UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

(Mark one)

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

For the quarterly period ended April 27, 2024

OR

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

For the transition period from__________to__________

Commission File Number: **001-36250**

Ciena Corporation

(Exact name of registrant as specified in its charter)

Delaware	**23-2725311**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
7035 Ridge Road, Hanover, MD	**21076**
(Address of principal executive offices)	(Zip Code)

(410) 694-5700

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	**CIEN**	**New York Stock Exchange**

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☑	Accelerated filer	☐	Non-accelerated filer	☐	Smaller reporting company	☐
						Emerging growth company	☐

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

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

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

Class	Outstanding as of May 31, 2024
Common Stock, par value $0.01 per share	143,705,017

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

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

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Revenue:				
Products	$ 701,316	$ 935,330	$ 1,537,093	$ 1,813,045
Services	209,510	197,325	411,442	376,131
Total revenue	910,826	1,132,655	1,948,535	2,189,176
Cost of goods sold:				
Products	415,732	541,883	882,204	1,042,220
Services	106,433	103,089	210,708	203,327
Total cost of goods sold	522,165	644,972	1,092,912	1,245,547
Gross profit	388,661	487,683	855,623	943,629
Operating expenses:				
Research and development	195,380	189,993	382,649	371,723
Selling and marketing	124,071	125,083	252,229	248,890
General and administrative	49,573	50,939	104,256	101,835
Significant asset impairments and restructuring costs	15,655	8,153	20,626	12,451
Amortization of intangible assets	7,947	9,845	15,199	17,286
Acquisition and integration costs	—	857	—	3,415
Total operating expenses	392,626	384,870	774,959	755,600
Income (loss) from operations	(3,965)	102,813	80,664	188,029
Interest and other income, net	11,797	8,551	22,447	40,524
Interest expense	(23,861)	(23,889)	(47,637)	(39,759)
Income (loss) before income taxes	(16,029)	87,475	55,474	188,794
Provision for income taxes	820	29,821	22,776	54,899
Net income (loss)	$ (16,849)	$ 57,654	$ 32,698	$ 133,895
Basic net income (loss) per common share	$ (0.12)	$ 0.39	$ 0.23	$ 0.90
Diluted net income (loss) per potential common share	$ (0.12)	$ 0.38	$ 0.22	$ 0.89
Weighted average basic common shares outstanding	144,914	149,616	145,104	149,351
Weighted average dilutive potential common shares outstanding	144,914	150,147	146,059	149,852

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

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

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Net income (loss)	$ (16,849)	$ 57,654	$ 32,698	$ 133,895
Unrealized gain (loss) on available-for-sale securities, net of tax	(1,178)	648	(282)	1,698
Unrealized gain (loss) on foreign currency forward contracts, net of tax	(2,548)	(1,151)	4,608	4,191
Unrealized gain (loss) on interest rate swaps, net of tax	13,539	(1,803)	4,065	(6,827)
Change in cumulative translation adjustments	(6,676)	(8,150)	7,647	7,829
Other comprehensive income (loss)	3,137	(10,456)	16,038	6,891
Total comprehensive income (loss)	$ (13,712)	$ 47,198	$ 48,736	$ 140,786

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

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

	April 27, 2024	October 28, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,091,289	$ 1,010,618
Short-term investments	165,620	104,753
Accounts receivable, net of allowance for credit losses of $11.4 million and $11.7 million as of April 27, 2024 and October 28, 2023, respectively.	840,131	1,003,876
Inventories, net	1,022,615	1,050,838
Prepaid expenses and other	421,692	405,694
Total current assets	3,541,347	3,575,779
Long-term investments	165,960	134,278
Equipment, building, furniture and fixtures, net	274,353	280,147
Operating right-of-use assets	30,210	35,140
Goodwill	444,917	444,765
Other intangible assets, net	184,941	205,627
Deferred tax asset, net	821,879	809,306
Other long-term assets	151,196	116,453
Total assets	$ 5,614,803	$ 5,601,495
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 332,106	$ 317,828
Accrued liabilities and other short-term obligations	355,258	431,419
Deferred revenue	196,989	154,419
Operating lease liabilities	16,138	16,655
Current portion of long-term debt	11,700	11,700
Total current liabilities	912,191	932,021
Long-term deferred revenue	80,365	74,041
Other long-term obligations	172,839	170,407
Long-term operating lease liabilities	28,513	33,259
Long-term debt, net	1,540,639	1,543,406
Total liabilities	2,734,547	2,753,134
Commitments and contingencies (Note 19)		
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; 144,199,201 and 144,829,938 shares issued and outstanding	1,442	1,448
Additional paid-in capital	6,245,248	6,262,083
Accumulated other comprehensive loss	(21,729)	(37,767)
Accumulated deficit	(3,344,705)	(3,377,403)
Total stockholders' equity	2,880,256	2,848,361
Total liabilities and stockholders' equity	$ 5,614,803	$ 5,601,495

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

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

	Six Months Ended	
	April 27, 2024	April 29, 2023
Cash flows provided by (used in) operating activities:		
Net income	$ 32,698	$ 133,895
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	46,016	45,903
Share-based compensation expense	78,075	62,372
Amortization of intangible assets	20,726	23,600
Deferred taxes	(8,946)	(2,134)
Provision for inventory excess and obsolescence	23,152	12,691
Provision for warranty	8,629	13,577
Gain on equity investments, net	—	(26,455)
Other	11,509	11,331
Changes in assets and liabilities:		
Accounts receivable	155,107	(116,914)
Inventories	5,346	(162,143)
Prepaid expenses and other	(37,441)	(41,511)
Operating lease right-of-use assets	6,111	7,644
Accounts payable, accruals and other obligations	(56,064)	(55,754)
Deferred revenue	48,641	68,818
Short- and long-term operating lease liabilities	(9,010)	(10,748)
Net cash provided by (used in) operating activities	324,549	(35,828)
Cash flows used in investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(33,500)	(58,034)
Purchases of investments	(171,131)	(106,245)
Proceeds from sales and maturities of investments	83,013	123,251
Settlement of foreign currency forward contracts, net	(828)	(6,194)
Purchase of equity investment	(16,256)	—
Acquisition of business, net of cash acquired	—	(230,048)
Net cash used in investing activities	(138,702)	(277,270)
Cash flows provided by (used in) financing activities:		
Proceeds from issuance of term loan, net	—	497,500
Payment of long-term debt	(2,925)	(3,465)
Payment of debt issuance costs	(2,554)	(5,230)
Payment of finance lease obligations	(1,989)	(1,864)
Shares repurchased for tax withholdings on vesting of stock unit awards	(22,428)	(22,022)
Repurchases of common stock - repurchase program, net	(94,817)	—
Proceeds from issuance of common stock	16,876	14,656
Net cash provided by (used in) financing activities	(107,837)	479,575
Effect of exchange rate changes on cash, cash equivalents and restricted cash	2,659	6,867
Net increase in cash, cash equivalents and restricted cash	80,669	173,344
Cash, cash equivalents and restricted cash at beginning of period	1,010,786	994,378
Cash, cash equivalents and restricted cash at end of period	$ 1,091,455	$ 1,167,722
Supplemental disclosure of cash flow information		
Cash paid during the period for interest, net	$ 45,782	$ 37,514
Cash paid during the period for income taxes, net	$ 29,193	$ 24,218
Operating lease payments	$ 9,964	$ 11,689
Non-cash investing and financing activities		
Purchase of equipment in accounts payable	$ 6,365	$ 4,618
Repurchase of common stock in accrued liabilities from repurchase program	$ 3,859	$ —
Operating right-of-use assets subject to lease liability	$ 3,639	$ 6,177
Gain on equity investments, net	$ —	$ 26,455

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

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

	Common Stock Shares	Par Value	Additional Paid-in-Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at October 28, 2023	144,829,938	$ 1,448	$ 6,262,083	$ (37,767)	$ (3,377,403)	$ 2,848,361
Net income	—	—	—	—	32,698	32,698
Other comprehensive income	—	—	—	16,038	—	16,038
Repurchase of common stock - repurchase program, net	(1,816,529)	(18)	(89,346)	—	—	(89,364)
Issuance of shares from employee equity plans	1,667,555	17	16,859	—	—	16,876
Share-based compensation expense	—	—	78,075	—	—	78,075
Shares repurchased for tax withholdings on vesting of stock unit awards	(481,763)	(5)	(22,423)	—	—	(22,428)
Balance at April 27, 2024	144,199,201	$ 1,442	$ 6,245,248	$ (21,729)	$ (3,344,705)	$ 2,880,256

	Common Stock Shares	Par Value	Additional Paid-in-Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at October 29, 2022	148,412,943	$ 1,484	$ 6,390,252	$ (46,645)	$ (3,632,230)	$ 2,712,861
Net income	—	—	—	—	133,895	133,895
Other comprehensive income	—	—	—	6,891	—	6,891
Issuance of shares from employee equity plans	1,533,085	15	14,641	—	—	14,656
Share-based compensation expense	—	—	62,372	—	—	62,372
Shares repurchased for tax withholdings on vesting of stock unit awards	(447,563)	(4)	(22,018)	—	—	(22,022)
Balance at April 29, 2023	149,498,465	$ 1,495	$ 6,445,247	$ (39,754)	$ (3,498,335)	$ 2,908,653

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

CIENA CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

(1) INTERIM FINANCIAL STATEMENTS

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

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires Ciena to make judgments, assumptions, and estimates that affect the amounts reported in the Condensed Consolidated Financial Statements and accompanying notes. 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 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 28, 2023 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 the fiscal year ended October 28, 2023 (the "2023 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 2024 is a 53-week fiscal year with the additional week occurring in the fourth quarter. Fiscal 2023 was a 52-week fiscal year.

(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 2023 Annual Report.

Newly Issued Accounting Standards - Effective

In October 2021, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("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 was effective for Ciena beginning in the first quarter of fiscal 2024 without any material impact on its consolidated financial position, results of operations and related disclosures.

Newly Issued Accounting Standards - Not Yet Effective

In November 2023, the FASB issued ASU No. 2023-07 ("ASU 2023-07"), *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023 on a retrospective basis. Early adoption is permitted. Ciena is currently evaluating the impact of this ASU on its consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU No. 2023-09 ("ASU 2023-09"), *Income Taxes (Topic 740): Improvement to Income Tax Disclosures* to enhance the transparency and decision usefulness of income tax disclosures. ASU 2023-09 is effective for annual periods beginning after December 15, 2024; however, early adoption is permitted. ASU 2023-09 allows for adoption using either a prospective or retrospective method. Ciena is currently evaluating the impact of this ASU on its consolidated financial statements and related disclosures.

In March 2024, the SEC adopted final rules under SEC Release No. 33-11275, *The Enhancement and Standardization of Climate Related Disclosures for Investors*, which requires registrants to provide certain climate-related information in their registration statements and annual reports. The rules require information about a registrant's climate-related risks that are reasonably likely to have a material impact on its business, results of operations, or financial condition. The required information about climate-related risks will also include disclosure of a registrant's greenhouse gas emissions. In addition, the rules will require registrants to present certain climate-related financial metrics in their audited financial statements. Disclosures would be required prospectively, with information for prior periods required only to the extent it was previously disclosed in an SEC filing. Ciena is currently evaluating the impact of these final rules on its consolidated financial statements and related disclosures. On April 12, 2024, the final rules were indefinitely delayed pending the completion of judicial review in consolidated proceedings in the U.S. Court of Appeals, Eighth Circuit.

(3) REVENUE

Disaggregation of Revenue

Ciena's disaggregated revenue as presented below depicts the nature, amount, and timing of revenue for similar groupings of Ciena's products and services. 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 periods indicated (in thousands):

	Quarter Ended April 27, 2024				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Optical Networking	$ 560,224	$ —	$ —	$ —	$ 560,224
Routing and Switching	116,034	—	—	—	116,034
Platform Software and Services	—	85,445	—	—	85,445
Blue Planet Automation Software and Services	—	—	14,434	—	14,434
Maintenance Support and Training	—	—	—	77,410	77,410
Installation and Deployment	—	—	—	43,785	43,785
Consulting and Network Design	—	—	—	13,494	13,494
Total revenue by product line	$ 676,258	$ 85,445	$ 14,434	$ 134,689	$ 910,826
Timing of revenue recognition:					
Products and services at a point in time	$ 676,258	$ 22,689	$ 2,848	$ 10,432	$ 712,227
Services transferred over time	—	62,756	11,586	124,257	198,599
Total revenue by timing of revenue recognition	$ 676,258	$ 85,445	$ 14,434	$ 134,689	$ 910,826

	Quarter Ended April 29, 2023				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Optical Networking	$ 784,549	$ —	$ —	$ —	$ 784,549
Routing and Switching	130,310	—	—	—	130,310
Platform Software and Services	—	69,443	—	—	69,443
Blue Planet Automation Software and Services	—	—	20,567	—	20,567
Maintenance Support and Training	—	—	—	73,160	73,160
Installation and Deployment	—	—	—	39,486	39,486
Consulting and Network Design	—	—	—	15,140	15,140
Total revenue by product line	$ 914,859	$ 69,443	$ 20,567	$ 127,786	$ 1,132,655
Timing of revenue recognition:					
Products and services at a point in time	$ 914,859	$ 13,447	$ 7,329	$ 15,412	$ 951,047
Services transferred over time	—	55,996	13,238	112,374	181,608
Total revenue by timing of revenue recognition	$ 914,859	$ 69,443	$ 20,567	$ 127,786	$ 1,132,655

	Six Months Ended April 27, 2024				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Optical Networking	$ 1,256,072	$ —	$ —	$ —	$ 1,256,072
Routing and Switching	227,421	—	—	—	227,421
Platform Software and Services	—	175,190	—	—	175,190
Blue Planet Automation Software and Services	—	—	28,376	—	28,376
Maintenance Support and Training	—	—	—	151,525	151,525
Installation and Deployment	—	—	—	86,509	86,509
Consulting and Network Design	—	—	—	23,442	23,442
Total revenue by product line	$ 1,483,493	$ 175,190	$ 28,376	$ 261,476	$ 1,948,535
Timing of revenue recognition:					
Products and services at a point in time	$ 1,483,493	$ 50,383	$ 3,916	$ 20,071	$ 1,557,863
Services transferred over time	—	124,807	24,460	241,405	390,672
Total revenue by timing of revenue recognition	$ 1,483,493	$ 175,190	$ 28,376	$ 261,476	$ 1,948,535

	Six months ended April 29, 2023				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Product lines:					
Optical Networking	$ 1,520,183	$ —	$ —	$ —	$ 1,520,183
Routing and Switching	249,814	—	—	—	249,814
Platform Software and Services	—	142,888	—	—	142,888
Blue Planet Automation Software and Services	—	—	35,973	—	35,973
Maintenance Support and Training	—	—	—	141,051	141,051
Installation and Deployment	—	—	—	74,061	74,061
Consulting and Network Design	—	—	—	25,206	25,206
Total revenue by product line	$ 1,769,997	$ 142,888	$ 35,973	$ 240,318	$ 2,189,176
Timing of revenue recognition:					
Products and services at a point in time	$ 1,769,997	$ 32,311	$ 11,312	$ 24,667	$ 1,838,287
Services transferred over time	—	110,577	24,661	215,651	350,889
Total revenue by timing of revenue recognition	$ 1,769,997	$ 142,888	$ 35,973	$ 240,318	$ 2,189,176

Ciena reports its sales geographically using the following markets: (i) the United States, Canada, the Caribbean and Latin America (“Americas”); (ii) Europe, Middle East and Africa (“EMEA”); and (iii) Asia Pacific, Japan and India (“APAC”). Within each geographic area, Ciena maintains specific teams or personnel that focus on a particular region, country, customer or market vertical. These teams include sales management, account salespersons, and sales engineers, as well as services professionals and commercial management personnel. 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 indicated, Ciena’s geographic distribution of revenue was as follows (in thousands):

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Geographic distribution:				
Americas	$ 662,877	$ 794,359	$ 1,381,075	$ 1,559,455
EMEA	155,791	173,414	363,203	326,218
APAC	92,158	164,882	204,257	303,503
Total revenue by geographic distribution	$ 910,826	$ 1,132,655	$ 1,948,535	$ 2,189,176

Ciena’s revenue includes $618.8 million and $722.6 million of United States revenue for the second quarter of fiscal 2024 and 2023, respectively. For the six months ended April 27, 2024 and April 29, 2023, United States revenue was $1.3 billion and $1.4 billion, respectively. No other country accounted for 10% or more of total revenue for the periods indicated in the above table.

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

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
AT&T	$ 125,493	n/a	$ 211,705	$ 251,329
Cloud Provider	n/a	$ 123,452	n/a	244,779
Total	$ 125,493	$ 123,452	$ 211,705	$ 496,108

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

AT&T purchased products and services from each of Ciena's operating segments for each of the periods presented. The cloud provider noted in the above table purchased products from each of Ciena's operating segments excluding Blue Planet® Automation Software and Services for each of the periods presented.

A description of each of Ciena's operating segments is set forth below:

- *Networking Platforms* revenue reflects sales of Ciena's Optical Networking and Routing and Switching product lines.
    - Optical Networking - includes the 6500 Packet-Optical Platform, the Waveserver® modular 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 WaveLogic 5 Nano (WL5n) 100G-400G coherent pluggable transceivers.
    - Routing and Switching - includes the 3000 family of service delivery platforms and the 5000 family of service aggregation. This product line also includes the 6500 Packet Transport System (PTS), which combines packet switching, control plane operation, and integrated optics, the 8100 Coherent IP networking platforms, the 8700 Packetwave Platform, virtualization software and Ciena's WaveRouter® product. This product line also includes SD-Edge software and passive optical network (PON) routing and switching portfolio products.

  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* offerings provide domain control management, analytics, data and planning tools and applications to assist customers in managing their networks, including by creating more efficient operations and providing more visibility into their networks. Ciena's platform software includes its Navigator Network Control Suite™ ("Navigator NCS") domain controller solution, its suite of Navigator NCS applications, previously referred to as "Manage, Control and Plan (MCP)," its OneControl Unified Management System, and planning tools and legacy software solutions that support Ciena's installed base of network solutions. Platform software-related services revenue includes sales of subscription, installation, support, and consulting services related to Ciena's software platforms, operating system software and enhanced software features embedded in each of the Networking Platforms product lines above. Revenue from the software portion of this segment is included in product revenue on the Condensed Consolidated Statements of Operations. Revenue from services portions of this segment is included in services revenue on the Condensed Consolidated Statements of Operations.

- *Blue Planet Automation Software and Services* is a comprehensive, cloud native, and standards-based software portfolio, together with related services, that enables customers to realize digital transformation through the automation of the services lifecycle. Ciena's Blue Planet Automation Platform includes multi-domain service orchestration (MDSO), inventory management (BPI), route optimization and analysis (ROA), multi-cloud orchestration (MCO), and unified assurance and analytics (UAA). Services revenue includes sales of subscription, installation, support, consulting and design services related to Ciena's Blue Planet Automation Platform. Revenue from the software portion of this segment is included in product revenue on the Condensed Consolidated Statements of Operations. Revenue from services portions of this segment is included in services revenue on the Condensed Consolidated Statements of Operations.

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

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

Contract Balances

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

	Balance at April 27, 2024	Balance at October 28, 2023
Accounts receivable, net	$ 840,131	$ 1,003,876
Contract assets for unbilled accounts receivable, net	$ 151,896	$ 150,312
Deferred revenue	$ 277,354	$ 228,460

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 10 below.

Deferred revenue represents contract liabilities and consists of advanced payments against non-cancelable customer orders received prior to revenue recognition. Ciena recognized approximately $105.3 million and $100.1 million of revenue during the first six months of fiscal 2024 and 2023, respectively, that was included in the deferred revenue balance as of October 28, 2023 and October 29, 2022, 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 27, 2024 and April 29, 2023.

Capitalized Contract Acquisition Costs

Capitalized contract acquisition costs consist of deferred sales commissions, and were $26.7 million and $30.2 million as of April 27, 2024 and October 28, 2023, 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 $14.9 million and $16.2 million during the first six months of fiscal 2024 and 2023, respectively, and was included in selling and marketing expense on the Condensed Consolidated Statements 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 27, 2024, the aggregate amount of RPO was $1.5 billion. As of April 27, 2024, Ciena expects approximately 78% of the RPO balance to be recognized as revenue within the next 12 months.

(4) 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 27, 2024 (in thousands):

	Workforce reduction	Other restructuring activities	Total
Balance at October 28, 2023	$ 1,913	$ —	$ 1,913
Charges	13,984 (1)	6,642 (2)	20,626
Cash payments	(7,147)	(6,642)	(13,789)
Balance at April 27, 2024	$ 8,750	$ —	$ 8,750
Current restructuring liabilities	$ 8,750	$ —	$ 8,750

(1) Reflects a global workforce reduction of approximately 360 employees during the six months ended April 27, 2024 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes.

(2) Primarily represents costs related to restructured real estate facilities and the redesign of certain business processes associated with Ciena's supply chain and distribution structure reorganization.

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 29, 2023 (in thousands):

	Workforce reduction	Other restructuring activities	Total
Balance at October 29, 2022	$ 1,215	$ 4,620	$ 5,835
Charges	2,863 (1)	9,588 (2)	12,451
Cash payments	(1,783)	(14,208)	(15,991)
Balance at April 29, 2023	$ 2,295	$ —	$ 2,295
Current restructuring liabilities	$ 2,295	$ —	$ 2,295

(1) Reflects employee costs associated with workforce reductions during the six months ended April 29, 2023 as part of a business optimization strategy to improve gross margin, constrain operating expense, and redesign certain business processes.

(2) Primarily represents costs related to restructured real estate facilities and the redesign of certain business processes associated with Ciena's supply chain and distribution structure reorganization.

(5) INTEREST AND OTHER INCOME, NET

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

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Interest income	$ 15,255	$ 10,416	$ 30,433	$ 17,530
Gains (losses) on non-hedge designated foreign currency forward contracts	(1,114)	(2,795)	1,998	(4,564)
Foreign currency exchange gains (losses)	(411)	2,987	(9,604)	1,104
Gain on equity investments, net	—	—	—	26,455
Other	(1,933)	(2,057)	(380)	(1)
Interest and other income, net	$ 11,797	$ 8,551	$ 22,447	$ 40,524

During the first quarter of fiscal 2023, the acquisition of Tibit Communications, Inc. ("Tibit") by Ciena triggered the remeasurement of Ciena's previously held investment in Tibit to fair value, which resulted in Ciena recognizing a gain on its equity investment of $26.5 million.

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. During the first six months of fiscal 2024, Ciena recorded $9.6 million in foreign currency exchange rate losses as a result of monetary assets and liabilities that were transacted in a currency other than Ciena's functional currency. During the first six months fiscal 2023, Ciena recorded $1.1

million in foreign currency exchange rate gains 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, 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, net, on the Condensed Consolidated Statements of Operations. During the first six months of fiscal 2024, Ciena recorded gains of $2.0 million from non-hedge designated foreign currency forward contracts. During the first six months of fiscal 2023, Ciena recorded losses of $4.6 million from non-hedge designated foreign currency forward contracts.

(6) INCOME TAXES

The effective tax rate for the quarter ended April 27, 2024 was lower than the effective tax rate for the quarter ended April 29, 2023, primarily due to a decrease in pre-tax book income for the quarter.

The effective tax rate for the six months ended April 27, 2024 was higher than the effective tax rate for the six months ended April 29, 2023, primarily due to a reduction in pre-tax book income in lower tax jurisdictions.

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

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

	April 27, 2024			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations	$ 261,150	$ —	$ (776)	$ 260,374
Corporate debt securities	59,692	5	(77)	59,620
Time deposits	164,198	11	(1)	164,208
	$ 485,040	$ 16	$ (854)	$ 484,202
Included in cash equivalents	$ 152,622	$ —	$ —	$ 152,622
Included in short-term investments	165,821	14	(215)	165,620
Included in long-term investments	166,597	2	(639)	165,960
	$ 485,040	$ 16	$ (854)	$ 484,202

	October 28, 2023			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations	$ 170,260	$ 28	$ (379)	$ 169,909
Corporate debt securities	59,683	1	(115)	59,569
Time deposits	138,830	4	(5)	138,829
	$ 368,773	$ 33	$ (499)	$ 368,307
Included in cash equivalents	$ 129,276	$ —	$ —	$ 129,276
Included in short-term investments	105,042	4	(293)	104,753
Included in long-term investments	134,455	29	(206)	134,278
	$ 368,773	$ 33	$ (499)	$ 368,307

The following table summarizes the final legal maturities of debt investments as of April 27, 2024 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	$ 318,443	$ 318,242
Due in 1-2 years	166,597	165,960
	$ 485,040	$ 484,202

(8) FAIR VALUE MEASUREMENTS

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

	April 27, 2024			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 700,930	$ —	$ —	$ 700,930
Bond mutual fund	158,297	—	—	158,297
Time deposits	164,208	—	—	164,208
Deferred compensation plan assets	14,479	—	—	14,479
U.S. government obligations	—	260,374	—	260,374
Corporate debt securities	—	59,620	—	59,620
Foreign currency forward contracts	—	1,341	—	1,341
Interest rate swaps	—	30,296	—	30,296
Total assets measured at fair value	$ 1,037,914	$ 351,631	$ —	$ 1,389,545
Liabilities:				
Foreign currency forward contracts	$ —	$ 6,173	$ —	$ 6,173
Total liabilities measured at fair value	$ —	$ 6,173	$ —	$ 6,173

	October 28, 2023			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 661,101	$ —	$ —	$ 661,101
Bond mutual fund	104,171	—	—	104,171
Time deposits	138,829	—	—	138,829
Deferred compensation plan assets	11,456	—	—	11,456
U.S. government obligations	—	169,909	—	169,909
Corporate debt securities	—	59,569	—	59,569
Foreign currency forward contracts	—	1,119	—	1,119
Interest rate swaps	—	24,953	—	24,953
Total assets measured at fair value	$ 915,557	$ 255,550	$ —	$ 1,171,107
Liabilities:				
Foreign currency forward contracts	$ —	$ 14,509	$ —	$ 14,509
Total liabilities measured at fair value	$ —	$ 14,509	$ —	$ 14,509

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

	April 27, 2024			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 1,007,962	$ 3,887	$ —	$ 1,011,849
Short-term investments	15,473	150,147	—	165,620
Prepaid expenses and other	—	1,341	—	1,341
Long-term investments	—	165,960	—	165,960
Other long-term assets	14,479	30,296	—	44,775
Total assets measured at fair value	$ 1,037,914	$ 351,631	$ —	$ 1,389,545
Liabilities:				
Accrued liabilities and other short-term obligations	$ —	$ 6,173	$ —	$ 6,173
Total liabilities measured at fair value	$ —	$ 6,173	$ —	$ 6,173

	October 28, 2023			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 891,788	$ 2,760	$ —	$ 894,548
Short-term investments	12,313	92,440	—	104,753
Prepaid expenses and other	—	1,119	—	1,119
Long-term investments	—	134,278	—	134,278
Other long-term assets	11,456	24,953	—	36,409
Total assets measured at fair value	$ 915,557	$ 255,550	$ —	$ 1,171,107
Liabilities:				
Accrued liabilities and other short-term obligations	$ —	$ 14,509	$ —	$ 14,509
Total liabilities measured at fair value	$ —	$ 14,509	$ —	$ 14,509

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

(9) INVENTORIES

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

	April 27, 2024	October 28, 2023
Raw materials	$ 638,920	$ 664,797
Work-in-process	68,182	55,242
Finished goods	331,317	314,168
Deferred cost of goods sold	43,692	66,634
Gross inventories	1,082,111	1,100,841
Reserve for inventory excess and obsolescence	(59,496)	(50,003)
Inventories, net	$ 1,022,615	$ 1,050,838

Ciena has been expanding its manufacturing capacity and had been accumulating raw materials inventory of components that are available, in some cases with expanded lead times, in an effort to prepare Ciena to produce finished goods more quickly upon the easing of supply constraints for certain common components. During the first half of fiscal 2024 Ciena reduced its raw materials inventory of components due to the consumption of raw materials in excess of purchases. The increase in finished goods and work-in-process inventories resulted primarily from planned fulfillment of customer advance orders for which some deliveries were rescheduled outside of the second quarter of fiscal 2024.

Ciena makes estimates about future customer demand for its products when establishing the appropriate reserve for excess and obsolete inventory. For the periods presented, future demand was calculated using both customer backlog and future forecasted sales. Generally, Ciena's customers may cancel or change their orders with limited advance notice, or they may decide not to accept its products and services, although instances of both cancellation and non-acceptance are rare. 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 2024, Ciena recorded a provision for inventory excess and obsolescence of $23.2 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.

(10) PREPAID EXPENSES AND OTHER

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

	April 27, 2024	October 28, 2023
Contract assets for unbilled accounts receivable, net	$ 151,897	$ 150,312
Prepaid VAT and other taxes	96,803	96,724
Prepaid expenses	71,600	58,954
Product demonstration equipment, net	41,031	40,682
Other non-trade receivables	38,999	33,408
Capitalized contract acquisition costs	19,245	23,326
Derivative Assets	1,341	1,118
Deferred deployment expense	776	1,170
	$ 421,692	$ 405,694

Depreciation of product demonstration equipment was $3.9 million during the first six months of fiscal 2024 and $3.8 million during the first six months of fiscal 2023.

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

(11) OTHER BALANCE SHEET DETAILS

As of the dates indicated, other long-term assets are comprised of the following (in thousands):

	April 27, 2024	October 28, 2023
Maintenance spares inventory, net	$ 62,331	$ 54,042
Forward starting interest rate swaps	30,296	24,953
Equity investments[1]	16,304	48
Deferred compensation plan assets	14,479	11,456
Capitalized contract acquisition costs	7,471	6,879
Cloud computing arrangements[2]	7,265	8,589
Deferred debt issuance costs, net	1,879	1,956
Restricted cash	166	168
Other	11,005	8,362
	$ 151,196	$ 116,453

(1) Increase is due to an equity investment in a privately held technology company during the second quarter of fiscal 2024.

(2) Amortization of cloud computing arrangements was $2.4 million and $1.2 million during the first six months of fiscal 2024 and fiscal 2023, respectively.

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

	April 27, 2024	October 28, 2023
Compensation, payroll related tax and benefits	$ 130,308	$ 159,530
Warranty	49,896	57,089
Vacation	31,687	29,503
Income taxes payable	7,438	16,341
Foreign currency forward contracts	6,173	14,509
Interest payable	4,807	4,514
Finance lease liabilities	4,234	3,953
Other	120,715	145,980
	$ 355,258	$ 431,419

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

	Beginning Balance	Current Period Provisions	Settlements	Ending Balance
Six Months Ended April 29, 2023	$ 45,503	13,577	(9,893)	$ 49,187
Six Months Ended April 27, 2024	$ 57,089	8,629	(15,822)	$ 49,896

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

	April 27, 2024	October 28, 2023
Products	$ 22,583	$ 28,353
Services	254,771	200,107
Total deferred revenue	277,354	228,460
Less current portion	(196,989)	(154,419)
Long-term deferred revenue	$ 80,365	$ 74,041

(12) 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 27, 2024 and October 28, 2023, Ciena had forward contracts to hedge its foreign exchange exposure in order to reduce variability in certain currencies for expenses principally related to research and development activities. The notional amount of these contracts was approximately $316.9 million and $367.3 million as of April 27, 2024 and October 28, 2023, respectively. These foreign exchange contracts have maturities of 24 months or less and have been designated as cash flow hedges.

As of April 27, 2024 and October 28, 2023, Ciena had forward contracts designated as net investment hedges to minimize the effect of foreign exchange rate movements on its net investments in foreign operations. In April 2024, Ciena terminated its existing net investment hedges for a cash loss of $0.6 million, which was recorded to Other Comprehensive Income (Loss). Ciena replaced its terminated net investment hedges with new net investment hedges. The notional amount of these contracts was approximately $65.9 million and $48.0 million as of April 27, 2024 and October 28, 2023, respectively. These foreign exchange contracts have maturities of 36 months or less and have been designated as net investment hedges as of April 27, 2024.

As of April 27, 2024 and October 28, 2023, Ciena had forward contracts in place 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 $239.1 million and $226.3 million as of April 27, 2024 and October 28, 2023, 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 interest on its term loan borrowings (see Note 13 below) and has hedged such risk by entering into floating-to-fixed interest rate swap arrangements.

In April 2022, Ciena entered into forward starting interest rate swaps to fix the Secured Overnight Financing Rate ("SOFR") for the first $350.0 million of its floating rate debt at 2.968% from September 2023 through September 2025 ("2025 interest rate swaps"). The total notional amount of the 2025 interest swaps was $350.0 million as of April 27, 2024 and October 28, 2023.

In January 2023, Ciena entered into interest rate swaps to fix SOFR for an additional $350.0 million of its floating rate debt at 3.47% through January 2028 ("2028 interest rate swaps"). The total notional amount of these interest rate swaps in effect as of April 27, 2024 and October 28, 2023 was $350.0 million.

In December 2023, Ciena entered into forward starting interest rate swaps to fix SOFR for an additional $350.0 million of its floating rate debt at 3.287% from September 2025 through December 2028 ("2028 forward starting interest rate swaps"). The total notional amount of the 2028 forward starting interest rate swaps effective September 2025 was $350.0 million as of April 27, 2024.

Ciena expects the variable rate payments to be received under the terms of these interest rate swaps to offset exactly the forecasted variable rate payments on the equivalent notional amount of the 2030 New Term Loan (as defined in Note 13 below). 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 5 and Note 8 above.

(13) SHORT-TERM AND LONG-TERM DEBT

Outstanding Term Loan Payable

2030 New Term Loan

On October 24, 2023, Ciena entered into an Incremental Amendment Agreement to its Credit Agreement to which Ciena incurred a new tranche of senior secured term loans in an aggregate principal amount of $1.2 billion maturing on October 24, 2030 (the "2030 New Term Loan") and a new senior secured revolving credit facility of $300.0 million (the "Revolving Credit Facility"). The 2030 New Term Loan requires Ciena to make installment payments of $2.9 million quarterly, or $11.7 million annually, with the remaining balance payable at maturity.

The net carrying value of the 2030 New Term Loan was comprised of the following as of the date indicated (in thousands):

	April 27, 2024				October 28, 2023
	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Value	Net Carrying Value
2030 New Term Loan	$ 1,167,075	$ (4,747)	$ (6,071)	$ 1,156,257	$ 1,159,371

Deferred debt issuance costs that were deducted from the carrying amount of the 2030 New Term Loan totaled $6.1 million as of April 27, 2024 and $5.5 million at October 28, 2023. 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 New Term Loan. The amortization of deferred debt issuance costs for the 2030 New Term Loan is included in interest expense and was approximately $0.5 million during the first six months of fiscal 2024.

As of April 27, 2024, the estimated fair value of the 2030 New Term Loan was $1.2 billion. The 2030 New Term Loan is categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its 2030 New Term Loan using a market approach based on observable inputs, such as current market transactions involving comparable securities.

Refinanced Term Loans

The proceeds of the 2030 New Term Loan, net of original issuance discount, was used to repay in full $1.2 billion of outstanding principal of the 2025 Term Loan (as defined below) and the 2030 Term Loan (as defined below), together the Refinanced Term Loans, including accrued interest.

2025 Term Loan

On January 19, 2023, pursuant to the Incremental Agreement (as defined below) to the Credit Agreement, the Credit Agreement was amended to replace the London Interbank Offered Rate (LIBOR) with SOFR for Ciena's senior secured term loan maturing on September 28, 2025 (the "2025 Term Loan") in response to pending impact of FASB Accounting Standards Codification 848, Reference Rate Reform. Deferred debt issuance costs are amortized using the straight-line method, which approximates the effect of the effective interest rate method, 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 for the first six months of fiscal 2023.

2030 Term Loan

On January 19, 2023, Ciena entered into an Incremental Joinder and Amendment Agreement (the "Incremental Agreement") to its Credit Agreement, dated July 15, 2014, as amended, by and among Ciena, the lenders party thereto and Bank of America, N.A., as administrative agent, pursuant to which Ciena incurred a new tranche of senior secured term loans in an aggregate principal amount of $500.0 million and maturing on January 19, 2030 (the "2030 Term Loan"). Net of original issue discount and debt issuance costs, the $492.5 million in proceeds from the 2030 Term Loan were used for general corporate purposes. Deferred debt issuance costs are amortized using the straight-line method, which approximates the effect of the effective interest rate method, through the maturity of the 2030 Term Loan. The amortization of deferred debt issuance costs for the 2030 Term Loan is included in interest expense, and was $0.2 million for the first six months of fiscal 2023.

Outstanding Senior Notes Payable

2030 Notes

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

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

	April 27, 2024			October 28, 2023
	Principal Balance	Deferred Debt Issuance Costs	Net Carrying Value	Net Carrying Value
2030 Notes	$ 400,000	$ (3,918)	$ 396,082	$ 395,735

Deferred debt issuance costs that were deducted from the carrying amount of the 2030 Notes totaled $3.9 million as of April 27, 2024 and $4.3 million as of October 28, 2023. 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 approximately $0.3 million during both the first six months of fiscal 2024 and fiscal 2023.

As of April 27, 2024, the estimated fair value of the 2030 Notes was $349.0 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.

(14) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income ("AOCI"), net of tax, for the six months ended April 27, 2024 (in thousands):

	Unrealized Gain (Loss) on				
	Available-for-sale Securities	Foreign Currency Forward Contracts	Interest Rate Swaps	Cumulative Translation Adjustment	Total
Balance at October 28, 2023	$ (372)	$ (8,156)	$ 18,962	$ (48,201)	$ (37,767)
Other comprehensive gain (loss) before reclassifications	(282)	2,812	11,681	7,647	21,858
Amounts reclassified from AOCI	—	1,796	(7,616)	—	(5,820)
Balance at April 27, 2024	$ (654)	$ (3,548)	$ 23,027	$ (40,554)	$ (21,729)

The following table summarizes the changes in AOCI, net of tax, for the six months ended April 29, 2023 (in thousands):

	Unrealized Gain (Loss) on				
	Available-for-sale Securities	Foreign Currency Forward Contracts	Interest Rate Swaps	Cumulative Translation Adjustment	Total
Balance at October 29, 2022	$ (2,965)	$ (10,197)	$ 9,397	$ (42,880)	$ (46,645)
Other comprehensive gain (loss) before reclassifications	1,698	9,871	(3,848)	7,829	15,550
Amounts reclassified from AOCI	—	(5,680)	(2,979)	—	(8,659)
Balance at April 29, 2023	$ (1,267)	$ (6,006)	$ 2,570	$ (35,051)	$ (39,754)

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 interest rate swaps designated as cash flow hedges, impacted interest and other income, net, on the Condensed Consolidated Statements of Operations.

(15) EARNINGS (LOSS) PER SHARE CALCULATION

Basic net income (loss) per common share ("Basic EPS") is computed using the weighted average number of common shares outstanding. Diluted net income (loss) 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 for the periods indicated (in thousands, except per share amounts):

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Net income (loss)	$ (16,849)	$ 57,654	$ 32,698	$ 133,895
Basic weighted average shares outstanding	144,914	149,616	145,104	149,351
Effect of dilutive potential common shares	—	531	955	501
Diluted weighted average shares	144,914	150,147	146,059	149,852
Basic EPS	$ (0.12)	$ 0.39	$ 0.23	$ 0.90
Diluted EPS	$ (0.12)	$ 0.38	$ 0.22	$ 0.89
Antidilutive employee share-based awards, excluded	2,030	1,550	1,584	2,159

(16) STOCKHOLDERS' EQUITY

Stock Repurchase Program

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.

During the first six months of fiscal 2024, Ciena repurchased an additional 1.8 million shares of its common stock for an aggregate purchase price of $89.0 million at an average price of $49.00 per share. As of April 27, 2024, Ciena (i) has repurchased 15.9 million shares for an aggregate purchase price of $839.0 million at an average price of $52.69 per share and (ii) has an aggregate of $161.0 million authorized and remaining under its stock repurchase program.

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

Stock Repurchases Related to Stock Unit Award Tax Withholdings

Ciena repurchases shares of its common stock to satisfy employee tax withholding obligations due on vesting of stock unit awards. The related purchase price of $22.4 million for the shares of Ciena's stock repurchased during the first six months of fiscal 2024 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.

(17) SHARE-BASED COMPENSATION EXPENSE

At Ciena's 2024 Annual Meeting of Stockholders on March 21, 2024, Ciena's stockholders approved an amendment to the Ciena Corporation 2017 Omnibus Incentive Plan (the "2017 Plan"), effective as of such date, to (i) increase the number of shares available for issuance thereunder by 10.1 million shares, and (ii) increase the recoupment period for misconduct relating to accounting restatements from 12 months to three years. As of April 27, 2024, the total number of shares authorized for issuance under the 2017 Plan is 31.2 million and approximately 10.8 million shares remained available for issuance thereunder.

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

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Products	$ 1,760	$ 1,155	$ 3,078	$ 2,206
Services	3,344	2,659	6,364	4,956
Share-based compensation expense included in cost of goods sold	5,104	3,814	9,442	7,162
Research and development	14,066	10,731	26,946	19,965
Selling and marketing	11,166	8,755	21,471	17,179
General and administrative	9,875	8,468	19,954	17,936
Share-based compensation expense included in operating expense	35,107	27,954	68,371	55,080
Share-based compensation expense capitalized in inventory, net	37	92	262	130
Total share-based compensation expense	$ 40,248	$ 31,860	$ 78,075	$ 62,372

As of April 27, 2024, total unrecognized share-based compensation expense was approximately $291.3 million, which relates to unvested stock unit awards and is expected to be recognized over a weighted-average period of 1.48 years.

(18) 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 27, 2024, equipment, building, furniture and fixtures, net, totaled $274.4 million, and operating ROU assets totaled $30.2 million both of which support asset groups within Ciena's four operating segments and unallocated selling and general and administrative activities. As of April 27, 2024, finite-lived intangible assets, goodwill, and maintenance spares are assigned to asset groups within the following segments (in thousands):

	April 27, 2024				
	Networking Platforms	Platform Software and Services	Blue Planet Automation Software and Services	Global Services	Total
Other intangible assets, net	$ 173,232	—	11,709	—	$ 184,941
Goodwill	$ 199,677	156,191	89,049	—	$ 444,917
Maintenance spares, net	$ —	—	—	62,331	$ 62,331

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, net; interest expense; and provision for income taxes.

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

	Quarter Ended		Six Months Ended	
	April 27, 2024	April 29, 2023	April 27, 2024	April 29, 2023
Segment profit (loss):				
Networking Platforms	$ 96,566	$ 214,754	$ 280,341	$ 416,901
Platform Software and Services	54,037	40,687	112,041	86,337
Blue Planet Automation Software and Services	(7,763)	(6,912)	(14,832)	(17,971)
Global Services	50,441	49,161	95,424	86,639
Total segment profit	193,281	297,690	472,974	571,906
Less: Non-performance operating expenses				
Selling and marketing	124,071	125,083	252,229	248,890
General and administrative	49,573	50,939	104,256	101,835
Significant asset impairments and restructuring costs	15,655	8,153	20,626	12,451
Amortization of intangible assets	7,947	9,845	15,199	17,286
Acquisition and integration costs	—	857	—	3,415
Add: Other non-performance financial items				
Interest and other income, net	11,797	8,551	22,447	40,524
Interest expense	(23,861)	(23,889)	(47,637)	(39,759)
Less: Provision for income taxes	820	29,821	22,776	54,899
Net income (loss)	$ (16,849)	$ 57,654	$ 32,698	$ 133,895

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 indicated, Ciena's geographic distribution of equipment, building, furniture and fixtures, net, and operating ROU assets was as follows (in thousands):

		April 27, 2024		October 28, 2023
Canada	$	224,826	$	229,707
United States		46,288		46,933
Other International		33,449		38,647
Total	$	304,563	$	315,287

(19) COMMITMENTS AND CONTINGENCIES

Tax Contingencies

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

Litigation

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

Purchase Order Obligations

Ciena has certain advanced orders for supply of certain long lead time components. As of April 27, 2024, Ciena had $1.6 billion in outstanding purchase order commitments to contract manufacturers and component suppliers for inventory. In certain instances, Ciena is permitted to cancel, reschedule or adjust these orders. Consequently, only a portion of this amount relates to firm, non-cancelable and unconditional obligations.

(20) SUBSEQUENT EVENTS

Stock Repurchase Program

From the end of the second quarter of fiscal 2024 through May 31, 2024, Ciena repurchased an additional 0.5 million shares of its common stock for an aggregate purchase price of $24.0 million at an average price of $48.54 per share, inclusive of repurchases pending settlement. As of May 31, 2024, Ciena has repurchased an aggregate of 16.4 million shares and has an aggregate of $137.0 million of authorized funds remaining under its stock repurchase program.

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

Cautionary Note Regarding Forward-Looking Statements

This report contains statements that discuss future events or expectations, projections of results of operations or financial condition, changes in the markets for our products and services, trends in our business, operational matters including the expansion of manufacturing capacity and accumulation of inventory, 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," "would," "can," "should," "could," "expects," "future," "plans," "anticipates," "believes," "estimates," "predicts," "intends," "potential," "projects," "targets," "prepare," or "continue" or the negative of those words and other comparable words. You should be aware that the forward-looking statements contained in this report are based on our current views and assumptions, and are subject to known and unknown risks, uncertainties, and other factors that may cause actual events or results to differ materially.

For a discussion identifying some of the important factors that could cause actual results to vary materially from those anticipated in the forward-looking statements, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" in this report. For a more complete understanding of the risks associated with an *investment in our securities, you should review these factors and the rest of this report in combination with the more detailed description of our business and management's discussion and analysis of financial condition and risk factors described in our Annual Report on Form 10-K for the fiscal year ended October 28, 2023, which we filed with the Securities and Exchange Commission (the "SEC") on December 15, 2023 (our "2023 Annual Report"). However, we operate in a very competitive and dynamic environment and new risks and uncertainties emerge, are identified or become apparent from time to time and therefore may not be identified in this report. We cannot predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this report. You should be aware that the forward-looking statements contained in this report are based on our current views and assumptions. We undertake no obligation to revise or to update any forward-looking statements made in this report to reflect events or circumstances after the date hereof or to reflect new information or the occurrence of unanticipated events, except as required by law. The forward-looking statements in this report are intended to be subject to protection afforded by the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Unless the context requires otherwise, references in this report to "Ciena," the "Company," "we," "us," and "our" refer to Ciena Corporation and its consolidated subsidiaries.*

Overview

This Management's Discussion and Analysis of Financial Condition and Results of Operations is designed to provide an understanding of Ciena's financial condition, results of operations, and cash flows, and 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 in Item 8 of Part II of our 2023 Annual Report.

We are a network platform, software, and services company, providing solutions that enable a wide range of network operators to deploy and manage next-generation networks that deliver services to businesses and consumers. We provide hardware, software, and services that support the delivery of video, data, and voice traffic over core, metro, aggregation, and access communications networks. Our solutions are used globally by communications service providers, cable and multiservice operators, cloud providers, submarine network operators, governments, and enterprises across multiple industry verticals. Our portfolio is designed to enable the Adaptive Network, which is our vision for a network end state that leverages a programmable and scalable network infrastructure, driven by software control and automation capabilities, that is informed by analytics and intelligence. Our solutions include Networking Platforms, including our Optical Networking 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 our Navigator Network Control Suite™ ("Navigator NCS"), which we previously referred to as Manage, Control, and Plan (MCP), and applications that deliver advanced multi-layer domain control and operations. Through our Blue Planet Software, we also enable complete service lifecycle management automation with productized operational support systems (OSS), which include inventory, orchestration and assurance solutions that help our customers to achieve closed loop automation across multi-vendor and multi-domain environments.

Order Volumes

For large portions of fiscal 2021 and fiscal 2022, we received an unprecedented volume of orders for our products and services, which significantly exceeded our revenue and historical order volumes. We believe some portion of these orders reflected customer acceleration of future orders due to a constrained supply environment, as well as orders that were delayed due to the dynamics of the COVID-19 pandemic. Our order volumes began to moderate in the fourth quarter of fiscal 2022, and we experienced order levels below revenue during fiscal 2023 and the first half of fiscal 2024, particularly from our communications service provider customers. Our expected return to more typical order patterns with our communications service provider customers is taking longer than anticipated. We believe this is, in part, due to communications service providers in North America working through relatively high levels of inventory previously acquired, which has been made more difficult due to challenges installing and deploying equipment, including site readiness and access to fiber or other resources. In addition, in certain international geographies, we believe that caution driven by macroeconomic concerns and market-specific issues are contributing to lower-than-expected order volumes from communications service providers. We expect these dynamics with our communications service provider customers to persist during fiscal 2024 and anticipate that any future improvements to these dynamics will be gradual. Notwithstanding these near-term impacts, we continue to believe that certain trends and shifts in business and consumer behaviors, including enterprise and consumer cloud network adoption, 5G, high-definition video, generative AI, and network operator focus on resilience and automation, represent positive, long-term drivers of bandwidth demand and long-term opportunities for our business.

Backlog and Order Delivery Timing

Historically, a meaningful portion of our quarterly revenue was generated from customer orders received during that same quarter (which we refer to as “book to revenue”) and was therefore less predictable and subject to fluctuation. As a result of elevated order volumes during portions of fiscal 2021 and fiscal 2022, however, our backlog grew from $1.2 billion at the end of fiscal 2020 to $4.2 billion at the end of fiscal 2022. Accordingly, our revenue in recent fiscal years has been more significantly impacted by factors including availability of supply and customer delivery deferrals, as we converted our existing backlog to revenue. As supply chain conditions have improved, and we have been able to increase shipment volumes and reduce lead times, our backlog decreased to $1.9 billion as of the end of the second quarter of fiscal 2024. As backlog consumption reduces and represents a relatively smaller portion of our quarterly revenue, we expect that our reliance upon securing quarterly book to revenue orders will grow, and that increased orders and a return to a more typical composition of our quarterly revenue will be a critical element of any future revenue growth.

The timing, pace, and degree to which we fulfill our backlog will have a significant impact on our revenue and can be affected by factors outside of our control, including customer readiness and willingness to receive shipment against existing orders. During fiscal 2023 and the first half of fiscal 2024, certain customers, including communications service providers and cable and multiservice operators in North America, that had earlier placed significant advanced orders, rescheduled deliveries for a portion of such orders. We believe that this was the result of a number of factors, including the rapid improvement in our delivery lead times as supply chain conditions improved and their capital expenditure and inventory levels. Accordingly, our results for a particular period can be difficult to predict. As a result of these and other factors, the timing of our fulfillment of backlog could cause some volatility in our results of operations and our backlog should not necessarily be viewed as an accurate indicator of revenue for any particular period.

For additional information regarding our business, industry, market opportunity, competitive landscape, and strategy, see our 2023 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

Revenue and Currency Fluctuations

As a result of the factors impacting order volumes and order delivery timing described under “Overview” above, our revenue declined by 19.6% in the second quarter of fiscal 2024 as compared to the second quarter of fiscal 2023, and 11.0% in the first six months of fiscal 2024 as compared to the first six months of fiscal 2023. In addition, during the second quarter and first six months of fiscal 2024, approximately 15.0% of our revenue was non-U.S. Dollar-denominated primarily including sales in Euros, Canadian Dollars, and Indian Rupees. During the second quarter of fiscal 2024 as compared to the second quarter of fiscal 2023, and during the first six months of fiscal 2024 as compared to the first six months of fiscal 2023, the U.S. Dollar fluctuated against these currencies. As a result of these currency fluctuations, our revenue reported in U.S. Dollars was adversely impacted by approximately $0.6 million, or 0.1%, as compared to the second quarter of fiscal 2023, and increased by approximately $5.5 million, or 0.3% as compared to the first six months of fiscal 2023.

Operating Segment Revenue

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

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Revenue:						
Networking Platforms						
Optical Networking	$ 560,224	$ 784,549	(28.6)%	$ 1,256,072	$ 1,520,183	(17.4)%
%**	61.5 %	69.3 %		64.4 %	69.4 %	
Routing and Switching	116,034	130,310	(11.0)%	227,421	249,814	(9.0)%
%**	12.7 %	11.5 %		11.7 %	11.4 %	
Total Networking Platforms	676,258	914,859	(26.1)%	1,483,493	1,769,997	(16.2)%
%**	74.2 %	80.8 %		76.1 %	80.8 %	
Platform Software and Services	85,445	69,443	23.0 %	175,190	142,888	22.6 %
%**	9.4 %	6.1 %		9.0 %	6.6 %	
Blue Planet Automation Software and Services	14,434	20,567	(29.8)%	28,376	35,973	(21.1)%
%**	1.6 %	1.8 %		1.5 %	1.6 %	
Global Services						
Maintenance Support and Training	77,410	73,160	5.8 %	151,525	141,051	7.4 %
%**	8.5 %	6.5 %		7.8 %	6.4 %	
Installation and Deployment	43,785	39,486	10.9 %	86,509	74,061	16.8 %
%**	4.8 %	3.5 %		4.4 %	3.4 %	
Consulting and Network Design	13,494	15,140	(10.9)%	23,442	25,206	(7.0)%
%**	1.5 %	1.3 %		1.2 %	1.2 %	
Total Global Services	134,689	127,786	5.4 %	261,476	240,318	8.8 %
%**	14.8 %	11.3 %		13.4 %	11.0 %	
Total revenue	$ 910,826	$ 1,132,655	(19.6)%	$ 1,948,535	$ 2,189,176	(11.0)%

* Denotes % change from fiscal 2023 to fiscal 2024
** Denotes % of total revenue

Quarter ended April 27, 2024 as compared to the quarter ended April 29, 2023

- **Networking Platforms segment revenue** decreased by $238.6 million, reflecting product line sales decreases of $224.3 million of our Optical Networking products and $14.3 million of our Routing and Switching products.

    - Optical Networking sales decreased, primarily reflecting sales decreases of $188.1 million of our 6500 Packet-Optical Platform, primarily to communications service providers and enterprise customers, $40.0 million of our Waveserver® modular interconnect system, primarily to cloud providers, and $10.5 million of our 5400 family of Packet-Optical Platforms primarily to communications service providers. These sales decreases were partially offset by a sales increase of $13.2 million of our 6500 Reconfigurable Line System (RLS) products, primarily to enterprise customers and cloud providers partially offset by decreased sales to communications service providers.

    - Routing and Switching sales decreased, primarily reflecting sales decreases of $7.9 million of our 3000 and 5000 families of service delivery and aggregation switches and $4.4 million of our virtualization software, primarily to communications service providers.

- **Platform Software and Services segment revenue** increased by $16.0 million, reflecting sales increases of $9.3 million of our software platforms and $6.7 million in our software maintenance services, both primarily for our Navigator NCS software platform.

- **Blue Planet Automation Software and Services segment revenue** decreased by $6.1 million reflecting sales decreases of $4.7 million in software platforms and $1.4 million in professional software services, both primarily to communications service providers.
- **Global Services segment revenue** increased by $6.9 million, primarily reflecting sales increases of $4.3 million of our installation and deployment services and $4.2 million of our maintenance support and training, partially offset by a sales decrease of $1.6 million of our consulting and network design services.

Six months ended April 27, 2024 as compared to the six months ended April 29, 2023

- **Networking Platforms segment revenue** decreased by $286.5 million, reflecting product line sales decreases of $264.1 million of our Optical Networking products and $22.4 million of our Routing and Switching products.
    - Optical Networking sales decreased, primarily reflecting sales decreases of $366.7 million of our 6500 Packet-Optical Platform, primarily to communications service providers, enterprise customers, cloud providers and cable and multiservice operators, and $14.3 million of our 5400 family of Packet-Optical Platforms, primarily to communications service providers. These sales decreases were partially offset by sales increases of $86.7 million of our 6500 RLS products, primarily to cloud providers, enterprise customers and cable and multiservice operators, and $24.5 million of our Waveserver® products, primarily to cloud providers and cable and multiservice operators.
    - Routing and Switching sales decreased, primarily reflecting a sales decrease of $34.3 million of our virtualization software, primarily to communications service providers. This sales decrease was partially offset by sales increases of $7.1 million of our 8100 Coherent IP networking platforms, primarily to communications service providers and enterprise customers, and $4.6 million of our platform independent software, primarily to communications service providers.
- **Platform Software and Services segment revenue** increased by $32.3 million, primarily reflecting sales increases of $18.1 million in sales of software platforms and $14.2 million in sales of our software maintenance services, both primarily for our Navigator NCS software platform.
- **Blue Planet Automation Software and Services segment revenue** decreased by $7.6 million, primarily reflecting a sales decrease in software platforms to communications service providers.
- **Global Services segment revenue** increased by $21.2 million, primarily reflecting sales increases of $12.4 million of our installation and deployment services and $10.5 million of our maintenance support and training, partially offset by a sales decrease of $1.7 million of our consulting and network design services.

Revenue by Geographic Region

Our operating segments engage in business and operations across three geographic regions: the United States, Canada, the Caribbean and Latin America (“Americas”); Europe, Middle East and Africa (“EMEA”); and Asia Pacific, Japan and India (“APAC”). The geographic distribution of our revenue can fluctuate significantly from period to period, and the timing of revenue recognition for large network projects, particularly outside of the United States, can result in large variations in geographic revenue results in any particular period. The decrease in our Americas region revenue for the quarter and six months ended April 27, 2024 was primarily driven by decreased sales in the United States and Canada. The decrease in our APAC region revenue for the quarter and six months ended April 27, 2024 was primarily driven by decreased sales in India and Australia. The decrease in our EMEA region revenue for the quarter April 27, 2024 was primarily driven by decreased sales in France and the Great Britain. The increase in our EMEA region revenue for the six months ended April 27, 2024 was primarily driven by increased sales in the Netherlands.

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

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Americas	$ 662,877	$ 794,359	*(16.6)%*	$ 1,381,075	$ 1,559,455	*(11.4)%*
%**	*72.8 %*	*70.1 %*		*70.9 %*	*71.2 %*	
EMEA	155,791	173,414	*(10.2)%*	363,203	326,218	*11.3 %*
%**	*17.1 %*	*15.3 %*		*18.6 %*	*14.9 %*	
APAC	92,158	164,882	*(44.1)%*	204,257	303,503	*(32.7)%*
%**	*10.1 %*	*14.6 %*		*10.5 %*	*13.9 %*	
Total	$ 910,826	$ 1,132,655	*(19.6)%*	$ 1,948,535	$ 2,189,176	*(11.0)%*

* Denotes % change from fiscal 2023 to fiscal 2024

** Denotes % of total revenue

Quarter ended April 27, 2024 as compared to the quarter ended April 29, 2023

- **Americas revenue** decreased by $131.5 million, primarily reflecting sales decreases of $143.7 million within our Networking Platforms segment and $1.0 million within our Blue Planet Automation Software and Services segment, partially offset by a sales increase of $13.4 million within our Platform Software and Services. The decrease within our Networking Platforms segment reflects product line sales decreases of $133.8 million of our Optical Networking products and $9.9 million of our Routing and Switching products. The decrease within our Optical Networking product line was primarily related to sales decreases of $99.2 million of our 6500 Packet-Optical Platform, primarily to communications service providers, and $23.0 million of our Waveserver® modular interconnect system, primarily to cloud providers. The decrease within our Routing and Switching product line primarily reflects sales decreases of $5.1 million of our 3000 and 5000 families of service delivery and aggregation switches to enterprise customers and cable and multiservice operators, and $4.4 million of our virtualization software, primarily to communications service providers.
- **EMEA revenue** decreased by $17.6 million, reflecting sales decreases of $17.3 million within our Networking Platforms segment, $5.0 million within our Blue Planet Software and Services segment and $1.1 million within our Platform Software and Services segment, offset by a sales increase of $5.7 million within our Global Services segment. The decrease within our Networking Platforms segment primarily reflects product line sales decreases of $11.6 million of our Optical Networking product line and $5.7 million of our Routing and Switching products. The decrease within our Optical Networking product line was primarily related to a sales decrease of $21.2 million of our 6500 Packet-Optical Platform, primarily to communications service providers and cable and multiservice operators, and $7.6 million of our Waveserver® products, primarily to communications service providers, partially offset by a sales increase of $17.3 million of our 6500 RLS products, primarily to cloud providers.
- **APAC revenue** decreased by $72.7 million, primarily reflecting a sales decrease of $77.6 million within our Networking Platforms segment, partially offset by increased sales of $3.7 million within our Platform Software and Services segment and $1.3 million within our Global Services segment. The decrease within our Networking Platforms segment primarily reflects a product line sales decrease of $78.9 million of Optical Networking products, which primarily reflects a sales decrease of $67.8 million of our 6500 Packet-Optical Platform, primarily to communications service providers.

Six months ended April 27, 2024 as compared to the six months ended April 29, 2023

- **Americas revenue** decreased by $178.4 million, reflecting sales decreases of $203.4 million within our Networking Platforms segment and $2.4 million within our Blue Planet Automation Software and Services segment. These sales decreases were partially offset by sales increases of $22.2 million within our Platform Software and Services segment and $5.2 million within our Global Services segment. Our Networking Platforms segment revenue decrease reflects product line sales decreases of $176.1 million of Optical Networking products and $27.3 million of Routing and Switching products. Our Optical Networking revenue primarily reflects a sales decrease of $235.3 million of our 6500 Packet-Optical Platform, primarily to communications service providers and cloud providers, partially offset by sales increases of $50.9 million of our 6500 RLS products, primarily to cloud providers and enterprise customers, and $16.7 million of our Waveserver® modular interconnect system, primarily to communications service providers. Routing and Switching product line sales primarily reflect a sales decrease of $34.3 million of our virtualization software primarily to communications service providers, partially offset by a sales increase of $7.1 million of our 8100 Coherent IP networking platforms, primarily to communications service providers.

- **EMEA revenue** increased by $37.0 million, reflecting sales increases of $25.2 million within our Networking Platforms segment, $12.8 million within our Global Services segment and $4.3 million within our Platform Software and Services segment. These sales increases were offset by a sales decrease of $5.3 million within our Blue Planet Automation Software and Services segment. Our Networking Platforms segment revenue increase primarily reflects a product line sales increase of $25.2 million of Optical Networking products. Optical Networking revenue primarily reflects sales increases of $30.8 million of our 6500 RLS products primarily to cloud providers and $17.2 million of our Waveserver® products, primarily to cloud providers partially offset by a sales decreases to communication services providers. These sales increases were partially offset by a sales decrease of $23.2 million of our 6500 Packet-Optical Platform, primarily to communications service providers.
- **APAC revenue** decreased by $99.2 million, primarily reflecting a sales decrease of $108.3 million within our Networking Platforms segment. This sales decrease was partially offset by sales increases of $5.8 million within our Platform Software and Services segment and $3.1 million within our Global Services segment. Our Networking Platforms segment revenue decrease primarily reflects a product line sales decrease of $113.2 million of Optical Networking products, including a sales decrease of $108.2 million of our 6500 Packet-Optical Platform, primarily to communications service providers and enterprise customers.

Cost of Goods Sold and Gross Profit

There are a number of important factors or conditions that can adversely affect or cause our gross profit as a percentage of product or service revenue, or "gross margin," to fluctuate on a quarterly basis. For example, early stages of new network builds also often include an increased concentration of lower margin "common" equipment, photonics sales, and installation services, with the intent to improve margin as we sell channel cards and maintenance services to customers as they add capacity. The component elements that comprise our product cost of goods sold and services cost 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 2023 Annual Report.

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

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Total revenue	$ 910,826	$ 1,132,655	*(19.6)%*	$ 1,948,535	$ 2,189,176	*(11.0)%*
Total cost of goods sold	522,165	644,972	*(19.0)%*	1,092,912	1,245,547	*(12.3)%*
Gross profit	$ 388,661	$ 487,683	*(20.3)%*	$ 855,623	$ 943,629	*(9.3)%*
%**	*42.7 %*	*43.1 %*		*43.9 %*	*43.1 %*	

* Denotes % change from fiscal 2023 to fiscal 2024
** Denotes % of total revenue

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Product revenue	$ 701,316	$ 935,330	*(25.0)%*	$ 1,537,093	$ 1,813,045	*(15.2)%*
Product cost of goods sold	415,732	541,883	*(23.3)%*	882,204	1,042,220	*(15.4)%*
Product gross profit	$ 285,584	$ 393,447	*(27.4)%*	$ 654,889	$ 770,825	*(15.0)%*
%**	*40.7 %*	*42.1 %*		*42.6 %*	*42.5 %*	

* Denotes % change from fiscal 2023 to fiscal 2024
** Denotes % of product revenue

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Services revenue	$ 209,510	$ 197,325	*6.2 %*	$ 411,442	$ 376,131	*9.4 %*
Services cost of goods sold	106,433	103,089	*3.2 %*	210,708	203,327	*3.6 %*
Services gross profit	$ 103,077	$ 94,236	*9.4 %*	$ 200,734	$ 172,804	*16.2 %*
*% ***	*49.2 %*	*47.8 %*		*48.8 %*	*45.9 %*	

* Denotes % change from fiscal 2023 to fiscal 2024
** Denotes % of services revenue

Quarter ended April 27, 2024 as compared to the quarter ended April 29, 2023

- **Gross profit** decreased by $99.0 million. Gross margin decreased by 40 basis points, primarily due to lower manufacturing efficiencies and higher inventory excess and obsolescence costs, partially offset by improved margins on Platform and Blue Planet software services and product cost reductions.
- **Gross profit on products** decreased by $107.9 million. Product gross margin decreased by 140 basis points, primarily due to lower manufacturing efficiencies and higher inventory excess and obsolescence costs, partially offset by product cost reductions.
- **Gross profit on services** increased by $8.8 million. Gross margin increased by 140 basis points, primarily due to increased revenue for Platform software subscription services and higher margins on Blue Planet software services due to improved efficiencies on delivery.

Six months ended April 27, 2024 as compared to the six months ended April 29, 2023

- **Gross profit** decreased by $88.0 million. Gross margin increased by 80 basis points, primarily due to reduced component costs and improved margins on Blue Planet software, partially offset by higher inventory excess and obsolescence costs and lower manufacturing efficiencies.
- **Gross profit on products** decreased by $115.9 million. Product gross margin slightly increased by 10 basis points, primarily due to reduced component costs and higher software revenue, partially offset by higher inventory excess and obsolescence costs and lower manufacturing efficiencies.
- **Gross profit on services** increased by $27.9 million. Services gross margin increased by 290 basis points, primarily due to higher margins on Blue Planet software services due to improved efficiencies on delivery. Additionally, margins on deployment services increased due to increased revenue and efficiencies reducing costs.

Operating Expense

Currency Fluctuations

Approximately 50.3% and 49.1% of our operating expense was non-U.S. Dollar-denominated during the second quarter and first six months of fiscal 2024, respectively, including expenses in Canadian Dollars, Indian Rupees, and Euros. During the second quarter of fiscal 2024, as compared to the second quarter of fiscal 2023, and during the first six months of fiscal 2024, as compared to the first six months of fiscal 2023, the U.S. Dollar fluctuated against these currencies. As a result of these currency fluctuations, our operating expense, net of hedging, reported in U.S. Dollars, was adversely affected by approximately $0.6 million, or 0.1% and $1.5 million, or 0.2%, respectively.

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 2023 Annual Report. The table below sets forth the changes in operating expense for the periods indicated (in thousands, except percentage data):

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Research and development	$ 195,380	$ 189,993	2.8 %	$ 382,649	$ 371,723	2.9 %
%**	21.5 %	16.8 %		19.6 %	17.0 %	
Selling and marketing	124,071	125,083	(0.8)%	252,229	248,890	1.3 %
%**	13.6 %	11.0 %		12.9 %	11.4 %	
General and administrative	49,573	50,939	(2.7)%	104,256	101,835	2.4 %
%**	5.4 %	4.5 %		5.4 %	4.6 %	
Significant asset impairments and restructuring costs	15,655	8,153	92.0 %	20,626	12,451	65.7 %
%**	1.7 %	0.7 %		1.1 %	0.6 %	
Amortization of intangible assets	7,947	9,845	(19.3)%	15,199	17,286	(12.1)%
%**	0.9 %	0.9 %		0.8 %	0.8 %	
Acquisition and integration costs	—	857	(100.0)%	—	3,415	(100.0)%
%**	— %	0.1 %		— %	0.1 %	
Total operating expenses	$ 392,626	$ 384,870	2.0 %	$ 774,959	$ 755,600	2.6 %
%**	43.1 %	34.0 %		39.8 %	34.5 %	

* Denotes % change from fiscal 2023 to fiscal 2024

** Denotes % of total revenue

Quarter ended April 27, 2024 as compared to the quarter ended April 29, 2023

- **Research and development expense** increased by $5.4 million, net of hedging. This increase primarily reflects increases in employee-related compensation costs, net of a lower provision associated with our annual cash incentive compensation plan, and facility and information technology costs.
- **Selling and marketing expense** decreased by $1.0 million. This decrease primarily reflects decreases in employee-related compensation costs primarily due to lower commission expense and lower provisions associated with our annual cash incentive compensation plan, partially offset by an increase in travel and entertainment costs.
- **General and administrative expense** decreased by $1.4 million. This decrease primarily reflects a decrease in costs for professional services partially offset by an increase in employee-related compensation costs, net of a lower provision associated with our annual cash incentive compensation plan.
- **Significant asset impairments and restructuring costs** reflects actions that we have taken with respect to our operations, global workforce, and facilities as part of a business optimization strategy to improve gross margin, constrain operating expense, redesign certain business processes, and restructure real estate facilities. For more information on our restructuring costs, see Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.
- **Amortization of intangible assets** decreased by $1.9 million, primarily reflecting certain intangible assets having reached the end of their economic lives.
- **Acquisition and integration costs** in fiscal 2023 reflect financial, legal, and accounting advisors and employee-related costs related to our acquisitions of Benu Networks, Inc. (“Benu”) and Tibit Communications, Inc. (“Tibit”) during the first quarter of fiscal 2023.

Six months ended April 27, 2024 as compared to the six months ended April 29, 2023

- **Research and development expense** increased by $10.9 million, net of hedging. This increase primarily reflects increases in employee-related compensation costs, net of a lower provision associated with our annual cash incentive compensation plan, facility and information technology costs and higher technology related costs, partially offset by decreased professional services.
- **Selling and marketing expense** increased by $3.3 million. This increase primarily reflects increases in employee-related compensation costs, net of lower commission expense and lower provisions associated with our annual cash

incentive compensation plan, and increases in travel and entertainment costs, partially offset by decreased selling and marketing costs.

- **General and administrative expense** increased by $2.4 million. This increase primarily reflects an increase in employee-related compensation costs, net of a lower provision associated with our annual cash incentive compensation plan and bad debt expense partially offset by a decrease in costs for professional services.
- **Significant asset impairments and restructuring costs** reflects actions that we have taken with respect to our operations, global workforce, and facilities as part of a business optimization strategy to improve gross margin, constrain operating expense, redesign certain business processes, and restructure real estate facilities. For more information on our restructuring costs, see Note 4 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.
- **Amortization of intangible assets** decreased by $2.1 million, primarily reflecting certain intangible assets having reached the end of their economic lives.
- **Acquisition and integration costs** in fiscal 2023 reflect financial, legal, and accounting advisors and employee-related costs related to our acquisitions of Benu and Tibit during the first quarter of fiscal 2023.

Other Items

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

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Interest and other income, net	$ 11,797	$ 8,551	*38.0 %*	$ 22,447	$ 40,524	*(44.6)%*
%**	*1.3 %*	*0.8 %*		*1.2 %*	*1.9 %*	
Interest expense	$ 23,861	$ 23,889	*(0.1)%*	$ 47,637	$ 39,759	*19.8 %*
%**	*2.6 %*	*2.1 %*		*2.4 %*	*1.8 %*	
Provision for income taxes	$ 820	$ 29,821	*(97.3)%*	$ 22,776	$ 54,899	*(58.5)%*
%**	*0.1 %*	*2.6 %*		*1.2 %*	*2.5 %*	

* Denotes % change from fiscal 2023 to fiscal 2024
** Denotes % of total revenue

Quarter ended April 27, 2024 as compared to the quarter ended April 29, 2023

- **Interest and other income, net** increased by $3.2 million, primarily resulting from higher interest income on our investments partially offset by the impact of foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity.
- **Interest expense** remained relatively unchanged. For more information on our short-term and long-term debt, see Note 13 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.
- **Provision for income taxes** decreased by $29.0 million, and the effective tax rate for the second quarter of fiscal 2024 was lower than the effective tax rate for the second quarter of fiscal 2023, both primarily due to the decrease in pre-tax book income for the quarter.

Six months ended April 27, 2024 as compared to the six months ended April 29, 2023

- **Interest and other income, net** decreased by $18.1 million, primarily resulting from the remeasurement of our previously held investment in Tibit to fair value, in fiscal 2023, which resulted in a gain on our equity investment of $26.5 million 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. These decreases were partially offset by higher interest income on our investments.
- **Interest expense** increased by $7.9 million, primarily due to higher interest rates on our floating rate debt, net of hedging activity, and additional outstanding indebtedness, including the 2030 Term Loan incurred in the first quarter of fiscal 2023. For more information on our short-term and long-term debt, see Note 13 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

- **Provision for income taxes** decreased by $32.1 million, primarily due to the decrease in pre-tax book income for the first six months. The effective tax rate for the first six months of fiscal 2024 was higher than the effective tax rate for the first six months of fiscal 2023, primarily due to a reduction in pre-tax book income in lower tax jurisdictions.

Segment Profit (Loss)

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

	Quarter Ended			Six Months Ended		
	April 27, 2024	April 29, 2023	%*	April 27, 2024	April 29, 2023	%*
Segment profit (loss):						
Networking Platforms	$ 96,566	$ 214,754	*(55.0)%*	$ 280,341	$ 416,901	*(32.8)%*
Platform Software and Services	$ 54,037	$ 40,687	*32.8 %*	$ 112,041	$ 86,337	*29.8 %*
Blue Planet Automation Software and Services	$ (7,763)	$ (6,912)	*(12.3)%*	$ (14,832)	$ (17,971)	*17.5 %*
Global Services	$ 50,441	$ 49,161	*2.6 %*	$ 95,424	$ 86,639	*10.1 %*

* Denotes % change from fiscal 2023 to fiscal 2024

Quarter ended April 27, 2024 as compared to the quarter ended April 29, 2023

- **Networking Platforms segment** profit decreased by $118.2 million, primarily due to lower product sales volume and lower gross margin as described above, and increased research and development costs.
- **Platform Software and Services segment** profit increased by $13.4 million, primarily due to higher sales volume as described above.
- **Blue Planet Automation Software and Services segment** loss slightly increased, primarily due to lower sales volume, partially offset by improved margins on software services as described above and decreased research and development costs.
- **Global Services segment** profit increased by $1.3 million, primarily due to higher sales volume.

Six months ended April 27, 2024 as compared to the six months ended April 29, 2023

- **Networking Platforms segment** profit decreased by $136.6 million, primarily due to lower sales volume and increased research and development costs.
- **Platform Software and Services segment** profit increased by $25.7 million, primarily due to higher sales volume partially offset by increased research and development costs.
- **Blue Planet Automation Software and Services segment** loss decreased by $3.1 million, primarily due to higher gross margin on software-related services and decreased research and development costs, partially offset by lower sales volume.
- **Global Services segment** profit increased by $8.8 million, primarily due to higher sales volume and improved gross margin on deployment services as described above.

Liquidity and Capital Resources

Overview. For the six months ended April 27, 2024, we generated $324.5 million of cash in operating activities. Net income (adjusted for non-cash charges) provided approximately $211.8 million of cash and working capital provided approximately $112.7 million of cash. For additional details, see "Cash Provided By Operating Activities" below.

Cash, cash equivalents and investments increased by $173.2 million during the first six months of fiscal 2024. Cash from operations was partially offset by the following: (i) cash used for stock repurchases under our stock repurchase program of $94.8 million; (ii) cash used to fund our investing activities for capital expenditures totaling $33.5 million; (iii) stock repurchases on vesting of our stock unit awards to employees relating to tax withholding of $22.4 million; and (iv) cash used for our purchase of an equity investment in a privately held technology company of $16.3 million. In addition to cash provided by operating activities, proceeds from the issuance of equity under our employee stock purchase plan provided $16.9 million in cash during the six months ended April 27, 2024.

See Notes 11 and 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for information relating to these transactions.

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

	April 27, 2024	October 28, 2023	Increase
Cash and cash equivalents	$ 1,091,289	$ 1,010,618	$ 80,671
Short-term investments in marketable debt securities	165,620	104,753	60,867
Long-term investments in marketable debt securities	165,960	134,278	31,682
Total cash, cash equivalents, and investments in marketable debt securities	$ 1,422,869	$ 1,249,649	$ 173,220

Principal Sources of Liquidity. Our principal sources of liquidity on hand include our cash, cash equivalents, and investments, which, as of April 27, 2024, totaled $1.4 billion, as well as the unused portion of the Revolving Credit Facility, to which we and certain of our subsidiaries are parties. The Revolving Credit Facility provides for a total commitment of $300.0 million with a maturity date of October 24, 2028. We principally use the Revolving Credit Facility to support the issuance of letters of credit that arise in the ordinary course of our business and for general corporate purposes. As of April 27, 2024, letters of credit totaling $70.5 million were issued under the Revolving Credit Facility. There were no borrowings outstanding under the Revolving Credit Facility as of April 27, 2024.

Foreign Liquidity. The amount of cash, cash equivalents and short-term investments held by our foreign subsidiaries was $216.8 million as of April 27, 2024. Approximately $93.0 million of future cash generated from these foreign subsidiaries is expected to be repatriated, with any remaining amount continuing to be indefinitely reinvested. A deferred tax liability related to the expected repatriation amount was accrued in fiscal 2023. There are no other significant temporary differences related to our investment in the foreign subsidiaries for which a deferred tax liability has not been recognized.

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. During the first six months of fiscal 2024, we repurchased an additional $89.0 million of our common stock under the stock repurchase program, and $161.0 million remained under the current repurchase authorization as of April 27, 2024. 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 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report as well as Item 2 of Part II 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 Revolving 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.

Cash Provided By Operating Activities

The following sections set forth the components of our $324.5 million of cash provided by operating activities during the first six months of fiscal 2024:

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 27, 2024
Net income	$	32,698
Adjustments for non-cash charges:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements		46,016
Share-based compensation expense		78,075
Amortization of intangible assets		20,726
Deferred taxes		(8,946)
Provision for inventory excess and obsolescence		23,152
Provision for warranty		8,629
Other		11,509
Net income (adjusted for non-cash charges)	$	211,859

Working Capital

Working capital provided $112.7 million of cash during the period. The following table sets forth the major components of the cash provided by working capital (in thousands):

		Six Months Ended April 27, 2024
Cash provided by accounts receivable	$	155,107
Cash provided by inventories		5,346
Cash used in prepaid expenses and other		(37,441)
Cash used in accounts payable, accruals, and other obligations		(56,064)
Cash provided by deferred revenue		48,641
Cash used in operating lease assets and liabilities, net		(2,899)
Total cash provided by working capital	$	112,690

As compared to the end of fiscal 2023:

- The $155.1 million of cash provided by accounts receivable during the first six months of fiscal 2024 primarily reflects increased cash collections and lower sales volume during the first half of fiscal 2024;
- The $5.3 million of cash provided by inventories during the first six months of fiscal 2024 primarily reflects the consumption of raw materials in excess of purchases, partially offset by increases in finished goods and work-in-process inventories from planned fulfillment of customer advance orders for which some deliveries have since been rescheduled as described in "Overview" above;
- The $37.4 million of cash used in prepaid expense and other during the first six months of fiscal 2024 primarily reflects increased prepaid supplier costs, higher maintenance spares, and increased non-trade receivables;
- The $56.1 million of cash used in accounts payable, accruals, and other obligations during the first six months of fiscal 2024 primarily reflects the timing of payments to employees under our annual cash incentive compensation plans;
- The $48.6 million of cash provided by deferred revenue during the first six months of fiscal 2024 represents an increase in advanced payments received on multi-year maintenance contracts from customers prior to revenue recognition; and
- The $2.9 million of cash used in operating lease assets and liabilities, net, during the first six months of fiscal 2024 represents cash paid for operating lease payments in excess of operating lease costs.

Our days sales outstanding ("DSOs") decreased from 100 for the first six months of fiscal 2023 to 92 for the first six months of fiscal 2024. The calculation of DSOs includes accounts receivables, net and contract assets for unbilled receivables, net included in prepaid expenses and other. Our inventory turns decreased from 1.9 for the first six months of fiscal 2023 to 1.7 for the first six months of fiscal 2024.

Cash Paid for Interest, Net

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

	Six Months Ended April 27, 2024
2030 New Term Loan due October 28, 2030[1]	$ 43,092
2030 Senior Notes due January 31, 2030[2]	8,000
Interest rate swaps[3]	(7,616)
Revolving Credit Facility[4]	374
Finance leases	1,932
Cash paid during period	$ 45,782

[1] Interest on the 2030 New Term Loan is payable periodically based on the interest period selected for borrowing. The 2030 New Term Loan bears interest at SOFR for the chosen borrowing period plus a spread of 2.00% subject to a minimum SOFR rate of 0.00%. At the end of the second quarter of fiscal 2024, the interest rate on the 2030 New Term Loan was 7.32%.

[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.

[3] Our interest rate swaps fix the SOFR rate for $350.0 million of our Term Loans at 3.47% through January 2028 and another $350.0 million of our Term Loans at 2.968% through September 2025.

[4] During the first six months of fiscal 2024, we utilized the Revolving Credit Facility to issue certain standby letters of credit and paid nominal commitment fees, interest expense and other administrative charges primarily relating to the Revolving Credit Facility.

For additional information about our debt and interest rate swaps, see Notes 12 and 13 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Contractual Obligations

Our contractual obligations have not changed materially since October 28, 2023, except for the items listed below. For a summary of our contractual obligations, see Item 7 of Part II of the 2023 Annual Report.

Purchase Order Obligations. As of April 27, 2024, we had $1.6 billion in outstanding purchase order commitments to our contract manufacturers and component suppliers for inventory. In certain instances, we are permitted to cancel, reschedule, or adjust these orders. Consequently, only a portion of this amount relates to firm, non-cancelable, and unconditional obligations.

Critical Accounting Policies and Estimates

Our critical accounting policies and estimates have not changed materially since October 28, 2023. 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 2023 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 2023 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 (the “Exchange Act”)) during the most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

The information set forth under the heading “Litigation” in Note 19 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 2023 Annual Report, including the information under “Risk Factors” in Item 1A of Part I thereof. 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 2023 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 the material factors that make an investment in our securities speculative or risky from those presented in our 2023 Annual Report.

If we are unable to secure order growth, our revenue may not reach the levels we anticipate.

As a result of unprecedented order volumes placed by customers to address supply chain constraints and longer delivery lead times, our backlog grew from $1.2 billion at the end of fiscal 2020 to $4.2 billion at the end of fiscal 2022. Our revenue grew by 21% during fiscal 2023 as we consumed a significant portion of this backlog. Customer order volumes rapidly decreased and, throughout much of fiscal 2023 and into the first half of fiscal 2024, we experienced orders that were below our revenue. As a result, our backlog decreased to $1.9 billion as of the end of the second quarter of fiscal 2024. As backlog consumption reduces and represents a relatively smaller portion of our quarterly revenue, we expect to increasingly rely upon securing orders growth, particularly orders that we are able to convert into revenue during the same quarter in which they are received (which we refer to as "book to revenue"). Our future revenue growth will depend on securing increased orders, particularly from our communications service provider customers. Our failure to reach increased order levels, including a more typical composition of our quarterly revenue comprised of book to revenue orders, would adversely affect our revenue and results of operations.

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 continued 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 and risk 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 and other import measures, export compliance, economic sanctions measures, 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 continued impacts of Brexit on the relationship between the United Kingdom and Europe, the ongoing military conflicts between Russia and Ukraine and Israel and Hamas, including related maritime impacts in the Red Sea, and changes in China-Taiwan and U.S.-China 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 or perceived 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 or from the misinterpretation or changing application of such laws. Additionally, the costs of complying with these laws (including the costs of investigations, auditing and monitoring) could adversely affect our current or future business.

Our business, operations and financial results could also be adversely impacted by instability, disruption or destruction in a significant geographic region, including as a result of war, terrorism, riot, civil insurrection or social unrest; natural or man-made disasters; public health emergencies; or economic instability or weakness. For example, in February 2022, armed conflict escalated between Russia and Ukraine. The United States and certain other countries have imposed sanctions on Russia and could impose further sanctions, which could damage or disrupt international commerce and the global economy. We are complying with a broad range of U.S. and international sanctions and export control requirements imposed on Russia and, in March 2022, we announced our decision to suspend our business operations in Russia immediately. Although this decision did not materially impact our results of operations for fiscal 2022 or 2023 due to the limited amount of business that we conducted in Russia historically, it is not possible to predict the broader or longer-term consequences of this conflict, which could include further sanctions, export control and import restrictions, embargoes, regional instability, geopolitical shifts and adverse effects on macroeconomic conditions, security conditions, currency exchange rates and financial markets. In addition, the conflict between Israel and Hamas, and related regional impacts have recently resulted in damage to submarine cables in the Red Sea and disruption of networks using those cables, which could impact future projects by our customers in this region. 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 countries and regions based on trade restrictions, sanctions, 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.

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 2024:

Period	Total Number of Shares Purchased [1]		Average Price Paid per Share[1]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs [1]		Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in thousands)[1]
January 28, 2024 to February 24, 2024	275,982	$	55.07	275,982	$	202,806
February 25, 2024 to March 23, 2024	308,780	$	53.76	308,780	$	186,207
March 24, 2024 to April 27, 2024	540,679	$	46.65	540,679	$	160,984
	1,125,441	$	50.67	1,125,441		

[1] 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 our previous stock repurchase program. The program may be modified, suspended, or discontinued at any time. During the second quarter of fiscal 2024, we repurchased $57.0 million of our common stock under the stock repurchase program, and we had $161.0 million remaining under the current repurchase authorization as of April 27, 2024. See "Management's Discussion and Analysis of Financial Condition and Results of Operations– Liquidity and Capital Resources – Stock Repurchase Authorization" in Item 2 of Part I of this report and Note 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for information regarding the stock repurchase programs authorized by our Board of Directors.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Rule 10b5-1 Trading Arrangements

During the quarter ended April 27, 2024, none of our directors and officers (as defined in Rule 16a-1(f) of the Exchange Act) adopted, terminated, or modified the amount, pricing or timing provisions of any trading arrangement that is either (1) a contract, instruction or written plan intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) (a "Rule 10b5-1 trading arrangement") or (2) a "non-Rule 10b5-1 trading arrangement" (as defined in Item 408(c) of Regulation S-K).

Item 6. Exhibits

3.1	Fifth Restated Certificate of Incorporation of Ciena Corporation, filed with the Secretary of State of Delaware on June 4, 2024
10.1	Amendment No. 2 to Ciena Corporation 2017 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.1 from the Company's Current Report on 8-K (Commission File No. 001-36250) filed with the Securities and Exchange Commission on March 26, 2024*
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)

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* Represents management contract or compensatory plan or arrangement.

SIGNATURES

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

Ciena Corporation

Date: June 6, 2024

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

Date: June 6, 2024

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

FIFTH RESTATED CERTIFICATE OF INCORPORATION
OF
CIENA CORPORATION

Ciena Corporation, a corporation organized and existing under the laws of the state of Delaware, hereby certifies as follows:

1. The corporation was originally incorporated under the name “Hydralite Incorporated”, and the date of filing of the original Certificate of Incorporation of the corporation with the Secretary of State of the State of Delaware is November 2, 1992. A Restated Certificate of Incorporation was filed on April 8, 1994, a Second Restated Certificate of Incorporation was filed on December 20, 1994, a Third Restated Certificate of Incorporation was filed on December 20, 1995, an Amended and Restated Certificate of Incorporation was filed on March 27, 2008 (the “Amended and Restated Certificate of Incorporation”), and an amendment to the Amended and Restated Certificate of Incorporation was filed on March 25, 2024.

2. Pursuant to Section 245 of the General Corporation Law of the State of Delaware, this Fifth Restated Certificate of Incorporation restates and integrates the provisions of the Amended and Restated Certificate of Incorporation as heretofore amended or supplemented.

3. This Fifth Restated Certificate of Incorporation has been duly adopted by the Board of Directors in accordance with Section 245 of the General Corporation Law of the State of Delaware and approved by the stockholders at the regularly scheduled annual meeting of the stockholders of said corporation.

4. The text of the Amended and Restated Certificate of Incorporation as heretofore amended or supplemented is hereby restated to read in its entirety as follows:

FIRST: The name of the corporation is Ciena Corporation (the “Corporation”).

SECOND: The address of the Corporation’s registered office in the State of Delaware is 251 Little Falls Drive, Wilmington, Delaware, 19808, New Castle County. The name of its registered agent at such address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware (the “Delaware General Corporation Law”).

FOURTH: The Corporation shall have the authority to issue two classes of shares to be designated respectively “Preferred Stock” and “Common Stock.” The total number of shares of stock that the Corporation shall have the authority to issue is 310,000,000 shares of capital stock, par value $0.01 per share. The total number of shares of Preferred Stock that the Corporation shall have authority to issue is 20,000,000, par value $0.01 per share. The total number of shares of Common Stock which the Corporation shall have the authority to issue is 290,000,000, par value $0.01 per share.

The Preferred Stock authorized by this Certificate of Incorporation may be issued from time to time in one or more series. The Board of Directors is hereby authorized, within the limitations and restrictions stated in this Certificate of Incorporation, to fix or alter the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption, including sinking fund provisions, the redemption price or prices, the liquidation preferences and the other preferences, powers, rights, qualifications, limitations and restrictions of any wholly unissued class or series of Preferred Stock and the number of shares constituting any such series and the designation thereof, or any of them.

The Board of Directors is further authorized to increase or decrease the number of shares of any series of Preferred Stock, the number of which was fixed by it, subsequent to the issue of shares of that series, but not below the number of shares of such series then outstanding, subject to the limitations and restrictions stated in the resolutions of the Board of Directors originally fixing the number of shares of such series. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

FIFTH: RESERVED.

SIXTH: The following provisions are inserted for purposes of the management of the business and conduct of the affairs of the Corporation and for creating, defining, limiting and regulating the powers of the Corporation and its directors and stockholders:

(a) (1) The number of directors shall initially be set at nine and, thereafter, shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption). The directors shall be divided into three classes consisting of two or more directors each, with the term of office of the first class (Class I) to expire at the 1998 annual meeting of stockholders; the term of office of the second class (Class II) to expire at the 1999 annual meeting; the term of office of the third class (Class III) to expire at the 2000 annual meeting; and thereafter for each such term to expire at each third succeeding annual meeting of stockholders after such election. The initial allocation of existing directors among the classes shall be made by determination of the Board of Directors. Subject to the rights of the holders of any series of Preferred Stock then outstanding, a vacancy resulting from the removal of a director by the stockholders as provided in Article SIXTH Section (a)(iii) below may be filled at a special meeting of the stockholders held for that purpose. All directors shall hold office until the expiration of the term for which elected, and until their respective successors are elected, except in the case of the death, resignation, or removal of any director.

(2) Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation or other cause (other than removal from office by a vote of the stockholders) may be filled only by a majority vote of the directors then in office, though less than a quorum, and directors so chosen shall hold office for a term expiring at the next annual meeting of stockholders at which the term of office of the class to which they have been elected expires, and until their respective successors are elected, except in the case of the death, resignation or removal of any director. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(3) Subject to the rights of the holders of any series of Preferred Stock then outstanding, any directors, or the entire Board of Directors, may be removed from office at any time, with or without cause, but only by the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Vacancies in the Board of Directors resulting from such removal may be filled by a majority of the directors then in office, though less than a quorum, or by

the stockholders as provided in Article SIXTH, Section (a)(i) above. Directors so chosen shall hold office for a term expiring at the next annual meeting of stockholders at which the term of office of the class to which they have been elected expires, and until their respective successors are elected, except in the case of the death, resignation or removal of any director.

(b) The election of directors may be conducted in any manner approved by the stockholders at the time when the election is held and need not be by ballot.

(c) All corporate powers and authority of the Corporation (except as at the time otherwise provided by law, by this Certificate of Incorporation, as restated from time to time, or by the bylaws) shall be vested in and exercised by the Board of Directors.

(d) Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

(e) Special meetings of stockholders of the Corporation may be called only (1) by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption) or (2) by the holders of not less than ten percent of all of the shares entitled to cast votes at the meeting.

(f) The Board of Directors is expressly empowered to adopt, amend or repeal bylaws of the Corporation. Any adoption, amendment or repeal of bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the Board). The stockholders shall also have power to adopt, amend or repeal the bylaws of the Corporation. Any adoption, amendment or repeal of bylaws of the Corporation by the stockholders shall require, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors voting together as a single class.

SEVENTH: The Corporation reserves the right to amend or repeal any provision contained in this Certificate of Incorporation in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation; provided, however, that, notwithstanding any other provision of law which might otherwise permit a lesser vote or no vote, but in addition to any vote required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least 66-2/3% of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal Articles SIXTH, SEVENTH, EIGHTH and NINTH.

EIGHTH: To the fullest extent permitted by the Delaware General Corporation Law, no director or officer of the Corporation shall have personal liability to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, provided that nothing in this article shall eliminate or limit the liability of a director or officer (i) for any breach of the director’s or officer’s duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under § 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director or officer derived an improper personal benefit. In the event the Delaware General

Corporation Law is amended after the date hereof so as to authorize corporate action further eliminating or limiting the liability of directors or officers of the Corporation, the liability of the directors or officers shall thereupon be eliminated or limited to the maximum extent permitted by the Delaware General Corporation Law, as so amended from time to time.

NINTH: The Corporation shall indemnify any person:

(a) who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good-faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation or, with respect to any criminal action or proceeding, that the person had reasonable cause to believe such person's action was unlawful, or

(b) who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, except that no indemnification shall be made in respect of any claim, issue or matters as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

To the extent that a director, officer, employee or agent of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in paragraphs (a) and (b), or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. The rights conferred on any director of the Corporation under this Article NINTH shall inure to the benefit of any entity that is affiliated with such director and that is a stockholder of the Corporation.

Any indemnification under paragraphs (a) and (b) (unless ordered by a court) shall be made by the Corporation only as authorized in the specified case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because such person has met the applicable standard of conduct set forth in paragraphs (a) and (b). Such determination shall be made

(1) by the board of directors of a majority vote of the quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.

Expenses incurred by an officer or director in defending a civil or criminal action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Corporation as authorized in this Article NINTH. Such expenses incurred by other employees and agents may be so paid upon such terms and conditions, if any, as the board of directors deems appropriate.

The indemnification and advancement of expenses provided by or granted pursuant to, this Article NINTH shall not be deemed exclusive of any other rights to which one seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office.

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in such capacity or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this Article NINTH.

For purposes of this Article NINTH, references to “the Corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have the power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this Article NINTH with respect to the resulting or surviving corporation as he or she would have with respect to such constituent corporation if its separate existence had continued.

For purpose of this Article NINTH, references to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the Corporation” shall include any service as a director, officer, employee or agent of the Corporation that imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the Corporation” as referred to in this Article NINTH.

The indemnification and advancement of expenses provided by, or granted pursuant to this Article NINTH shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

IN WITNESS WHEREOF, the undersigned does execute this Fifth Restated Certificate of Incorporation and affirm and acknowledge, under penalties of perjury, that this Fifth Restated Certificate of Incorporation is the undersigned's act and deed and that the facts stated herein are true, this 4th day of June, 2024.

/s/ Sheela Kosaraju

Name: Sheela Kosaraju

Title: Senior Vice President, General Counsel and Assistant Secretary

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 6, 2024

/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 6, 2024

/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 27, 2024 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 6, 2024

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 27, 2024 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 6, 2024

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.