CIENA CORP
Form 10-Q
June 07, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549
FORM 10-Q
(Mark one)
þ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended April 30, 2017
OR
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to
Commission file number: 001-36250
Ciena Corporation
(Exact name of registrant as specified in its charter)

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

(410) 694-5700
(Registrant's telephone number, including area code)
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 þ NO o
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES þ NO o
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 definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o
			Emerging growth company o

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 o

Indicate by check mark whether the registrant is a shell company (as determined in Rule 12b-2 of the Exchange Act). YES o NO þ

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

Class	Outstanding at June 2, 2017
common stock, $0.01 par value	141,831,617

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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 April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
Revenue:				
Products	$584,630	$523,978	$1,091,623	$981,567
Services	122,392	116,739	236,896	232,265
Total revenue	707,022	640,717	1,328,519	1,213,832
Cost of goods sold:				
Products	327,295	291,778	614,106	552,260
Services	61,487	65,846	122,388	127,029
Total cost of goods sold	388,782	357,624	736,494	679,289
Gross profit	318,240	283,093	592,025	534,543
Operating expenses:				
Research and development	121,623	114,603	238,492	222,649
Selling and marketing	88,551	86,668	173,553	169,146
General and administrative	34,990	35,203	70,854	66,345
Amortization of intangible assets	10,980	15,566	25,531	32,428
Acquisition and integration costs	—	2,285	—	3,584
Restructuring costs	4,276	535	6,671	919
Total operating expenses	260,420	254,860	515,101	495,071
Income from operations	57,820	28,233	76,924	39,472
Interest and other income (loss), net	(2,918)	967	(2,548)	(7,809)
Interest expense	(13,308)	(12,608)	(28,511)	(25,318)
Income before income taxes	41,594	16,592	45,865	6,345
Provision for income taxes	3,568	2,595	3,978	3,894
Net income	$38,026	$13,997	$41,887	$2,451
Basic net income per common share	$0.27	$0.10	$0.30	$0.02
Diluted net income per potential common share	$0.25	$0.10	$0.29	$0.02
Weighted average basic common shares outstanding	141,743	137,950	141,223	137,313
Weighted average dilutive potential common shares outstanding	165,273	138,889	147,842	138,693

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

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

	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
Net income	$38,026	$13,997	$41,887	$2,451
Change in unrealized gain (loss) on available-for-sale securities, net of tax	(278)	234	(527)	256
Change in unrealized gain on foreign currency forward contracts, net of tax	(899)	3,984	526	1,464
Change in unrealized gain on forward starting interest rate swap, net of tax	405	423	4,897	94
Change in cumulative translation adjustments	(2,243)	7,516	(1,753)	4,693
Other comprehensive income	(3,015)	12,157	3,143	6,507
Total comprehensive income	$35,011	$26,154	$45,030	$8,958

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 30, 2017	October 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$628,623	$777,615
Short-term investments	274,779	275,248
Accounts receivable, net	564,856	576,235
Inventories	287,073	211,251
Prepaid expenses and other	186,919	172,843
Total current assets	1,942,250	2,013,192
Long-term investments	89,852	90,172
Equipment, building, furniture and fixtures, net	299,792	288,406
Goodwill	266,773	266,974
Other intangible assets, net	113,245	146,711
Other long-term assets	65,191	68,120
Total assets	$2,777,103	$2,873,575
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$249,556	$235,942
Accrued liabilities and other short-term obligations	262,482	310,353
Deferred revenue	105,514	109,009
Current portion of long-term debt	189,221	236,241
Total current liabilities	806,773	891,545
Long-term deferred revenue	81,349	73,854
Other long-term obligations	113,254	124,394
Long-term debt, net	929,182	1,017,441
Total liabilities	$1,930,558	$2,107,234
Commitments and contingencies (Note 21)		
Stockholders' equity:		
Preferred stock – par value $0.01; 20,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock – par value $0.01; 290,000,000 shares authorized; 141,768,448 and 139,767,627 shares issued and outstanding	1,418	1,398
Additional paid-in capital	6,750,632	6,715,478
Accumulated other comprehensive loss	(21,186)	(24,329)
Accumulated deficit	(5,884,319)	(5,926,206)
Total stockholders' equity	846,545	766,341
Total liabilities and stockholders' equity	$2,777,103	$2,873,575

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 30,	
	2017	2016
Cash flows provided by operating activities:		
Net income	$41,887	$2,451
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	35,548	30,237
Share-based compensation costs	24,830	29,210
Amortization of intangible assets	33,466	40,488
Provision for inventory excess and obsolescence	19,623	20,104
Provision for warranty	2,347	9,563
Other	10,416	8,578
Changes in assets and liabilities:		
Accounts receivable	9,381	(4,865)
Inventories	(95,554)	(19,022)
Prepaid expenses and other	(15,054)	(7,670)
Accounts payable, accruals and other obligations	(24,974)	(29,400)
Deferred revenue	3,832	(3,992)
Net cash provided by operating activities	45,748	75,682
Cash flows used in investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(60,328)	(53,050)
Purchase of available for sale securities	(179,833)	(199,994)
Proceeds from maturities of available for sale securities	180,000	110,000
Settlement of foreign currency forward contracts, net	(2,965)	(4,834)
Acquisition of business, net of cash acquired	—	(32,000)
Net cash used in investing activities	(63,126)	(179,878)
Cash flows provided by (used in) financing activities:		
Proceeds from issuance of term loan, net	—	248,750
Payment of long-term debt	(47,296)	(15,264)
Payment for modification of term loans	(93,625)	—
Payment of debt issuance costs	—	(3,778)
Payment of capital lease obligations	(1,528)	(3,769)
Proceeds from issuance of common stock	10,345	9,968
Net cash provided by (used in) financing activities	(132,104)	235,907
Effect of exchange rate changes on cash and cash equivalents	490	(649)
Net increase (decrease) in cash and cash equivalents	(148,992)	131,062
Cash and cash equivalents at beginning of period	777,615	790,971
Cash and cash equivalents at end of period	$628,623	$922,033
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	$23,439	$20,432
Cash paid during the period for income taxes, net	$11,379	$6,991
Non-cash investing activities		
Purchase of equipment in accounts payable	$3,818	$11,437
Equipment acquired under capital lease	$—	$3,012

Building subject to capital lease	$20,695	$8,993
Construction in progress subject to build-to-suit lease	$—	$21,606

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

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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 ("SEC"). 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 for the interim periods covered and of the financial position of Ciena at the date of the interim balance sheets. Certain information and footnote disclosures normally included in the annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") have been condensed or omitted pursuant to such rules and regulations. The Condensed Consolidated Balance Sheet as of October 31, 2016 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 31, 2016.

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 2017 and 2016 are 52-week fiscal years. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31, and the fiscal quarters are described as having ended on January 31, April 30 and July 31 of each fiscal year.

(2) SIGNIFICANT ACCOUNTING POLICIES

Business Combinations

Ciena records acquisitions using the purchase method of accounting. All of the assets acquired, liabilities assumed, contractual contingencies and contingent consideration are recognized at their fair value as of the acquisition date. The excess of the purchase price over the estimated fair values of the net tangible and net intangible assets acquired is recorded as goodwill. The application of the purchase method of accounting for business combinations requires management to make significant estimates and assumptions in the determination of the fair value of assets acquired and liabilities assumed in order to allocate purchase price consideration properly between assets that are depreciated and amortized from goodwill. These assumptions and estimates include a market participant's use of the asset and the appropriate discount rates for a market participant. Ciena's estimates are based on historical experience, information obtained from the management of the acquired companies and, when appropriate, include assistance from independent third-party appraisal firms. Significant assumptions and estimates can include, but are not limited to, the cash flows that an asset is expected to generate in the future, the appropriate weighted-average cost of capital, and the cost savings expected to be derived from acquiring an asset. These estimates are inherently uncertain and unpredictable. In addition, unanticipated events and circumstances may occur which may affect the accuracy or validity of such estimates.

Use of Estimates

The preparation of the financial statements and related disclosures in conformity with GAAP requires management to make estimates and judgments that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Estimates are used for selling prices for multiple element arrangements, shared-based compensation, convertible notes payable valuations, bad debts, valuation of inventories and investments, recoverability of intangible assets, other long-lived assets and goodwill, income taxes, warranty obligations, restructuring liabilities, derivatives, incentive compensation, contingencies and litigation. Ciena bases its estimates on historical experience and assumptions that it believes are reasonable. Actual results may differ materially from management's estimates.

Cash and Cash Equivalents

Ciena considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents. Any restricted cash collateralizing letters of credit is included in either other current assets or other long-term assets depending upon the duration of the restriction.

Investments

Ciena's investments are classified as available-for-sale and are reported at fair value, with unrealized gains and losses recorded in accumulated other comprehensive income (loss). Ciena recognizes losses in the income statement when it determines that a decline in the fair value of any investment below its cost basis is other-than-temporary. In determining whether a decline in fair value is other-than-temporary, Ciena considers various factors, including market price (when available), investment ratings, the financial condition and near-term prospects of the investee, the length of time and the extent to which the fair value has been less than Ciena's cost basis, and Ciena's intent and ability to hold the investment until maturity or for a period of time sufficient to allow for any anticipated recovery in market value. Ciena considers all marketable debt securities that it expects to convert to cash within one year or less to be short-term investments, with all others considered to be long-term investments.

Ciena has minority equity investments in privately held technology companies that are classified in other long-term assets. These investments are carried at cost because Ciena owns less than 20% of the voting equity and does not have the ability to exercise significant influence over the companies. Ciena monitors these investments for impairment and makes appropriate reductions to the carrying value when necessary. As of April 30, 2017, the combined carrying value of these investments was $6.0 million. Ciena has not estimated the fair value of these cost method investments because determining the fair value is not practicable. Ciena has not evaluated these investments for impairment as there have not been any events or changes in circumstances that Ciena believes would have had a significant adverse effect on the fair value of these investments.

Inventories

Inventories are stated at the lower of cost or market, with cost computed using standard cost, which approximates actual cost, on a first-in, first-out basis. Ciena records a provision for excess and obsolete inventory when an impairment has been identified.

Segment Reporting

Ciena's chief operating decision maker, its chief executive officer, evaluates the Company's performance and allocates resources based on multiple factors, including measures of segment profit (loss). Operating segments are defined as components of an enterprise that engage in business activities that may earn revenue and incur expense, for which discrete financial information is available, and for which such information is evaluated regularly by the chief operating decision maker for purposes of allocating resources and assessing performance. Ciena considers the following to be its operating segments for reporting purposes: (i) Networking Platforms, (ii) Software and Software-Related Services, and (iii) Global Services. See Note 20 below.

Goodwill

Goodwill is the excess of the purchase price over the fair values assigned to the net assets acquired in a business combination. Ciena tests goodwill for impairment on an annual basis, which it has determined to be the last business day of fiscal September each year. Ciena also tests goodwill for impairment between annual tests if an event occurs or circumstances change that would, more likely than not, reduce the fair value of the reporting unit below its carrying value.

The first step in the process of assessing goodwill impairment is to compare the fair value of the reporting unit with the unit’s carrying amount, including goodwill. If this test indicates that the fair value is less than the carrying value, then step two as amended by ASU No. 2017-04, Simplifying the Test for Goodwill Impairment, adopted by Ciena in the first quarter of fiscal 2017, requires goodwill impairments to be measured on the basis of the fair value of the reporting unit relative to the reporting unit's carrying amount. A non-cash goodwill impairment charge would have the effect of decreasing earnings or increasing losses in such period. If Ciena is required to take a substantial impairment charge, its operating results would be materially adversely affected in such period.

Long-lived Assets

Long-lived assets include: equipment, building, furniture and fixtures; intangible assets; and maintenance spares. Ciena tests long-lived assets for impairment whenever triggering events or changes in circumstances indicate that the asset's carrying amount is not recoverable from its undiscounted cash flows. An impairment loss is measured as the amount by which the carrying amount of the asset or asset group exceeds its fair value. Ciena's long-lived assets are assigned to asset groups that represent the lowest level for which cash flows can be identified.

Equipment, Building, Furniture and Fixtures and Internal Use Software

Equipment, building, furniture and fixtures are recorded at cost. Depreciation and amortization are computed using the straight-line method over useful lives of two to five years for equipment and furniture and fixtures and the shorter of useful life or lease term for leasehold improvements.

Ciena establishes assets and liabilities for the estimated construction costs incurred under build-to-suit lease arrangements to the extent that Ciena is involved in the construction of structural improvements or takes construction risk prior to commencement of a lease. See Notes 10 and 13 below.

Qualifying internal use software and website development costs incurred during the application development stage, which consist primarily of outside services and purchased software license costs, are capitalized and amortized straight-line over the estimated useful lives of two to five years.

Intangible Assets

Ciena has recorded finite-lived intangible assets as a result of several acquisitions. Finite-lived intangible assets are carried at cost less accumulated amortization. Amortization is computed using the straight-line method over the expected economic lives of the respective assets, up to seven years, which approximates the use of intangible assets.

Ciena has recorded in-process research and development projects acquired as the result of an acquisition as indefinite-lived intangible assets. Upon completion of the projects, the assets will be amortized on a straight-line basis over the expected economic life of the asset, which will be determined on that date. Should the project be determined to be abandoned, and the asset developed has no alternative use, the full value of the asset will be charged to expense.

Maintenance Spares

Maintenance spares are recorded at cost. Spares usage cost is expensed ratably over four years.

Concentrations

Substantially all of Ciena's cash and cash equivalents are maintained at a small number of major U.S. financial institutions. The majority of Ciena's cash equivalents consist of money market funds. Deposits held with banks may exceed the amount of insurance provided on such deposits. Because these deposits generally may be redeemed upon demand, management believes that they bear minimal risk.

Historically, a significant percentage of Ciena's revenue has been concentrated among sales to a small number of large communications service providers. Consolidation among Ciena's customers has increased this concentration. Consequently, Ciena's accounts receivable are concentrated among these customers. See Note 20 below.

Additionally, Ciena's access to certain materials or components is dependent upon sole or limited source suppliers. The inability of any of these suppliers to fulfill Ciena's supply requirements, or significant changes in supply cost, could affect future results. Ciena relies on a small number of contract manufacturers to perform the majority of the manufacturing for its products. If Ciena cannot effectively manage these manufacturers or forecast future demand, or if these manufacturers fail to deliver products or components on time, Ciena's business and results of operations may suffer.

Revenue Recognition

Ciena recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the price to the buyer is fixed or determinable; and collectibility is reasonably assured. Customer purchase agreements and customer purchase orders are generally used to determine the existence of an arrangement. Shipping documents and evidence of customer acceptance, when applicable, are used to verify delivery or services rendered. Ciena assesses whether the price is fixed or determinable based on the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. Ciena assesses collectibility based primarily on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history. Revenue for maintenance services is deferred and recognized ratably over the period during which the services are performed.

Shipping and handling fees billed to customers are included in revenue, with the associated expenses included in product cost of goods sold.

Software revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectibility is probable. In instances where final acceptance criteria of the software are specified by the customer, revenue is deferred until there are no uncertainties regarding customer acceptance.

Ciena limits the amount of revenue recognition for delivered elements to the amount that is not contingent on the future delivery of products or services, future performance obligations or subject to customer-specified return or refund privileges.

Revenue for multiple element arrangements is allocated to each unit of accounting based on the relative selling price of each delivered element, with revenue recognized for each delivered element when the revenue recognition criteria are met. Ciena determines the selling price for each deliverable based upon the selling price hierarchy for multiple-deliverable arrangements. Under this hierarchy, Ciena uses vendor-specific objective evidence ("VSOE") of selling price, if it exists, or third party evidence ("TPE") of selling price if VSOE does not exist. If neither VSOE nor TPE of selling price exists for a deliverable, Ciena uses its best estimate of selling price ("BESP") for that deliverable. For multiple element software arrangements where VSOE of undelivered maintenance does not exist, revenue for the entire arrangement is recognized over the maintenance term.

VSOE, when determinable, is established based on Ciena's pricing and discounting practices for the specific product or service when sold separately. In determining whether VSOE exists, Ciena requires that a substantial majority of the selling prices for a product or service fall within a reasonably narrow pricing range. Ciena has been unable to establish TPE of selling price because its go-to-market strategy differs from that of others in its markets, and the extent of customization and differentiated features and functions varies among comparable products or services from its peers. Ciena determines BESP based upon management-approved pricing guidelines, which consider multiple factors including the type of product or service, gross margin objectives, competitive and market conditions, and the go-to-market strategy, all of which can affect pricing practices.

Warranty Accruals

Ciena provides for the estimated costs to fulfill customer warranty obligations upon recognition of the related revenue. Estimated warranty costs include estimates for material costs, technical support labor costs and associated overhead. Warranty is included in cost of goods sold and is determined based upon actual warranty cost experience, estimates of component failure rates and management's industry experience. Ciena's sales contracts do not permit the right of return of the product by the customer after the product has been accepted.

Accounts Receivable, Net

Ciena's allowance for doubtful accounts is based on its assessment, on a specific identification basis, of the collectibility of customer accounts. Ciena performs ongoing credit evaluations of its customers and generally has not required collateral or other forms of security from them. In determining the appropriate balance for Ciena's allowance for doubtful accounts, management considers each individual customer account receivable in order to determine collectibility. In doing so, management considers creditworthiness, payment history, account activity and communication with the customer. If a customer's financial condition changes, Ciena may be required to record an allowance for doubtful accounts for that customer, which could negatively affect its results of operations.

Research and Development

Ciena charges all research and development costs to expense as incurred. Types of expense incurred in research and development include employee compensation, prototype equipment, consulting and third party services, depreciation, facility costs and information technology.

Advertising Costs

Ciena expenses all advertising costs as incurred.

Legal Costs

Ciena expenses legal costs associated with litigation as incurred.

Share-Based Compensation Expense

Ciena measures and recognizes compensation expense for share-based awards based on estimated fair values on the date of grant. Ciena estimates the fair value of each option-based award on the date of grant using the Black-Scholes option-pricing model. This model is affected by Ciena's stock price as well as estimates regarding a number of variables, including expected stock price volatility over the expected term of the award and projected employee stock option exercise behaviors. Ciena estimates the fair value of each restricted stock unit award based on the fair value of the underlying common stock on the date of grant. In each case, Ciena only recognizes expense in its Condensed Consolidated Statement of Operations for those stock options or restricted stock units that are expected ultimately to vest. Ciena recognizes the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon Ciena's determination of whether it is probable that the performance targets will be achieved. At the end of each reporting period, Ciena reassesses the probability of achieving the performance targets and the performance period required to meet those targets, and the expense is adjusted accordingly. Ciena uses the straight-line method to record expense for share-based awards with only service-based vesting. See Note 19 below.

Income Taxes

Ciena accounts for income taxes using an asset and liability approach. This approach recognizes deferred tax assets and liabilities for the expected future tax consequences attributable to differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases, and for operating loss and tax credit carryforwards. In estimating future tax consequences, Ciena considers all expected future events other than the enactment of changes in tax laws or rates. Valuation allowances are provided if, based upon the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

In the ordinary course of business, transactions occur for which the ultimate outcome may be uncertain. In addition, tax authorities periodically audit Ciena’s income tax returns. These audits examine significant tax filing positions, including the timing and amounts of deductions and the allocation of income tax expenses among tax jurisdictions. Ciena is currently under audit in India for 2012 through 2014 and in Canada for 2011 through 2013. Management does not expect the outcome of these audits to have a material adverse effect on Ciena’s consolidated financial position, results of operations or cash flows. Ciena’s major tax jurisdictions and the earliest open tax years are as follows: United States (2013), United Kingdom (2014), Canada (2011) India (2012) and Brazil (2012). Limited adjustments can be made to Federal U.S. tax returns in earlier years in order to reduce net operating loss carryforwards. Ciena classifies interest and penalties related to uncertain tax positions as a component of income tax expense.

Ciena has not provided for U.S. deferred income taxes on the cumulative unremitted earnings of its non-U.S. affiliates, as it plans to indefinitely reinvest cumulative unremitted foreign earnings outside the U.S., and it is not practicable to determine the unrecognized deferred income taxes. These cumulative unremitted foreign earnings relate to ongoing operations in foreign jurisdictions and are required to fund foreign operations, capital expenditures and future expansion requirements.

Ciena recognizes windfall tax benefits associated with the exercise of stock options or release of restricted stock units directly to stockholders’ equity only when realized. A windfall tax benefit occurs when the actual tax benefit realized by Ciena upon an employee’s disposition of a share-based award exceeds the deferred tax asset, if any, associated with the award that Ciena had recorded. When assessing whether a tax benefit relating to share-based compensation has been realized, Ciena follows the “with-and-without” method. Under the with-and-without method, the windfall is considered realized and recognized for financial statement purposes only when an incremental benefit is provided after considering all other tax benefits including Ciena’s net operating losses. The with-and-without method results in the windfall from share-based compensation awards always being effectively the last tax benefit to be considered. Consequently, the windfall attributable to share-based compensation will not be considered realized in instances where Ciena’s net operating loss carryover (that is unrelated to windfalls) is sufficient to offset the current year’s taxable income before considering the effects of current-year windfalls.

Loss Contingencies

Ciena is subject to the possibility of various losses arising in the ordinary course of business. These may relate to disputes, litigation and other legal actions. Ciena considers the likelihood of loss or the incurrence of a liability, as well as Ciena's ability to estimate the amount of loss reasonably, in determining loss contingencies. An estimated loss contingency is accrued when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Ciena regularly evaluates current information available to it in order to determine whether any accruals should be adjusted and whether new accruals are required.

Fair Value of Financial Instruments

The carrying value of Ciena's cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximates fair market value due to the relatively short period of time to maturity. For information related to the fair value of Ciena's convertible notes and term loans, see Note 16 below.

Fair value for the measurement of financial assets and liabilities is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Ciena utilizes a valuation hierarchy for disclosure of the inputs for fair value measurement. This hierarchy prioritizes the inputs into three broad levels as follows:

- Level 1 inputs are unadjusted quoted prices in active markets for identical assets or liabilities;

- Level 2 inputs are quoted prices for identical or similar assets or liabilities in less active markets or model-derived valuations in which significant inputs are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument; and

- Level 3 inputs are unobservable inputs based on Ciena's assumptions used to measure assets and liabilities at fair value.

By distinguishing between inputs that are observable in the marketplace, and therefore more objective, and those that are unobservable, and therefore more subjective, the hierarchy is designed to indicate the relative reliability of the fair value measurements. A financial asset's or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

Restructuring

From time to time, Ciena takes actions to better align its workforce, facilities and operating costs with perceived market opportunities, business strategies and changes in market and business conditions. Ciena recognizes a liability for the cost associated with an exit or disposal activity in the period in which the liability is incurred, except for one-time employee termination benefits related to a service period, typically of more than 60 days, which are accrued over the service period. See Note 3 below.

Foreign Currency

Certain of Ciena's foreign branch offices and subsidiaries use the U.S. Dollar as their functional currency because Ciena Corporation, as the U.S. parent entity, exclusively funds the operations of these branch offices and subsidiaries. For those subsidiaries using the local currency as their functional currency, assets and liabilities are translated at exchange rates in effect at the balance sheet date, and the statement of operations is translated at a monthly average rate. Resulting translation adjustments are recorded directly to a separate component of stockholders' equity. Where the monetary assets and liabilities are transacted in a currency other than the entity's functional currency, re-measurement adjustments are recorded in interest and other income (loss), net on the Condensed Consolidated Statement of Operations. See Note 4 below.

Derivatives

From time to time, Ciena uses foreign currency forward contracts to reduce variability in certain forecasted non-U.S. Dollar denominated cash flows. Generally, these derivatives have maturities of 12 months or less. Ciena also has interest rate hedge arrangements to reduce variability in certain forecasted interest expense associated with its term loans. All of these derivatives are designated as cash flow hedges. At the inception of the cash flow hedge, and on an ongoing basis, Ciena assesses whether the derivative has been effective in offsetting changes in cash flows attributable to the hedged risk during the hedging period. The effective portion of the derivative's net gain or loss is initially reported as a component of accumulated other comprehensive income (loss), and, upon occurrence of the forecasted transaction, is subsequently reclassified to the line item in the Condensed Consolidated Statement of Operations to which the hedged transaction relates. Any net gain or loss associated with the ineffectiveness of the hedging instrument is reported in interest and other income (loss), net. To date, no ineffectiveness has occurred.

Ciena records derivative instruments in the Condensed Consolidated Statements of Cash Flows within operating, investing, or financing activities consistent with the cash flows of the hedged items.

From time to time, Ciena uses foreign currency forward contracts to hedge certain balance sheet exposures. These forward contracts are not designated as hedges for accounting purposes, and any net gain or loss associated with these derivatives is reported in interest and other income (loss), net on the Condensed Consolidated Statement of Operations.

See Notes 6 and 14 below.

Computation of Net Income (Loss) per Share

Ciena calculates basic earnings per share ("EPS") by dividing earnings attributable to common stock by the weighted average number of common shares outstanding for the period. Diluted EPS includes other potential dilutive shares that would be outstanding if securities or other contracts to issue common stock were exercised or converted into common stock. Ciena uses a dual presentation of basic and diluted EPS on the face of its income statement. A reconciliation of the numerator and denominator used for the basic and diluted EPS computations is set forth in Note 18 below.

Software Development Costs

Ciena develops software for sale to its customers. GAAP requires the capitalization of certain software development costs that are incurred subsequent to the date technological feasibility is established and prior to the date the product is generally available for sale. The capitalized cost is then amortized straight-line over the estimated life of the product. Ciena defines technological feasibility as being attained at the time a working model is completed. To date, the period between Ciena achieving technological feasibility and the general availability of such software has been short, and software development cost qualifying for capitalization has been insignificant. Accordingly, Ciena has not capitalized any software development costs.

Newly Issued Accounting Standards - Effective

In April 2015, Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-03, Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03"). ASU 2015-03 requires debt issuance costs related to a recognized debt liability to be presented in the balance sheet as a direct deduction from the carrying value of that debt liability, consistent with debt discounts. ASU 2015-03 is to be applied on a retrospective basis and represents a change in accounting principle. In August 2015, the FASB issued Accounting Standards Update No. 2015-15, “Interest — Imputation of Interest (Subtopic 835-30): Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements — Amendments to SEC Paragraphs Pursuant to Staff Announcement at June 18, 2015 EITF Meeting” (“ASU 2015-15”), which clarifies the treatment of debt issuance costs from line-of-credit arrangements after the adoption of ASU 2015-03. In particular, ASU 2015-15 clarifies that the SEC staff would not object to an entity deferring and presenting debt issuance costs related to a line-of-credit arrangement as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of such arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. Ciena adopted these ASU's during the first quarter of fiscal 2017. The adoption of ASU 2015-03 resulted in the reclassification of unamortized debt issuance costs related to Ciena's convertible notes and term loans from other long-term assets to current portion of long-term debt and long-term debt, net in Ciena's Consolidated Balance sheets in the amount of $6.4 million at April 30, 2017 and $8.9 million at October 31, 2016. As permitted by ASU 2015-15, Ciena elected not to reclassify unamortized debt issuance costs associated with its ABL Credit Facility (described in Note 17 below) and continue to present such capitalized costs in other assets.

In January 2017, the FASB issued ASU No. 2017-04, Simplifying the Test for Goodwill Impairment ("ASU 2017-04"), which simplifies the accounting for goodwill impairments by eliminating step two from the goodwill impairment test. ASU 2017-04 requires goodwill impairments to be measured on the basis of the fair value of the reporting unit relative to the reporting unit's carrying amount rather than on the basis of the implied amount of goodwill relative to the goodwill balance of the reporting unit. ASU 2017-04 is effective for annual and interim impairment tests for periods beginning after December 15, 2021. Early adoption is allowed for annual and interim impairment tests occurring after January 1, 2017. Ciena elected to adopt ASU 2017-04 during the first quarter of fiscal 2017.

Newly Issued Accounting Standards - Not Yet Effective

In May 2014, FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which provides guidance for revenue recognition. This ASU affects any entity that either enters into contracts with customers to transfer goods or services or enters into contracts for the transfer of non-financial assets. This ASU will supersede the revenue recognition requirements in Topic 605, Revenue Recognition, and most industry-specific guidance. This ASU also supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition-Construction-Type and Production-Type Contracts. The standard will be effective for Ciena beginning in the first quarter of fiscal 2019. For multiple element software arrangements where VSOE of undelivered maintenance does not exist, Ciena currently recognizes revenue for the entire arrangement over the maintenance term. Ciena expects that the adoption of this ASU will require Ciena to determine the stand alone selling price for each of the elements at the contract inception and consequently Ciena expects certain software deliverables will be recognized at a point in time rather than over a period of time. Ciena is continuing to evaluate other possible impacts of the adoption of this ASU on its Consolidated Financial Statements and disclosures, as well as the transition method.

In February 2016, FASB issued ASU No. 2016-02, Leases, which requires an entity to recognize assets and liabilities on the balance sheet for the rights and obligations created by leased assets and to provide additional disclosures. ASU 2016-02 is effective for Ciena beginning in the first quarter of fiscal 2020. Under current GAAP, the majority of Ciena’s leases for its properties are considered operating leases and Ciena expects that the adoption of this ASU will require these leases to be classified as financing leases and to be recognized as assets and liabilities on Ciena’s balance sheet. Ciena is continuing to evaluate other possible impacts of the adoption of this ASU on its Consolidated Financial Statements and disclosures.

In March 2016, the FASB issued ASU No. 2016-09, Improvements to Employee Share-Based Payment Accounting, which provides guidance on several aspects of accounting for share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification on the statement of cash flows. ASU 2016-09 is effective for Ciena beginning in the first quarter of fiscal 2018. Under the new guidance, Ciena would recognize all excess tax benefits previously unrecognized, along with any valuation allowance, on a modified retrospective basis as a cumulative-effect adjustment to retained earnings as of the date of adoption of this updated standard.

In January 2017, the FASB issued ASU No. 2017-1, Business Combinations: Clarifying the Definition of a Business, which clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisition or disposal of assets or businesses. The amendments in this update provide a screen to determine when a set of assets is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set of assets is not a business. ASU 2017-01 is effective for Ciena beginning first quarter of fiscal 2018. Ciena will evaluate the effect of the update at the time of any future acquisition or disposal.

(3) RESTRUCTURING COSTS

Ciena has undertaken a number of restructuring activities intended to reduce expense and better align its workforce and costs with market opportunities, product development and business strategies. The following table sets forth the restructuring activity and balance of the restructuring liability accounts for the six months ended April 30, 2017 (in thousands):

	Workforce reduction	Consolidation of excess facilities	Total
Balance at October 31, 2016	$ 868	$ 1,970	$2,838
Additional liability recorded	2,369 (1)	4,302 (2)	6,671
Cash payments	(3,084)	(1,133)	(4,217)
Balance at April 30, 2017	$ 153	$ 5,139	$5,292
Current restructuring liabilities	$ 153	$ 4,928	$5,081
Non-current restructuring liabilities	$ —	$ 211	$211

(1) Reflects a global workforce reduction of approximately 50 employees during the first quarter of fiscal 2017 as part of a business optimization strategy to improve gross margin, constrain operating expense and redesign certain business processes and systems.

(2) Reflects unfavorable lease commitments and relocation costs incurred during the second quarter of fiscal 2017 in connection with the facility transition from Ciena's existing research and development center located at Lab 10 on the former Nortel Carling Campus to a new campus facility in Ottawa, Canada.

The following table sets forth the restructuring activity and balance of the restructuring liability accounts for the six months ended April 30, 2016 (in thousands):

	Workforce reduction	Consolidation of excess facilities	Total
Balance at October 31, 2015	$ 591	$ 688	$1,279
Additional liability recorded	929	—	929
Adjustment to previous estimates	—	(10)	(10)
Cash payments	(823)	(203)	(1,026)
Balance at April 30, 2016	$ 697	$ 475	$1,172
Current restructuring liabilities	$ 697	$ 309	$1,006
Non-current restructuring liabilities	$ —	$ 166	$166

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

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

	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
Interest income	$1,507	$ 982	$2,789	$1,668
Losses on non-hedge designated foreign currency forward contracts	(2,749)	(10,600)	(1,725)	(15,213)
Foreign currency exchange gain (loss)	1,292	10,506	(1,125)	6,130
Modification of term loan	(2,924)	—	(2,924)	—
Other	(44)	79	437	(394)
Interest and other income (loss), net	$(2,918)	$ 967	$(2,548)	$(7,809)

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 the local currency as their functional currency. During the first six months of fiscal 2017

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Ciena recorded $1.1 million in foreign currency exchange rate losses, and during the first six months of fiscal 2016, Ciena recorded $6.1 million in foreign currency exchange rate gains as a result of monetary assets and liabilities that were transacted in a currency other than the entity's functional currency, and the re-measurement adjustments were recorded in interest and other income (loss), net on the Condensed Consolidated Statement of Operations. From time to time, Ciena uses foreign currency forwards to hedge these balance sheet exposures. These forwards are not designated as hedges for accounting purposes and any net gain or loss associated with these derivatives is reported in interest and other income (loss), net on the Condensed Consolidated Statement of Operations. During the first six months of fiscal 2017 and fiscal 2016, Ciena recorded losses of $1.7 million and $15.2 million, respectively, from non-hedge designated foreign currency forward contracts.

(5) SHORT-TERM AND LONG-TERM INVESTMENTS

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

	April 30, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	$255,042	$ —	(233)	$254,809
Included in long-term investments	89,987	—	(135)	89,852
	$345,029	$ —	$ (368)	$344,661
Commercial paper:				
Included in short-term investments	$19,970	—	—	$19,970
	$19,970	$ —	$ —	$19,970

	October 31, 2016			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	$260,125	$ 140	$ (6)	$260,259
Included in long-term investments	90,145	57	(30)	90,172
	$350,270	$ 197	$ (36)	$350,431
Commercial paper:				
Included in short-term investments	$14,989	—	—	$14,989
	$14,989	$ —	$ —	$14,989

The following table summarizes the final legal maturities of debt investments at April 30, 2017 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	$275,012	$274,779
Due in 1-2 years	89,987	89,852
	$364,999	$364,631

(6) FAIR VALUE MEASUREMENTS

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

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	April 30, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$474,476	$—	$ —	$474,476
U.S. government obligations	—	344,661	—	344,661
Commercial paper	—	79,917	—	79,917
Foreign currency forward contracts	—	827	—	827
Total assets measured at fair value	$474,476	$425,405	$ —	$899,881
Liabilities:				
Foreign currency forward contracts	$—	$1,811	$ —	$1,811
Forward starting interest rate swap	—	1,070	—	1,070
Total liabilities measured at fair value	$—	$2,881	$ —	$2,881

	October 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$625,277	$—	$ —	$625,277
U.S. government obligations	—	350,431	—	350,431
Commercial paper	—	69,959	—	69,959
Foreign currency forward contracts	—	175	—	175
Total assets measured at fair value	$625,277	$420,565	$ —	$1,045,842
Liabilities:				
Foreign currency forward contracts	$—	$1,396	$ —	$1,396
Forward starting interest rate swap	—	5,967	—	5,967
Total liabilities measured at fair value	$—	$7,363	$ —	$7,363

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

	April 30, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$474,476	$59,947	$ —	$534,423
Short-term investments	—	274,779	—	274,779
Prepaid expenses and other	—	827	—	827
Long-term investments	—	89,852	—	89,852
Total assets measured at fair value	$474,476	$425,405	$ —	$899,881
Liabilities:				
Accrued liabilities	$—	$1,811	$ —	$1,811
Other long-term obligations	—	1,070	—	1,070
Total liabilities measured at fair value	$—	$2,881	$ —	$2,881

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	October 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$625,277	$54,970	$ —	$680,247
Short-term investments	—	275,248	—	275,248
Prepaid expenses and other	—	175	—	175
Long-term investments	—	90,172	—	90,172
Total assets measured at fair value	$625,277	$420,565	$ —	$1,045,842
Liabilities:				
Accrued liabilities	$—	$1,396	$ —	$1,396
Other long-term obligations	—	5,967	—	5,967
Total liabilities measured at fair value	$—	$7,363	$ —	$7,363

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

(7) ACCOUNTS RECEIVABLE

As of April 30, 2017, no single customer accounted for greater than 10.0% of Ciena's net accounts receivable. As of October 31, 2016, one customer accounted for 10.4% of Ciena's net accounts receivable. Ciena has not historically experienced a significant amount of bad debt expense. The allowance for doubtful accounts was $4.5 million and $4.0 million as of April 30, 2017 and October 31, 2016, respectively.

(8) INVENTORIES

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

	April 30, 2017	October 31, 2016
Raw materials	$43,905	$44,644
Work-in-process	12,859	12,852
Finished goods	204,376	156,402
Deferred cost of goods sold	85,164	59,856
	346,304	273,754
Provision for excess and obsolescence	(59,231)	(62,503)
	$287,073	$211,251

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 and market conditions. During the first six months of fiscal 2017, Ciena recorded a provision for excess and obsolescence of $19.6 million, primarily related to a decrease in the forecasted demand for certain Networking Platforms products. Deductions from the provision for excess and obsolete inventory relate primarily to disposal activities.

(9) PREPAID EXPENSES AND OTHER

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

	April 30, 2017	October 31, 2016
Prepaid VAT and other taxes	$86,572	$ 77,474
Product demonstration equipment, net	48,897	42,259
Deferred deployment expense	23,482	19,138
Prepaid expenses	23,996	25,659
Other non-trade receivables	3,145	4,398
Financing receivable	—	3,740
Derivative assets	827	175
	$186,919	$ 172,843

Depreciation of product demonstration equipment was $4.9 million and $5.2 million for the first six months of fiscal 2017 and 2016, respectively.

(10) EQUIPMENT, BUILDING, FURNITURE AND FIXTURES

As of the dates indicated, equipment, building, furniture and fixtures are comprised of the following (in thousands):

	April 30, 2017	October 31, 2016
Equipment, furniture and fixtures	$468,630	$451,029
Building subject to capital lease	42,347	22,529
Construction in progress subject to build-to-suit lease	33,157	57,602
Leasehold improvements	78,136	60,011
	622,270	591,171
Accumulated depreciation and amortization	(322,478)	(302,765)
	$299,792	$288,406

Ciena capitalizes construction in progress and records a corresponding long-term liability for build-to-suit lease agreements where Ciena is considered the owner, for accounting purposes, during the construction period. On April 15, 2015, Ciena entered into a build-to-suit lease arrangement pursuant to which the landlord will construct, and Ciena will subsequently lease, two new office buildings at its new Ottawa, Canada campus. The landlord will construct the buildings and contribute up to a maximum of CAD$290.00 per rentable square foot in total construction costs plus certain allowances for tenant improvements, and Ciena will be responsible for any additional construction costs. As of the first day of Ciena's second quarter of fiscal 2017, occupancy of one of the office buildings was complete, and, as such, Ciena recorded a capital lease of $20.7 million for this building which will be depreciated over the lease term. This occupancy also reduced the build-to-suit construction in progress asset and the corresponding long-term liability. As of April 30, 2017, total costs remaining under this build-to-suit arrangement were $33.2 million. The remaining build-to-suit arrangement is expected to qualify as a capital lease. As a result, the facilities will be depreciated over the shorter of their useful lives or the lease term.

The total of the depreciation of equipment, furniture and fixtures and the amortization of leasehold improvements was $30.6 million and $24.8 million for the first six months of fiscal 2017 and 2016, respectively.

(11) OTHER INTANGIBLE ASSETS

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

	April 30, 2017			October 31, 2016		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	$347,727	$(267,663)	$80,064	$347,727	$(248,128)	$99,599
In-process research and development	4,200	—	4,200	4,200	—	4,200
Patents and licenses	7,165	(6,410)	755	7,165	(6,285)	880
Customer relationships, covenants not to compete, outstanding purchase orders and contracts	358,648	(330,422)	28,226	358,647	(316,615)	42,032
Total other intangible assets	$717,740	$(604,495)	$113,245	$717,739	$(571,028)	$146,711

The aggregate amortization expense of intangible assets was $33.5 million and $40.5 million for the first six months of fiscal 2017 and 2016, respectively. Expected future amortization of intangible assets for the fiscal years indicated is as follows (in thousands):

Period ended October 31,	
2017 (remaining six months)	$11,895
2018	22,680
2019	22,133
2020	21,106
2021	18,172
Thereafter	13,059
	$109,045 (1)

(1) Does not include amortization of in-process research and development, as estimation of the timing of future amortization expense would be impractical.

(12) GOODWILL

The following table presents the goodwill allocated to Ciena's applicable reportable segments as of the dates indicated (in thousands):

	Balance at October 31, 2016	Acquisitions	Impairments	Translation	Balance at April 30, 2017
Software and Software-Related Services	$201,428	$ —	$ —	$ —	$201,428
Networking Platforms	65,546	—	—	(201)	65,345
Total	$266,974	$ —	$ —	$ (201)	$266,773

(13) OTHER BALANCE SHEET DETAILS

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

	April 30, 2017	October 31, 2016
Maintenance spares, net	$48,447	$ 49,535
Deferred debt issuance costs, net [1]	1,202	1,363
Financing receivable	—	1,870
Other	15,542	15,352
	$65,191	$ 68,120

(1) As described in Note 2 above, in connection with Ciena's adoption of ASU 2015-03 effective January 31, 2017, deferred debt issuance costs associated with its convertible notes and term loans were retrospectively reclassified from other long-term assets to current portion of long-term debt and long-term debt, net on the Condensed Consolidated Balance Sheets. The deferred debt issuance costs reflected relate to Ciena's ABL Credit Facility (described in Note 17 below). The amortization of deferred debt issuance costs for Ciena's ABL Credit Facility is included in interest expense, and was $0.2 million and $0.3 million during the first six months of fiscal 2017 and 2016, respectively.

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

	April 30, 2017	October 31, 2016
Compensation, payroll related tax and benefits	$71,567	$ 106,687
Warranty	46,025	52,324
Vacation	40,317	36,112
Capital lease obligations	2,716	2,321
Interest payable	4,312	4,649
Other	97,545	108,260
	$262,482	$ 310,353

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

Six months ended April 30,	Beginning Balance	Provisions	Settlements	Ending Balance
2016	$ 56,654	9,563	(10,196)	$56,021
2017	$ 52,324	2,347	(8,646)	$46,025

The decrease in warranty provisions during fiscal 2017 was primarily due to lower failure rates and reduced costs due to efficiencies.

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

	April 30, 2017	October 31, 2016
Products	$49,909	$ 45,216
Services	136,954	137,647
	186,863	182,863
Less current portion	(105,514)	(109,009)
Long-term deferred revenue	$81,349	$ 73,854

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

	April 30, 2017	October 31, 2016
Construction liability	$33,157	$ 57,602
Capital lease obligations	42,197	24,298
Income tax liability	14,001	14,122
Deferred tenant allowance	8,663	9,164
Straight-line rent	7,277	6,406
Forward starting interest rate swap	1,070	5,967
Other	6,889	6,835
	$113,254	$ 124,394

Ciena capitalizes construction in progress and records a corresponding long-term liability for build-to-suit lease agreements where Ciena is considered the owner during the construction period for accounting purposes. As of the first day of Ciena's second quarter of fiscal 2017, occupancy of one office building was complete, and, as such, Ciena recorded a capital lease for this building which will be depreciated over the lease term. This occupancy also reduced the build-to-suit construction in progress asset and the corresponding long-term liability. See Note 10 for more details regarding this arrangement.

The following is a schedule by fiscal year of future minimum lease payments under capital leases and the present value of minimum lease payments as of April 30, 2017 (in thousands):

Period ended October 31,	
2017 (remaining six months)	$2,966
2018	5,796
2019	5,378
2020	4,399
2021	4,292
Thereafter	51,284
Net minimum capital lease payments	74,115
Less: Amount representing interest	(29,202)
Present value of minimum lease payments	44,913
Less: Current portion of present value of minimum lease payments	(2,716)
Long-term portion of present value of minimum lease payments	$42,197

(14) DERIVATIVE INSTRUMENTS

Foreign Currency Derivatives

As of April 30, 2017 and October 31, 2016, Ciena had forward contracts in place to reduce the variability in its Canadian Dollar and Indian Rupee denominated expense, which principally related to its research and development activities. The notional amount of these contracts was approximately $55.7 million and $107.6 million as of April 30, 2017 and October 31, 2016, respectively. These foreign exchange contracts have maturities of 12 months or less and have been designated as cash flow hedges.

During the first six months of fiscal 2017 and fiscal 2016, in order to hedge certain balance sheet exposures, Ciena entered into forward contracts to mitigate risk due to volatility in the Brazilian Real, Canadian Dollar and Mexican Peso. The notional amount of these contracts was approximately $62.0 million and $59.6 million as of April 30, 2017 and October 31, 2016, respectively. These foreign exchange contracts have maturities of 12 months or less and have not been designated as hedges for accounting purposes.

Interest Rate Derivatives

Ciena is exposed to floating rates of LIBOR interest on its term loan borrowings (see Note 16 below) and has hedged such risk by entering into floating to fixed interest rate swap arrangements ("interest rate swaps"). During the second quarter of fiscal 2017, Ciena refinanced its existing 2019 and 2021 Term Loans into a new 2022 Term Loan, thereby reducing the aggregate outstanding principal to $400 million and extending the maturity to January 2022 (see Note 16 below). In order to align its interest rate hedges to the reduced 2022 Term Loan principal value and later maturity date, Ciena also reduced the total outstanding value of its interest rate swaps, as described below, and entered into new forward starting interest rate swaps in January 2017 and February 2017, respectively. The interest rate swaps, as adjusted, fix 98%, 82% and 77% of the principal value of the 2022 Term Loan from February 2017 through July 2018, July 2018 through June 2020, and June 2020 through January 2021, respectively. The fixed rate on the amounts hedged during these periods will be 4.25%, 4.25% and 4.51%, respectively. The total notional amount of these interest rate swaps in effect as of April 30, 2017 was $391.6 million.

During fiscal 2014, Ciena entered into interest rate swaps that fixed the interest rate under the 2019 Term Loan (as defined in Note 16) at 5.004% for the period commencing on July 20, 2015 through July 19, 2018. The total notional amount of these derivatives as of October 31, 2016 was $244.4 million. In May 2016, Ciena entered into interest rate swaps that fixed the total interest rate under the 2021 Term Loan (as defined in Note 16) at 4.62% to 4.87%, depending on the applicable margin, for the period commencing on June 20, 2016 through June 22, 2020. The total notional amount of these derivatives as of October 31, 2016 was $248.8 million.

Ciena expects the variable rate payments to be received under the terms of the interest rate swaps to exactly offset the forecasted variable rate payments on the equivalent notional amounts of the term loans. 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 4 and Note 6 above.

(15) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income ("AOCI") for the six months ended April 30, 2017:

	Unrealized Gain/(Loss) on Marketable Securities	Unrealized Gain/(Loss) on Foreign Currency Contracts	Unrealized Gain/(Loss) on Forward Starting Interest Rate Swap	Cumulative Foreign Currency Translation Adjustment	Total
Balance at October 31, 2016	$ 139	$ (1,091)	$ (5,967)	$ (17,410)	$ (24,329)
Other comprehensive income (loss) before reclassifications	(527)	4,897	(815)	(1,753)	1,802
Amounts reclassified from AOCI	—	—	1,341	—	1,341
Balance at April 30, 2017	$ (388)	$ 3,806	$ (5,441)	$ (19,163)	$ (21,186)

The following table summarizes the changes in AOCI for the six months ended April 30, 2016:

	Unrealized Gain/(Loss) on Marketable Securities	Unrealized Gain/(Loss) on Foreign Currency	Unrealized Gain/(Loss) on Forward Starting Interest	Cumulative Foreign Currency Translation Adjustment	Total

		Contracts	Rate Swap		
Balance at October 31, 2015	$ (78)	$ (268)	$ (5,522)	$ (16,258)	$ (22,126)
Other comprehensive income (loss) before reclassifications	256	760	(1,478)	4,693	4,231
Amounts reclassified from AOCI	—	704	1,572	—	2,276
Balance at April 30, 2016	$ 178	$ 1,196	$ (5,428)	$ (11,565)	$ (15,619)

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

(16) SHORT-TERM AND LONG-TERM DEBT

Outstanding Term Loan Payable

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

	April 30, 2017	October 31, 2016
Term Loan Payable due July 15, 2019	$—	$241,359
Term Loan Payable due April 25, 2021	—	244,944
Term Loan Payable due January 30, 2022	393,377	—
	$393,377	$486,303

The term loan balances in the table above reflect Ciena's adoption of ASU 2015-03, as described in Note 2 above. Deferred debt issuance costs that were deducted from the carrying amounts of the term loans totaled $3.5 million at April 30, 2017 and $4.9 million at October 31, 2016. 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 term loans. The amortization of deferred debt issuance costs for these term loans are included in interest expense, and was $0.5 million and $0.4 million during the first six months of fiscal 2017 and 2016, respectively. The carrying amounts of the term loans listed above are also net of any unamortized discounts.

2022 Term Loan

On January 30, 2017, Ciena, as borrower, and Ciena Communications, Inc. and Ciena Government Solutions, Inc., as guarantors, entered into an Omnibus Refinancing Amendment to the Credit Agreement, Security Agreement and Pledge Agreement with the lenders party thereto and the administrative agent (the “Refinancing Agreement”), pursuant to which Ciena refinanced its existing 2019 Term Loan and 2021 Term Loan (as described under "Prior Term Loans" below) into a single term loan with an aggregate principal amount of $400 million maturing on January 30, 2022 (the “2022 Term Loan”). In connection with the transaction, Ciena received a loan in the amount of $399.5 million, net of original discount, from the 2022 Term Loan and repaid $493.1 million of outstanding principal under the 2019 Term Loan and 2021 Term Loan. The 2022 Term Loan requires Ciena to make installment payments of approximately $1 million on a quarterly basis. This arrangement was accounted for as a modification of debt and, as such, $2.9 million of debt issuance costs associated with the 2022 Term Loan were expensed and the aggregate balance of $3.5 million of debt issuance costs and approximately $1.7 million of original discount from the 2019 Term Loan and the 2021 Term Loan, and approximately $0.5 million of original discount from the 2022 Term Loan, are included in the carrying value of the 2022 Term Loan. See table below.

The Refinancing Agreement amends the Term Loan Credit Agreement (as defined below) and provides that the 2022 Term Loan will, among other things:

- be subject to mandatory prepayment on the same basis as under the Term Loan Credit Agreement;

- bear interest, at Ciena’s election, at a per annum rate equal to (a) LIBOR (subject to a floor of 0.75%) plus an applicable margin of 2.50%, or (b) a base rate (subject to a floor of 1.75%) plus an applicable margin of 1.50%; and
- be repayable at any time at Ciena's election, provided that repayment of the 2022 Term Loan with proceeds of certain indebtedness prior to July 30, 2017 will require a prepayment premium of 1% of the aggregate principal amount of such prepayment.

Except as amended by the Refinancing Agreement, the remaining terms of the Term Loan Credit Agreement remain in full force and effect.

The principal balance, unamortized discount, deferred debt issuance costs and net carrying value of the liability components of our 2022 Term Loan were as follows as of April 30, 2017 (in thousands):

	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Amount
Term Loan Payable due January 30, 2022	$399,000	$ (2,153)	$(3,470)	$393,377

The following table sets forth the carrying value and the estimated fair values of Ciena's term loan (in thousands):

	April 30, 2017	
	Carrying Value	Fair Value(2)
Term Loan Payable due January 30, 2022(1)	$393,377	$401,494

(1) Includes unamortized debt discount and debt issuance costs.

(2) Ciena's term loan is categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its term loan using a market approach based upon observable inputs, such as current market transactions involving comparable securities.

Prior Term Loans

On July 15, 2014, Ciena entered into a Term Loan Credit Agreement (the "Term Loan Credit Agreement") providing for senior secured term loans in an aggregate principal amount of $250 million (the “2019 Term Loan”) with a maturity date of July 15, 2019. The 2019 Term Loan required Ciena to make installment payments of approximately $0.6 million on a quarterly basis.

On April 25, 2016, Ciena entered into an Incremental Joinder and Amendment Agreement (the “Incremental Term Loan Credit Agreement”) that amended the Term Loan Credit Agreement. The Incremental Term Loan Credit Agreement provided for a new tranche of senior secured term loans under the Term Loan Credit Agreement in an aggregate principal amount of $250 million (the “2021 Term Loan”). The 2021 Term Loan required Ciena to make installment payments of approximately $0.6 million on a quarterly basis.

Outstanding Convertible Notes Payable

The net carrying amount of Ciena's outstanding convertible notes payable was comprised of the following for the fiscal periods indicated (in thousands):

	April 30, 2017	October 31, 2016
0.875% Convertible Senior Notes due June 15, 2017	$185,221	$231,240
3.75% Convertible Senior Notes due October 15, 2018	348,248	347,630
4.0% Convertible Senior Notes due December 15, 2020	191,557	188,509
	$725,026	$767,379

The convertible notes payable balances in the table above reflects Ciena's adoption of ASU 2015-03, as described in Note 2 above. Deferred debt issuance costs that were deducted from the carrying amounts of the convertible notes payable totaled $2.9 million at April 30, 2017 and $3.9 million at October 31, 2016. 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 convertible notes payable. The amortization of deferred debt issuance costs is included in interest expense, and was $1.0 million and $1.4 million during the first six months of fiscal 2017 and 2016, respectively. The carrying amounts of the convertible notes payable listed above are also net of any unamortized discounts.

The principal balance, unamortized discount, deferred debt issuance costs and net carrying value of the liability and equity components of our Ciena's outstanding issues of convertible notes were as follows as of April 30, 2017 (in thousands):

	Liability Component				Equity Component
	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Amount	Net Carrying Amount
0.875% Convertible Senior Notes due June 15, 2017	$185,258	$ —	$(37)	$185,221	$ —
3.75% Convertible Senior Notes due October 15, 2018	$350,000	$ —	$(1,752)	$348,248	$ —
4.0% Convertible Senior Notes due December 15, 2020	$203,093	$ (10,428)	$(1,108)	$191,557	$ 43,131

The following table sets forth, in thousands, the carrying value and the estimated fair value of Ciena's outstanding issues of convertible notes as of April 30, 2017:

	April 30, 2017	
	Carrying Value (1)	Fair Value(2)
0.875% Convertible Senior Notes due June 15, 2017	$185,221	$185,085
3.75% Convertible Senior Notes due October 15, 2018	348,248	449,313
4.0% Convertible Senior Notes due December 15, 2020	191,557	254,925
	$725,026	$889,323

(1) Includes unamortized debt discount, accretion of principal and debt issuance costs.

(2) The convertible notes are categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its outstanding convertible notes using a market approach based upon observable inputs, such as current market transactions involving comparable securities.

(17) ABL CREDIT FACILITY

Ciena Corporation and certain of its subsidiaries are parties to a senior secured asset-based revolving credit facility (the "ABL Credit Facility"). Ciena principally uses the ABL Credit Facility to support the issuance of letters of credit that arise in the ordinary course of its business and thereby to reduce its use of cash required to collateralize these instruments.

As of April 30, 2017, letters of credit totaling $72.4 million were collateralized by the ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of April 30, 2017.

(18) EARNINGS PER SHARE CALCULATION

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

Numerator	Quarter Ended April 30, 2017	2016	Six Months Ended April 30, 2017	2016
Net income	$38,026	$13,997	$41,887	$2,451
Add: Interest expense associated with 0.875% Convertible Senior Notes due 2017	495	—	1,097	—
Add: Interest expense associated with 3.75% convertible senior notes due 2018	3,588	—	—	—
Net income used to calculate Diluted EPS	$42,109	$13,997	$42,984	$2,451

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Denominator	Quarter Ended April 30, 2017	2016	Six Months Ended April 30, 2017	2016
Basic weighted average shares outstanding	141,743	137,950	141,223	137,313
Add: Shares underlying outstanding stock options and restricted stock units and issuable under employee stock purchase plan	1,317	939	1,409	1,380
Add: Shares underlying 0.875% Convertible Senior Notes due 2017	4,857	—	5,210	—
Add: Shares underlying 3.75% convertible senior notes due 2018	17,356	—	—	—
Dilutive weighted average shares outstanding	165,273	138,889	147,842	138,693

EPS	Quarter Ended April 30, 2017	2016	Six Months Ended April 30, 2017	2016
Basic EPS	$0.27	$0.10	$0.30	$0.02
Diluted EPS	$0.25	$0.10	$0.29	$0.02

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

	Quarter Ended April 30, 2017	2016	Six Months Ended April 30, 2017	2016
Shares underlying stock options and restricted stock units	725	2,439	1,141	2,092
0.875% Convertible Senior Notes due June 15, 2017	—	12,583	—	12,748
3.75% Convertible Senior Notes due October 15, 2018	—	17,356	17,356	17,356
4.0% Convertible Senior Notes due December 15, 2020	9,198	9,198	9,198	9,198
Total shares excluded due to anti-dilutive effect	9,923	41,576	27,695	41,394

(19) SHARE-BASED COMPENSATION EXPENSE

Ciena has outstanding equity awards issued under its 2008 Omnibus Incentive Plan (the "2008 Plan"), certain legacy equity plans, equity plans assumed as a result of previous acquisitions, and its 2017 Omnibus Incentive Plan (the "2017 Plan"), which was approved by Ciena's stockholders on March 23, 2017. All equity awards granted on or after March 23, 2017 are made exclusively from the 2017 Plan. Ciena also makes shares of its common stock available for purchase under its Amended and Restated 2003 Employee Stock Purchase Plan (the "ESPP"). Each of the 2017 Plan and the ESPP are described below.

2017 Plan

The 2017 Plan has a ten year term and authorizes the issuance of awards including stock options, restricted stock units (RSUs), restricted stock, unrestricted stock, stock appreciation rights (SARs) and other equity and/or cash performance incentive awards to employees, directors and consultants of Ciena. Subject to certain restrictions, the Compensation Committee of the Board of Directors has broad discretion to establish the terms and conditions for awards under the 2017 Plan, including the number of shares, vesting conditions, and the required service or performance criteria. Options and SARs have a maximum term of ten years, and their exercise price may not be less than 100% of fair market value on the date of grant. Repricing of stock options and SARs is prohibited without stockholder approval. Certain change in control transactions may cause awards granted under the 2017 Plan to vest, unless the awards are continued or substituted for in connection with the transaction.

The 2017 Plan authorizes and reserves 8.9 million shares for issuance. In addition, any shares that remained available for issuance under the 2008 Plan as of March 23, 2017 were added to the 2017 Plan and are available for issuance thereunder. The number of shares available under the 2017 Plan will also be increased from time to time by: (i) the number of shares subject to outstanding awards granted under Ciena's prior equity compensation plans that are forfeited, expire or are canceled without delivery of common stock following the effective date of the 2017 Plan, and (ii) the number of shares subject to awards assumed or substituted in connection with the acquisition of another company. As of April 30, 2017, approximately 10.5 million shares remained available for issuance under the 2017 Plan.

Stock Options

Ciena did not grant any stock options during the first six months of fiscal 2017 or fiscal 2016. Outstanding stock option awards granted to employees in prior periods or assumed as a result of acquisitions are generally subject to service-based vesting conditions and vest incrementally over a four-year period. The following table is a summary of Ciena's stock option activity for the period indicated (shares in thousands):

	Shares Underlying Options Outstanding	Weighted Average Exercise Price
Balance at October 31, 2016	1,387	$ 26.90
Exercised	(167)	—
Canceled	(225)	—
Balance at April 30, 2017	995	$ 29.55

The total intrinsic value of options exercised during the first six months of fiscal 2017 and fiscal 2016 was $2.4 million and $2.5 million, respectively.
The following table summarizes information with respect to stock options outstanding at April 30, 2017, based on Ciena's closing stock price on the last trading day of Ciena's second fiscal quarter of 2017 (shares and intrinsic value in thousands):

	Options Outstanding at April 30, 2017				Vested Options at April 30, 2017			
Range of Exercise Price	Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value	Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
$1.88 — $10.18	83	2.67	$ 8.16	$ 1,229	82	2.61	$ 8.14	$ 1,216
$11.34 — $17.24	207	4.91	13.42	1,964	198	4.80	13.34	1,893
$17.50 — $30.46	145	1.97	25.66	167	135	1.55	26.20	121
$31.93 — $37.10	323	1.85	35.19	—	323	1.85	35.19	—
$37.82 — $55.63	237	4.07	45.89	—	231	4.02	45.91	—
$1.88 — $55.63	995	3.10	$ 29.55	$ 3,360	969	2.99	$ 29.73	$ 3,230

Assumptions for Option-Based Awards

Ciena recognizes the fair value of service-based options as share-based compensation expense on a straight-line basis over the requisite service period.

Restricted Stock Units

A restricted stock unit is a stock award that entitles the holder to receive shares of Ciena common stock as the unit vests. Ciena's outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. Awards subject to service-based conditions typically vest in increments over a three or four-year period. However, the 2017 Plan permits Ciena to grant service-based stock awards with a minimum one-year vesting period. Awards with performance-based vesting conditions require the achievement of certain operational, financial or other performance criteria or targets as a condition of vesting, or the acceleration of vesting, of such awards. Ciena recognizes the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based compensation expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon Ciena's determination of whether it is probable that the

performance targets will be achieved. At the end of each reporting period, Ciena reassesses the probability of achieving the performance targets and the performance period required to meet those targets.
The following table is a summary of Ciena's restricted stock unit activity for the period indicated, with the aggregate fair value of the balance outstanding at the end of each period, based on Ciena's closing stock price on the last trading day of the relevant period (shares and aggregate fair value in thousands):

	Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value Per Share	Aggregate Fair Value
Balance at October 31, 2016	4,280	$ 19.96	$ 83,511
Granted	2,092		
Vested	(1,306)		
Canceled or forfeited	(433)		
Balance at April 30, 2017	4,633	$ 21.22	$ 106,143

The total fair value of restricted stock units that vested and were converted into common stock during the first six months of fiscal 2017 and fiscal 2016 was $31.9 million and $33.0 million, respectively. The weighted average fair value of each restricted stock unit granted by Ciena during the first six months of fiscal 2017 and fiscal 2016 was $23.22 and $19.73 respectively.

Assumptions for Restricted Stock Unit Awards

The fair value of each restricted stock unit award is based on the closing price on the date of grant. Share-based expense for service-based restricted stock unit awards is recognized, net of estimated forfeitures, ratably over the vesting period on a straight-line basis.

Share-based expense for performance-based restricted stock unit awards, net of estimated forfeitures, is recognized ratably over the performance period based upon Ciena's determination of whether it is probable that the performance targets will be achieved. At the end of each reporting period, Ciena reassesses the probability of achieving the performance targets and the performance period required to meet those targets. The estimation of whether the performance targets will be achieved involves judgment, and the estimate of expense is revised periodically based on the probability of achieving the performance targets. Revisions are reflected in the period in which the estimate is changed. If any performance goals are not met, no compensation cost is ultimately recognized against that goal, and to the extent previously recognized, compensation expense is reversed.

Because share-based compensation expense is recognized only for those awards that are ultimately expected to vest, the amount of share-based compensation expense recognized reflects a reduction for estimated forfeitures. Ciena estimates forfeitures at the time of grant and revises those estimates in subsequent periods based upon new or changed information.

Amended and Restated Employee Stock Purchase Plan (ESPP)

Under the ESPP, eligible employees may enroll in a 12-month offer period that begins in December and June of each year. Each offer period includes two six-month purchase periods. Employees may purchase a limited number of shares of Ciena common stock at 85% of the fair market value on either the day immediately preceding the offer date or the purchase date, whichever is lower. The ESPP is considered compensatory for purposes of share-based compensation expense. Pursuant to the ESPP's “evergreen” provision, on December 31 of each year, the number of shares available under the ESPP increases by up to approximately 0.6 million shares, provided that the total number of shares available at that time shall not exceed 8.2 million shares. Unless earlier terminated, the ESPP will terminate on January 24, 2023.

During the first six months of fiscal 2017, Ciena issued 0.5 million shares under the ESPP. At April 30, 2017, 5.9 million shares remained available for issuance under the ESPP.

Share-Based Compensation Expense for Periods Reported

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

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	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
Product costs	$708	$629	$1,269	$1,200
Service costs	679	693	1,307	1,285
Share-based compensation expense included in cost of sales	1,387	1,322	2,576	2,485
Research and development	3,653	3,791	6,862	7,219
Sales and marketing	3,513	3,923	6,386	8,658
General and administrative	3,417	4,968	8,870	10,097
Acquisition and integration costs	—	697	—	714
Share-based compensation expense included in operating expense	10,583	13,379	22,118	26,688
Share-based compensation expense capitalized in inventory, net	35	32	136	37
Total share-based compensation	$12,005	$14,733	$24,830	$29,210

As of April 30, 2017, total unrecognized share-based compensation expense was approximately $84.6 million: (i) $0.3 million, which relates to unvested stock options and is expected to be recognized over a weighted-average period of 1.2 years; and (ii) $84.3 million,which relates to unvested restricted stock units and is expected to be recognized over a weighted-average period of 1.5 years.

(20) SEGMENTS AND ENTITY WIDE DISCLOSURES

Segment Reporting

Ciena’s internal organizational structure and the management of its business are grouped into the following operating segments:

- Networking Platforms reflects sales of Ciena’s Converged Packet Optical, Packet Networking and Optical Transport product lines.

  Converged Packet Optical — includes the 6500 Packet-Optical Platform and the 5430 Reconfigurable Switching System, which feature Ciena's WaveLogic coherent optical processors. Products also include the Waveserver stackable interconnect system, the family of CoreDirector® Multiservice Optical Switches and the OTN configuration for the 5410 Reconfigurable Switching System. This product line also includes sales of the Z-Series Packet-Optical Platform.

  Packet Networking — includes the 3000 family of service delivery switches and service aggregation switches and the 5000 family of service aggregation switches. This product line also includes the 8700 Packetwave Platform and the Ethernet packet configuration for the 5410 Service Aggregation Switch.

  Optical Transport — includes the 4200 Advanced Services Platform, 5100/5200 Advanced Services Platform, Common Photonic Layer (CPL) and 6100 Multiservice Optical Platform. Ciena's Optical Transport products have either been previously discontinued, or are expected to be discontinued during fiscal 2017, reflecting network operators' transition toward next-generation converged network architectures.

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 Statement of Operations.

- Software and Software-Related Services reflects sales of Ciena’s network virtualization, management, control and orchestration software solutions and software-related services, including subscription, installation, support, and consulting services.

  This segment includes Ciena’s element and network management solutions and planning tools, including the OneControl Unified Management System, ON-Center® Network & Service Management Suite, Ethernet Services Manager, Optical Suite Release and Planet Operate. As Ciena seeks adoption of its Blue Planet software platform and transitions features, functionality and customers to this platform, Ciena expects revenue declines for its other element and network management solutions.

  This segment includes Ciena’s Blue Planet network virtualization, service orchestration and network management software platform. Ciena's Blue Planet platform includes multi-domain service orchestration (MDSO), network function virtualization (NFV), management and orchestration (NFV MANO), and Ciena's manage, control and plan (MCP) solution, SDN Multilayer Controller and V-WAN application.

Revenue from the software platforms portion of this segment is included in product revenue on the Condensed Consolidated Statement of Operations. Revenue from software-related services is included in services revenue on the Condensed Consolidated Statement of Operations.

- Global Services reflects sales of a broad range of Ciena’s services for consulting and network design, installation and deployment, maintenance support and training activities. Revenue from this segment is included in services revenue on the Condensed Consolidated Statement of Operations.

Ciena's long-lived assets, including equipment, building, furniture and fixtures, finite-lived intangible assets and maintenance spares, are not reviewed by the chief operating decision maker for purposes of evaluating performance and allocating resources. As of April 30, 2017, equipment, building, furniture and fixtures, net totaled $299.8 million primarily supporting asset groups within Ciena's Networking Platforms and Software and Software-Related Services segments and supporting Ciena's unallocated selling and general and administrative activities. As of April 30, 2017, $43.1 million of Ciena's intangible assets, net were assigned to asset groups within Ciena's Networking Platforms segment and $70.1 million of Ciena's intangible assets, net were assigned to asset groups within Ciena's Software and Software-Related Services segment. As of April 30, 2017, all of the maintenance spares, net, totaling $48.4 million, were assigned to asset groups within Ciena's Global Services segment.

Segment Revenue

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

	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
Revenue:				
Networking Platforms				
Converged Packet Optical	$502,131	$435,173	$914,783	$824,341
Packet Networking	66,326	68,582	138,520	116,779
Optical Transport	3,030	8,451	8,128	20,596
Total Networking Platforms	571,487	512,206	1,061,431	961,716
Software and Software-Related Services				
Software Platforms	13,143	11,772	30,192	19,851
Software-Related Services	24,573	18,701	46,904	36,048
Total Software and Software-Related Services	37,716	30,473	77,096	55,899
Global Services				
Maintenance Support and Training	58,241	57,069	113,231	113,127
Installation and Deployment	28,695	30,232	56,614	61,072
Consulting and Network Design	10,883	10,737	20,147	22,018
Total Global Services	97,819	98,038	189,992	196,217
Consolidated revenue	$707,022	$640,717	$1,328,519	$1,213,832

Segment Profit (Loss)

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

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

	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
Segment profit (loss):				
Networking Platforms	$150,464	$132,606	$264,210	$239,588
Software and Software-Related Services	4,551	192	12,252	(3,382)
Global Services	41,602	35,692	77,071	75,688
Total segment profit	196,617	168,490	353,533	311,894
Less: Non-performance operating expenses				
Selling and marketing	88,551	86,668	173,553	169,146
General and administrative	34,990	35,203	70,854	66,345
Amortization of intangible assets	10,980	15,566	25,531	32,428
Acquisition and integration costs	—	2,285	—	3,584
Restructuring costs	4,276	535	6,671	919
Add: Other non-performance financial items				
Interest expense and other income (loss), net	(16,226)	(11,641)	(31,059)	(33,127)
Less: Provision for income taxes	3,568	2,595	3,978	3,894
Consolidated net income	$38,026	$13,997	$41,887	$2,451

Entity Wide Reporting

Ciena's operating segments each engage in business across four geographic regions: North America; Europe, Middle East and Africa (“EMEA”); Asia Pacific (“APAC”); and Caribbean and Latin America (“CALA”). North America includes only activities in the United States and Canada. The following table reflects Ciena’s geographic distribution of revenue principally based on the relevant location for Ciena's delivery of products and performance of services. For the periods below, Ciena’s geographic distribution of revenue was as follows (in thousands):

	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
North America	$424,373	$395,505	$830,301	$788,209
EMEA	105,776	96,175	197,319	176,897
CALA	33,971	57,896	69,117	101,706
APAC	142,902	91,141	231,782	147,020
Total	$707,022	$640,717	$1,328,519	$1,213,832

North America includes $392.0 million and $367.1 million of United States revenue for fiscal quarters ended April 30, 2017 and 2016, respectively. For the six months ended April 30, 2017 and 2016, United States revenue was $771.7 million and $732.3 million, respectively. No other country accounted for 10% or more of total revenue for the periods presented above.

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

	April 30, 2017	October 31, 2016
United States	$99,694	$ 103,018
Canada	188,804	173,885
Other International	11,294	11,503
Total	$299,792	$ 288,406

For the periods below, one customer accounted for at least 10% of Ciena’s revenue, as follows (in thousands):

	Quarter Ended April 30,		Six Months Ended April 30,	
	2017	2016	2017	2016
AT&T	$107,532	$116,014	$203,969	$242,614

AT&T purchased products and services from each of Ciena's operating segments.

(21) COMMITMENTS AND CONTINGENCIES

Foreign 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 liabilities will have a material effect on its results of operations, financial position or cash flows.

Litigation

From May 15 through June 3, 2015, five separate putative class action lawsuits in connection with Ciena's then-pending acquisition of Cyan, Inc. ("Cyan") were filed in the Court of Chancery of the State of Delaware. On June 23, 2015, each of these lawsuits was consolidated into a single case captioned In Re Cyan, Inc. Shareholder Litigation, Consol. C.A. No. 11027-CB. On July 9, 2015, the plaintiffs filed a verified amended class action complaint, which named as defendants Ciena, a Ciena subsidiary created solely for the purpose of effecting the acquisition ("Merger Sub"), and the members of Cyan's board of directors. On August 5, 2015, the defendants filed motions to dismiss the amended complaint. On October 1, 2015, the plaintiffs filed a second amended complaint which named as defendants the members of Cyan's board of directors. Cyan, Ciena, and Merger Sub were not named as defendants. On July 15, 2016, the plaintiffs filed a third amended complaint, which generally alleges that the Cyan board members breached their fiduciary duties by engaging in a conflicted and unfair sales process, failing to maximize stockholder value in the acquisition, taking steps to preclude competitive bidding, and failing to disclose material information necessary for stockholders to make an informed decision regarding the acquisition. The third amended complaint seeks (i) a declaration that the plaintiffs are entitled to a quasi-appraisal remedy, (ii) rescissory damages, (iii) recovery through an accounting of all damages caused as a result of the alleged breaches of fiduciary duties, (iv) compensatory damages, and (v) costs including attorneys' fees and experts' fees. On August 5, 2016, the defendants filed a motion to dismiss the third amended complaint. On May 11, 2017, the Court of Chancery granted the defendants' motion to dismiss the third amended complaint with prejudice.

As a result of the acquisition of Cyan in August 2015, Ciena became a defendant in a securities class action lawsuit. On April 1, 2014, a purported stockholder class action lawsuit was filed in the Superior Court of California, County of San Francisco, against Cyan, the members of Cyan's board of directors, Cyan's former Chief Financial Officer, and the underwriters of Cyan's initial public offering. On April 30, 2014, a substantially similar lawsuit was filed in the same court against the same defendants. The two cases have been consolidated as Beaver County Employees Retirement Fund, et al. v. Cyan, Inc. et al., Case No. CGC-14-538355. The consolidated complaint alleges violations of federal securities laws on behalf of a purported class consisting of purchasers of Cyan's common stock pursuant or traceable to the registration statement and prospectus for Cyan's initial public offering in April 2013, and seeks unspecified compensatory damages and other relief. On May 19, 2015, the proposed class was certified. On August 25, 2015, the defendants filed a motion for judgment on the pleadings based on an alleged lack of subject matter jurisdiction over the case, which motion was denied on October 23, 2015. On May 24, 2016, the defendants filed a petition for a writ of certiorari on the jurisdiction issue with the United States Supreme Court, to which the plaintiffs filed a brief in opposition. On November 18, 2016, the parties each filed motions for summary judgment. Ciena believes that the consolidated lawsuit is without merit and intends to defend it vigorously.

On May 29, 2008, Graywire, LLC filed a complaint in the United States District Court for the Northern District of Georgia against Ciena and four other defendants, alleging, among other things, that certain of the parties' products infringe U.S. Patent 6,542,673 (the "'673 Patent"), relating to an identifier system and components for optical assemblies. The complaint seeks injunctive relief and damages. In July 2009, upon request of Ciena and certain other defendants, the U.S. Patent and Trademark Office ("PTO") granted the defendants' inter partes application for reexamination with respect to certain claims of the '673 Patent, and the district court granted the defendants' motion to stay the case pending reexamination of all of the patents-in-suit. In December 2010, the PTO confirmed the validity of some claims and rejected the validity of other claims of the '673 Patent, to which Ciena and other defendants filed an appeal. On March 16, 2012, the PTO on appeal rejected multiple claims of the '673 Patent, including the two claims on which Ciena is alleged to infringe. Subsequently, the plaintiff requested a reopening of the prosecution of the '673 Patent, which request was denied by the PTO on April 29, 2013. Thereafter, on May 28, 2013, the plaintiff filed an amendment with the PTO in which it canceled the claims of the '673 Patent on which Ciena is alleged to infringe. The case currently remains stayed, and there can be no assurance as to whether or when the stay will be lifted.

In addition to the matters described above, Ciena is subject to various legal proceedings and claims arising in the ordinary course of business, 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 these matters will have a material effect on its results of operations, financial position or cash flows.

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

This quarterly report contains statements that discuss future events or expectations, projections of results of operations or financial condition, changes in the markets for our products and services, trends in our business, business prospects and strategies and other "forward-looking" information. In some cases, you can identify "forward-looking statements" by words like "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "intends," "potential, "targets," or "continue" or the negative of those words and other comparable words. These statements may relate to, among other things, adoption of next-generation network technology and software programmability and control of networks; our competitive landscape; market conditions and growth opportunities; factors impacting our industry; factors impacting the businesses of network operators and their network architectures; our corporate strategy, including our research and development, supply chain and go-to-market initiatives; efforts to increase application of our solutions in customer networks and to increase the reach of our business into new or growing customer and geographic markets; our backlog and seasonality in our business; expectations for our financial results, revenue, gross margin, operating expense and key operating measures in future periods; the adequacy of our sources of liquidity to satisfy our working capital needs, capital expenditures, and other liquidity requirements; business initiatives including real estate and IT transitions or initiatives; and market risks associated with financial instruments and foreign currency exchange rates. These statements are subject to known and unknown risks, uncertainties and other factors, and actual events or results may differ materially due to factors such as:

- our ability to execute our business and growth strategies;
- fluctuations in our revenue and operating results and our financial results generally;
- the loss of any of our large customers, a significant reduction in their spending, or a material change in their networking or procurement strategies;
- the competitive environment in which we operate;
- market acceptance of products and services currently under development and delays in product or software development;
- lengthy sales cycles and onerous contract terms with communications service providers, Web-scale providers and other large customers;
- product performance problems and undetected errors;
- our ability to diversify our customer base beyond our traditional customers and broaden the application for our solutions in communications networks;
- the level of growth in network traffic and bandwidth consumption and corresponding level of investment in network infrastructures by network operators;
- the international scale of our operations and fluctuations in currency exchange rates;
- our ability to forecast accurately demand for our products for purposes of inventory purchase practices;
- the impact of pricing pressure and price erosion that we regularly encounter in our markets;
- our ability to enforce our intellectual property rights, and costs we may incur in response to intellectual property right infringement claims made against us;
- the continued availability on commercially reasonable terms of software and other technology under third party licenses;
- failure to maintain the security of confidential, proprietary or otherwise sensitive business information or systems or to protect against cyber security attacks;
- the performance of our third party contract manufacturers;
- changes or disruption in components or supplies provided by third parties, including sole and limited source suppliers;
- our ability to manage effectively our relationships with third party service partners and distributors;
- unanticipated risks and additional obligations in connection with our resale of complementary products or technology of other companies;
- our new distribution relationships under which we will make available certain technology as a component;
- our exposure to the credit risks of our customers and our ability to collect receivables;

- modification or disruption of our internal business processes and information systems;
- the effect of our outstanding indebtedness on our liquidity and business;
- fluctuations in our stock price and our ability to access the capital markets to raise capital;
- unanticipated expenses or disruptions to our operations caused by facilities transitions or restructuring activities;
- inability to attract and retain experienced and qualified personnel;
- disruptions to our operations caused by strategic acquisitions and investments or the inability to achieve the expected benefits and synergies of newly-acquired businesses;
- our ability to grow our software business and address networking strategies including software-defined networking and network function virtualization;

- changes in, and the impact of, government regulations, including with respect to: the communications industry generally; the business of our customers; the use, import or export of products; and the environment, potential climate change and other social initiatives;
- future legislation or executive action in the U.S. relating to tax policy or trade regulation;
- impairment charges caused by the write-down of goodwill or long-lived assets;
- our ability to maintain effective internal controls over financial reporting and liabilities that result from the inability to comply with corporate governance requirements; and
- adverse results in litigation matters.

These are only some of the factors that may affect the forward-looking statements contained in this quarterly report. For a discussion identifying additional important factors that could cause actual results to vary materially from those anticipated in the forward-looking statements, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors” in this quarterly report. You should review these risk factors for a more complete understanding of the risks associated with an investment in our securities. For a more complete understanding of the risks associated with an investment in Ciena’s securities, you should review these risk factors and the rest of this quarterly 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, which we filed with the Securities and Exchange Commission ("SEC") on December 21, 2016. However, we operate in a very competitive and rapidly changing environment and new risks and uncertainties emerge, are identified or become apparent from time to time. It is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this quarterly report. You should be aware that the forward-looking statements contained in this quarterly report are based on our current views and assumptions. We undertake no obligation to revise or update any forward-looking statements made in this quarterly 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 quarterly 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.

Overview

We are a network strategy and technology company, providing solutions that enable a wide range of network operators to adopt next-generation communication architectures and to deliver a broad array of services relied upon by enterprise and consumer end users. We provide equipment, software and services that support the transport, switching, aggregation, service delivery and management of voice, video and data traffic on communications networks. Our high-capacity hardware and network management and control software solutions enable open, multi-vendor, programmable networks that improve automation, reduce network complexity and flexibly support changing service requirements. Our solutions yield business and operational value for our customers by enabling them to support new applications, introduce new revenue-generating services and reduce network complexity and expense.

Our Converged Packet Optical, Packet Networking and Optical Transport products are used by a diverse set of customers and market segments, including communications service providers, cable and multiservice operators, Web-scale providers, submarine network operators, governments, enterprises, research and education (R&E) institutions, and other emerging network operators. These products, which provide functionality from the network core to network access points, allow network operators to scale capacity, increase transmission speeds, allocate traffic and adapt dynamically to changing end-user service demands. In addition to our portfolio of high-capacity hardware platforms, we offer network management and control software platforms designed to simplify the creation, automation and delivery of services across multi-vendor and multi-domain network environments. Our software solutions are oriented around our modular Blue Planet software platform for multi-domain service orchestration, network function virtualization, and network management and control. To complement our hardware and software solutions, we offer a broad range of transformation and automation services that help our customers design, optimize, integrate, deploy, manage and maintain their networks.

Our quarterly reports on Form 10-Q, annual reports on Form 10-K, and current reports on Form 8-K filed with the SEC are available through the SEC's website at www.sec.gov or free of charge on our website as soon as reasonably practicable after we file these documents. We routinely post the reports above, recent news and announcements, financial results and other information about Ciena that is important to investors in the "Investors" section of our website at www.ciena.com. Investors are encouraged to review the “Investors” section of our website because, as with the other disclosure channels that we use, from time to time we may post material information on that site that is not otherwise disseminated by us.

Market Opportunity

The markets in which we sell our communications networking solutions have been subject to significant changes in recent years, including rapid growth in network traffic, evolving cloud-based service offerings, changes in the type of customers building communications networks, and heightened end-user service demands. These conditions have placed significant demands on networks, challenged the business models of network operators, and altered the overall competitive landscape of network operators. Existing and emerging network operators are competing to distinguish their service offerings and rapidly introduce differentiated, revenue-generating services, while managing the costs of their networks and seeking to ensure a profitable business model. These dynamics are driving convergence of network features, functions and layers, virtualization of certain network functions, and solutions that leverage increased software-based network control and programmability. We believe that these dynamics, and the need to adapt to rapidly changing business and network demands, will cause network operators to adopt or evolve their networks to be more open, programmable and automated.

Competitive Landscape

The markets in which we compete are characterized by rapidly advancing technologies, frequent introduction of new networking solutions and aggressive selling and pricing efforts to gain or retain market share. The markets for our solutions are both highly competitive and fragmented, as we regularly compete with number of large, multi-national vendors with greater financial, operational and marketing resources, and significantly broader product offerings. Our sales of Converged Packet Optical solutions face an intense competitive environment as we and our competitors introduce new, higher-capacity, higher-speed network solutions with improved reach, spectral efficiency, automation, power consumption and cost per bit. We expect the competitive landscape in which we operate to continue to broaden and to remain challenging and dynamic. As we have expanded our solutions offerings to include our 8700 Packetwave Platform and Waveserver DCI platform, our solutions have become increasingly competitive with IP router vendors, data center switch providers, and other IT suppliers or integrators. Separately, as we seek increased customer adoption of our Blue Planet software platform, we expect to compete more directly with additional software vendors and information technology vendors or integrators of these solutions.

In addition to the above dynamics, many network operators are continuing to consider a variety of “consumption models,” or approaches to the design and procurement of their network infrastructure. While broader adoption of the consumption models involving disaggregation in the procurement of hardware and software remains uncertain, we expect that the potential for different models will require us and other system vendors to assess and possibly broaden our existing commercial models over time. We may also face competition from component vendors, including those in our supply chain, who develop networking products based on off-the-shelf or commoditized hardware technology, referred to as “white box” hardware. Further, some of our competitors are not vertically integrated in their packet optical supply chain and therefore sell a set of networking solutions that rely upon coherent modem technology developed by and procured from third party “merchant” providers. In connection with consumption models involving greater disaggregation, the continued use of such third party modem technology by these competitors and/or the availability of such technology in the market may increase overall pricing pressure in this space and may negatively impact our ability to derive higher gross margins for Converged Packet Optical solutions.

Given this dynamic competitive landscape and the market-based price erosion for our products that we regularly encounter, we expect that, in order to achieve sustained revenue growth, we will be required to continue to increase our volume of product shipments, continue to diversify our business and customer base, introduce new solutions that address evolving service and network demands, and accommodate multiple consumption models. In addition, in order to maintain incumbency with key customers and to secure new opportunities, we are often required to agree to aggressive pricing, incur significant costs early in network deployment, or make significant commercial concessions. These terms have adversely affected our results of operations in the past, have contributed to fluctuations in our financial results, and may do so again in the future.

Strategy

Our corporate strategy to capitalize on the evolving market dynamics described above to drive the profitable growth of our business includes the following initiatives:

Promote Choice and Openness through our OP^n Philosophy. We previously introduced our OP^n Architecture as a focused approach to next-generation networks through scalability, programmability and network level applications. Today, OP^n has evolved and expanded from an architecture into our governing philosophy and broader belief system, which is rooted in enabling choice in the market through openness. Choice is an increasingly important element of our customers’ efforts to keep pace with bandwidth demands and emerging service offerings, the shift to more automated and programmable networks, and the need to manage network costs. We believe that the best way to enable choice for our customers is by developing and providing network technologies and strategies that facilitate openness through innovation, virtualization, automation and collaboration. We also believe that we are well-positioned in this regard to offer an expansive range of choice to the market.

Our OP^n belief system shapes the operation of our business in a number of ways. It guides our research and development strategy and solutions offerings, including our focus on coherent modem leadership, packet-optical convergence, and on multi-vendor network orchestration, management and control through our Blue Planet software platform. By embracing design principles that leverage open application programming interfaces (APIs), including those found in our Waveserver platform, we believe we facilitate openness and choice. By offering collaborative tools and environments, including our Emulation Cloud and DevOps Toolkit, we enable the development, testing and customization of services and applications. Our OP^n belief system also influences our go-to-market approach, as we expect to partner increasingly with an ecosystem of solutions vendors and virtual network function providers, and to integrate services and applications across multi-vendor and multi-domain networks. We intend to offer solutions and pursue opportunities across a range of customer consumption models in order to drive the evolution of next-generation network infrastructures and accelerate the realization of our OP^n philosophy.

Extend Technology Leadership and Expand Application of our Solutions. Our product development strategy is focused on maintaining our leading technology offerings and expanding our role and the application of our solutions in customer networks. Our research and development efforts seek to advance and extend our coherent modem technology leadership, including our WaveLogic coherent optical processor and high-speed indium phosphide and silicon photonics technologies (HSPC) acquired from TeraXion during fiscal 2016. We are also focused on introducing terabit per second and greater transmission speeds, and expanding the high-capacity and operationally-efficient service delivery capabilities in our Packet Networking and Converged Packet Optical products for access and metro networks, data center interconnect, submarine networks, and other WAN applications. In addition, we are seeking to increase software programmability of networks and to enable network operators to automate and accelerate the creation and delivery of new, cloud-based services. These efforts include investments in our Blue Planet software platform — which is designed to automate, orchestrate, and manage physical network resources and virtualized services across data centers and the WAN — and its integration across our portfolio and with additional third party network resources.

As part of our strategy to expand the application of our solutions and capitalize on the evolving market dynamics and different consumption models described above, on March 20, 2017, we announced global distribution relationships with leading component vendors Lumentum, NeoPhotonics and Oclaro. Through this new distribution channel, we intend to supply our WaveLogic Ai coherent optical technology for use as a component of a Ciena-designed optical module to be manufactured, marketed and sold by the component vendors. Once these modules are available, Lumentum, NeoPhotonics and Oclaro will each have the ability to sell such modules to customers on a non-exclusive basis. We believe that potential customers for optical modules through this distribution channel may include a variety of market participants, including certain of our customers, other system vendors, and network operators or vendors who plan to build or use “white box” hardware. In addition, we intend to work together with these component vendors to contribute to the establishment of specifications, both independently and within relevant industry forums, for 400G pluggable technology solutions focused on data center interconnect requirements for greater scale and power efficiency and lower cost. We believe that this distribution channel will further our efforts to continue to diversify our business and expand our addressable market to include new geographies and market segments, while enabling greater choice for network operators in offering an alternative to “merchant” modems. No revenue was generated through this distribution channel in the second quarter of fiscal 2017. We expect the results of operations related to this distribution channel to be reflected within our Networking Platforms segment.

Increase Diversification of our Business. The continued diversification of our business is a key element of our strategy to address the dynamic environment of our industry. We believe this diversification positions us to continue to grow our business and to better withstand potential slowdowns adversely affecting particular geographies, markets, customer segments and applications. We intend to pursue initiatives that broaden sales to existing customers across our solutions portfolio and also to secure additional relationships with a diverse set of network operators in high-growth customer segments and geographies.

Our sales and marketing efforts seek to promote increased sales to existing customers, particularly through opportunities that expand our role or the application of our solutions within their network and business. We are pursuing opportunities to increase adoption of our packet access and aggregation solutions, and to secure market share of our Blue Planet software platform, including within our existing customer base. We are also focused on opportunities to support metro aggregation, data center interconnect, managed services offerings, cloud-based services, submarine networks, business Ethernet services and mobile backhaul. We intend to leverage our existing customer relationships to increase sales and promote the adoption of our solutions as our customers scale and evolve their networks.

We also intend to target important growth markets, including key customer market segments and geographies. Our go-to-market strategy is focused on further diversifying our customer base by penetrating additional internet content providers, data center operators and other emerging network operators that form the “Web-scale” marketplace. We are also focused on securing additional customers within our traditional base of communications service providers, particularly in higher growth markets, including our Asia-Pacific region and India. We intend to use our direct and indirect sales channels to target, and to expand our sales with, several other market verticals, including cable and multiservice operators, submarine network operators, enterprise customers and in the government and R&E markets. For example, we intend to gain greater reach providing network solutions to submarine network operators, particularly in the new cable build market, in part through our recently announced supply partnership with TE SubCom. To leverage the geographic reach of our direct sales resources and expand sales into key geographies, we have pursued channel and distribution opportunities, including our strategic relationship with Ericsson, that enable sales through third parties, including service providers, systems integrators and value-added resellers.

Optimize Business to Yield Operating Leverage. We regularly pursue initiatives to improve our operating margin, constrain operating expense and promote efficiency of our business processes and systems. These initiatives include portfolio optimization and engineering efforts to drive improved efficiencies in the design and development of our solutions and supply chain initiatives to ensure that our product cost model remains ahead of the price erosion that we regularly encounter in our markets. We are also focused on ensuring an efficient supply chain, including efforts to vertically integrate where prudent, reduce our material and overhead costs and improve inventory management and logistics. Our initiatives also include the recent upgrade of our company-wide enterprise resource planning platform, as well as contemporaneous efforts to improve automation of key business processes and systems. We seek to leverage these initiatives to promote the profitable growth of our business and to drive additional operating leverage.

Term Loan Refinancing

On January 30, 2017, Ciena, as borrower, and Ciena Communications, Inc. and Ciena Government Solutions, Inc., as guarantors, entered into an Omnibus Refinancing Amendment to the Credit Agreement, Security Agreement and Pledge Agreement with the lenders party thereto and the administrative agent (the “Refinancing Agreement”), pursuant to which Ciena refinanced its existing term loan in the aggregate principal amount of $250 million, maturing on July 15, 2019 (the "2019 Term Loan") and its existing term loan in the aggregate principal amount of $250 million, maturing on April 25, 2021 (the "2021 Term Loan") into a single term loan with an aggregate principal amount of $400 million maturing on January 30, 2022 (the “2022 Term Loan”). In connection with the transaction, Ciena received a loan in the amount of $399.5 million, net of original discount, from the 2022 Term Loan and repaid $493.1 million of outstanding principal under the 2019 Term Loan and 2021 Term Loan. As a result, we used $93.6 million in cash, representing the original discount on the 2022 Term Loan and the repayment of $93.1 million of the outstanding principal under the 2019 Term Loan and 2021 Term Loan. The remaining balances under the 2019 Term Loan and 2021 Term Loan were refinanced and replaced by the 2022 Term Loan. The 2022 Term Loan requires Ciena to make installment payments of approximately $1 million on a quarterly basis. This arrangement was accounted for as a modification of debt. See Note 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this quarterly report for more information relating to our term loan refinancing.

Maturity of 0.875% Convertible Senior Notes due June 15, 2017

Our $185.3 million in aggregate principal amount outstanding in 0.875% convertible senior notes will mature on June 15, 2017. Subject to the conversion rights of the holders thereof, we expect to repay any then remaining amount outstanding in cash at maturity.

Financial Results for Second Quarter of Fiscal 2017 and Sequential Comparison

Revenue for the second quarter of fiscal 2017 was $707.0 million, representing a sequential increase of 13.8% from $621.5 million in the first quarter of fiscal 2017, during which we typically experience seasonal reductions in revenue. Revenue-related details reflecting sequential changes from the first quarter of fiscal 2017 include:

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- Product revenue for the second quarter of fiscal 2017 increased by $77.6 million, primarily reflecting revenue increases in Converged Packet Optical within our Networking Platforms segment.
- Service revenue for the second quarter of fiscal 2017 increased by $7.9 million.
- North America revenue for the second quarter of fiscal 2017 was $424.4 million, an increase from $405.9 million in the first quarter of fiscal 2017. This primarily reflects revenue increases of $20.8 million within our Networking Platforms segment and $2.2 million within our Global Services segment. These increases were partially offset by a revenue decrease of $4.5 million within our Software and Software-Related Services segment.
- Europe, Middle East and Africa ("EMEA") revenue for the second quarter of fiscal 2017 was $105.8 million, an increase from $91.5 million in the first quarter of fiscal 2017. This primarily reflects revenue increases of $10.4 million within our Networking Platforms segment, $2.6 million within our Global Services segment and $1.2 million within our Software and Software-Related Services segment.

- Caribbean and Latin America ("CALA") revenue for the second quarter of fiscal 2017 was $33.9 million, a decrease from $35.2 million in the first quarter of fiscal 2017. This primarily reflects revenue decreases of $1.9 million within our Global Services segment, partially offset by a revenue increase of $1.0 million within our Networking Platforms segment.
- Asia Pacific ("APAC") revenue for the second quarter of fiscal 2017 was $142.9 million, an increase from $88.9 million in the first quarter of fiscal 2017. This primarily reflects revenue increases of $49.5 million within our Networking Platforms segment, $2.7 million within our Global Services segment and $1.8 million within our Software and Software-Related Services segment.
- For the second quarter of fiscal 2017, AT&T accounted for 15.2% of total revenue. AT&T accounted for 15.5% of total revenue and Verizon accounted for 11.8% in the first quarter of fiscal 2017.

Gross margin for the second quarter of fiscal 2017 was 45.0%, an increase from 44.1% in the first quarter of fiscal 2017. Improved gross margin for the second quarter of fiscal 2017 primarily reflects product cost reductions and lower warranty expense, partially offset by market-based price erosion and an increased provision for excess and obsolete inventory.

Operating expense was $260.4 million for the second quarter of fiscal 2017, an increase from $254.7 million in the first quarter of fiscal 2017. Second quarter fiscal 2017 operating expense primarily reflects increases of $4.8 million in research and development expense and $3.5 million in selling and marketing expense, partially offset by a decrease of $3.6 million in amortization of intangibles expense.

Income from operations for the second quarter of fiscal 2017 was $57.8 million, compared to income from operations of $19.1 million during the first quarter of fiscal 2017. Our net income for the second quarter of fiscal 2017 was $38.0 million, or $0.25 per diluted common share, compared to a net income of $3.9 million or $0.03 per diluted common share, for the first quarter of fiscal 2017.

We generated cash from operations of $72.0 million during the second quarter of fiscal 2017, compared to $26.3 million of cash used by operations during the first quarter of fiscal 2017. As of April 30, 2017, we had $628.6 million in cash and cash equivalents, $274.8 million of short-term investments in U.S. treasury securities and commercial paper and $89.9 million of long-term investments in U.S. treasury securities. This compares to $693.9 million in cash and cash equivalents, $250.1 million of short-term investments in U.S. treasury securities and commercial paper and $109.9 million of long-term investments in U.S. treasury securities, at January 31, 2017.
As of April 30, 2017, we had 5,663 employees, which reflects an increase from 5,555 at October 31, 2016 and an increase from 5,418 at April 30, 2016.

Consolidated Results of Operations

Operating Segments

Ciena has the following operating segments for reporting purposes: (i) Networking Platforms, (ii) Software and Software-Related Services, and (iii) Global Services. See Note 20 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Quarter ended April 30, 2017 compared to the quarter ended April 30, 2016

Revenue

During the second quarter of fiscal 2017, approximately 19.0% of our revenue was non-U.S. Dollar denominated, including sales in Euro, Canadian Dollar, Japanese Yen, British Pound, Argentina Peso, and Brazilian Real. During the second quarter of fiscal 2017 as compared to the second quarter of fiscal 2016, the U.S. Dollar fluctuated against these currencies. Consequently, our revenue reported in U.S. Dollars on a constant currency basis was slightly reduced by approximately $2.7 million, or 0.4%, as compared to the second quarter of fiscal 2016. The table below (in thousands, except percentage data) sets forth the changes in our operating segment revenue for the periods indicated:

	Quarter Ended April 30,				Increase	
	2017	%*	2016	%*	(decrease)	%**
Revenue:						
Networking Platforms						
Converged Packet Optical	$502,131	71.0	$435,173	67.9	$66,958	15.4
Packet Networking	66,326	9.4	68,582	10.7	(2,256)	(3.3)
Optical Transport	3,030	0.4	8,451	1.3	(5,421)	(64.1)
Total Networking Platforms	571,487	80.8	512,206	79.9	59,281	11.6
Software and Software-Related Services						
Software Platforms	13,143	1.9	11,772	1.9	1,371	11.6
Software-Related Services	24,573	3.5	18,701	2.9	5,872	31.4
Total Software and Software-Related Services	37,716	5.4	30,473	4.8	7,243	23.8
Global Services						
Maintenance Support and Training	58,241	8.2	57,069	8.9	1,172	2.1
Installation and Deployment	28,695	4.1	30,232	4.7	(1,537)	(5.1)
Consulting and Network Design	10,883	1.5	10,737	1.7	146	1.4
Total Global Services	97,819	13.8	98,038	15.3	(219)	(0.2)
Consolidated revenue	$707,022	100.0	$640,717	100.0	$66,305	