UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

	FORM 10-Q		
(Mark one)			
☑ QUARTERLY REPORT PURSUANT TO SECTION	CTION 13 OR 15(d) OF THE	SECURITIES EXCHANGE ACT OF 1934	
For the quarterly period ended April 30, 2022			
	OR		
☐ TRANSITION REPORT PURSUANT TO SE	CTION 13 OR 15(d) OF THE	SECURITIES EXCHANGE ACT OF 1934	
For the transition period fromto			
C	Commission File Number: 001-3625	50	
\mathbf{C}	iena Corporatio	on	
	name of registrant as specified in its		
Delaware (State or other jurisdiction of incorporation) 7035 Ridge Road, Hanover, MD (Address of principal executive offices)		23-2725311 (I.R.S. Employer Identification No.) 21076 (Zip Code)	
` `	(410) 694-5700 trant's telephone number, including area	ea code)	
Securities registered pursuant to Section 12(b) of the Act:			
Title of each class Common Stock, par value \$0.01 per share	Trading Symbol(s) CIEN	Name of each exchange on which registered New York Stock Exchange	
Indicate by check mark whether the registrant (1) has filed all report 12 months (or for such shorter period that the registrant was require No \Box			
Indicate by check mark whether the registrant has submitted electroduring the preceding 12 months (or for such shorter period that the			
Indicate by check mark whether the registrant is a large accelerated company. See the definitions of "large accelerated filer," "accelerate Act.			
Large accelerated filer	Non-accelerated files	er Smaller reporting company	
		Emerging growth company	
If an emerging growth company, indicate by check mark if the reging financial accounting standards provided pursuant to Section 13(a) of		ed transition period for complying with any new or revised	

Class Common Stock, par value \$0.01 per share

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes \square No \square Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

> Outstanding at June 3, 2022 149,704,796

CIENA CORPORATION INDEX FORM 10-Q

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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)

	(unau	uitcu)										
		Quarte	r Ended		Six Months Ended							
		April 30,		May 1,		April 30,		May 1,				
		2022		2021		2022		2021				
Revenue:												
Products	\$	759,948	\$	670,043	\$	1,424,955	\$	1,267,263				
Services		189,279		163,884		368,715		323,794				
Total revenue		949,227		833,927		1,793,670		1,591,057				
Cost of goods sold:												
Products		452,057		339,601		824,622		654,699				
Services		95,389		81,907		183,080		166,048				
Total cost of goods sold		547,446		421,508		1,007,702		820,747				
Gross profit	·	401,781		412,419		785,968		770,310				
Operating expenses:												
Research and development		159,324		110,246		307,733		242,987				
Selling and marketing		119,939		110,387		238,820		207,665				
General and administrative		45,572		43,635		90,070		83,628				
Significant asset impairments and restructuring costs		9,102		8,209		12,511		14,076				
Amortization of intangible assets		8,920		6,019		17,838		11,929				
Acquisition and integration costs		495		294		563		601				
Total operating expenses		343,352		278,790		667,535		560,886				
Income from operations		58,429		133,629		118,433		209,424				
Interest and other income (loss), net		808		(1,274)		4,494		(2,395)				
Interest expense		(11,985)		(7,785)		(20,633)		(15,145)				
Income before income taxes		47,252		124,570		102,294		191,884				
Provision for income taxes		8,330		21,453		17,549		33,419				
Net income	\$	38,922	\$	103,117	\$	84,745	\$	158,465				
Basic net income per common share	\$	0.26	\$	0.66	\$	0.55	\$	1.02				
Diluted net income per potential common share	\$	0.25	\$	0.66	\$	0.55	\$	1.01				
Weighted average basic common shares outstanding		152,197		155,331		153,179		155,257				
Weighted average dilutive potential common shares outstanding		153,344		156,876		154,580		156,734				

CIENA CORPORATION CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in thousands) (unaudited)

`	Quarte	r End	led	Six Mon	ths Ei	ided
	 April 30,		May 1,	April 30,		May 1,
	 2022		2021	 2022		2021
Net income	\$ 38,922	\$	103,117	\$ 84,745	\$	158,465
Change in unrealized gain (loss) on available-for-sale securities, net of tax	(1,331)		42	(2,105)		(7)
Change in unrealized gain (loss) on foreign currency forward contracts, net						
of tax	(1,346)		3,817	(6,685)		10,434
Change in unrealized gain on forward starting interest rate swaps, net of tax	7,112		2,649	11,038		4,031
Change in cumulative translation adjustments	(5,589)		10,400	(18,746)		26,261
Other comprehensive gain (loss)	(1,154)		16,908	(16,498)		40,719
Total comprehensive income	\$ 37,768	\$	120,025	\$ 68,247	\$	199,184

CIENA CORPORATION CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except share data) (unaudited)

		April 30, 2022	October 30, 2021
ASSETS			
Current assets:			
Cash and cash equivalents	\$	1,019,863	\$ 1,422,546
Short-term investments		529,552	181,483
Accounts receivable, net of allowance for credit losses of \$10.8 million and \$10.9 million as of April 30, 2022 and October 30, 2021, respectively.		774,896	884,958
Inventories, net		536,878	374,265
Prepaid expenses and other		367,344	325,654
Total current assets	·	3,228,533	3,188,906
Long-term investments		87,142	70,038
Equipment, building, furniture and fixtures, net		278,494	284,968
Operating right-of-use assets		45,721	44,285
Goodwill		328,924	311,645
Other intangible assets, net		88,956	65,314
Deferred tax asset, net		798,238	800,180
Other long-term assets		108,121	 99,891
Total assets	\$	4,964,129	\$ 4,865,227
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	\$	352,999	\$ 356,176
Accrued liabilities and other short-term obligations		333,150	409,285
Deferred revenue		156,400	118,007
Operating lease liabilities		19,279	18,632
Current portion of long-term debt		6,930	 6,930
Total current liabilities		868,758	909,030
Long-term deferred revenue		62,369	57,457
Other long-term obligations		148,043	166,803
Long-term operating lease liabilities		40,355	41,564
Long-term debt, net		1,062,182	 670,355
Total liabilities	\$	2,181,707	\$ 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; 150,865,553 and 154,858,981 shares issued and outstanding		1,509	1,549
Additional paid-in capital		6,497,359	6,803,162
Accumulated other comprehensive income (loss)		(16,059)	439
Accumulated deficit	_	(3,700,387)	(3,785,132)
Total stockholders' equity		2,782,422	3,020,018
Total liabilities and stockholders' equity	\$	4,964,129	\$ 4,865,227

CIENA CORPORATION CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands) (unaudited)

		ed		
		April 30,		May 1,
Cash flows provided by operating activities:		2022		2021
Net income	\$	84,745	\$	158,465
Adjustments to reconcile net income to net cash provided by operating activities:	Ψ	04,743	Ψ	136,403
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements		46,030		47,295
Share-based compensation costs		50,970		40,499
Amortization of intangible assets		24,463		18,517
Deferred taxes		(13,474)		(9,606)
Provision for inventory excess and obsolescence		8,487		10,402
Provision for warranty		7,228		7,937
Other		(5,833)		5,928
Changes in assets and liabilities:		(0,000)		0,,,20
Accounts receivable		104,455		(180)
Inventories		(171,056)		(66,934)
Prepaid expenses and other		(36,673)		(8,565)
Operating lease right-of-use assets		8,222		8,253
Accounts payable, accruals and other obligations		(88,960)		(30,108)
Deferred revenue		43,753		45,482
Short- and long-term operating lease liabilities		(10,216)		(9,726)
Net cash provided by operating activities		52,141		217,659
Cash flows used in investing activities:		32,141		217,037
Payments for equipment, furniture, fixtures and intellectual property		(45,249)		(51,651)
Purchase of available-for-sale securities		(461,548)		(102,429)
Proceeds from maturities of available-for-sale securities		90.000		91,810
Settlement of foreign currency forward contracts, net		3,708		9,414
-				9,414
Purchase of cost method equity investments		(8,000)		4 (70
Proceeds from sale of cost method equity investments		(62.042)		4,678
Acquisition of business, net of cash acquired		(62,043)		(40.150)
Net cash used in investing activities		(483,132)		(48,178)
Cash flows provided by (used in) financing activities:				
Proceeds from issuance of senior notes		400,000		
Payment of long-term debt		(3,465)		(3,465)
Payment of debt issuance costs		(5,145)		_
Payment of finance lease obligations		(1,635)		(1,463)
Shares repurchased for tax withholdings on vesting of stock unit awards		(35,004)		(27,893)
Repurchases of common stock - repurchase program		(332,794)		(38,498)
Proceeds from issuance of common stock		15,185		13,480
Net cash provided by (used in) financing activities		37,142		(57,839)
Effect of exchange rate changes on cash, cash equivalents and restricted cash		(8,807)		2,696
Net increase (decrease) in cash, cash equivalents and restricted cash		(402,656)		114,338
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	\$	1,019,948	\$	1,203,046
Supplemental disclosure of cash flow information				
Cash paid during the period for interest	\$	16,809	\$	14,949
Cash paid during the period for income taxes, net	\$	17,905	\$	27,666
Operating lease payments	\$	10,917	\$	10,785
Non-cash investing and financing activities				
Purchase of equipment in accounts payable	\$	8,093	\$	4,966
Repurchase of common stock in accrued liabilities from repurchase program	\$	5,000	\$	900
Operating right-of-use assets subject to lease liability	\$	3,589		1,770

CIENA CORPORATION CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(in thousands, except share data) (unaudited)

	Common Stock Shares	Par Value	P	Additional aid-in-Capital	Co	Other mprehensive come (Loss)	Accumulated Deficit	S	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	_	_		_		_	84,745		84,745
Other comprehensive loss	_	_		_		(16,498)	_		(16,498)
Repurchase of common stock - repurchase program	(5,084,758)	(51)		(336,943)		_	_		(336,994)
Issuance of shares from employee equity plans	1,593,394	16		15,169		_	_		15,185
Share-based compensation expense	_	_		50,970		_	_		50,970
Shares repurchased for tax withholdings on vesting of stock unit awards	(502,064)	(5)		(34,999)		_	_		(35,004)
Balance at April 30, 2022	150,865,553	\$ 1,509	\$	6,497,359	\$	(16,059)	\$ (3,700,387)	\$	2,782,422
	Common Stock Shares	Par Value	P	Additional aid-in-Capital	Co	Other mprehensive come (Loss)	Accumulated Deficit	S	Total Stockholders' Equity
Balance at October 31, 2020	154,563,005	\$ 1,546	\$	6,826,531	\$	(35,358)	\$ (4,283,122)	\$	2,509,597
Net income	_	_		_		_	158,465		158,465
Other comprehensive income	_	_		_		40,719	_		40,719
Repurchase of common stock - repurchase program	(735,075)	(8)		(39,390)		_	_		(39,398)
Issuance of shares from employee equity plans	1,667,160	17		13,463		_	_		13,480
Share-based compensation expense	_			40,499		_			40,499
Shares repurchased for tax withholdings on vesting of stock unit awards	(532,968)	(5)		(27,888)		_	_		(27,893)
Effect of adoption of new accounting standard							(2,206)		(2,206)
Balance at May 1, 2021	154,962,122	\$ 1,550	\$	6,813,215	\$	5,361	\$ (4,126,863)	\$	2,693,263

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, 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 April 30, 2022										
							obal Services		Total	
\$	625,294	\$	_	\$	_	\$	_	\$	625,294	
	109,186		_		_		_		109,186	
	_		69,157		_		_		69,157	
	_		_		16,881		_		16,881	
	_		_		_		74,019		74,019	
	_		_		_		41,430		41,430	
	_		_		_		13,260		13,260	
\$	734,480	\$	69,157	\$	16,881	\$	128,709	\$	949,227	
\$	734,480	\$	21,743	\$	4,036	\$	13,469		773,728	
	_	\$	47,414	\$	12,845	\$	115,240		175,499	
\$	734,480	\$	69,157	\$	16,881	\$	128,709	\$	949,227	
	\$	109,186 ————————————————————————————————————	Platforms a	Networking Platforms Platform Software and Services \$ 625,294 \$ — 109,186 — — 69,157 — — — — \$ 734,480 \$ 69,157 \$ 734,480 \$ 21,743 — \$ 47,414	Networking Platforms Platform Software and Services \$ 625,294 \$ — \$ 109,186 — — 69,157 — — — — — — — — — — — — — — — — — — — —	Networking Platforms Platform Software and Services Blue Planet Automation Software and Services \$ 625,294 \$ — \$ — 109,186 — — — 69,157 — — — 16,881 — — — \$ 734,480 \$ 69,157 \$ 16,881 \$ 734,480 \$ 21,743 \$ 4,036 — \$ 47,414 \$ 12,845	Networking Platforms Platform Software and Services Blue Planet Automation Software and Services Gl \$ 625,294 \$ — \$ — \$ 109,186 — — — — 69,157 — — — — — — — — — — — — — — — — — — \$ 734,480 \$ 69,157 \$ 16,881 \$ \$ 734,480 \$ 21,743 \$ 4,036 \$ — \$ 47,414 \$ 12,845 \$	Networking Platforms Platform Software and Services Blue Planet Automation Software and Services Global Services \$ 625,294 \$ — \$ — \$ — \$ — 109,186 — — — — — — — — — — — — — — — — — — —	Networking Platforms Platform Software and Services Blue Planet Automation Software and Services \$ 625,294 \$ — \$ — \$ — \$ — \$ 109,186 — — — \$	

Ouarter	Endod	Mosz	Λ1	2021	
Quarter	Engea	wav	OL.	2021	

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

Six Months Ended April 30, 2022

	Networking Platforms	form Software nd Services	Blue Planet Automation Software and Services	Gl	lobal Services	Total
Product lines:						
Converged Packet Optical	\$ 1,166,230	\$ _	\$ _	\$	_	\$ 1,166,230
Routing and Switching	194,896	_	_		_	194,896
Platform Software and Services	_	142,074	_		_	142,074
Blue Planet Automation Software and Services	_	_	37,992		_	37,992
Maintenance Support and Training	_	_	_		146,509	146,509
Installation and Deployment	_	_	_		81,800	81,800
Consulting and Network Design	_	_	_		24,169	24,169
Total revenue by product line	\$ 1,361,126	\$ 142,074	\$ 37,992	\$	252,478	\$ 1,793,670
Timing of revenue recognition:						
Products and services at a point in time	\$ 1,361,126	\$ 51,424	\$ 12,810	\$	21,960	\$ 1,447,320
Services transferred over time	_	90,650	25,182		230,518	346,350
Total revenue by timing of revenue recognition	\$ 1,361,126	\$ 142,074	\$ 37,992	\$	252,478	\$ 1,793,670

Six Months Ended May 01, 2021

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

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):

		Quarte	r Ende	d	Six Months Ended				
	April 30,		May 1,		April 30,			May 1,	
	2022		2021		2022			2021	
Geographic distribution:									
Americas	\$	700,840	\$	587,475	\$	1,295,984	\$	1,084,086	
EMEA		145,106		155,054		295,891		310,472	
APAC		103,281		91,398		201,795		196,499	
Total revenue by geographic distribution	\$	949,227	\$	833,927	\$	1,793,670	\$	1,591,057	

Ciena's revenue includes \$642.2 million and \$518.6 million of United States revenue for the second quarter of fiscal 2022 and 2021, respectively. For the six months ended April 30, 2022 and May 1, 2021, United States revenue was \$1.2 billion and \$1.0 billion, respectively. No other country accounted for 10% or more of total revenue for the periods presented above.

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

	Quarter	r Ended	Six Month	is Ended
	April 30,	May 1,	April 30,	May 1,
	2022	2021	2022	2021
AT&T	\$ 103,189	125,138	214,065	193,941

AT&T 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 3900 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):

	Ba	lance at April 30, 2022	Balance at October 30, 2021		
Accounts receivable, net	\$	774,896	\$	884,958	
Contract assets for unbilled accounts receivable, net	\$	144,344	\$	101,355	
Deferred revenue	\$	218,769	\$	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 \$82.0 million and \$78.0 million of revenue during the first six 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 six months ended April 30, 2022 and May 1, 2021.

Capitalized Contract Acquisition Costs

Capitalized contract acquisition costs consist of deferred sales commissions, and were \$32.5 million and \$27.6 million as of April 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 \$14.1 million and \$10.7 million during the first six 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 April 30, 2022, the aggregate amount of RPO was \$2.7 billion. As of April 30, 2022, Ciena expects approximately 90% 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. ("Xelic"), 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 second quarter and six months ended May 1, 2021, Ciena recorded a CAD\$51.1 million (\$40.4 million) benefit, net of certain fees, related to CEWS for claim periods beginning March 15, 2020, including CAD\$43.9 million (\$34.7 million) related to employee wages during fiscal 2020.

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

	Quarter Ended				Six Months Ended					
	April 30,		May 1,		May 1,		April 30,			May 1,
	20)22		2021		2022		2021		
Product	\$		\$	4,189	\$	_	\$	4,189		
Service		_		2,620		_		2,620		
CEWS benefit in cost of goods sold				6,809		_		6,809		
Research and development				28,923				28,923		
Sales and marketing		_		2,551		_		2,551		
General and administrative		_		2,161		_		2,161		
CEWS benefit in operating expense				33,635		_		33,635		
Total CEWS benefit	\$	_	\$	40,444	\$	_	\$	40,444		

(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 six months ended April 30, 2022 (in thousands):

	Vorkforce reduction	r restructuring activities	Total		
Balance at October 30, 2021	\$ 781	\$ 	\$	781	
Charges	1,413 (1)	7,018 (2)		8,431	
Cash payments	(1,388)	 (7,018)		(8,406)	
Balance at April 30, 2022	\$ 806	\$ _	\$	806	
Current restructuring liabilities	\$ 806	\$ 	\$	806	

⁽¹⁾ Reflects employee costs associated with workforce reductions during the six months ended April 30, 2022 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes.

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 six months ended May 1, 2021 (in thousands):

				r restructuring activities	Total
Balance at October 30, 2020		2,915	\$		\$ 2,915
Charges		2,617 (1)		11,459 (2)	14,076
Cash payments		(4,696)		(11,459)	(16,155)
Balance at May 1, 2021	\$	836	\$		\$ 836
Current restructuring liabilities	\$	836	\$	_	\$ 836

⁽¹⁾ Reflects employee costs associated with workforce reductions during the six months ended May 1, 2021 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes.

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 immediately suspend its business operations in Russia. As a result, Ciena recorded impairment charges of \$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):

⁽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.

⁽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.

		Quarter	Ende	d	Six Months Ended				
	April 30,		May 1,		April 30,		May 1,		
		2022		2021	2022		2021		
Interest income	\$	1,434	\$	554 \$	2,188	\$	1,088		
Gains (losses) on non-hedge designated foreign currency forward contracts		2,334		5,180	(1,926)		9,709		
Foreign currency exchange gains (losses)		(1,267)		(6,575)	3,499		(13,493)		
Unrealized gain on cost method equity investment				`	4,120				
Other		(1,693)		(433)	(3,387)		301		
Interest and other income (loss), net	\$	808	\$	(1,274) \$	4,494	\$	(2,395)		

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 \$3.5 million in foreign currency exchange rate gains for the first six months of fiscal 2022 and during the first six months of fiscal 2021, Ciena recorded \$13.5 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 six months of fiscal 2022, Ciena recorded losses of \$1.9 million and during the first six months of fiscal 2021, Ciena recorded gains of \$9.7 million from non-hedge designated foreign currency forward contracts. During the first six 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 ended April 30, 2022 was higher than the effective tax rate for the quarter ended May 1, 2021, primarily due to a higher foreign tax rate.

The effective tax rate for the six months ended April 30, 2022 was lower than the effective tax rate for the six months ended May 1, 2021, primarily due to a lower foreign tax rate in the six months ended April 30, 2022.

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) SHORT-TERM AND LONG-TERM INVESTMENTS

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

	April 30, 2022								
	Amortized Cost			Gross Unrealized Gains		Gross Unrealized Losses		Estimated Fair Value	
U.S. government obligations:									
Included in short-term investments	\$	530,051	\$	1	9	\$ (500)	\$	529,552	
Included in long-term investments		89,593		_		(2,451)		87,142	
	\$	619,644	\$	1	5	\$ (2,951)	\$	616,694	
	-		_	October	r 30	2021	=		
		Amortized Cost		Gross Unrealized Gains		Gross Unrealized Losses		Estimated Fair Value	
U.S. government obligations:									
Included in short-term investments	\$	181,488	\$	5	9	\S (10)	\$	181,483	

(187)

(197)

70,038

251,521

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

	Amortized Cost	Estimated Fair Value
Less than one year	\$ 530,051	\$ 529,552
Due in 1-2 years	89,593	87,142
	\$ 619,644	\$ 616,694

(10) FAIR VALUE MEASUREMENTS

Included in long-term investments

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

	April 30, 2022								
	 Level 1		Level 2		Level 3		Total		
Assets:					_				
Money market funds	\$ 607,553	\$	_	\$	_	\$	607,553		
Bond mutual fund	100,428		_		_		100,428		
Time deposits	133,544		_		_		133,544		
Deferred compensation plan assets	13,274		_		_		13,274		
U.S. government obligations	_		616,694		_		616,694		
Foreign currency forward contracts	_		5,867		_		5,867		
Total assets measured at fair value	\$ 854,799	\$	622,561	\$		\$	1,477,360		
Liabilities:									
Foreign currency forward contracts	\$ _	\$	5,281	\$	_	\$	5,281		
Forward starting interest rate swaps	_		1,465		_		1,465		
Total liabilities measured at fair value	\$ _	\$	6,746	\$	_	\$	6,746		

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		30,036		_		_	30,036
Deferred compensation plan assets		12,968		_		_	12,968
U.S. government obligations		_		251,521		_	251,521
Foreign currency forward contracts		<u> </u>		14,935		<u> </u>	14,935
Total assets measured at fair value	\$	1,239,280	\$	266,456	\$		\$ 1,505,736
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 the date indicated, the assets and liabilities above are presented on Ciena's Condensed Consolidated Balance Sheets as follows (in thousands):

	April 30, 2022										
	Level 1		Level 2		Level 3		Total				
Assets:											
Cash equivalents	\$ 841,525	\$	_	\$	_	\$	841,525				
Short-term investments	_		529,552		_		529,552				
Prepaid expenses and other			5,867		_		5,867				
Long-term investments	_		87,142		_		87,142				
Other long-term assets	 13,274						13,274				
Total assets measured at fair value	\$ 854,799	\$	622,561	\$		\$	1,477,360				
Liabilities:											
Accrued liabilities and other short-term obligations	\$ _	\$	5,281	\$	_	\$	5,281				
Other long-term obligations	_		1,465		_		1,465				
Total liabilities measured at fair value	\$ 	\$	6,746	\$	_	\$	6,746				
	 		October	20. 20	021	-					
	 Level 1		Level 2	30, 20	Level 3	Total					
Assets:											
Cash equivalents	\$ 1,226,312	\$	_	\$	_	\$	1,226,312				
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	\$ 1,239,280	\$	266,456	\$	_	\$	1,505,736				
						-					
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):

	April 3 2022			October 30, 2021
Raw materials	\$	373,517	\$	175,399
Work-in-process		12,268		10,260
Finished goods		157,919		180,800
Deferred cost of goods sold		28,921		44,765
Gross inventories		572,625		411,224
Reserve for inventory excess and obsolescence		(35,747)		(36,959)
Inventories, net	\$	536,878	\$	374,265

The increase in raw materials inventory is related to the steps Ciena is taking 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 six months of fiscal 2022, Ciena recorded a provision for inventory excess and obsolescence of \$8.5 million, primarily related to a decrease in the forecasted demand for certain Networking Platforms products. Deductions from the provision for excess and obsolete inventory relate primarily to disposal activities.

(12) PREPAID EXPENSES AND OTHER

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

	April 30, 2022	October 30, 2021
Contract assets for unbilled accounts receivable, net	\$ 144,344	\$ 101,355
Prepaid VAT and other taxes	71,658	77,388
Prepaid expenses	68,879	62,189
Product demonstration equipment, net	35,139	29,362
Capitalized contract acquisition costs	26,531	21,753
Other non-trade receivables	14,637	18,408
Derivative assets	5,867	14,935
Deferred deployment expense	 289	264
	\$ 367,344	\$ 325,654

Depreciation of product demonstration equipment was \$4.8 million during the first six months of fiscal 2022 and \$5.1 million during the first six 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):

		April 30, 2022		October 30, 2021								
	Gross Intangible	Accumulated Amortization	Net Intangible		Gross Intangible		Accumulated Amortization		Net Intangible			
Developed technology	\$ 428,218	\$ (374,782)	\$ 53,436	\$	395,726	\$	(359,828)	\$	35,898			
Patents and licenses	7,815	(3,767)	4,048		7,815		(3,321)		4,494			
Customer relationships, covenants not to compete, outstanding purchase orders and												
contracts	390,777	(359,305)	31,472		375,329		(350,407)		24,922			
Total intangible assets	\$ 826,810	\$ (737,854)	\$ 88,956	\$	778,870	\$	(713,556)	\$	65,314			

The aggregate amortization expense of intangible assets was \$24.5 million during the first six months of fiscal 2022 and \$18.5 million during the first six months of fiscal 2021. Expected future amortization of intangible assets for the fiscal years indicated is as follows (in thousands):

Fiscal Year	Amount
2022	\$ 19,814
2023	28,815
2024	19,180
2025	13,317
2026	7,105
Thereafter	725
	\$ 88,956

(14) OTHER BALANCE SHEET DETAILS

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

	April 30, 2022		October 30, 2021
Compensation, payroll related tax and benefits (1)	\$ 122,590	\$	201,119
Warranty	45,684		48,019
Vacation	31,658		31,200
Income taxes payable	9,535		13,577
Foreign currency forward contracts	5,281		716
Interest payable	5,202		598
Finance lease liabilities	3,834		3,620
Other	109,366		110,436
	\$ 333,150	\$	409,285

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

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

	Begi	nning Balance	Current Period Provisions	Settlements	End	ling Balance
Six Months Ended May 1, 2021	\$	49,868	7,937	(9,682)	\$	48,123
Six Months Ended April 30, 2022	\$	48,019	7,228	(9,563)	\$	45,684

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

	April 30, 2022	October 30, 2021
Products	\$ 19,911	\$ 12,859
Services	198,858	162,605
Total deferred revenue	218,769	175,464
Less current portion	(156,400)	(118,007)
Long-term deferred revenue	\$ 62,369	\$ 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 April 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 \$251.5 million and \$288.6 million as of April 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 April 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 \$93.1 million and \$296.1 million as of April 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 April 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 million as of April 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):

		April 30, 2022									
		Unamortized	Deferred Debt								
	Principal Balance	Discount	Issuance Costs	Net Carrying Value	Net Carrying Value						
2025 Term Loan	\$ 677.407	\$ (1.089)	\$ (2.037)	\$ 674.281	\$ 677.285						

Deferred debt issuance costs that were deducted from the carrying amounts of the 2025 Term Loan totaled \$2.0 million as of April 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 \$0.3 million during the first six 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 April 30, 2022, the estimated fair value of the 2025 Term Loan was \$677.5 million. Ciena's 2025 Term Loan is categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its 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 price equal to 100% of the principal amount thereof, plus a "makewhole" of 102% of the principal amount of the notes to be redeemed, and 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):

	April 30, 2022							
	Deferred Debt Principal Balance Issuance Costs					Net Carrying Value		
2030 Senior Notes 4.00% fixed-rate	\$	400,000	\$	(5,169)		394,831		

Deferred debt issuance costs that were deducted from the carrying amount of the 2030 Notes totaled \$5.2 million as of April 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 \$0.2 million during the first six months of fiscal 2022

As of April 30, 2022, the estimated fair value of the 2030 Notes was \$363.0 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 six months ended April 30, 2022 (in thousands):

	Un	realize	ed Gain (Loss)	(Cumulative				
Available-for-sale		le Foreign Currency Forward		y Forward Starting Interest Rate					
30	curines	Contracts		Swaps		Adjustment			Total
\$	(164)	\$	6,216	\$	(12,179)	\$	6,566	\$	439
	(2,105)		(5,083)		6,098		(18,746)		(19,836)
	_		(1,602)		4,940		_		3,338
\$	(2,269)	\$	(469)	\$	(1,141)	\$	(12,180)	\$	(16,059)
		Available-for-sale Securities \$ (164) (2,105)	Available-for-sale Securities	Available-for-sale Securities Foreign Currency Forward Contracts \$ (164) \$ 6,216 (2,105) (5,083) — (1,602)	Securities Forward Contracts Securities Forward Securities Securities Forward Securities Securitie	Available-for-sale Securities Foreign Currency Forward Contracts Forward Starting Interest Rate Swaps \$ (164) \$ 6,216 \$ (12,179) (2,105) (5,083) 6,098 — (1,602) 4,940	Available-for-sale Securities Foreign Currency Forward Contracts Forward Starting Interest Rate Swaps For Interest Rate Swaps \$ (164) \$ 6,216 \$ (12,179) \$ (2,105) (5,083) 6,098 — (1,602) 4,940	Available-for-sale Securities Foreign Currency Forward Contracts Forward Interest Rate Swaps Foreign Currency Translation Adjustment \$ (164) \$ 6,216 \$ (12,179) \$ 6,566 (2,105) (5,083) 6,098 (18,746) — (1,602) 4,940 —	Available-for-sale Securities Foreign Currency Forward Contracts Forward Starting Interest Rate Swaps Foreign Currency Translation Adjustment \$ (164) \$ 6,216 \$ (12,179) \$ 6,566 \$ (2,105) (5,083) 6,098 (18,746) — (1,602) 4,940 —

The following table summarizes the changes in AOCI, net of tax, for the six months ended May 1, 2021 (in thousands):

	Unrealized Gain (Loss) on							Cumulative				
	Available sale Secu		Foreign Currency Forward Contracts			ward Starting nterest Rate Swaps	Foreign Currency Translation Adjustment			Total		
Balance at October 31, 2020	\$	45	\$	(219)	\$	(21,535)	\$	(13,649)	\$	(35,358)		
Other comprehensive gain (loss) before reclassifications		(7)		14,690		(494)		26,261		40,450		
Amounts reclassified from AOCI		_		(4,256)		4,525		_		269		
Balance at May 1, 2021	\$	38	\$	10,215	\$	(17,504)	\$	12,612	\$	5,361		

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):

		Quarte	r End	ed	 Six Mon	ths E	nded
	April 30, 2022			May 1, 2021	April 30, 2022		May 1, 2021
Net income	\$	38,922	\$	103,117	\$ 84,745	\$	158,465
Basic weighted average shares outstanding		152,197		155,331	153,179		155,257
Effect of dilutive potential common shares		1,147		1,545	1,401		1,477
Diluted weighted average shares		153,344		156,876	 154,580		156,734
Basic EPS	\$	0.26	\$	0.66	\$ 0.55	\$	1.02
Diluted EPS	\$	0.25	\$	0.66	\$ 0.55	\$	1.01
Antidilutive employee share-based awards, excluded		1,392		30	1,077		82

(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 second quarter of fiscal 2022, Ciena repurchased an additional 1.5 million shares of its common stock, for an aggregate purchase price of \$87.0 million at an average price of \$57.92 per share. As of April 30, 2022, Ciena has repurchased an aggregate of 5.1 million shares for an aggregate purchase price of \$337.0 million at an average price of \$66.28 per share and has an aggregate of \$663.0 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 paidin 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 \$35.0 million for the shares of Ciena's stock repurchased during the first six 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):

	Quarte	d		ded			
	 April 30, 2022	May 1, 2021			April 30, 2022		May 1, 2021
Products	\$ 1,058	\$	498	\$	1,958	\$	1,451
Services	1,943		1,421		3,527		2,626
Share-based compensation expense included in cost of goods sold	3,001		1,919		5,485		4,077
Research and development	 8,309		5,844		15,140		10,638
Selling and marketing	8,061		6,610		15,121		12,426
General and administrative	 7,334		6,743		15,246		13,101
Share-based compensation expense included in operating expense	23,704		19,197		45,507		36,165
Share-based compensation expense capitalized in inventory, net	 (32)		419		(22)		257
Total share-based compensation expense	\$ 26,673	\$	21,535	\$	50,970	\$	40,499

As of April 30, 2022, total unrecognized share-based compensation expense was approximately \$218.8 million, which relates to unvested stock unit awards and is expected to be recognized over a weighted-average period of 1.64 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 April 30, 2022, equipment, building, furniture and fixtures, net, totaled \$278.5 million, and operating ROU assets totaled \$45.7 million both of which support asset groups within Ciena's four operating segments and unallocated selling and general and administrative activities. As of April 30, 2022, finitelived intangible assets, goodwill and maintenance spares are assigned to asset groups within the following segments (in thousands):

	Networking Platforms	form Software and Services	Automation Software and Services	G	lobal Services	Total
Other intangible assets, net	\$ 46,386	\$ _	\$ 42,570	\$		\$ 88,956
Goodwill	\$ 83,684	\$ 156,191	\$ 89,049	\$	_	\$ 328,924
Maintenance spares, net	\$ _	\$ _	\$ _	\$	50,196	\$ 50,196

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 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):

		Quarte	er Enc	ded	Six Mon	ths En	ded
	April 30, 2022			May 1,	April 30,		May 1,
				2021	2022		2021
Segment profit (loss):							
Networking Platforms	\$	152,769	\$	211,412	\$ 286,894	\$	367,843
Platform Software and Services		43,556		36,506	93,052		64,166
Blue Planet Automation Software and Services		(6,520)		5,688	(7,554)		3,254
Global Services		52,652		48,567	105,843		92,060
Total segment profit		242,457		302,173	478,235		527,323
Less: Non-performance operating expenses							
Selling and marketing		119,939		110,387	238,820		207,665
General and administrative		45,572		43,635	90,070		83,628
Significant asset impairments and restructuring costs		9,102		8,209	12,511		14,076
Amortization of intangible assets		8,920		6,019	17,838		11,929
Acquisition and integration costs		495		294	563		601
Add: Other non-performance financial items							
Interest expense and other income (loss), net		(11,177)		(9,059)	(16,139)		(17,540)
Less: Provision for income taxes		8,330		21,453	17,549		33,419
Net income	\$	38,922	\$	103,117	\$ 84,745	\$	158,465

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):

	April 30, 2022	October 30, 2021
Canada	\$ 237,106	\$ 240,968
United States	46,506	50,744
Other International	40,603	37,541
Total	\$ 324,215	\$ 329,253

(22) COMMITMENTS AND CONTINGENCIES

Canadian Grant

During fiscal 2018, Ciena entered into agreements related to the Evolution of Networking Services through a Corridor in Quebec and Ontario for Research and Innovation ("ENCQOR") project with the Canadian federal government, the government of the province of Ontario and the government of the province of Quebec to develop a 5G technology corridor between Quebec and Ontario to promote research and development, small business enterprises and entrepreneurs in Canada. Under these agreements, Ciena could have received up to an aggregate CAD\$57.6 million (approximately \$44.8 million) in reimbursement from the three Canadian government entities for eligible costs over the period from February 20, 2017 through March 31, 2022. Amounts received under the agreements were subject to recoupment in the event that Ciena fails to achieve certain minimum investment, employment and project milestones. 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. As of April 30, 2022, Ciena has recorded CAD\$57.6 million (approximately \$44.8 million) in cumulative benefits as a reduction in research and development expense of which CAD\$6.6 million (\$5.2 million) was recorded in the first six months of fiscal 2022. As of April 30, 2022, amounts receivable from this grant were CAD\$3.3 million (\$2.6 million) included in prepaid expenses and other in the Condensed Consolidated Balance Sheets.

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 second quarter of fiscal 2022 through June 3, 2022, Ciena repurchased an additional 1,161,320 shares of its common stock, for an aggregate purchase price of \$60.0 million at an average price of \$51.67 per share, inclusive of repurchases pending settlement. As of June 3, 2022, Ciena has repurchased an aggregate of 6,246,078 shares and has \$603.0 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, business prospects and strategies and other "forward-looking" information. Forward-looking statements may appear throughout this report, including in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors." In some cases, you can identify "forward-looking statements" by words like "may," "will," "can," "should," "could," "expects," "future," "plans," "anticipates," "believes," "estimates," "predicts," "intends," "potential," "projects," "targets," or "continue" or the negative of those words and other comparable words. You should be aware that the forward-looking statements contained in this report are based on our current views and assumptions, and are subject to known and unknown risks, uncertainties and other factors that may cause actual events or results to differ materially.

For a discussion identifying some of the important factors that could cause actual results to vary materially from those anticipated in the forward-looking statements, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" in this report. For a more complete understanding of the risks associated with an investment in our securities, you should review these factors and the rest of this report in combination with the more detailed description of our business and management's discussion and analysis of financial condition and risk factors described in our annual report on Form 10-K for fiscal 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 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 NetworkTM, 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 quarterly revenue and historical order volumes, with some concentration of orders among certain existing Webscale and North America-based service provider customers. As a result of order volume growth in recent periods, our backlog has grown from \$2.2 billion at the end of fiscal 2021 to \$4.1 billion at the end of the second quarter of fiscal 2022. We believe that we are benefiting from certain shifts in business and consumer behaviors, in part accelerated by the COVID-19 pandemic, which represent positive, long-term trends for our business. These include enterprise and consumer cloud network adoption, increasing demands on the network edge, and network operator focus on resilience and automation. We believe that some portion of our increased order volumes in recent periods also 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. We believe that many of the drivers of the recent increase in network operator demand are durable and represent long-term opportunities for our business. However, we do not expect the rate of orders growth experienced in recent periods to be sustainable in the long term and expect it to moderate over time, and 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. These conditions worsened for our business during the second quarter of fiscal 2022, in particular in relation to unexpected cancellation or delay of previously committed supply in two primary areas. First, several key optical suppliers were unable to meet their previous supply commitments due to constrained access to semiconductors. Second, several integrated circuit providers experienced a lack of supply for certain lower value, commodity parts, which we believe was exacerbated by government-mandated lockdowns in several cities in China in response to COVID-19.

These supply constraints are impacting our ability to meet customer demand and our anticipated level of revenue and growth in fiscal 2022. At the same time, increased costs associated with procuring and transporting our equipment, including supply premiums, expediting fees and freight and logistics have impacted our gross margin and profitability. 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 and financial results will persist for the foreseeable future, and specifically, we expect these conditions to adversely impact both our revenue and our profitability during the remainder of fiscal 2022.

In response to these supply constraints, we have implemented mitigation strategies and increased our inventory purchases. In some cases, we have incurred higher costs to secure available component inventory, have extended the duration of our purchase commitments, or placed non-cancellable, advanced orders with or through suppliers, particularly for long lead time components. 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 April 30, 2022 we had \$1.8 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory, including approximately \$1.2 billion in advance orders made to address supply shortages. We have also been expanding our manufacturing capacity and have been accumulating raw materials inventory of components that are not as scarce, so we are prepared to produce finished goods more quickly when supply constraints ease. These mitigation steps introduce additional costs and risk. See "Risk Factors" in Item 1A of Part II of this report for further discussion of risks related to our supply chain.

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 have reopened a significant number of our offices globally as of the end of the second quarter of 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 recent government-mandated lockdowns in several cities in China, 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 immediately suspend our business operations in Russia. 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 second 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

Xelic Acquisition. On March 9, 2022, we acquired Xelic, Inc. ("Xelic"), a provider and developer of field-programmable gate array (FPGA) and application-specific integrated circuit (ASIC) technology and optical networking IP cores, to enhance development of our WaveLogic® coherent modem technology. See Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for more information on this acquisition and the related accounting.

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 second quarter of fiscal 2022, we repurchased \$87.0 million of our common stock under the stock repurchase program, and we had \$663.0 million remaining under the current repurchase authorization as of April 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 14.0% of our revenue was non-U.S. Dollar-denominated during both the second quarter and first six months of fiscal 2022, primarily including sales in Euros, Canadian Dollars and British Pounds. During the second quarter of fiscal 2022, as compared to the second quarter of fiscal 2021, and during the first six months of fiscal 2022, as compared to the first six months of fiscal 2021, the U.S. Dollar primarily strengthened against these currencies. Consequently, our revenue for the second quarter and first six months of fiscal 2022 reported in U.S. Dollars was adversely impacted by approximately \$5.0 million, or 0.5%, and \$8.2 million, or 0.5%, 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		S	ix Months I	Ended		
		April 30, 2022	May 1, 202	21 %*	April 30, 202	2	May 1, 2021	%*
Revenue:								
Networking Platforms								
Converged Packet Optical	\$	625,294	\$ 573,	657 9.0 %	\$ 1,166,2	30 \$	1,085,981	7.4 %
	%**	65.8 %		68.8 %	6	5.0 %	68.2 %	
Routing and Switching		109,186	63,	628 71.6 %	194,8	396	127,934	52.3 %
	%**	11.5 %		7.6 %	1	0.9 %	8.0 %	
Total Networking Platforms		734,480	637,	285 <i>15.3</i> %	1,361,1	26	1,213,915	12.1 %
	%**	77.3 %		76.4 %	7	5.9 %	76.2 %	
Platform Software and Service	S	69,157	56,	688 22.0 %	142,0	74	106,527	33.4 %
	%**	7.3 %		6.8 %		7.9 %	6.7 %	
Blue Planet Automation Softw	are and							
Services		16,881	23,	958 (29.5)%	37,9	92	40,892	(7.1)%
	%**	1.8 %		2.9 %		2.1 %	2.6 %	
Global Services								
Maintenance Support and Tra	ining	74,019	70,	418 5.1 %	146,5	609	138,049	6.1 %
•	%**	7.8 %		8.4 %		8.2 %	8.7 %	
Installation and Deployment		41,430	37,	999 9.0 %	81,8	300	77,610	5.4 %
	%**	4.4 %		4.6 %		4.6 %	4.9 %	
Consulting and Network Desi	gn	13,260	7,	579 75.0 %	24,1	69	14,064	71.9 %
	%**	1.4 %		0.9 %		1.3 %	0.9 %	
Total Global Services		128,709	115,	996 11.0 %	252,4	78	229,723	9.9 %
	%**	13.6 %		13.9 %	1	4.1 %	14.5 %	
Total revenue	\$	949,227	\$ 833.	927 13.8 %	\$ 1,793,6	\$ 570	1,591,057	12.7 %
Total Tevenue	=	, /	- 355,	15.0 /0	-,,,,,,	<u> </u>	-,,,	12./ /0

^{*} Denotes % change from 2021 to 2022

Quarter ended April 30, 2022 as compared to the quarter ended May 1, 2021

^{**} Denotes % of Total Revenue

- Networking Platforms segment revenue increased by \$97.2 million, reflecting product line sales increases of \$51.6 million of our Converged Packet Optical products and \$45.6 million of our Routing and Switching products.
 - Converged Packet Optical sales increased, primarily reflecting sales increases of \$44.4 million of our Waveserver® products to communication service providers and \$23.2 million of our 6500 Reconfigurable Line System (RLS) products, primarily to Web-scale providers. These sales increases were partially offset primarily by a sales decrease of \$8.8 million of our 6500 Packet-Optical Platform, primarily to cable and multiservice operators and communication service providers.
 - Routing and Switching sales increased, primarily reflecting a sales increase of \$22.6 million of our 3000 and 5000 families of service delivery and aggregation switches to communication service providers. Sales also include \$25.4 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. These sales increases were partially offset by a sales decrease of \$7.0 million of our 8700 Packetwave Platform, primarily to communication service providers.
- Platform Software and Services segment revenue increased by \$12.5 million, reflecting sales increases of \$11.2 million in software services, primarily to communication service providers, and \$1.3 million in sales of software platforms.
- Blue Planet Automation Software and Services segment revenue decreased by \$7.1 million, primarily reflecting a sales decrease of \$8.6 million of our automation software platforms due to extended project completion timeframes, partially offset by a sales increase of \$1.5 million in software-related services.
- Global Services segment revenue increased by \$12.7 million, primarily reflecting sales increases of \$5.7 million of our consulting and network design services, \$3.6 million of our maintenance support and training services and \$3.4 million of our installation and deployment services.

Six months ended April 30, 2022 as compared to the six months ended May 1, 2021

- **Networking Platforms segment revenue** increased by \$147.2 million, reflecting product line sales increases of \$80.2 million of our Converged Packet Optical products and \$67.0 million of our Routing and Switching products.
 - Converged Packet Optical sales increased, primarily reflecting increases of \$56.5 million of our 6500 Packet-Optical Platform, primarily to communication service providers and Web-scale providers, and \$41.3 million of our 6500 RLS products, primarily to Web-scale providers. These sales increases were partially offset by sales decreases of \$9.0 million of our 5430 Reconfigurable Switching Systems and \$8.8 million of our Z-Series Packet-Optical Platform, each primarily to communications service providers.
 - Routing and Switching sales increased, primarily reflecting a sales increase of \$36.6 million of our 3000 and 5000 families of service delivery and aggregation switches to communication service providers. Sales also include \$37.6 million of our Virtualization Edge software, which was acquired in the acquisition of Vyatta's virtual routing and switching technology in the first quarter of fiscal 2022. These sales increases were partially offset by a sales decrease of \$8.9 million of our 8700 Packetwave Platform primarily to communication service providers.
- Platform Software and Services segment revenue increased by \$35.5 million, reflecting increases of \$20.4 million in software services and \$15.1 million in sales of software platforms.
- Blue Planet Automation Software and Services segment revenue decreased by \$2.9 million, reflecting a decrease of \$4.7 million in sales of
 automation software platforms due to extended project completion timeframes, offset by a sales increase of \$1.8 million in software-related
 services
- Global Services segment revenue increased by \$22.8 million, primarily reflecting sales increases of \$10.1 million of our consulting and network design services, \$8.5 million of our maintenance support and training and \$4.2 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 increase in our Americas region revenue for the quarter and six months ended April 30, 2022 was primarily driven by increased sales in the United States. The increase in our APAC region revenue for the quarter and six months ended April 30, 2022 was primarily driven by

increased sales in Australia and New Zealand, partially offset by decreased sales in India. The decrease in our EMEA region revenue for the quarter ended April 30, 2022 was primarily driven by decreased sales in the United Kingdom and Russia, partially offset by increased sales in the Netherlands. The decrease in our EMEA region revenue for the six months ended April 30, 2022 was primarily driven by decreased sales in the Netherlands and Russia. 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 E	Inded			nded			
	A	pril 30, 2022	May 1, 2021	%*	-	April 30, 2022		May 1, 2021	%*
Americas	\$	700,840	5 587,475	19.3 %	\$	1,295,984	\$	1,084,086	19.5 %
	%**	73.8 %	70.4 %			72.3 %		68.1 %	
EMEA		145,106	155,054	(6.4)%		295,891		310,472	(4.7)%
	%**	15.3 %	18.6 %			16.5 %		19.5 %	
APAC		103,281	91,398	13.0 %		201,795		196,499	2.7 %
	%**	10.9 %	11.0 %			11.2 %		12.4 %	
Total	\$	949,227 \$	833,927	13.8 %	\$	1,793,670	\$	1,591,057	12.7 %

Denotes % change from 2021 to 2022

Quarter ended April 30, 2022 as compared to the quarter ended May 1, 2021

- Americas revenue increased by \$113.4 million, reflecting sales increases of \$94.2 million within our Networking Platforms segment, \$12.3 million within our Global Services segment, and \$8.9 million within our Platform Software and Services segment. These sale increases were offset by a sales decrease of \$1.9 million within our Blue Planet Automation Software and Services segment. The increase within our Networking Platforms segment reflects product line sales increases of \$48.4 million of our Routing and Switching products and \$45.8 million of our Converged Packet Optical products. The increase within our Routing and Switching product line primarily reflects a sales increase of \$24.5 million of our 3000 and 5000 families of service delivery and aggregation switches, primarily to communication service providers. Also included in the Routing and Switching product line were sales of \$25.4 million of our Virtualization Edge software, which was acquired in the acquisition of Vyatta's virtual routing and switching technology in the first quarter of fiscal 2022. The increase within our Converged Packet Optical product line was primarily related to a sales increase of \$51.3 million of our Waveserver® products primarily to communication service providers.
- EMEA revenue decreased by \$9.9 million, reflecting sales decreases of \$5.4 million within our Networking Platforms segment, \$4.9 million within our Blue Planet Automation Software and Services segment, and \$1.6 million within our Global Services segment. These sales decreases were offset by a sales increase of \$2.0 million within our Platform Software and Services segment. Sales decreased by \$4.0 million from customers in Russia.
- APAC revenue increased by \$11.9 million, primarily reflecting sales increases of \$8.5 million within our Networking Platforms segment, \$2.0 million within our Global Services segment and \$1.7 million within our Platform Software and Services segment.

Six months ended April 30, 2022 as compared to the six months ended May 1, 2021

• Americas revenue increased by \$211.9 million, reflecting sales increases of \$160.8 million within our Networking Platforms segment, \$26.7 million within our Platform Software and Services segment, \$21.4 million within our Global Services segment, and \$3.0 million within our Blue Planet Automation Software and Services segment. Our Networking Platforms segment revenue increase reflects product line sales increases of \$90.0 million of Converged Packet Optical products and \$70.8 million of Routing and Switching products. Our Converged Packet Optical revenue increase primarily reflects sales increases of \$52.0 million of our 6500 Packet-Optical Platform, \$30.7 million of our Waveserver® products, and \$23.6 million of our 6500 Reconfigurable Line System (RLS) products, partially offset by a sales decrease of \$10.6 million of our 5430 Reconfigurable Switching Systems. Included in the Routing and Switching product line were sales of \$37.6 million of our Virtualization Edge software, which was acquired in the

^{**} Denotes % of Total Revenue

acquisition of Vyatta's virtual routing and switching technology in the first quarter of fiscal 2022, and a sales increase of \$38.1 million of our 3000 and 5000 families of service delivery and aggregation switches.

- EMEA revenue decreased by \$14.6 million, reflecting decreases of \$13.6 million within our Networking Platforms segment, \$4.1 million within our Blue Planet Automation Software and Services segment and \$3.0 million within our Global Services segment. These sales decreases were offset by a sales increase of \$6.1 million within our Platform Software and Services segment. Sales decreased by \$6.8 million from customers in Russia.
- APAC revenue increased by \$5.3 million, primarily reflecting increases of \$4.3 million within our Global Services segment, and \$2.8 million within our Platform Software and Services segment. These sales increases were offset by a sales decrease of \$1.8 million within our Blue Planet Automation Software and Services segment. Sales within our Networking Platforms segment remained relatively unchanged.

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 \$6.8 million in the first six 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):

		Quarte	ed			nded				
		April 30, 2022		May 1, 2021	%*		April 30, 2022		May 1, 2021	%*
Total revenue	\$	949,227	\$	833,927	13.8 %	\$	1,793,670	\$	1,591,057	12.7 %
Total cost of goods sold		547,446		421,508	29.9 %		1,007,702		820,747	22.8 %
Gross profit	\$	401,781	\$	412,419	(2.6)%	\$	785,968	\$	770,310	2.0 %
	0/0**	42 3 %		49 5 %			43.8 %		48 4 %	

^{*} Denotes % change from 2021 to 2022

^{**} Denotes % of total revenue

		Quarte	l		Six Mor	ths En	ded		
		april 30, 2022		May 1, 2021	%*	April 30, 2022		May 1, 2021	%*
Product revenue	\$	759,948	\$	670,043	13.4 %	\$ 1,424,955	\$	1,267,263	12.4 %
Product cost of goods sold		452,057		339,601	33.1 %	824,622		654,699	26.0 %
Product gross profit	\$	307,891	\$	330,442	(6.8)%	\$ 600,333	\$	612,564	(2.0)%
	0/0**	40.5 %		49 3 %		42.1 %		48 3 %	

^{*} Denotes % change from 2021 to 2022

^{**} Denotes % of product revenue

		Quarte	d		Six Months Ended					
		April 30, 2022		May 1, 2021	%*		April 30, 2022		May 1, 2021	%*
Services revenue	\$	189,279	\$	163,884	15.5 %	\$	368,715	\$	323,794	13.9 %
Services cost of goods sold		95,389		81,907	16.5 %		183,080		166,048	10.3 %
Services gross profit	\$	93,890	\$	81,977	14.5 %	\$	185,635	\$	157,746	17.7 %
	% **	49.6 %		50.0 %			50.3 %		48.7 %	

^{*} Denotes % change from 2021 to 2022

Quarter ended April 30, 2022 as compared to the quarter ended May 1, 2021

- Gross profit decreased by \$10.6 million. Gross margin decreased by 720 basis points, primarily due to increased costs of components resulting from global supply chain shortages and market-based price compression. The decrease also reflects the effect of a \$6.8 million benefit received in the second quarter of fiscal 2021 from the now-expired CEWS program. As described in "Overview" above, we expect the current constrained supply environment, including increased component and logistics costs, 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 for the foreseeable future and at least through the remainder of fiscal 2022.
- Gross profit on products decreased by \$22.6 million. Product gross margin decreased by 880 basis points, primarily due to the increased costs of components resulting from global supply chain shortages and market-based price compression. The decrease also reflects the effect of a \$4.2 million benefit received in the second quarter of fiscal 2021 from the now-expired CEWS program.
- Gross profit on services increased by \$11.9 million. Services gross margin decreased by 40 basis points, reflecting the effect of a \$2.6 million benefit recorded in the second quarter of fiscal 2021 from the now-expired CEWS program. Excluding the effect of the CEWS program, services margin improved due to higher margin on consulting and professional services and installation and deployment services.

Six months ended April 30, 2022 as compared to the six months ended May 1, 2021

- Gross profit increased by \$15.7 million. Gross margin decreased by 460 basis points, primarily due to increased costs of components resulting from global supply chain shortages and market-based price compression. The decrease also reflects the effect of a \$6.8 million benefit received in the second quarter of fiscal 2021 from the now-expired CEWS program. As described in "Overview" above, we expect the current market shortage for semiconductor components and constrained supply environment 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 for the foreseeable future and at least through the remainder of fiscal 2022.
- Gross profit on products decreased by \$12.2 million. Product gross margin decreased by 620 basis points, primarily due to increased costs of components resulting from global supply chain shortages and market-based price compression. The decrease also reflects the effect of a \$4.2 million benefit received in the second quarter of fiscal 2021 from the now-expired CEWS program.
- Gross profit on services increased by \$27.9 million. Services gross margin increased by 160 basis points, due to higher margin on consulting and professional services and installation and deployment services. This increase offset the effect of a \$2.6 million benefit from the now-expired CEWS program recorded in the second quarter of fiscal 2021.

Operating Expense

Currency Fluctuations

Approximately 51.0% of our operating expense was non-U.S. Dollar-denominated during the second quarter and first six months of fiscal 2022, including expenses in Canadian Dollars, Indian Rupees, and Euros. During the second quarter of fiscal 2022, as compared to the second quarter of fiscal 2021, and the first six months of fiscal 2022, as compared to the first six 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 \$4.1 million, or 1.2%, and \$5.5 million, or 0.8%, respectively.

CEWS Program Benefits

In the first six months of fiscal 2021, we recorded CEWS benefits of \$33.6 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	ed		Six Month	hs Er	ded		
		April 30, 2022		May 1, 2021	%*	April 30, 2022		May 1, 2021	%*
Research and development	\$	159,324	\$	110,246	44.5 %	\$ 307,733	\$	242,987	26.6 %
	%**	16.8 %		13.2 %		17.2 %		15.3 %	
Selling and marketing		119,939		110,387	8.7 %	238,820		207,665	15.0 %
	%**	12.6 %		13.2 %		13.3 %		13.1 %	
General and administrative		45,572		43,635	4.4 %	90,070		83,628	7.7 %
	%**	4.8 %		5.2 %		5.0 %		5.3 %	
Significant asset impairmen	its and								
restructuring costs		9,102		8,209	10.9 %	12,511		14,076	(11.1)%
	%**	1.0 %		1.0 %		0.7 %		0.9 %	
Amortization of intangible a	assets	8,920		6,019	48.2 %	17,838		11,929	49.5 %
	%**	0.9 %		0.7 %		1.0 %		0.7 %	
Acquisition and integration	costs	495		294	68.4 %	563		601	(6.3)%
	%**	0.1 %		— %		— %		— %	
Total operating expenses	\$	343,352	\$	278,790	23.2 %	\$ 667,535	\$	560,886	19.0 %
	%**	36.2 %		33.4 %		37.2 %		35.3 %	

^{*} Denotes % change from 2021 to 2022

Quarter ended April 30, 2022 as compared to the quarter ended May 1, 2021

- Research and development expense benefited from \$2.2 million as a result of foreign exchange rates, net of hedging, primarily due to a stronger U.S. Dollar in relation to the Indian Rupee and Canadian Dollar. Including the effect of foreign exchange rates, net of hedging, research and development expenses increased by \$49.1 million. This increase primarily reflects a \$28.9 million benefit from the now-expired CEWS program recorded in the second quarter of fiscal 2021 and increases in employee headcount and related compensation costs, professional services and technology and related costs.
- Selling and marketing expense benefited from \$1.6 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 \$9.6 million. This increase primarily reflects an increase in employee headcount and related compensation costs, travel and entertainment costs and a \$2.6 million benefit from the now-expired CEWS program recorded in the second quarter of fiscal 2021.
- General and administrative expense increased by \$1.9 million. This increase primarily reflects increases in employee headcount and related compensation costs and professional services and a \$2.2 million benefit from the now-expired CEWS program recorded in the second quarter of fiscal 2021, partially offset by reduced legal costs.
- Significant asset impairments and restructuring costs slightly increased by \$0.9 million, reflecting an impairment charge of \$4.1 million due to our suspended operations in Russia partially offset by 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 \$2.9 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 in the second quarter of fiscal 2022.
- · Acquisition and integration costs remained relatively unchanged.

Six months ended April 30, 2022 as compared to the six months ended May 1, 2021

• Research and development expense benefited from \$2.3 million as a result of foreign exchange rates, net of hedging, primarily due to fluctuations in the U.S. Dollar in relation to the Canadian Dollar and Indian Rupee. Including the effect of foreign exchange rates, net of hedging, research and development expenses increased by \$64.7 million. This increase primarily reflects the effect of a \$28.9 million benefit received from the now-expired CEWS program

^{**} Denotes % of Total Revenue

recorded in the second quarter of fiscal 2021 and increases in employee headcount and related compensation costs, professional services and technology and related costs.

- Selling and marketing expense benefited from \$2.6 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 \$31.2 million. This increase primarily reflects an increase in compensation costs and travel and entertainment costs and the effect of a \$2.6 million benefit received from the now-expired CEWS program recorded in the second quarter of fiscal 2021.
- General and administrative expense increased by \$6.4 million. This increase primarily reflects increases in employee headcount and related compensation costs and professional services and the effect of a \$2.2 million benefit received from the now-expired CEWS program recorded in the second quarter of fiscal 2021, partially offset by reduced legal costs.
- Significant asset impairments and restructuring costs decreased by \$1.6 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, offset by a \$4.1 million impairment charge due to our suspended operations in Russia.
- Amortization of intangible assets increased by \$5.9 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):

		Quarte	led			nded				
		April 30, 2022		May 1, 2021	%*		April 30, 2022		May 1, 2021	%*
Interest and other income (loss),	net \$	808	\$	(1,274)	163.4 %	\$	4,494	\$	(2,395)	287.6 %
%	**	0.1 %		(0.2)%			0.3 %		(0.2)%	
Interest expense	\$	11,985	\$	7,785	53.9 %	\$	20,633	\$	15,145	36.2 %
%	**	1.3 %		0.9 %			1.2 %		1.0 %	
Provision for income taxes	\$	8,330	\$	21,453	(61.2)%	\$	17,549	\$	33,419	(47.5)%
%	**	0.9 %		2.6 %			1.0 %		2.1 %	

^{*} Denotes % change from 2021 to 2022

Quarter ended April 30, 2022 as compared to the quarter ended May 1, 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.
- 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 for income taxes** decreased by \$13.1 million due to a decrease in pre-tax income for the second quarter of fiscal 2022. The effective tax rate for the second quarter of fiscal 2022 was higher compared to the second quarter of fiscal 2021, primarily due to a higher foreign tax rate.

Six months ended April 30, 2022 as compared to the six months ended May 1, 2021

- Interest and other income (loss), net primarily reflects a favorable adjustment to the carrying value of a cost method equity investment and the impact of foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity.
- Interest expense increased primarily due to additional outstanding indebtedness, including the 2030 Notes.

^{**} Denotes % of Total Revenue

• **Provision for income taxes** decreased by \$15.9 million due to a decrease in pre-tax income for the first six months of fiscal 2022. The effective tax rate for the first six months of fiscal 2022 was lower compared to the first six months of fiscal 2021, primarily due to a lower foreign tax rate in fiscal 2022.

Segment Profit (Loss)

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

		Quarter Ended			Six Months Ended						
	A	April 30, 2022		May 1, 2021	%*		April 30, 2022		May 1, 2021	%*	
Segment profit (loss):											
Networking Platforms	\$	152,769	\$	211,412	(27.7)%	\$	286,894	\$	367,843	(22.0)%	
Platform Software and Services	\$	43,556	\$	36,506	19.3 %	\$	93,052	\$	64,166	45.0 %	
Blue Planet Automation Software and Services	\$	(6,520)	\$	5,688	(214.6)%	\$	(7,554)	\$	3,254	(332.1)%	
Global Services	\$	52,652	\$	48,567	8.4 %	\$	105,843	\$	92,060	15.0 %	

Denotes % change from 2021 to 2022

Segment profit (loss) includes CEWS benefits of \$35.7 million in the first six 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 April 30, 2022 as compared to the quarter ended May 1, 2021

- Networking Platforms segment profit decreased by \$58.6 million, primarily due to lower gross margin as described above and higher research
 and development costs including the effect of a \$29.7 million benefit received from the now-expired CEWS program in the second quarter of
 fiscal 2021, partially offset by higher sales volume.
- Platform Software and Services segment profit increased by \$7.1 million, primarily due to higher sales volume, offset by lower gross margin, and higher research and development costs including the effect of a \$2.5 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021.
- Blue Planet Automation Software and Services segment reflects lower sales volume, lower gross margin, and higher research and development costs, including the effect of a \$1.2 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021.
- Global Services segment profit increased by \$4.1 million, primarily due to higher sales volume, offset by lower gross margin on services as described above and the effect of a \$2.3 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021.

Six months ended April 30, 2022 as compared to the six months ended May 1, 2021

- **Networking Platforms segment profit** decreased by \$80.9 million, primarily due to lower gross margin as described above, and higher research and development costs, including the effect of a \$29.7 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021, partially offset by higher sales volume.
- Platform Software and Services segment profit increased by \$28.9 million, primarily due to higher sales volume, offset by slightly lower gross margin and higher research and development costs including the effect of a \$2.5 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021.
- Blue Planet Automation Software and Services segment reflects reduced gross margin, lower sales volume and higher research and development costs including the effect of a \$1.2 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021.
- Global Services segment profit increased by \$13.8 million, primarily due to higher sales volume and higher gross margin on services as described above, offset by the effect of a \$2.3 million benefit received from the now-expired CEWS program in the second quarter of fiscal 2021.

Liquidity and Capital Resources

Overview. For the six months ended April 30, 2022, \$52.1 million of cash was provided by operating activities as our net income (adjusted for non-cash charges) of \$202.6 million exceeded our working capital requirements of \$150.5 million. For additional details, see "Cash Provided By Operating Activities" below.

Despite the cash provided by operating activities, cash, cash equivalents and investments decreased by \$37.5 million during the first six months of fiscal 2022 due to the following items: (i) cash used to fund our investing activities for capital expenditures totaling \$45.2 million; (ii) cash used for acquisition of businesses of \$62.0 million; (iii) cash used for stock repurchases under our stock repurchase program of \$332.8 million; (iv) stock repurchases on vesting of our stock unit awards to employees relating to tax withholding of \$35.0 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 \$8.8 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 \$15.2 million in cash during the six months ended April 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):

	April 30, 2022		October 30, 2021		Increase (decrease)	
Cash and cash equivalents	\$ 1,019,863	\$	1,422,546	\$	(402,683)	
Short-term investments in marketable debt securities	529,552		181,483		348,069	
Long-term investments in marketable debt securities	87,142		70,038		17,104	
Total cash and cash equivalents and investments in marketable debt securities	\$ 1,636,557	\$	1,674,067	\$	(37,510)	

Principal Sources of Liquidity. Our principal sources of liquidity on hand include our cash, cash equivalents and investments, which, as of April 30, 2022 totaled \$1.6 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 April 30, 2022, letters of credit totaling \$84.2 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of April 30, 2022.

Foreign Liquidity. Cash, cash equivalents, and short-term investments held by our foreign subsidiaries was \$269.1 million as of April 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 second quarter of fiscal 2022, we repurchased an additional \$87.0 million of our common stock under the stock repurchase program, and we had \$663.0 million remaining under the current repurchase authorization as of April 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 Provided By Operating Activities

The following sections set forth the components of our \$52.1 million of cash provided by operating activities during the first six 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):

	Six Months Ended April 30, 2022	
Net income	\$	84,745
Adjustments for non-cash charges:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements		46,030
Share-based compensation expenses		50,970
Amortization of intangible assets		24,463
Provision for inventory excess and obsolescence		8,487
Provision for warranty		7,228
Deferred taxes		(13,474)
Other		(5,833)
Net income (adjusted for non-cash charges)	\$	202,616

Working Capital

We used \$150.5 million of cash for working capital during the period. The following table sets forth the major components of the cash used in working capital (in thousands):

	Six Months Ended April 30, 2022	
Cash provided by accounts receivable	\$ 104,455	
Cash used in inventories	(171,056)	
Cash used in prepaid expenses and other	(36,673)	
Cash used in accounts payable, accruals and other obligations	(88,960)	
Cash provided by deferred revenue	43,753	
Cash used in operating lease assets and liabilities, net	(1,994)	
Total cash used for working capital	\$ (150,475)	

As compared to the end of fiscal 2021:

- The \$104.5 million of cash provided by accounts receivable during the first six months of fiscal 2022 reflects increased cash collections;
- The \$171.1 million of cash used in inventories during the first six 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 \$36.7 million of cash used in prepaid expense and other during the first six 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 \$89.0 million of cash used in accounts payable, accruals and other obligations during the first six months of fiscal 2022 primarily reflects the payment to employees under our annual cash incentive compensation plans;
- The \$43.8 million of cash provided by deferred revenue during the first six months of fiscal 2022 represents an increase in advanced payments received from customers prior to revenue recognition; and
- The \$2.0 million of cash used in operating lease assets and liabilities, net, during the first six months of fiscal 2022 represents cash paid for operating lease payments in excess of operating lease costs.

The days sales outstanding ("DSOs") for the first six months of fiscal 2022 were 86 days, and the inventory turns for the first six months of fiscal 2022 were 3.1. The calculation of DSOs includes accounts receivables, net and contract assets for unbilled receivables, net included in prepaid expenses and other.

Cash Paid for Interest

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

	x Months Ended April 30, 2022
Term Loan due September 28, 2025 ⁽¹⁾	\$ 8,316
Senior Notes due January 31, 2030 ⁽²⁾	_
Interest rate swaps ⁽³⁾	4,940
ABL Credit Facility ⁽⁴⁾	1,211
Finance leases	2,342
Cash paid during period	\$ 16,809

- (1) Interest on the 2025 Term Loan is payable periodically based on the interest period selected for borrowing. The 2025 Term Loan bears interest at LIBOR for the chosen borrowing period plus a spread of 1.75% subject to a minimum LIBOR rate of 0.00%. At the end of the second quarter of fiscal 2022, the interest rate on the 2025 Term Loan was 2.34%.
- (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 six months of fiscal 2022, we utilized the ABL Credit Facility to collateralize certain standby letters of credit and paid \$1.2 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 April 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 advance orders for supply of certain components to address our expected strong customer demand for fiscal 2022 and the corresponding long lead times resulting from the emerging supply chain challenges at that time. As of October 30, 2021, we had \$430.7 million in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory, which did not include approximately \$624.4 million in longer-term, cancellable advance orders that we did not consider to be firm commitments. As of April 30, 2022 we had \$1.8 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory, including approximately \$1.2 billion in such advance orders that, due to the ongoing nature of the supply chain shortage, we now consider to be firm commitments that are unlikely to be cancelled. In certain instances, we are permitted to cancel, reschedule or adjust these orders. Consequently, only a portion of this amount relates to firm, non-cancellable and unconditional obligations.

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 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. These conditions worsened for our business during the second quarter of fiscal 2022 with several key optical suppliers unable to meet their previous supply commitments due to constrained access to semiconductors, and due to a lack of supply for certain lower value, commodity parts, which we believe was exacerbated by government-mandated lockdowns in several cities in China in response to COVID-19. In an effort to mitigate these risks, we have incurred higher costs to secure available inventory, have 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, these 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 half of fiscal 2022 was adversely impacted by a range of disruptions in our supply chain, including later-than-expected 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 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 and financial results will persist for the foreseeable future, and specifically, we expect these conditions to adversely impact both our revenue and our profitability during the remainder of fiscal 2022.

Accurately predicting demand and necessary inventory levels 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. Accurately predicting demand and 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 April 30, 2022 we had \$1.8 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory. These inventory practices further introduce obsolescence risk and are resulting in increased costs and use of cash that could adversely impact our financial results. 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. This could result in loss of revenue, increased costs, or delays that could adversely impact customer satisfaction.

To avoid delays and meet customer delivery demands, we regularly place orders with our contract manufacturers and component suppliers based on forecasts of customer demand. In many cases these suppliers may require longer lead times for fulfillment than we have with our customers. Thus, our practice of buying inventory based on forecasted demand exposes us to the risk that our customers ultimately may not order the products we have forecast or will purchase fewer products than forecast. As a result, we may purchase inventory in anticipation of sales that ultimately do not occur. We regularly incur, on a

quarterly basis, expense provisions against excess or obsolete inventory and may have difficulty forecasting inventory and customer spending. Moreover, our customer purchase agreements generally do not include any minimum purchase commitment and customers often have the right to modify, reduce or cancel purchase quantities. Also, our products are highly configurable, and certain new products have overlapping feature sets or application with existing products. Accordingly, it is increasingly possible that customers may forgo purchases of certain products we have inventoried in favor of a similar or newer product. These practices and 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.

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 volume growth in recent periods, our backlog has grown from \$2.2 billion at the end of fiscal 2021 to \$4.1 billion at the end of the second 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 U.S. 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 immediately suspend our business operations in Russia. Although this decision has not materially impacted our results of operations for the second quarter of fiscal 2022 due to the limited amount of business that we conducted in Russia, 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 and storage and other business applications, and the systems and storage and other business applications maintained by our third-party providers, have been in the past, and may be in the future, 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 second quarter of fiscal 2022:

Period	Total Number of Shares Purchased ⁽¹⁾	Avera	age Price Paid per Share ⁽¹⁾	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Value of Shares that May Yet Be Purchased Under the Plans or Programs (in thousands) ⁽¹⁾		
January 30, 2022 to February 26, 2022	884,531	\$	69.78	884,531	\$	750,000	
February 27, 2022 to March 26, 2022	537,226	\$	58.07	537,226	\$	718,806	
March 27, 2022 to April 30, 2022	964,674	\$	57.84	964,674	\$	663,006	
	2,386,431	\$	62.32	2,386,431			

Approximate Dellar

Item 3. Defaults Upon Senior Securities

Not applicable.

⁽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. On December 13, 2021, we entered into the ASR Agreement with Goldman, Sachs & Co. ("Goldman"). Pursuant to the ASR Agreement, during the first quarter of fiscal 2022, we made an upfront payment of \$250.0 million and received an initial delivery of 2.7 million shares of our common stock which were retired. On February 15, 2022, we received a delivery from Goldman of the remaining 884,531 shares of common stock repurchased under the ASR Agreement, calculated based on the average of the daily volume-weighted average prices of our common stock of \$69.78 for the period from December 14, 2021 to February 11, 2022, which completed the repurchases contemplated by the ASR Agreement. During the second quarter of fiscal 2022, we repurchased an additional \$87.0 million of our common stock under the stock repurchase program, and we had \$663.0 million remaining under the current repurchase authorization as of April 30, 2022.

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)

fSIGNATURES

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

Ciena Corporation

Date: June 8, 2022 By: /s/ Gary B. Smith

Gary B. Smith

President, Chief Executive Officer

and Director

(Duly Authorized Officer)

Date: June 8, 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: June 8, 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: June 8, 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 April 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 June 8, 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 April 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 June 8, 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.