation expense included in cost of goods sold	2,942	2,352	8,427	6,429
Research and development	8,233	5,541	23,372	16,179
Selling and marketing	8,075	6,534	23,196	18,960
General and administrative	7,579	8,237	22,825	21,338
Share-based compensation expense included in operating expense	23,887	20,312	69,393	56,477
Share-based compensation expense capitalized in inventory, net	28	(193)	7	64
Total share-based compensation expense	$ 26,857	$ 22,471	$ 77,827	$ 62,970

As of July 30, 2022, total unrecognized share-based compensation expense was approximately $201.3 million, which relates to unvested stock unit awards and is expected to be recognized over a weighted-average period of 1.57 years.

(21) 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, right-of-use ("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 July 30, 2022, equipment, building, furniture and fixtures, net, totaled $281.7 million, and operating ROU assets totaled $45.5 million both of which support asset groups within Ciena's four operating segments and unallocated selling and general and administrative activities. As of July 30, 2022, 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	$ 41,434	$ —	$ 35,484	$ —	$ 76,918
Goodwill	$ 83,738	$ 156,191	$ 89,049	$ —	$ 328,978
Maintenance spares, net	$ —	$ —	$ —	$ 45,853	$ 45,853

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; significant asset impairments and restructuring costs; amortization of intangible assets; acquisition and integration costs; interest and other income (loss), net; interest expense; and provision (benefit) for income taxes.

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

	Quarter Ended		Nine Months Ended	
	July 30 2022	July 31 2021	July 30 2022	July 31 2021
Segment profit (loss):				
Networking Platforms	$ 108,282	$ 244,535	$ 395,176	$ 612,378
Platform Software and Services	39,646	31,526	132,698	95,692
Blue Planet Automation Software and Services	(10,139)	(3,243)	(17,693)	11
Global Services	52,965	55,507	158,808	147,567
Total segment profit	190,754	328,325	668,989	855,648
Less: Non-performance operating expenses				
Selling and marketing	105,880	114,924	344,700	322,589
General and administrative	41,121	48,863	131,191	132,491
Significant asset impairments and restructuring costs	7,692	9,789	20,203	23,865
Amortization of intangible assets	8,919	5,967	26,757	17,896
Acquisition and integration costs	35	259	598	860
Add: Other non-performance financial items				
Interest expense and other income (loss), net	(12,276)	(6,981)	(28,415)	(24,521)
Less: Provision (benefit) for income taxes	4,319	(96,690)	21,868	(63,271)
Net income	$ 10,512	$ 238,232	$ 95,257	$ 396,697

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 United States 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):

	July 30, 2022	October 30, 2021
Canada	$ 238,288	$ 240,968
United States	51,333	50,744
Other International	37,521	37,541
Total	$ 327,142	$ 329,253

(22) COMMITMENTS AND CONTINGENCIES

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.

(23) SUBSEQUENT EVENTS

Stock Repurchase Program

From the end of the third quarter of fiscal 2022 through September 2, 2022, Ciena repurchased an additional 154,247 shares of its common stock, for an aggregate purchase price of $8.0 million at an average price of $51.91 per share, inclusive of repurchases pending settlement. As of September 2, 2022, Ciena has repurchased an aggregate of 8,433,957 shares and has $500.0 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, operational efforts such as expanding manufacturing capacity and accumulating inventory and their expected impacts, 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," "prepare," 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 2021, which we filed with the Securities and Exchange Commission on December 17, 2021 (our "2021 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," "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 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 of our 2021 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 are used globally by communications service providers, cable and multiservice operators, Web-scale providers, submarine network operators, governments, enterprises, research and education institutions and emerging network operators. Our portfolio is designed to enable what we refer to as the Adaptive Network™, our vision for a network end state that emphasizes a programmable and scalable network infrastructure, software control and automation capabilities, network analytics and intelligence, and related advanced services. 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 efficiently and adapt dynamically to changing end-user service demands. To complement our Networking Platforms, we offer Platform Software, which includes a wide array of software solutions that deliver operations, administration, maintenance, and provisioning (OAM&P) functionality, as well as domain control, orchestration, operational support systems (OSS) and service assurance to achieve closed loop automation across multi-vendor and multi-domain network environments. Through our Blue Planet® Software suite, we enable customers to accelerate the digital transformation of their networks through service lifecycle automation.

Demand Environment

Since the second quarter of fiscal 2021, we have experienced unprecedented demand for our products and services. Our quarterly order volumes during this period have significantly exceeded our revenue and historical order volumes, with some concentration of orders among certain existing Webscale and North America-based service provider customers. We believe that we are benefiting from certain shifts in business and consumer behaviors, in part accelerated by the COVID-19 pandemic, that represent positive, long-term trends for our business. These include 5G, enterprise and consumer cloud network adoption, increasing demands on the network edge, and network operator focus on resilience and automation. We believe some portion of these orders also reflects customer acceleration of future orders due to lengthened lead times or the implementation of security of supply strategies to address the supply constraints described below. As a result, our backlog has grown from $2.2 billion at the end of fiscal 2021 to $4.4 billion at the end of the third quarter of fiscal 2022. However, our order growth relative to revenue has begun to moderate from the first half of fiscal 2022 and we expect it to continue to moderate over time; and our backlog should not necessarily be viewed as an accurate indicator of revenue for any particular period. See “Risk Factors” in Item 1A of Part II of this report for further discussion of risks related to the demand environment.

Supply Chain Constraints

In the face of extraordinary demand across a range of industries, global supply for certain raw materials and components, including, in particular, semiconductor, integrated circuits and other electronic components used in most of our products, has experienced substantial constraint and disruption in recent periods. As a result, we have experienced significant component shortages, extended lead times, increased costs, and unexpected cancellation or delay of previously committed supply of key components across our supplier base. Beginning in the second half of fiscal 2021, we started placing significant, advanced orders for supply of certain long lead time components to address our expected customer demand for fiscal 2022 and the then emerging supply chain challenges. Since that time, we have continued to extend the duration of our purchase commitments, or placed non-cancellable, advanced orders with or through suppliers, particularly for long lead time components. As of July 30, 2022 we had $2.1 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory.

During the third quarter of fiscal 2022, reliability of supply improved and the majority of our suppliers were able to deliver components by their promised, though in many cases, extended, lead times. However, we continued to experience substantial delays and lower-than-expected component deliveries from a small group of our suppliers of integrated circuit components that represent a small fraction of our overall materials but are essential for delivering finished products. Ongoing supply constraints and the unpredictable performance of our supply chain are impacting our ability to meet customer demand and our level of revenue and growth in fiscal 2022, in particular for our Converged Packet Optical products. At the same time, increased supply chain costs, including purchase price increases, supply premiums, expediting fees and freight and logistics, have impacted our gross margin and profitability in fiscal 2022. We expect these constrained supply conditions to increase our costs of goods sold in the near term and to adversely impact our ability to continue to reduce the cost to produce our products in a manner consistent with prior periods. We believe these supply chain challenges and their adverse impact on our business, our revenue and our profitability will persist at least through the remainder of fiscal 2022.

To mitigate the impact of these supply conditions on our business and customers, in addition to placing advance orders for inventory, we have been expanding our manufacturing capacity and accumulating components that are in available supply, in some cases with expanded lead times. We believe that this approach positions us to produce finished goods more quickly when supply constraints ease for those components for which delivery continues to be delayed. As a result of this strategy, our inventory has increased from $374.3 million at the end of fiscal 2021 to $826.7 million at the end of the third quarter of fiscal 2022. We have also implemented additional mitigation strategies, including multi-sourcing activities, qualifying alternative parts, and product redesign, and expect, over time, to realize the benefits of these mitigation activities. See "Risk Factors" in Item 1A of Part II of this report for further discussion of risks related to our supply chain and our mitigation activities.

Impact of Global Events on our Business and Operations

COVID-19 Pandemic. The impact of the COVID-19 pandemic and countermeasures taken to contain its spread remain dynamic. We continue to monitor the situation and actively assess further implications for our business, supply chain, fulfillment operations and customer demand. For example, we reopened a significant number of our offices globally during fiscal 2022. We continue to take meaningful precautions in accordance with relevant guidelines to protect the health and safety of our employees. Variants continue to emerge, efforts to mitigate or contain the impacts of the pandemic continue to evolve, and the duration and severity of the impact of the pandemic on our business and results of operations in future periods remain uncertain. If the COVID-19 pandemic or its adverse effects, including the effects of government-mandated lockdowns in several cities in China during fiscal 2022, become more severe or prevalent or are prolonged in the locations where we, our customers, suppliers or manufacturers conduct business, or we experience more pronounced disruptions in our 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. For additional information on the impact of COVID-19 upon our business, operations and financial results, and the steps that we have taken in response, see our 2021 Annual Report.

Russia and Ukraine Conflict. In February 2022, armed conflict escalated between Russia and Ukraine. The United States and certain other countries have imposed sanctions on Russia and could impose further sanctions, which could damage or disrupt international commerce and the global economy. We are complying with a broad range of United States and international sanctions and export control requirements imposed on Russia and, on March 7, 2022, we announced our decision to suspend our business operations in Russia immediately. Due to the limited amount of business that we have conducted in Russia historically, this decision has not materially impacted our results of operations for the third quarter of fiscal 2022 and we do not expect it to materially impact our results of operations going forward. See Note 6 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for more information on the impact of suspending our business operations in Russia.

Strategic and Financial Initiatives

Stock Repurchase Program and Accelerated Share Repurchase Agreement. On December 9, 2021, we announced that our Board of Directors had authorized a program to repurchase up to $1.0 billion of our common stock, which replaced in its entirety our previous stock repurchase program authorized in fiscal 2019. On December 13, 2021, in connection with this repurchase program, we entered into an accelerated share repurchase agreement (the "ASR Agreement") for the repurchase of $250.0 million of our common stock. We made an upfront payment of $250.0 million under the ASR Agreement during the first quarter of fiscal 2022, and the repurchases contemplated by the ASR Agreement were completed on February 15, 2022. During the first nine months of fiscal 2022, we repurchased $242.0 million of our common stock under the stock repurchase program, and we had $508.0 million remaining under the current repurchase authorization as of July 30, 2022. The amount and timing of any further repurchases under our stock purchase program 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. See Notes 19 and 23 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for more information on our stock repurchase program.

For additional information regarding our business, industry, market opportunity, competitive landscape, and strategy, see our 2021 Annual Report.

Consolidated Results of Operations

Operating Segments

Our results of operations are presented based on the following operating segments: (i) Networking Platforms; (ii) Platform Software and Services; (iii) Blue Planet Automation Software and Services; and (iv) Global Services. See Note 3 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Revenue

Currency Fluctuations

Approximately 13.2% and 14.0% of our revenue was non-U.S. Dollar-denominated during the third quarter and first nine months of fiscal 2022, respectively, primarily including sales in Euros, Canadian Dollars and British Pounds. During the third quarter of fiscal 2022, as compared to the third quarter of fiscal 2021, and during the first nine months of fiscal 2022, as compared to the first nine months of fiscal 2021, the U.S. Dollar primarily strengthened against these currencies. Consequently, our revenue for the third quarter and first nine months of fiscal 2022 reported in U.S. Dollars was adversely impacted by approximately $10.8 million, or 1.3%, and $19.3 million, or 0.7%, 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			Nine Months Ended		
	July 30, 2022	July 31, 2021	%*	July 30, 2022	July 31, 2021	%*
Revenue:						
Networking Platforms						
Converged Packet Optical	$ 563,837	$ 712,906	*(20.9)%*	$ 1,730,066	$ 1,798,888	*(3.8)%*
%**	*65.0 %*	*72.1 %*		*65.0 %*	*69.7 %*	
Routing and Switching	100,741	69,698	*44.5 %*	295,638	197,632	*49.6 %*
%**	*11.6 %*	*7.1 %*		*11.1 %*	*7.7 %*	
Total Networking Platforms	664,578	782,604	*(15.1)%*	2,025,704	1,996,520	*1.5 %*
%**	*76.6 %*	*79.2 %*		*76.1 %*	*77.4 %*	
Platform Software and Services	63,483	56,945	*11.5 %*	205,557	163,472	*25.7 %*
%**	*7.3 %*	*5.8 %*		*7.7 %*	*6.4 %*	
Blue Planet Automation Software and Services	17,342	16,607	*4.4 %*	55,334	57,499	*(3.8)%*
%**	*2.0 %*	*1.7 %*		*2.1 %*	*2.2 %*	
Global Services						
Maintenance Support and Training	72,760	74,006	*(1.7)%*	219,270	212,054	*3.4 %*
%**	*8.4 %*	*7.5 %*		*8.3 %*	*8.2 %*	
Installation and Deployment	38,704	46,653	*(17.0)%*	120,504	124,263	*(3.0)%*
%**	*4.4 %*	*4.7 %*		*4.5 %*	*4.8 %*	
Consulting and Network Design	11,114	11,326	*(1.9)%*	35,282	25,390	*39.0 %*
%**	*1.3 %*	*1.1 %*		*1.3 %*	*1.0 %*	
Total Global Services	122,578	131,985	*(7.1)%*	375,056	361,707	*3.7 %*
%**	*14.1 %*	*13.3 %*		*14.1 %*	*14.0 %*	
Total revenue	$ 867,981	$ 988,141	*(12.2)%*	$ 2,661,651	$ 2,579,198	*3.2 %*

* Denotes % change from fiscal 2021 to fiscal 2022
** Denotes % of total revenue

Quarter ended July 30, 2022 as compared to the quarter ended July 31, 2021

- **Networking Platforms segment revenue** decreased by $118.0 million, reflecting product line sales decreases of $149.1 million of our Converged Packet Optical products, partially offset by product line sales increases of $31.0 million of our Routing and Switching products.
    - Converged Packet Optical sales decreased, primarily reflecting sales decreases of $151.8 million of our 6500 Packet-Optical Platform, primarily to communication service providers and Web-scale providers, and $11.0 million of our 5400 family of Packet-Optical Platforms, primarily to communication service providers. These sales decreases were partially offset by a sales increase of $29.4 million of our 6500 Reconfigurable Line System (RLS) products, primarily to Web-scale providers and communication service providers.
    - Routing and Switching sales increased, primarily reflecting sales of $24.1 million of our Virtualization Edge software, which was acquired in the acquisition of the Vyatta Software Technology ("Vyatta") and its virtual routing and switching technology in the first quarter of fiscal 2022, and a sales increase of $13.2 million of our 3000 and 5000 families of service delivery and aggregation switches to communication service providers. The increase in Routing and Switching sales was partially offset by a sales decrease of $5.8 million of our 8700 Packetwave Platform, primarily to communication service providers.
- **Platform Software and Services segment revenue** increased by $6.5 million, reflecting sales increases of $8.7 million in software services, primarily to communication service providers, offset by a sales decrease of $2.2 million in sales of software platforms.
- **Blue Planet Automation Software and Services segment revenue** remained relatively unchanged.
- **Global Services segment revenue** decreased by $9.4 million, primarily reflecting sales decreases of $7.9 million of our installation and deployment services and $1.2 million of our maintenance support and training services.

Nine months ended July 30, 2022 as compared to the nine months ended July 31, 2021

- **Networking Platforms segment revenue** increased by $29.2 million, reflecting product line sales increases of $98.0 million of our Routing and Switching products, offset by product line sales decreases of $68.8 million of our Converged Packet Optical products.
    - Converged Packet Optical sales decreased, primarily reflecting sales decreases of $95.3 million of our 6500 Packet-Optical Platform, primarily to communication service providers and Web-scale providers, $20.0 million of our 5400 family of Packet-Optical Platforms and $17.7 million of our Z-Series Packet-Optical Platform, both primarily to communication service providers. These sales decreases were partially offset by a sales increase of $70.7 million of our 6500 Reconfigurable Line System (RLS) products, primarily to Web-scale providers and communication service providers.
    - Routing and Switching sales increased, primarily reflecting sales of $61.8 million of our Virtualization Edge software, and a sales increase of $49.8 million of our 3000 and 5000 families of service delivery and aggregation switches to communication service providers. The increase in Routing and Switching sales was partially offset by a sales decrease of $14.7 million of our 8700 Packetwave Platform, primarily to communication service providers.
- **Platform Software and Services segment revenue** increased by $42.1 million, reflecting increases of $29.2 million in software services and $12.9 million in sales of software platforms. The increase in our software services was primarily due to increased sales of subscription services. The software sales increase was primarily due to increased sales of our MCP software platform.
- **Blue Planet Automation Software and Services segment revenue** decreased by $2.2 million, reflecting a decrease of $4.5 million in sales of automation software platforms due to extended project completion timeframes, offset by a sales increase of $2.4 million in software-related services.
- **Global Services segment revenue** increased by $13.3 million, primarily reflecting sales increases of $9.9 million of our consulting and network design services and $7.2 million of our maintenance support and training, partially offset by a sales decrease of $3.8 million of our installation and deployment services.

Revenue by Geographic Region

Our operating segments engage in business and operations across three geographic regions: Americas; Europe, Middle East and Africa ("EMEA"); and Asia Pacific, Japan and India ("APAC"). The geographic distribution of our revenue can fluctuate significantly from period to period, 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 decrease in our Americas region revenue for the quarter ended July 30, 2022 was primarily driven by decreased sales in the United States and Canada.

The increase in our Americas region revenue for the nine months ended July 30, 2022 was primarily driven by increased sales in the United States, partially offset by decreased sales in Brazil. The increase in our APAC region revenue for the quarter ended July 30, 2022 was primarily driven by increased sales in India and Australia. The increase in our APAC region revenue for the nine months ended July 30, 2022 was primarily driven by increased sales in Australia and Singapore. The decrease in our EMEA region revenue for the quarter ended July 30, 2022 was primarily driven by decreased sales in the Netherlands and France. The decrease in our EMEA region revenue for the nine months ended July 30, 2022 was primarily driven by decreased sales in the Netherlands, France, Russia and Germany. Our Russia operations were suspended in March 2022.

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			Nine Months Ended		
		July 30, 2022	July 31, 2021	%*	July 30, 2022	July 31, 2021	%*
Americas		$ 617,366	$ 692,853	*(10.9)%*	$ 1,913,350	$ 1,776,939	*7.7 %*
	%**	*71.1 %*	*70.1 %*		*71.9 %*	*68.9 %*	
EMEA		124,185	189,180	*(34.4)%*	420,075	499,652	*(15.9)%*
	%**	*14.3 %*	*19.2 %*		*15.8 %*	*19.4 %*	
APAC		126,430	106,108	*19.2 %*	328,226	302,607	*8.5 %*
	%**	*14.6 %*	*10.7 %*		*12.3 %*	*11.7 %*	
Total		$ 867,981	$ 988,141	*(12.2)%*	$ 2,661,651	$ 2,579,198	*3.2 %*

* Denotes % change from fiscal 2021 to fiscal 2022
** Denotes % of total revenue

Quarter ended July 30, 2022 as compared to the quarter ended July 31, 2021

- **Americas revenue** decreased by $75.5 million, reflecting sales decreases of $80.5 million within our Networking Platforms segment and $1.8 million within our Global Services segment. These sale decreases were offset by sales increases of $5.2 million within our Platform Software and Services segment and $1.5 million within our Blue Planet Automation Software and Services segment. The decrease within our Networking Platforms segment reflects product line sales decreases of $111.8 million of our Converged Packet Optical products, partially offset by sales increases of $31.3 million of our Routing and Switching products. The decrease within our Converged Packet Optical product line was primarily related to a sales decrease of $129.2 million of our 6500 Packet-Optical Platform, primarily to communication service providers and Web-Scale providers. This sales decrease was partially offset by a sales increase of $18.0 million of our Waveserver® products primarily to communication service providers. Routing and Switching product line sales reflect $24.1 million of our Virtualization Edge software and a sales increase of $12.9 million of our 3000 and 5000 families of service delivery and aggregation switches, primarily to communication service providers.
- **EMEA revenue** decreased by $65.0 million, primarily reflecting sales decreases of $57.1 million within our Networking Platforms segment, $6.5 million within our Global Services segment and $1.7 million within our Blue Planet Automation Software and Services segment. The decrease within our Networking Platforms segment primarily reflects product line sales decreases of $56.7 million of our Converged Packet Optical products, primarily related to a sales decrease of $35.9 million of our 6500 Packet-Optical Platform, primarily to communication service providers and Web-Scale providers and $20.5 million of our Waveserver® products primarily to Web-scale providers. Sales decreased by $2.2 million from customers in Russia.
- **APAC revenue** increased by $20.3 million, primarily reflecting sales increases of $19.5 million within our Networking Platforms segment and $1.1 million within our Platform Software and Services segment, partially offset by a sales decrease of $1.2 within our Global Services segment. The increase within our Networking Platforms segment primarily reflects product line sales increases of $19.4 million of Converged Packet Optical products, primarily reflecting sales increases of $13.2 million of our 6500 Packet-Optical Platform, primarily to customers in India.

Nine months ended July 30, 2022 as compared to the nine months ended July 31, 2021

- **Americas revenue** increased by $136.4 million, reflecting sales increases of $80.4 million within our Networking Platforms segment, $31.9 million within our Platform Software and Services segment, $19.6 million within our Global Services segment, and $4.5 million within our Blue Planet Automation Software and Services segment. Our

Networking Platforms segment revenue increase reflects product line sales increases of $102.2 million of Routing and Switching products, partially offset by product line sales decreases of $21.8 million of Converged Packet Optical products. Routing and Switching product line sales reflect $61.8 million of our Virtualization Edge software, and a sales increase of $51.0 million of our 3000 and 5000 families of service delivery and aggregation switches, primarily to communication service providers. Our Converged Packet Optical revenue decrease primarily reflects sales decreases of $77.2 million of our 6500 Packet-Optical Platform, $17.6 million of our 5400 family of Packet-Optical Platforms and $16.5 million of our Z-Series Packet-Optical Platform, primarily to communication service providers. These sales decreases were partially offset by sales increases of $48.7 million of our Waveserver® products, primarily to communication service providers, and $40.0 million of our 6500 Reconfigurable Line System (RLS) products, primarily to Web-Scale providers.

- **EMEA revenue** decreased by $79.6 million, reflecting sales decreases of $70.7 million within our Networking Platforms segment, $9.4 million within our Global Services segment and $5.8 million within our Blue Planet Automation Software and Services segment. These sales decreases were offset by a sales increase of $6.3 million within our Platform Software and Services segment. Our Networking Platforms segment revenue decrease primarily reflects product line sales decreases of $72.4 million of Converged Packet Optical products, primarily reflecting sales decreases of $49.0 million of our Waveserver® products primarily to Web-scale providers and $37.4 million of our 6500 Packet-Optical Platform, primarily to communication service providers and Web-scale providers. Sales decreased by $8.9 million from customers in Russia.
- **APAC revenue** increased by $25.6 million, primarily reflecting sales increases of $19.5 million within our Networking Platforms segment, $3.9 million within our Platform Software and Services segment and $3.1 million within our Global Services segment. Our Networking Platforms segment revenue increase reflects product line sales increases of $25.4 million of Converged Packet Optical products, primarily reflecting sales increases of $19.2 million of our 6500 Packet-Optical Platform, primarily to enterprise and government customers.

Cost of Goods Sold and Gross Profit

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. The component elements that comprise our product cost of goods sold and services costs of goods sold, and certain factors that can cause gross margin to fluctuate, are described in detail in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors” sections of our 2021 Annual Report.

Canada Emergency Wage Subsidy (“CEWS”) benefits, recorded in the particular line item within cost of goods sold in our Condensed Consolidated Statement of Operations to which the grant activity relates, were $7.0 million in the first nine months of fiscal 2021, net of certain fees. The CEWS program expired in fiscal 2021. For further information relating to our receipt of amounts under the CEWS program, see Note 5 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			Nine Months Ended		
	July 30, 2022	July 31, 2021	%*	July 30, 2022	July 31, 2021	%*
Total revenue	$ 867,981	$ 988,141	(12.2)%	$ 2,661,651	$ 2,579,198	3.2 %
Total cost of goods sold	527,202	513,591	2.7 %	1,534,904	1,334,338	15.0 %
Gross profit	$ 340,779	$ 474,550	(28.2)%	$ 1,126,747	$ 1,244,860	(9.5)%
%**	39.3 %	48.0 %		42.3 %	48.3 %	

* Denotes % change from fiscal 2021 to fiscal 2022
** Denotes % of total revenue

	Quarter Ended		%*	Nine Months Ended		%*
	July 30, 2022	July 31, 2021		July 30, 2022	July 31, 2021	
Product revenue	$ 684,284	$ 804,414	(14.9)%	$ 2,109,239	$ 2,071,677	1.8 %
Product cost of goods sold	434,756	420,236	3.5 %	1,259,378	1,074,935	17.2 %
Product gross profit	$ 249,528	$ 384,178	(35.0)%	$ 849,861	$ 996,742	(14.7)%
%**	36.5 %	47.8 %		40.3 %	48.1 %	

* Denotes % change from fiscal 2021 to fiscal 2022
** Denotes % of product revenue

	Quarter Ended		%*	Nine Months Ended		%*
	July 30, 2022	July 31, 2021		July 30, 2022	July 31, 2021	
Services revenue	$ 183,697	$ 183,727	— %	$ 552,412	$ 507,521	8.8 %
Services cost of goods sold	92,446	93,355	(1.0)%	275,526	259,403	6.2 %
Services gross profit	$ 91,251	$ 90,372	1.0 %	$ 276,886	$ 248,118	11.6 %
% **	49.7 %	49.2 %		50.1 %	48.9 %	

* Denotes % change from fiscal 2021 to fiscal 2022
** Denotes % of services revenue

Quarter ended July 30, 2022 as compared to the quarter ended July 31, 2021

- **Gross profit** decreased by $133.8 million. Gross margin decreased by 870 basis points, primarily due to increased costs of components resulting from global supply chain shortages and a higher concentration of lower margin product mix, partially offset by a larger percentage of higher margin services revenue. As described in “Overview” above, we expect the current constrained supply environment, including the current market shortage for semiconductor components, to increase our costs of goods sold and to adversely impact our gross margin during fiscal 2022. We believe that these supply chain challenges and their adverse impact on our business and financial results will persist at least through the remainder of fiscal 2022.
- **Gross profit on products** decreased by $134.7 million. Product gross margin decreased by 1,130 basis points, primarily due to the increased costs of components resulting from global supply chain shortages and a higher concentration of lower margin product mix. The lower margin product mix during the third quarter of fiscal 2022 was due to substantial delays or lower-than-expected deliveries of components from a small group of our suppliers which impacted our ability to manufacture and deliver optical modems included in our higher margin channel cards.
- **Gross profit on services** remained relatively unchanged.

Nine months ended July 30, 2022 as compared to the nine months ended July 31, 2021

- **Gross profit** decreased by $118.1 million. Gross margin decreased by 600 basis points, primarily due to increased costs of components resulting from global supply chain shortages and a higher concentration of lower margin product mix, partially offset by a larger percentage of higher margin services revenue.
- **Gross profit on products** decreased by $146.9 million. Product gross margin decreased by 780 basis points, primarily due to increased costs of components resulting from global supply chain shortages and a higher concentration of lower margin product mix.
- **Gross profit on services** increased by $28.8 million. Services gross margin increased by 120 basis points, primarily due to higher revenues with relatively lower incremental costs on all services.

Operating Expense

Currency Fluctuations

Approximately 51.0% of our operating expense was non-U.S. Dollar-denominated during the third quarter and first nine months of fiscal 2022, including expenses in Canadian Dollars, Indian Rupees, and Euros. During the third quarter of fiscal 2022, as compared to the third quarter of fiscal 2021, and the first nine months of fiscal 2022, as compared to the first nine months of fiscal 2021, the U.S. Dollar primarily strengthened against these currencies. Consequently, our operating expense, net of hedging, reported in U.S. Dollars slightly decreased by approximately $9.3 million, or 3.0%, and $14.7 million, or 1.5%, respectively.

CEWS Program Benefits

In the first nine months of fiscal 2021, we recorded CEWS benefits of $34.3 million, net of certain fees, related to the particular line item within operating expense in our Condensed Consolidated Statement of Operations to which the grant activity related. The CEWS program expired in fiscal 2021. For further information relating to our receipt of amounts under the CEWS program, see Note 5 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 2021 Annual Report. The table below sets forth the changes in operating expense for the periods indicated (in thousands, except percentage data):

	Quarter Ended		%*	Nine Months Ended		%*
	July 30, 2022	July 31, 2021		July 30, 2022	July 31, 2021	
Research and development	$ 150,025	$ 146,225	2.6 %	$ 457,758	$ 389,212	17.6 %
%**	17.3 %	14.8 %		17.2 %	15.1 %	
Selling and marketing	105,880	114,924	(7.9)%	344,700	322,589	6.9 %
%**	12.2 %	11.6 %		13.0 %	12.5 %	
General and administrative	41,121	48,863	(15.8)%	131,191	132,491	(1.0)%
%**	4.7 %	4.9 %		4.9 %	5.1 %	
Significant asset impairments and restructuring costs	7,692	9,789	(21.4)%	20,203	23,865	(15.3)%
%**	0.9 %	1.0 %		0.8 %	0.9 %	
Amortization of intangible assets	8,919	5,967	49.5 %	26,757	17,896	49.5 %
%**	1.0 %	0.6 %		1.0 %	0.7 %	
Acquisition and integration costs	35	259	(86.5)%	598	860	(30.5)%
%**	— %	— %		— %	— %	
Total operating expenses	$ 313,672	$ 326,027	(3.8)%	$ 981,207	$ 886,913	10.6 %
%**	36.1 %	33.0 %		36.9 %	34.4 %	

* Denotes % change from fiscal 2021 to fiscal 2022
** Denotes % of total revenue

Quarter ended July 30, 2022 as compared to the quarter ended July 31, 2021

- **Research and development expense** benefited from $5.6 million as a result of foreign exchange rates, net of hedging, primarily due to a stronger U.S. Dollar in relation to the Canadian Dollar and Indian Rupee. Including the effect of foreign exchange rates, net of hedging, research and development expenses increased by $3.8 million. This increase primarily reflects increases in professional services and prototype expense, partially offset by a decrease in employee-related compensation costs primarily related to lower costs associated with our annual cash incentive compensation plan. This increase also reflects the effect of a $2.3 million decrease in benefit from the Evolution of Networking Services through a Corridor in Quebec and Ontario for Research and Innovation ("ENCQOR") project grant reimbursement program.
- **Selling and marketing expense** benefited from $2.9 million as a result of foreign exchange rates, primarily due to a stronger U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, sales and marketing expense decreased by $9.0 million. This decrease primarily reflects a decrease in employee-related compensation costs related to sales commissions and lower costs associated with our annual cash incentive compensation plan, partially offset by an increase in travel and entertainment costs.
- **General and administrative expense** benefited from $0.8 million as a result of foreign exchange rates, primarily due to a stronger U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, general and administrative expense decreased by $7.7 million. This decrease primarily reflects a decrease in employee-related

compensation costs primarily related to lower costs associated with our annual cash incentive compensation plan, partially offset by increased professional services expense.

- **Significant asset impairments and restructuring costs** decreased by $2.1 million, reflecting reduced costs associated with actions that we have taken to redesign certain business processes and align our global workforce and facilities as part of a business optimization strategy to improve gross margin and constrain operating expense.
- **Amortization of intangible assets** increased by $3.0 million due to additional intangibles acquired in connection with our acquisition of Vyatta during the first quarter of fiscal 2022 and our acquisition of Xelic, Inc. ("Xelic") in the second quarter of fiscal 2022.
- **Acquisition and integration costs** remained relatively unchanged.

Nine months ended July 30, 2022 as compared to the nine months ended July 31, 2021

- **Research and development expense** benefited from $7.9 million as a result of foreign exchange rates, net of hedging, primarily due to a stronger U.S. Dollar in relation to the Canadian Dollar and Indian Rupee. Including the effect of foreign exchange rates, net of hedging, research and development expenses increased by $68.5 million. This increase primarily reflects the effect of a $29.5 million benefit received from the now-expired CEWS program recorded in the first nine months of fiscal 2021 and increases in employee headcount and related compensation costs, professional services, facilities and information technology costs and prototype expense, partially offset by lower costs associated with our annual cash incentive compensation plan.
- **Selling and marketing expense** benefited from $5.5 million as a result of foreign exchange rates, primarily due to a stronger U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, sales and marketing expense increased by $22.1 million. This increase primarily reflects an increase in employee headcount and compensation costs related to sales commission, travel and entertainment costs and the effect of a $2.6 million benefit received from the now-expired CEWS program recorded in the first nine months of fiscal 2021, partially offset by lower costs associated with our annual cash incentive compensation plan.
- **General and administrative expense** benefited from $1.4 million as a result of foreign exchange rates, primarily due to a stronger U.S. Dollar in relation to the Euro. Including the effect of foreign exchange rates, general and administrative expense decreased by $1.3 million. This decrease primarily reflects decreases in employee-related compensation costs primarily related to lower costs associated with our annual cash incentive compensation plan and legal fees, offset by increased professional services.
- **Significant asset impairments and restructuring costs** decreased by $3.7 million, reflecting reduced costs associated with actions that we have taken to redesign certain business processes and align our global workforce and facilities as part of a business optimization strategy to improve gross margin and constrain operating expense, partially offset by a $4.1 million impairment charge due to our suspended operations in Russia.
- **Amortization of intangible assets** increased by $8.9 million due to additional intangibles acquired in connection with our acquisition of Vyatta during the first quarter of fiscal 2022 and our acquisition of Xelic during the second quarter of fiscal 2022.
- **Acquisition and integration costs** remained relatively unchanged.

Other Items

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

	Quarter Ended			Nine Months Ended		
	July 30, 2022	July 31, 2021	%*	July 30, 2022	July 31, 2021	%*
Interest and other income (loss), net	$ 366	$ 795	*54.0 %*	$ 4,860	$ (1,600)	*403.8 %*
%**	*— %*	*0.1 %*		*0.2 %*	*(0.1)%*	
Interest expense	$ 12,642	$ 7,776	*62.6 %*	$ 33,275	$ 22,921	*45.2 %*
%**	*1.5 %*	*0.8 %*		*1.3 %*	*0.9 %*	
Provision (benefit) for income taxes	$ 4,319	$ (96,690)	*(104.5)%*	$ 21,868	$ (63,271)	*(134.6)%*
%**	*0.5 %*	*(9.8)%*		*0.8 %*	*(2.5)%*	

* Denotes % change from fiscal 2021 to fiscal 2022

** Denotes % of total revenue

Quarter ended July 30, 2022 as compared to the quarter ended July 31, 2021

- **Interest and other income (loss), net** primarily reflects the impact of foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity, partially offset by higher interest income.
- **Interest expense** increased primarily due to additional outstanding indebtedness, including our 4.00% senior notes due 2030 (the “2030 Notes”) issued in the first quarter of fiscal 2022.
- **Provision (benefit) for income taxes** increased by $101.0 million due to the tax benefit associated with recording a deferred tax asset in the third quarter of fiscal 2021.The effective tax rate for the third quarter of fiscal 2022 was higher than the effective tax rate for the third quarter of fiscal 2021, primarily due to the tax benefit associated with recording a deferred tax asset in the third quarter of fiscal 2021.

Nine months ended July 30, 2022 as compared to the nine months ended July 31, 2021

- **Interest and other income (loss), net** primarily reflects a favorable adjustment to the carrying value of a cost method equity investment, the impact of foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity and higher interest income.
- **Interest expense** increased primarily due to additional outstanding indebtedness, including the 2030 Notes.
- **Provision (benefit) for income taxes** increased by $85.1 million due to the tax benefit associated with recording a deferred tax asset in fiscal 2021. The effective tax rate for the first nine months of fiscal 2022 was higher than the effective tax rate for the first nine months of fiscal 2021, primarily due to the tax benefit associated with recording a deferred tax asset in fiscal 2021.

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			Nine Months Ended		
	July 30, 2022	July 31, 2021	%*	July 30, 2022	July 31, 2021	%*
Segment profit (loss):						
Networking Platforms	$ 108,282	$ 244,535	*(55.7)%*	$ 395,176	$ 612,378	*(35.5)%*
Platform Software and Services	$ 39,646	$ 31,526	*25.8 %*	$ 132,698	$ 95,692	*38.7 %*
Blue Planet Automation Software and Services	$ (10,139)	$ (3,243)	*212.6 %*	$ (17,693)	$ 11	*n/a*
Global Services	$ 52,965	$ 55,507	*(4.6)%*	$ 158,808	$ 147,567	*7.6 %*

* Denotes % change from fiscal 2021 to fiscal 2022

Segment profit (loss) includes CEWS benefits of $36.5 million in the first nine months of fiscal 2021, net of certain fees. For further discussion of benefits from the CEWS program, see Note 5 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Quarter ended July 30, 2022 as compared to the quarter ended July 31, 2021

- **Networking Platforms segment profit** decreased by $136.3 million, primarily due to lower sales volume and lower gross margin as described above, and higher research and development costs.
- **Platform Software and Services segment profit** increased by $8.1 million, primarily due to higher sales volume as described above.
- **Blue Planet Automation Software and Services segment** reflects lower gross margin on software-related services and higher research and development costs, partially offset by slightly higher sales volume.

- **Global Services segment profit** decreased by $2.5 million, primarily due to lower sales volume, offset by higher gross margin on services as described above.

Nine months ended July 30, 2022 as compared to the nine *months ended July 31, 2021*

- **Networking Platforms segment profit** decreased by $217.2 million, primarily due to lower gross margin as described above, and higher research and development costs, including the effect of a $30.4 million benefit received from the now-expired CEWS program in the first nine months of fiscal 2021, partially offset by higher sales volume.
- **Platform Software and Services segment profit** increased by $37.0 million, primarily due to higher sales volume as described above.
- **Blue Planet Automation Software and Services segment** reflects lower software sales volume, reduced gross margin on software-related services, and higher research and development costs including the effect of a $1.2 million benefit received from the now-expired CEWS program in the first nine months of fiscal 2021.
- **Global Services segment profit** increased by $11.2 million, primarily due to higher sales volume and higher gross margin as described above, partially offset by the effect of a $2.3 million benefit received from the now-expired CEWS program in the first nine months of fiscal 2021.

Liquidity and Capital Resources

Overview. For the nine months ended July 30, 2022, we used $153.2 million of cash in operating activities as our working capital requirements of $435.3 million exceeded our net income (adjusted for non-cash charges) of $282.1 million. For additional details, see "Cash Used In Operating Activities" below.

Cash, cash equivalents and investments decreased by $414.8 million during the first nine months of fiscal 2022. In addition to the cash used in operations, the decrease in cash also included the following items: (i) cash used to fund our investing activities for capital expenditures totaling $66.9 million; (ii) cash used for acquisition of businesses of $62.0 million; (iii) cash used for stock repurchases under our stock repurchase program of $487.8 million; (iv) stock repurchases on vesting of our stock unit awards to employees relating to tax withholding of $41.3 million; (v) purchase of a cost method equity investment of $8.0 million; and (vi) net decreases due to the impact of exchange rate changes on cash and cash equivalents of $12.8 million. Proceeds from the issuance of the 2030 Notes provided $394.9 million in cash, net of paid debt issuance costs, and proceeds from the issuance of equity under our employee stock purchase plan provided $30.2 million in cash during the nine months ended July 30, 2022.

See Notes 4, 16 and 19 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for additional information on these transactions.

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

	July 30, 2022	October 30, 2021	Increase (decrease)
Cash and cash equivalents	$ 859,687	$ 1,422,546	$ (562,859)
Short-term investments in marketable debt securities	321,823	181,483	140,340
Long-term investments in marketable debt securities	77,723	70,038	7,685
Total cash and cash equivalents and investments in marketable debt securities	$ 1,259,233	$ 1,674,067	$ (414,834)

Principal Sources of Liquidity. Our principal sources of liquidity on hand include our cash, cash equivalents and investments, which, as of July 30, 2022 totaled $1.3 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 July 30, 2022, letters of credit totaling $84.3 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of July 30, 2022.

Foreign Liquidity. Cash, cash equivalents, and short-term investments held by our foreign subsidiaries was $324.8 million as of July 30, 2022. We intend to reinvest indefinitely our foreign earnings. If we were to repatriate the accumulated historical foreign earnings, the provisional amount of unrecognized deferred income tax liability related to foreign withholding taxes would be approximately $33.0 million.

Stock Repurchase Authorization. On December 9, 2021, we announced that our Board of Directors authorized a program to repurchase up to $1.0 billion of our common stock, which replaced in its entirety the previous stock repurchase program authorized in fiscal 2019. On December 13, 2021, in connection with this repurchase program, we entered into an accelerated share repurchase agreement for the repurchase of $250.0 million of our common stock. We made an upfront payment of $250.0 million under the ASR Agreement during the first quarter of fiscal 2022, and the repurchases contemplated by the ASR Agreement were completed on February 15, 2022. During the first nine months of fiscal 2022, we repurchased an additional $242.0 million of our common stock under the stock repurchase program, and we had $508.0 million remaining under the current repurchase authorization as of July 30, 2022. The amount and timing of any further repurchases under our stock repurchase program 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. See Note 19 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

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 currently anticipated working capital needs, capital expenditures, and other liquidity requirements associated with our operations through the next 12 months and the reasonably foreseeable future. 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 Used In Operating Activities

The following sections set forth the components of our $153.2 million of cash used in operating activities during the first nine months of fiscal 2022:

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):

	Nine Months Ended July 30, 2022
Net income	$ 95,257
Adjustments for non-cash charges:	
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	68,280
Share-based compensation expenses	77,827
Amortization of intangible assets	36,521
Deferred taxes	(19,824)
Provision for inventory excess and obsolescence	12,038
Provision for warranty	12,416
Other	(442)
Net income (adjusted for non-cash charges)	$ 282,073

Working Capital

We used $435.3 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):

		Nine Months Ended July 30, 2022
Cash provided by accounts receivable	$	74,478
Cash used in inventories		(464,664)
Cash used in prepaid expenses and other		(39,805)
Cash used in accounts payable, accruals and other obligations		(37,587)
Cash provided by deferred revenue		34,949
Cash used in operating lease assets and liabilities, net		(2,693)
Total cash used for working capital	$	(435,322)

As compared to the end of fiscal 2021:

- The $74.5 million of cash provided by accounts receivable during the first nine months of fiscal 2022 reflects increased cash collections;
- The $464.7 million of cash used in inventories during the first nine months of fiscal 2022 primarily reflects increases in raw materials inventory related to the steps that we are taking to mitigate the impact of current supply chain constraints and the global market shortage of semiconductor parts described in "Overview" above;
- The $39.8 million of cash used in prepaid expense and other during the first nine months of fiscal 2022 primarily reflects increases in contract assets and product demonstration equipment, partially offset by decreases in prepaid foreign currency forward contracts;
- The $37.6 million of cash used in accounts payable, accruals and other obligations during the first nine months of fiscal 2022 primarily reflects the payment to employees under our annual cash incentive compensation plans, partially offset by the timing of payments for inventory purchases;
- The $34.9 million of cash provided by deferred revenue during the first nine months of fiscal 2022 represents an increase in advanced payments received from customers prior to revenue recognition; and
- The $2.7 million of cash used in operating lease assets and liabilities, net, during the first nine months of fiscal 2022 represents cash paid for operating lease payments in excess of operating lease costs.

Our days sales outstanding ("DSOs") decreased from 102 for first nine months of fiscal 2021 to 97 for the first nine months of fiscal 2022. The calculation of DSOs includes accounts receivables, net and contract assets for unbilled receivables, net included in prepaid expenses and other. Our inventory turns decreased from 3.9 for the first nine months of fiscal 2021 to 2.0 for the first nine months of fiscal 2022 due to the increases in inventory as described in "Overview" above.

Cash Paid for Interest

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

		Nine Months Ended July 30, 2022
Term Loan due September 28, 2025 (the "2025 Term Loan")(1)	$	13,079
Senior Notes due January 31, 2030(2)		—
Interest rate swaps(3)		6,441
ABL Credit Facility(4)		1,791
Finance leases		3,512
Cash paid during period	$	24,823

(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 third quarter of fiscal 2022, the interest rate on the 2025 Term Loan was 3.88%.

(2) The 2030 Notes bear interest at a rate of 4.00% per annum and mature on January 31, 2030. Interest is payable on the 2030 Notes in arrears on January 31 and July 31 of each year, commencing on July 31, 2022. See Note 16 to our Condensed Consolidated Financial Statements in Item 1 of Part I of this report.

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

[4] During the first nine months of fiscal 2022, we utilized the ABL Credit Facility to collateralize certain standby letters of credit and paid $1.8 million in commitment fees, interest expense and other administrative charges relating to the ABL Credit Facility.

Contractual Obligations

Our contractual obligations have not changed materially since October 30, 2021, except for the items listed below. For a summary of our contractual obligations, see Item 7 of Part II of the 2021 Annual Report.

Debt. As of July 30, 2022, we had $400.0 million outstanding principal associated with the 2030 Notes payable January 31, 2030. Future interest payments associated with the 2030 Notes total $128.6 million, with $16.6 million payable within 12 months. For additional information about the 2030 Notes, see Note 16 to our Condensed Consolidated Financial Statements included in Item I of Part I of this report.

Purchase Order Obligations. Beginning in the second half of fiscal 2021, we started placing significant advanced orders for supply of certain long lead time components to address our expected strong customer demand for fiscal 2022 and the then-emerging supply chain challenges. As of July 30, 2022, we had $2.1 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory.

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 the armed conflict between Russia and Ukraine, and expectations as to their impacts 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.

Our critical accounting policies and estimates have not changed materially since October 30, 2021. 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 2021 Annual Report.

Effects of Recent Accounting Pronouncements

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

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. For a discussion of quantitative and qualitative disclosures about market risk, see Item 7A of Part II of our 2021 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 have been primarily 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 22 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 2021 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 2021 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 2021 Annual Report.

Challenges relating to current supply chain constraints, including with respect to semiconductors and integrated circuits, could adversely impact our revenue, gross margins and financial results.

In the face of extraordinary demand across a range of industries, the global supply market for certain raw materials and components, including, in particular, semiconductor, integrated circuits and other electronic components used in most of our products, has experienced significant constraint and disruption in recent periods. This constrained supply environment has adversely affected, and could further affect, component availability, lead times and cost, and could increase the likelihood of unexpected cancellations or delays of previously committed supply of key components. During the third quarter of fiscal 2022, we continued to experience substantial delays and lower-than-expected component deliveries from a small group of our suppliers of integrated circuit components that are essential for delivering finished products. In an effort to mitigate these risks, we have incurred higher costs to secure available inventory, extended our purchase commitments and placed non-cancellable, advanced orders with or through suppliers, particularly for long lead time components. Our efforts to expand our manufacturing capacity and multi-source and pre-order components and finished goods inventory may fail to reduce the impact of these adverse supply chain conditions on our customers.

Despite our mitigation efforts, constrained supply conditions have and are expected to continue to adversely impact our revenue, results of operations and our ability to meet customer demand in fiscal 2022. For example, revenue for the first nine months of fiscal 2022 was adversely impacted by a range of disruptions in our supply chain, including later-than-expected deliveries, lower-than-expected component deliveries, extension of component delivery timelines into future periods, and third-party manufacturing disruptions that took production offline for periods of time. At the same time, increased costs associated with supply premiums, expediting fees and freight and logistics have impacted and can be expected to continue to adversely impact our gross margin, profitability and ability to reduce the cost to produce our products in a manner consistent with prior periods. The COVID-19 pandemic has also contributed to and exacerbated this strain, and there can be no assurance that the impacts of the pandemic on our supply chain will not continue, or worsen, in the future. The current supply chain challenges could also impact customer satisfaction or future business opportunities with customers, and result in increased use of cash, engineering design changes, and delays in new product introductions, each of which could adversely impact our business and financial results. We believe these supply chain challenges and their adverse impact on our business, our revenue and our profitability will persist at least through the remainder of fiscal 2022.

Accurately matching necessary inventory levels to customer demand within the current environment is challenging, and we may incur additional costs or be required to write off significant inventory that would adversely impact our results of operations.

Since the second quarter of fiscal 2021, we have experienced unprecedented demand for our products and services. Matching necessary inventory to fulfill that demand within the current supply constrained environment is challenging. We have and continue to take a number of steps to mitigate the current supply chain challenges, including extending our purchase commitments and placing non-cancellable, advanced orders with or through suppliers, particularly for long lead time components. As of July 30, 2022 we had $2.1 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory. We have also been expanding our manufacturing capacity and have been accumulating raw materials inventory of components that are available, in some cases with expanded lead times, in an effort to prepare us to be able to produce finished goods more quickly when supply constraints ease for certain common components, including integrated circuit components, for which delivery continues to be delayed. As a result of this strategy, our inventory has increased from $374.3 million at the end of fiscal 2021 to $826.7 million at the end of the third quarter of fiscal 2022. These inventory practices further introduce obsolescence risk and are resulting in increased costs and use of cash that could adversely impact our financial results. While we have not experienced material cancellations of customer orders to date, if as a result of increased lead times for fulfilling customer orders due to the current constrained supply environment, our customers were to cancel orders, inventory could become obsolete and we could be required to write off or write down the inventory associated with those orders. In addition, if customers were to cancel orders for which we have significant outstanding commitments to our contract manufacturers or suppliers, we may be required to purchase inventory under these commitments that we are unable to sell. If we are required to write off or write down a significant amount of inventory, our results of operations for the applicable period would be materially adversely affected. Conversely, if we underestimate our demand, our contract manufacturers and component suppliers may have inadequate time, materials, or components required to manufacture our products to meet demand and customer expectations. Our supply mitigation efforts, particularly within the current demand and supply environment, have and will continue to cause us to incur additional cost and may increase our inventory risk, each of which could adversely impact our results of operations and could result in loss of revenue, increased costs, or delays that could adversely impact customer satisfaction.

We are experiencing unprecedented demand, and our backlog may not be an accurate indicator of our level and timing of future revenues.

As a result of order volumes growth in recent periods, our backlog has grown from $2.2 billion at the end of fiscal 2021 to $4.4 billion at the end of the third quarter of fiscal 2022. Backlog may be fulfilled several quarters following receipt of a purchase order, either due to customer purchasing schedules or due to delays caused by supply chain constraints, or in the case of certain service obligations, may relate to a multi-year support period. Our ability to fulfill backlog is being adversely impacted by the current global supply constraints described above. Generally, our customers may cancel or change their orders with limited advance notice, or they may decide not to accept our products and services, although instances of both cancellation and non-acceptance have been rare historically. As a result, backlog should not necessarily be viewed as an accurate indicator of future revenue for any particular period. In addition, we believe that some portion of our increased order volumes in recent periods reflects customer acceleration of future orders due to the implementation of security of supply strategies, or spending that was delayed or deferred in prior years due to COVID-19 related impacts, and we do not expect this level of order volume to be sustainable in the long-term.

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

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

- reduced control over delivery schedules and planning;
- reliance on the quality assurance procedures of third parties;
- potential uncertainty regarding manufacturing yields and costs;
- availability of manufacturing capability and capacity, particularly during periods of high demand;
- risks and uncertainties associated with the locations or countries where our products are manufactured, including potential manufacturing disruptions caused by social, geopolitical, environmental or health factors, including pandemics or widespread health epidemics such as the COVID-19 pandemic;
- risks associated with data security breaches or cyber-attacks targeting our third-party manufacturers, including manufacturing disruptions or unauthorized access to information;

- changes in law or policy governing tax, trade, manufacturing, development and investment in the countries where we currently manufacture our products, including the World Trade Organization Information Technology Agreement or other free trade agreements;
- inventory liability for excess and obsolete supply;
- limited warranties provided to us; and
- potential misappropriation of our intellectual property.

For example, during the first half of fiscal 2022, we experienced third-party manufacturing disruptions that took production of certain of our products offline for periods of time, which adversely impacted our revenue. These and other risks could impair our ability to fulfill orders, harm our sales and impact our reputation with customers. If our contract manufacturers are unable or unwilling to manufacture our products or components of our products, or if we experience a disruption in manufacturing, we may be required to identify and qualify alternative manufacturers, which could cause us to be delayed in or unable to meet our supply requirements to our customers. The process of qualifying a new contract manufacturer and commencing volume production is expensive and time-consuming, and if we are required to change or qualify a new contract manufacturer, we would likely experience significant business disruption and could lose revenue and damage our existing customer relationships.

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

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

- adverse social, political and economic conditions, such as inflation and rising interest rates;
- effects of adverse changes in currency exchange rates;
- greater difficulty in collecting accounts receivable and longer collection periods;
- difficulty and cost of staffing and managing foreign operations;
- higher incidence of corruption or unethical business practices;
- less protection for intellectual property rights in some countries;
- tax and customs changes that adversely impact our global sourcing strategy, manufacturing practices, transfer-pricing, or competitiveness of our products for global sales;
- compliance with certain testing, homologation or customization of products to conform to local standards;
- significant changes to free trade agreements, trade protection measures, tariffs, export compliance, domestic preference procurement requirements, qualification to transact business and additional regulatory requirements;
- natural disasters (including as a result of climate change), acts of war or terrorism, and public health emergencies, including the COVID-19 pandemic; and
- uncertain economic, legal and political conditions in Europe, Asia and other regions where we do business, including, for example, as a result of the ongoing military conflict between Russia and Ukraine and changes in China-Taiwan relations.

We utilize a sourcing strategy that emphasizes global procurement of materials that has direct or indirect dependencies upon a number of vendors with operations in the Asia-Pacific region. We also rely upon third-party contract manufacturers, including those with facilities in Canada, Mexico, Thailand and the United States, to manufacture, support and ship our products. Physical, regulatory, technological, market, reputational, and legal risks related to climate change in these regions and globally are increasing in impact and diversity and the magnitude of any short term or long term adverse impact on our business or results of operations remains unknown. The physical impacts of climate change, including as a result of certain types of natural disasters occurring more frequently or with more intensity or changing weather patterns, could disrupt our supply chain, result in damage to or closures of our facilities, and could otherwise have an adverse impact on our business, operating results, and financial condition.

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

In addition, there may be changes to our business, operations and financial results if there is instability, disruption or destruction in a significant geographic region, regardless of cause, including: war, terrorism, riot, civil insurrection or social unrest; natural or man-made disasters; or public health emergencies. For example, in February 2022, armed conflict escalated between Russia and Ukraine. The United States and certain other countries have imposed sanctions on Russia and could impose further sanctions, which could damage or disrupt international commerce and the global economy. We are complying with a broad range of U.S. and international sanctions and export control requirements imposed on Russia and, on March 7, 2022, we announced our decision to suspend our business operations in Russia immediately. Although this decision has not materially impacted our results of operations for the second or third quarters of fiscal 2022 due to the limited amount of business that we conducted in Russia historically, it is not possible to predict the broader or longer-term consequences of this conflict, which could include further sanctions, embargoes, regional instability, geopolitical shifts and adverse effects on macroeconomic conditions, security conditions, currency exchange rates and financial markets. Such geopolitical instability and uncertainty could have a negative impact on our ability to sell to, ship products to, collect payments from, and support customers in certain regions based on trade restrictions, embargoes and export control law restrictions, and logistics restrictions including closures of air space, and could increase the costs, risks and adverse impacts from supply chain and logistics challenges.

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

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

In the ordinary course of our business, we maintain on our network systems, and on the networks of our third-party providers, certain information that is confidential, proprietary or otherwise sensitive in nature. This information includes intellectual property, financial information and confidential business information relating to us and our customers, suppliers and other business partners. Companies in the technology industry, and in particular in the telecommunications industry, have been increasingly subjected to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access to networks or sensitive information. Our network systems, storage and other business applications, and the systems, storage and other business applications maintained by our third-party providers, have been in the past, and may be in the future, subjected to attempts to gain unauthorized access to our network or information, malfeasance or other system disruptions. In some cases, it is difficult to anticipate or to detect immediately such incidents and the damage caused thereby. If an actual or perceived breach of security occurs in our network or any of our third-party providers' networks, we could incur significant costs, our operations could be impacted, and our reputation could be harmed. In addition, the internet has experienced an increase in cyber threats during the COVID-19 pandemic in the form of phishing emails, malware attachments and malicious websites. These risks, as well as the number and frequency of cybersecurity events globally, may also be heightened during times of geopolitical tension or instability between countries, including, for example, the ongoing military conflict between Russia and Ukraine, from which a number of recent cybersecurity events have been alleged to have originated.

While we work to safeguard our internal network systems and validate the security of our third-party providers to mitigate these potential risks, including through information security policies and employee awareness and training, there is no assurance that such actions will be sufficient to prevent future cyber-attacks or security breaches. We have been subjected in the past, and expect to be subjected in the future, to a range of incidents including phishing, emails purporting to come from a company executive or vendor seeking payment requests, and communications from look-alike corporate domains, as well as security-related risks created by the use of third-party software and services. While these types of incidents to which we have been subjected have not had a material effect on our business or our network security to date, future incidents involving access to or improper use of our systems, networks or products could compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. These security events could also negatively impact our reputation and our competitive position and could result in litigation with third parties, regulatory action, loss of business, potential liability and increased remediation costs, any of which could have a material adverse effect on our financial condition and results of operations.

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 third quarter of fiscal 2022:

Period	Total Number of Shares Purchased [1]	Average Price Paid per Share[1]	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)[1]
May 1, 2022 to May 28, 2022	961,679	$ 51.99	961,679	$ 613,007
May 29, 2022 to June 25, 2022	969,252	$ 46.43	969,252	$ 568,007
June 26, 2022 to July 30, 2022	1,264,021	$ 47.47	1,264,021	$ 508,008
	3,194,952	$ 48.51	3,194,952	

[1] On December 9, 2021, we announced that our Board of Directors had authorized a program to repurchase up to $1.0 billion of our common stock, which replaced in its entirety our previous stock repurchase program. During the third quarter of fiscal 2022, we repurchased $155.0 million of our common stock under the stock repurchase program, and we had $508.0 million remaining under the current repurchase authorization as of July 30, 2022.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

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)

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: September 7, 2022

By: /s/ Gary B. Smith
Gary B. Smith
President, Chief Executive Officer
and Director
(Duly Authorized Officer)

Date: September 7, 2022

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: September 7, 2022

/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: September 7, 2022

/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 July 30, 2022 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
September 7, 2022

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 July 30, 2022 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
September 7, 2022

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.