

CIENA CORP  
Form 10-Q  
June 10, 2015

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 10-Q  
(Mark one)

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

For the quarterly period ended April 30, 2015

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 001-36250

Ciena Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of

incorporation or organization)

7035 Ridge Road, Hanover, MD

(Address of Principal Executive Offices)

23-2725311

(I.R.S. Employer Identification No.)

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  NO

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  NO

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

Large accelerated filer  Accelerated filer  Non-accelerated filer   
(do not check if smaller reporting company) Smaller reporting company

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

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

Class

common stock, \$0.01 par value

Outstanding at June 5, 2015

117,746,722



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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,	
	2014	2015	2014	2015
Revenue:				
Products	\$460,821	\$511,880	\$893,762	\$934,195
Services	99,240	109,722	200,002	216,569
Total revenue	560,061	621,602	1,093,764	1,150,764
Cost of goods sold:				
Products	257,632	286,898	502,848	523,446
Services	64,738	62,293	127,374	124,612
Total cost of goods sold	322,370	349,191	630,222	648,058
Gross profit	237,691	272,411	463,542	502,706
Operating expenses:				
Research and development	103,492	105,202	204,989	205,963
Selling and marketing	83,662	82,471	162,010	159,183
General and administrative	31,882	30,302	61,979	59,855
Acquisition and integration costs	—	1,020	—	1,020
Amortization of intangible assets	11,493	11,019	23,932	22,038
Restructuring costs	—	(17	) 115	8,068
Total operating expenses	230,529	229,997	453,025	456,127
Income from operations	7,162	42,414	10,517	46,579
Interest and other income (loss), net	(1,905	) (5,549	) (7,903	) (13,782
Interest expense	(11,020	) (12,947	) (22,048	) (26,608
Income (loss) before income taxes	(5,763	) 23,918	(19,434	) 6,189
Provision for income taxes	4,395	3,265	6,660	4,315
Net income (loss)	\$(10,158	) \$20,653	\$(26,094	) \$1,874
Basic net income (loss) per common share	\$(0.10	) \$0.18	\$(0.25	) \$0.02
Diluted net income (loss) per potential common share	\$(0.10	) \$0.17	\$(0.25	) \$0.02
Weighted average basic common shares outstanding	105,451	113,555	104,977	110,578
Weighted average dilutive potential common shares outstanding	105,451	128,017	104,977	111,762

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

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

	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
Net income (loss)	\$(10,158 )	\$20,653	\$(26,094 )	\$1,874
Change in unrealized gain on available-for-sale securities, net of tax	10	(60 )	31	(24 )
Change in unrealized loss on foreign currency forward contracts, net of tax	1,624	3,041	(350 )	(1,472 )
Change in unrealized loss on forward starting interest rate swap, net of tax	—	347	—	(2,218 )
Change in cumulative translation adjustment	935	8,837	(4,165 )	(3,411 )
Other comprehensive income (loss)	2,569	12,165	(4,484 )	(7,125 )
Total comprehensive income (loss)	\$(7,589 )	\$32,818	\$(30,578 )	\$(5,251 )

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)

	October 31, 2014	April 30, 2015
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$586,720	\$586,338
Short-term investments	140,205	145,089
Accounts receivable, net	518,981	553,306
Inventories	254,660	214,593
Prepaid expenses and other	192,624	183,512
Total current assets	1,693,190	1,682,838
Long-term investments	50,057	85,233
Equipment, building, furniture and fixtures, net	126,632	139,064
Other intangible assets, net	128,677	102,238
Other long-term assets	74,076	82,191
Total assets	\$2,072,632	\$2,091,564
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>		
Current liabilities:		
Accounts payable	\$209,777	\$210,002
Accrued liabilities	276,608	253,871
Deferred revenue	104,688	109,120
Current portion of long-term debt	190,063	2,500
Total current liabilities	781,136	575,493
Long-term deferred revenue	40,930	49,845
Other long-term obligations	45,390	51,456
Long-term debt, net	1,274,791	1,276,107
Total liabilities	\$2,142,247	\$1,952,901
Commitments and contingencies (Note 20)		
Stockholders' equity (deficit):		
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; 106,979,960 and 117,695,169 shares issued and outstanding	1,070	1,177
Additional paid-in capital	5,954,440	6,167,862
Accumulated other comprehensive loss	(14,668 )	(21,793 )
Accumulated deficit	(6,010,457 )	(6,008,583 )
Total stockholders' equity (deficit)	(69,615 )	138,663
Total liabilities and stockholders' equity (deficit)	\$2,072,632	\$2,091,564

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,	
	2014	2015
Cash flows provided by (used in) operating activities:		
Net income (loss)	\$(26,094	) \$1,874
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	27,143	27,322
Share-based compensation costs	23,443	22,136
Amortization of intangible assets	30,712	26,439
Provision for inventory excess and obsolescence	12,972	10,834
Provision for warranty	12,424	7,658
Other	10,164	(94
Changes in assets and liabilities:		)
Accounts receivable	(27,548	) (34,903
Inventories	(57,821	) 29,233
Prepaid expenses and other	(19,054	) (4,129
Accounts payable, accruals and other obligations	(51,631	) (39,775
Deferred revenue	30,123	13,347
Net cash provided by (used in) operating activities	(35,167	) 59,942
Cash flows provided by (used in) investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(26,485	) (21,899
Restricted cash	1,912	(44
Purchase of available for sale securities	(95,033	) (130,239
Proceeds from maturities of available for sale securities	130,000	90,000
Settlement of foreign currency forward contracts, net	(4,029	) 10,364
Purchase of cost method investment	—	(2,000
Net cash provided by (used in) investing activities	6,365	(53,818
Cash flows provided by (used in) financing activities:		
Payment of long term debt	—	(8,190
Payment for debt and equity issuance costs	—	(247
Payment of capital lease obligations	(1,520	) (4,745
Proceeds from issuance of common stock	8,970	9,980
Net cash provided by (used in) financing activities	7,450	(3,202
Effect of exchange rate changes on cash and cash equivalents	(52	) (3,304
Net increase (decrease) in cash and cash equivalents	(21,352	) 2,922
Cash and cash equivalents at beginning of period	346,487	586,720
Cash and cash equivalents at end of period	\$ 325,083	\$ 586,338
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	\$ 17,047	\$ 21,882
Cash paid during the period for income taxes, net	\$ 7,221	\$ 5,811
Non-cash investing activities		
Purchase of equipment in accounts payable	\$ 4,799	\$ 11,733
Building acquired under capital lease	\$ —	\$ 10,032

Non-cash financing activities

Conversion of 4.0% convertible senior notes, due March 15, 2015 into 8,898,387 shares of common stock	\$—	\$180,645
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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 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, 2014 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, 2014.

Ciena has a 52 or 53-week fiscal year, which ends on the Saturday nearest to the last day of October of each year. Fiscal 2014 and 2015 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

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, 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 other current assets and 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 declines in the fair value of its investments below their cost basis are 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 a minority equity investment in a privately held technology company that is classified in other long-term assets. This investment is 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 company. Ciena monitors this investment for impairment and makes appropriate reductions to the carrying value when necessary. As of April 30, 2015, the carrying value of this investment was \$2.0 million. With respect to this investment, Ciena has not estimated the fair value of this cost method investment because determining the

fair value is not practicable. Ciena has not evaluated this investment 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 this investment.

#### 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) Converged Packet Optical, (ii) Packet Networking, (iii) Optical Transport, and (iv) Software and Services. See Note 19 below.

#### 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, 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. During the second quarter of fiscal 2015, Ciena gained partial access to an office building in Ottawa, Canada pursuant to a lease arrangement accounted for as a capital lease, which is depreciated over the shorter of its useful life or the lease term. The lease building is part of Ciena's new campus facility that will replace the "Lab 10" research and development center on the former Nortel Carling campus. See Note 10 below.

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. On April 15, 2015, Ciena entered into a build-to-suit lease arrangement pursuant to which the landlord will construct and Ciena will lease two new office buildings at its new Ottawa, Canada campus. The landlord will construct the buildings and contribute up to a maximum of \$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 April 30, 2015, there were no costs incurred under this build-to-suit lease arrangement. Upon occupancy of the facilities, Ciena expects this arrangement to qualify as a capital lease.

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.

#### 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 19 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 and 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.

Ciena applies the percentage-of-completion method to long-term arrangements where Ciena is required to undertake significant production, customization or modification engineering, and reasonable and reliable estimates of revenue and cost are available. Utilizing the percentage-of-completion method, Ciena recognizes revenue based on the ratio of actual costs incurred to date to total estimated costs expected to be incurred. In instances that do not meet the percentage-of-completion method criteria, recognition of revenue is deferred until there are no uncertainties regarding customer acceptance. Unbilled percentage-of-completion revenues recognized are included in accounts receivable, net. Billings in excess of revenues recognized on these contracts are recorded within deferred revenue. The percentage of total revenue recognized using the percentage-of-completion method for the six months ended April 30, 2014 and April 30, 2015 was 2.9% and 1.7%, respectively.

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, cost of prototype equipment, consulting and third party services, depreciation, facility costs and information technology.

#### Government Grants

Ciena accounts for proceeds from government grants as a reduction of operating expense when there is reasonable assurance that Ciena has complied with the conditions attached to the grant and that the grant proceeds will be received. Grant benefits are recorded to the line item in the Condensed Consolidated Statement of Operations to which the grant activity relates. See Note 20 below.

#### Advertising Costs

Ciena expenses all advertising costs as incurred.

#### Legal Costs

Ciena expenses legal costs associated with litigation defense 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 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 18 below.



## Income Taxes

Ciena accounts for income taxes using an asset and liability approach that 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 2008 through 2013 and in Canada for 2010 through 2012. 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 (2011), United Kingdom (2012), Canada (2010) and India (2008). 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 any 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 reasonably estimate the amount of loss, 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 Loan, see Note 15 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 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

Ciena's 4.0% convertible senior notes due March 15, 2015 (the "2015 Notes") matured during the second quarter of fiscal 2015. The 2015 Notes included a redemption feature accounted for as a separate embedded derivative which expired when the 2015 notes matured. Until maturity of the 2015 Notes, the embedded redemption feature was recorded at fair value on a recurring basis, and these changes were included in interest and other income (loss), net on the Condensed Consolidated Statement of Operations, See Note 4 below.

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. During fiscal 2014, Ciena also entered into interest rate hedge arrangements to reduce variability in certain forecasted interest expense associated with its Term Loan. 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.

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.

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.

See Notes 6 and 13 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 17 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 costs qualifying for capitalization have been insignificant. Accordingly, Ciena has not capitalized any software development costs.

### Newly Issued Accounting Standards - Not Yet Effective

In May 2014, the FASB issued Accounting Standards Update ("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. Based on the current expected adoption date, the standard will be effective for Ciena beginning in the first quarter of fiscal 2018. Ciena is currently evaluating the impact of the adoption of this ASU on its Consolidated Financial Statements and disclosures.

In August 2014, the FASB issued ASU No. 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern. ASU 2014-15 requires management to evaluate and provide related disclosures, at each annual or interim reporting period, whether there are conditions or events that exist that raise substantial doubt about an entity's ability to continue as a going concern within one year after the date the financial statements are issued. The standard will be effective for Ciena beginning in the first quarter of fiscal 2018. The adoption of this accounting standard update is not expected to have a material effect on Ciena's Consolidated Financial Statements and disclosures.

In April 2015, the FASB issued ASU No. 2015-03, Simplifying the Presentation of Debt Issuance Costs. 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. The guidance is effective retrospectively for fiscal years, and interim periods within those years, beginning after December 15, 2015. Early adoption is permitted for financial statements that have not been previously issued. Ciena does not expect the impact of adopting this guidance will be material to the Ciena's consolidated financial statements and related disclosures.

### (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, 2015 (in thousands):



	Workforce reduction		Consolidation of excess facilities	Total		
Balance at October 31, 2014	\$181		\$1,134	\$1,315		
Additional liability recorded	8,068	(a)	—	8,068		
Cash payments	(7,518	)	(260	)	(7,778	)
Balance at April 30, 2015	\$731		\$874	\$1,605		
Current restructuring liabilities	\$731		\$391	\$1,122		
Non-current restructuring liabilities	\$—		\$483	\$483		

(a) During the fiscal quarter ended January 31, 2015, Ciena recorded a charge of \$8.1 million of severance and other employee-related costs associated with a global workforce reduction of approximately 125 employees.

The following table sets forth the restructuring activity and balance of the restructuring liability accounts for the six months ended April 30, 2014 (in thousands):

	Workforce reduction		Consolidation of excess facilities	Total		
Balance at October 31, 2013	\$80		\$1,936	\$2,016		
Additional liability recorded	106		9	115		
Cash payments	(136	)	(178	)	(314	)
Balance at April 30, 2014	\$50		\$1,767	\$1,817		
Current restructuring liabilities	\$50		\$627	\$677		
Non-current restructuring liabilities	\$—		\$1,140	\$1,140		

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

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

	Quarter Ended April 30,		Six Months Ended April 30,		
	2014	2015	2014	2015	
Interest income	\$69	\$246	\$147	\$465	
Change in fair value of embedded derivative	(1,460	) —	(2,550	) —	
Gain (loss) on non-hedge designated foreign currency forward contracts	(11,547	) 14,351	(10,194	) 10,002	
Foreign currency exchange gain (loss)	11,249	(18,832	) 5,333	(22,485	)
Other	(216	) (1,314	) (639	) (1,764	)
Interest and other income (loss), net	\$(1,905	) \$(5,549	) \$(7,903	) \$(13,782	)

#### (5) SHORT-TERM AND LONG-TERM INVESTMENTS

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

	April 30, 2015			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	\$105,056	\$46	—	\$105,102
Included in long-term investments	85,233	—	—	85,233
	\$190,289	\$46	\$—	\$190,335
Commercial paper:				
Included in short-term investments	39,987	—	—	39,987
	\$39,987	\$—	\$—	\$39,987
	October 31, 2014			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	\$110,182	\$29	\$—	\$110,211
Included in long-term investments	50,016	41	—	50,057
	\$160,198	\$70	\$—	\$160,268
Commercial paper:				
Included in short-term investments	29,994	—	—	29,994
	\$29,994	\$—	\$—	\$29,994

The following table summarizes final legal maturities of debt investments at April 30, 2015 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	\$145,043	\$145,089
Due in 1-2 years	85,233	85,233
	\$230,276	\$230,322

#### (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):



	April 30, 2015			Total
	Level 1	Level 2	Level 3	
<b>Assets:</b>				
Money market funds	\$462,870	\$—	\$—	\$462,870
U.S. government obligations	—	190,335	—	190,335
Commercial paper	—	84,983	—	84,983
Foreign currency forward contracts	—	855	—	855
Total assets measured at fair value	\$462,870	\$276,173	\$—	\$739,043
<b>Liabilities:</b>				
Foreign currency forward contracts	\$—	\$1,644	\$—	\$1,644
Forward starting interest rate swap	—	4,302	—	4,302
Total liabilities measured at fair value	\$—	\$5,946	\$—	\$5,946

	October 31, 2014			Total
	Level 1	Level 2	Level 3	
<b>Assets:</b>				
Money market funds	\$440,013	\$—	\$—	\$440,013
U.S. government obligations	—	160,268	—	160,268
Commercial paper	—	89,989	—	89,989
Foreign currency forward contracts	—	1,561	—	1,561
Total assets measured at fair value	\$440,013	\$251,818	\$—	\$691,831
<b>Liabilities:</b>				
Foreign currency forward contracts	\$—	\$200	\$—	\$200
Forward starting interest rate swap	—	2,083	—	2,083
Total liabilities measured at fair value	\$—	\$2,283	\$—	\$2,283

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

	April 30, 2015			Total
	Level 1	Level 2	Level 3	
<b>Assets:</b>				
Cash equivalents	\$462,870	\$44,996	\$—	\$507,866
Short-term investments	—	145,089	—	145,089
Prepaid expenses and other	—	855	—	855
Long-term investments	—	85,233	—	85,233
Total assets measured at fair value	\$462,870	\$276,173	\$—	\$739,043
<b>Liabilities:</b>				
Accrued liabilities	\$—	\$1,644	\$—	\$1,644
Other long-term obligations	—	4,302	—	4,302
Total liabilities measured at fair value	\$—	\$5,946	\$—	\$5,946

	October 31, 2014			Total
	Level 1	Level 2	Level 3	
<b>Assets:</b>				
Cash equivalents	\$440,013	\$59,995	\$—	\$500,008
Short-term investments	—	140,205	—	140,205
Prepaid expenses and other	—	1,561	—	1,561
Long-term investments	—	50,057	—	50,057
Total assets measured at fair value	\$440,013	\$251,818	\$—	\$691,831
<b>Liabilities:</b>				
Accrued liabilities	\$—	\$200	\$—	\$200
Other long-term obligations	—	2,083	—	2,083
Total liabilities measured at fair value	\$—	\$2,283	\$—	\$2,283

**(7) ACCOUNTS RECEIVABLE**

As of October 31, 2014, there were no individual customers that accounted for greater than 10% of net accounts receivable. As of April 30, 2015, one customer accounted for 11.8% of net accounts receivable. Ciena has not historically experienced a significant amount of bad debt expense. Allowance for doubtful accounts was \$2.1 million and \$2.4 million as of October 31, 2014 and April 30, 2015, respectively.

**(8) INVENTORIES**

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

	October 31, 2014	April 30, 2015
Raw materials	\$64,853	\$57,343
Work-in-process	8,371	10,567
Finished goods	165,799	147,825
Deferred cost of goods sold	75,763	50,951
	314,786	266,686
Provision for excess and obsolescence	(60,126 )	(52,093 )
	\$254,660	\$214,593

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 2015, Ciena recorded a provision for excess and obsolescence of \$10.8 million, primarily related to the discontinuance of certain parts and components used in the manufacture of its Converged Packet Optical products and a decrease in the forecasted demand for both its legacy, stand-alone WDM and SONET/SDH-based transport platforms and its 5410 Service Aggregation Switch. 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):

	October 31, 2014	April 30, 2015
Prepaid VAT and other taxes	\$86,464	\$90,734
Product demonstration equipment, net	42,385	40,906
Deferred deployment expense	27,991	20,930
Prepaid expenses	23,539	21,959
Other non-trade receivables	10,683	8,128
Derivative assets	1,562	855
	\$192,624	\$183,512

Depreciation of product demonstration equipment was \$4.2 million and \$4.8 million for the first six months of fiscal 2014 and 2015, respectively.

#### (10) EQUIPMENT, BUILDING, FURNITURE AND FIXTURES

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

	October 31, 2014	April 30, 2015
Equipment, furniture and fixtures	\$383,059	\$384,712
Building subject to capital lease	—	10,032
Leasehold improvements	46,354	46,513
	429,413	441,257
Accumulated depreciation and amortization	(302,781 )	(302,193 )
	\$126,632	\$139,064

On October 23, 2014, Ciena entered into a lease agreement to lease an office building located in Ottawa, Canada. During the second quarter of fiscal 2015, Ciena gained access to a portion of the building and recorded a capital lease asset and liability.

The total of depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements, was \$22.9 million and \$22.5 million for the first six months of fiscal 2014 and 2015, respectively.

#### (11) OTHER INTANGIBLE ASSETS

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

	October 31, 2014			April 30, 2015		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	\$417,833	\$(351,929 )	\$65,904	\$417,833	\$(365,428 )	\$52,405
Patents and licenses	46,538	(45,908 )	630	46,538	(45,990 )	548
Customer relationships, covenants not to compete, outstanding purchase orders and contracts	323,573	(261,430 )	62,143	323,573	(274,288 )	49,285
Total other intangible assets	\$787,944	\$(659,267 )	\$128,677	\$787,944	\$(685,706 )	\$102,238

The amortization of finite-lived other intangible assets was \$30.7 million and \$26.4 million for the first six months of fiscal 2014 and 2015, respectively. Expected future amortization of finite-lived other intangible assets for the fiscal years indicated is as follows (in thousands):



Period ended October 31,	
2015 (remaining six months)	\$26,439
2016	52,879
2017	22,783
2018	137
	\$102,238

## (12) OTHER BALANCE SHEET DETAILS

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

	October 31,	April 30,
	2014	2015
Maintenance spares, net	\$54,101	\$61,497
Deferred debt issuance costs, net	15,160	12,926
Other	4,815	7,768
	\$74,076	\$82,191

Deferred debt issuance costs relate to Ciena's convertible notes payable (described in Note 15 below), Term Loan (described in Note 15 below) and our ABL Credit Facility (described in Note 16 below). 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 related debt. The amortization of deferred debt issuance costs is included in interest expense, and was \$2.4 million and \$2.5 million during the first six months of fiscal 2014 and fiscal 2015, respectively. As of the dates indicated, accrued liabilities and other short-term obligations are comprised of the following (in thousands):

	October 31,	April 30,
	2014	2015
Compensation, payroll related tax and benefits	82,207	63,713
Warranty	55,997	53,959
Vacation	35,126	35,002
Capital lease obligations	7,788	6,178
Interest payable	6,409	5,423
Other	89,081	89,596
	\$276,608	\$253,871

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

Six months ended	Beginning			Ending
April 30,	Balance	Provisions	Settlements	Balance
2014	\$56,303	12,424	(12,560)	\$56,167
2015	\$55,997	7,658	(9,696)	\$53,959

The decrease in the first six months of fiscal 2015 warranty provision compared to the first six months of fiscal 2014 was due to lower failure rates and reduced component and labor repair costs.

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

	October 31, 2014	April 30, 2015
Products	\$50,457	\$57,481
Services	95,161	101,484
	145,618	158,965
Less current portion	(104,688 )	(109,120 )
Long-term deferred revenue	\$40,930	\$49,845

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

	October 31, 2014	April 30, 2015
Income tax liability	\$14,342	\$14,147
Deferred tenant allowance	10,839	10,312
Straight-line rent	5,174	5,366
Capital lease obligations	4,589	11,449
Forward starting interest rate swap	2,083	4,302
Other	8,363	5,880
	\$45,390	\$51,456

The following is a schedule by fiscal years of future minimum lease payments under capital leases and the present value of minimum lease payments as of April 30, 2015 (in thousands):

Period ended October 31, 2015 (remaining 6 months)	3,710	
2016	5,454	
2017	1,105	
2018	926	
2019	926	
Thereafter	14,218	
Net minimum capital lease payments	26,339	
Less: Amount representing interest	(8,712 )	
Present value of minimum lease payments	17,627	
Less: Current portion of present value of minimum lease payments	(6,178 )	
Long-term portion of present value of minimum lease payments	11,449	

### (13) DERIVATIVE INSTRUMENTS

#### Foreign Currency Derivatives

As of April 30, 2015 and October 31, 2014, 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 \$26.5 million and \$51.5 million as of April 30, 2015 and October 31, 2014, 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 2015 and fiscal 2014, in order to hedge certain balance sheet exposures, Ciena entered into forward contracts to sell Brazilian Real and buy an equivalent U.S. Dollar amount. During the first six

months of fiscal 2015 and fiscal 2014, in order to hedge certain balance sheet exposures, Ciena entered into forward contracts to sell U.S.

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Dollars and buy an equivalent amount of Canadian Dollars. The notional amount of these contracts was approximately \$176.4 million and \$194.5 million as of April 30, 2015 and October 31, 2014, 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

During fiscal 2014, Ciena entered into interest rate cap arrangements to limit interest paid under the Term Loan to a maximum of 0.75% plus a spread of 300 basis points through July 2015. The total notional amount of interest rate caps outstanding as of April 30, 2015 and October 31, 2014 was \$248.1 million and \$249.4 million, respectively. Also in fiscal 2014, Ciena entered into floating interest rate to fixed interest rate swap arrangements ("interest rate swap") that fix the interest rate under the Term Loan at 5.004%, for the period commencing on July 20, 2015 through July 19, 2018. The total notional amount of these derivatives as of April 30, 2015 and October 31, 2014 was \$247.5 million.

Ciena expects the variable rate payments to be received under the terms of the interest rate cap and the interest rate swap to exactly offset the forecasted variable rate payments on the equivalent notional amounts of the Term Loan. These derivative contracts have been designated as cash flow hedges.

Other information regarding Ciena's derivatives is immaterial for separate financial statement presentation. See Note 4 and Note 6 above.

#### (14) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income (loss) for the six months ending April 30, 2015:

	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, 2014	\$71	\$(173 )	\$(2,083 )	\$(12,483 )	\$(14,668 )
Other comprehensive income (loss) before reclassifications	(24 )	(4,233 )	(2,218 )	(3,411 )	(9,886 )
Amounts reclassified from AOCI	—	2,761	—	—	2,761
Balance at April 30, 2015	\$47	\$(1,645 )	\$(4,301 )	\$(15,894 )	\$(21,793 )

The following table summarizes the changes in accumulated balances of other comprehensive income (loss) for the six months ending April 30, 2014:

	Unrealized Gain/(Loss) on Marketable Securities	Unrealized Gain/(Loss) on Derivative Instruments	Cumulative Foreign Currency Translation Adjustment	Total
Balance at October 31, 2013	\$30	\$(261 )	\$(7,543 )	\$(7,774 )
Other comprehensive income(loss) before reclassifications	31	(1,242 )	(4,165 )	(5,376 )



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Amounts reclassified from AOCI	—	892	—	892
Balance at April 30, 2014	\$61	\$(611	) \$(11,708	) \$(12,258 )

All amounts reclassified from accumulated other comprehensive income were related to settlement (gains)/losses on foreign currency forward contracts designated as cash flow hedges. These reclassifications impacted "research and development" on the Condensed Consolidated Statements of Operations.

## (15) SHORT-TERM AND LONG-TERM DEBT

## Term Loan

On July 15, 2014, Ciena entered into a Credit Agreement providing for senior secured term loans in an aggregate principal amount of \$250 million (the "Term Loan") with a maturity date of July 15, 2019. The Term Loan requires Ciena to make installment payments of approximately \$0.6 million on a quarterly basis. The principal balance, unamortized discount and net carrying amount of the Term Loan were as follows as of April 30, 2015 (in thousands):

	Principal Balance	Unamortized Discount	Net Carrying Amount
Term Loan Payable due July 15, 2019	\$248,125	\$1,131	\$246,994

The following table sets forth, in thousands, the carrying value and the estimated fair value of the Term Loan:

	April 30, 2015	
	Carrying Value	Fair Value <sup>(2)</sup>
Term Loan Payable due July 15, 2019 <sup>(1)</sup>	\$246,994	\$249,366

(1) Includes unamortized bond discount.

The Term Loan was categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its Term

(2) Loan using a market approach based upon observable inputs, such as current market transactions involving comparable securities.

## Maturity of 2015 Convertible Notes

On March 15, 2015, Ciena's outstanding 4.0% Convertible Senior Notes due 2015 (the "2015 Notes") matured. As a result of conversion elections made by holders of a substantial majority of the outstanding 2015 Notes under the terms of the indenture, together with certain private exchange transactions conducted by Ciena prior to maturity, approximately \$180.6 million in aggregate principal amount of 2015 Notes, representing 96.3% of the outstanding aggregate principal amount of 2015 Notes, was settled through the issuance of Ciena common stock at or prior to maturity. In total, Ciena issued approximately 8.9 million shares of Ciena common stock as a result of the conversion elections and private exchange transactions in respect of the 2015 Notes. Ciena repaid in cash approximately \$6.9 million in aggregate principal amount of 2015 Notes at maturity.

## Outstanding Convertible Notes Payable

The principal balance, unamortized discount and net carrying amount of the liability and equity components of our 4.0% convertible senior notes due December 15, 2020 were as follows as of April 30, 2015:

	Liability Component			Equity Component
	Principal Balance	Unamortized Discount	Net Carrying Amount	Net Carrying Amount
4.0% Convertible Senior Notes due December 15, 2020	\$195,778	\$14,165	\$181,613	\$43,131

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

	April 30, 2015	
	Carrying Value	Fair Value <sup>(1)</sup>
0.875% Convertible Senior Notes due June 15, 2017	500,000	504,375

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3.75% Convertible Senior Notes due October 15, 2018	350,000	456,531
4.0% Convertible Senior Notes due December 15, 2020 <sup>(2)</sup>	181,613	248,841
	\$1,031,613	\$1,209,747

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The convertible notes were categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its (1) outstanding convertible notes using a market approach based upon observable inputs, such as current market transactions involving comparable securities.

(2) Includes unamortized discount and accretion of principal.

#### (16) 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”) providing for a total commitment of \$200 million with a maturity date of December 31, 2016. 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, 2015, letters of credit totaling \$60.4 million were collateralized by the ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of April 30, 2015.

#### (17) EARNINGS (LOSS) 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 (loss) per common share (“Basic EPS”) and the diluted net income (loss) 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.

	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
Numerator				
Net income (loss)	\$(10,158 )	\$20,653	\$(26,094 )	\$1,874
Add: Interest expense associated with 0.875% convertible senior notes due 2017	—	1,387	\$—	—
Net income (loss) used to calculate Diluted EPS	\$(10,158 )	\$22,040	\$(26,094 )	\$1,874
	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
Denominator				
Basic weighted average shares outstanding	105,451	113,555	104,977	110,578
Add: Shares underlying outstanding stock options, employees stock purchase plan and restricted stock units	—	1,354	—	1,184
Add: Shares underlying 0.875% convertible senior notes due 2017	—	13,108	—	—
Dilutive weighted average shares outstanding	105,451	128,017	104,977	111,762
	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
EPS				
Basic EPS	\$(0.10 )	\$0.18	\$(0.25 )	\$0.02
Diluted EPS	\$(0.10 )	\$0.17	\$(0.25 )	\$0.02

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



	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
Shares underlying stock options and restricted stock units	3,256	961	3,430	1,923
4.0% Convertible Senior Notes due March 15, 2015	9,198	4,346	9,198	6,772
0.875% Convertible Senior Notes due June 15, 2017	13,108	—	13,108	13,108
3.75% Convertible Senior Notes due October 15, 2018	17,356	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	52,116	31,861	52,290	48,357

**(18) SHARE-BASED COMPENSATION EXPENSE**

Ciena grants equity awards under its 2008 Omnibus Incentive Plan (the "2008 Plan") and makes shares of its common stock available for purchase under its Amended and Restated Employee Stock Purchase Plan (the "ESPP"). These plans were approved by stockholders and are described in Ciena's Annual Report on Form 10-K for the fiscal year ended October 31, 2014.

**2008 Omnibus Incentive Plan**

The 2008 Plan 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 2008 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 2008 Plan to vest, unless the awards are continued or substituted for in connection with the transaction. The total number of shares authorized for issuance under the 2008 Plan is 25.1 million shares. As of April 30, 2015, approximately 6.4 million shares remained available for issuance under the 2008 Plan.

**Stock Options**

Outstanding stock option awards to employees are generally subject to service-based vesting conditions and vest incrementally over a four-year period. As of April 30, 2015, all outstanding options have completed their service-based vesting conditions and are fully vested. 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, 2014	1,288	\$25.43
Exercised	(135	) 14.71
Canceled	(89	) 25.83
Balance at April 30, 2015	1,064	\$26.75

The total intrinsic value of options exercised during the first six months of fiscal 2014 and fiscal 2015 was \$0.7 million and \$0.8 million, respectively. Ciena did not grant any stock options during the first six months of fiscal 2014 or fiscal 2015.

The following table summarizes information with respect to stock options outstanding at April 30, 2015, based on Ciena's closing stock price on the last trading day of Ciena's second fiscal quarter of 2015 (shares and intrinsic value in thousands):



		Options Outstanding and Vested at April 30, 2015				
Range of Exercise Price		Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value	
\$0.94	—	\$16.31	111	3.16	\$7.42	\$1,540
\$16.52	—	\$17.29	117	0.54	16.56	556
\$17.43	—	\$24.50	121	1.13	18.62	350
\$24.69	—	\$28.28	269	1.89	27.37	—
\$28.61	—	\$32.55	98	2.30	29.99	—
\$33.00	—	\$37.10	246	2.54	35.23	—
\$37.31	—	\$47.32	102	2.21	44.11	—
\$0.94	—	\$47.32	1,064	2.00	\$26.75	\$2,446

#### 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. 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 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, 2014	4,012	\$18.02	\$67,241
Granted	2,284		
Vested	(1,163)	)	
Canceled or forfeited	(200)	)	
Balance at April 30, 2015	4,933	\$18.51	\$105,018

The total fair value of restricted stock units that vested and were converted into common stock during the first six months of fiscal 2014 and fiscal 2015 was \$29.1 million and \$23.0 million, respectively. The weighted average fair value of each restricted stock unit granted by Ciena during the first six months of fiscal 2014 and fiscal 2015 was



\$21.95 and \$18.68 respectively.

Assumptions for Restricted Stock Unit Awards

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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 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 twelve-month offer period that begins in December and June of each year. Each offer period includes two six-month purchase periods. Employees may purchase a limited number of shares of Ciena common stock at 85% of the fair market value on either the day immediately preceding the offer date or the purchase date, whichever is lower. The ESPP is considered compensatory for purposes of share-based compensation expense. 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 0.6 million shares, provided that the total number of shares available at that time shall not exceed 8.2 million. Unless earlier terminated, the ESPP will terminate on January 24, 2023.

During the first six months of fiscal 2015, Ciena issued 0.5 million shares under the ESPP. At April 30, 2015, 6.9 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):

	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
Product costs	\$741	\$653	\$1,247	\$1,140
Service costs	568	574	1,148	1,093
Share-based compensation expense included in cost of sales	1,309	1,227	2,395	2,233
Research and development	2,782	2,534	5,354	4,701
Sales and marketing	4,246	3,841	8,309	7,500
General and administrative	3,661	3,723	7,167	7,642
Share-based compensation expense included in operating expense	10,689	10,098	20,830	19,843
Share-based compensation expense capitalized in inventory, net	53	4	218	60
Total share-based compensation	\$12,051	\$11,329	\$23,443	\$22,136

As of April 30, 2015, total unrecognized share-based compensation expense related to unvested restricted stock units was approximately \$78.9 million, and this expense is expected to be recognized over a weighted-average period of

1.6 years.

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(19) 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:

**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 Ciena's family of CoreDirector® Multiservice Optical Switches and the OTN configuration for the 5410 Reconfigurable Switching System. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations. In May 2015, Ciena launched its new Waveserver™ product. Revenue from sales of Waveserver will be included in our Converged Packet Optical segment.

**Packet Networking** — includes Ciena's 3000 family of service delivery switches and service aggregation switches and the 5000 family of service aggregation switches. This segment also includes Ciena's 8700 Packetwave Platform and Ciena's Ethernet packet configuration for the 5410 Service Aggregation Switch. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations.

**Optical Transport** — includes the 4200 Advanced Services Platform, Corestream® Agility Optical Transport System, 5100/5200 Advanced Services Platform, Common Photonic Layer (CPL) and 6100 Multiservice Optical Platform. This segment includes sales from SONET/SDH, transport and data networking products, as well as certain enterprise-oriented transport solutions that support storage and LAN extension, interconnection of data centers, and virtual private networks. This segment also includes operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations.

**Software and Services** — includes Ciena's Agility software portfolio, which includes a SDN multilayer WAN controller, NFV platform, and network level software applications for enabling on-demand, high-bandwidth WAN services delivered in an open network ecosystem. This segment also includes the OneControl Unified Management System, ON-Center® Network & Service Management Suite, Ethernet Services Manager and Optical Suite Release. This segment includes a broad range of services for consulting and network design, installation and deployment, maintenance support and training activities. Except for revenue from the software portion of this segment, which is included in product revenue, 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, 2015, equipment, building, furniture and fixtures totaling \$139.1 million primarily support asset groups within Ciena's Converged Packet Optical, Packet Networking, and Software and Services segments and support Ciena's unallocated selling and general and administrative activities. As of April 30, 2015, all of Ciena's finite-lived intangible assets totaling \$102.2 million were assigned to asset groups within Ciena's Converged Packet Optical segment. As of April 30, 2015, all of the maintenance spares totaling \$61.5 million were assigned to asset groups within Ciena's Software and 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,	
	2014	2015	2014	2015
Revenue:				
Converged Packet Optical	\$356,840	\$432,911	\$690,241	\$769,471
Packet Networking	66,526	53,288	118,235	108,271
Optical Transport	29,616	16,454	69,713	38,793
Software and Services	107,079	118,949	215,575	234,229
Consolidated revenue	\$560,061	\$621,602	\$1,093,764	\$1,150,764

### Segment Profit

Segment profit 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; acquisition and integration costs; amortization of intangible assets; 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 and the reconciliation to consolidated net income (loss) during the respective periods indicated:

	Quarter Ended April 30,		Six Months Ended April 30,	
	2014	2015	2014	2015
Segment profit:				
Converged Packet Optical	\$96,581	\$121,772	\$175,279	\$204,429
Packet Networking	8,196	4,751	8,581	11,282
Optical Transport	4,709	4,729	20,359	10,615
Software and Services	24,713	35,957	54,334	70,417
Total segment profit	134,199	167,209	258,553	296,743
Less: Non-performance operating expenses				
Selling and marketing	83,662	82,471	162,010	159,183
General and administrative	31,882	30,302	61,979	59,855
Acquisition and integration costs	—	1,020	—	1,020
Amortization of intangible assets	11,493	11,019	23,932	22,038
Restructuring costs	—	(17)	115	8,068
Add: Other non-performance financial items				
Interest expense and other income (loss), net	(12,925)	(18,496)	(29,951)	(40,390)
Less: Provision for income taxes	4,395	3,265	6,660	4,315
Consolidated net income (loss)	\$(10,158)	\$20,653	\$(26,094)	\$1,874

### 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,	
	2014	2015	2014	2015
North America	\$377,769	\$397,181	\$733,617	\$728,716
EMEA	95,114	102,194	183,833	213,200
CALA	40,234	47,891	92,915	90,633
APAC	46,944	74,336	83,399	118,215
Total	\$560,061	\$621,602	\$1,093,764	\$1,150,764

North America includes \$324.0 million and \$367.6 million of United States revenue for fiscal quarters ended April 30, 2014 and 2015, respectively. For the six months ended April 30, 2014 and 2015, United States revenue was \$641.4 million and \$665.3 million. No other country accounted for at least 10% 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 a significant percentage 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):

	October 31, 2014	April 30, 2015
United States	\$73,420	\$76,113
Canada	42,015	52,045
Other International	11,197	10,906
Total	\$126,632	\$139,064

AT&T accounted for greater than 10% of Ciena's revenue in Ciena's fiscal quarters ended April 30, 2014 and 2015 with total revenue of \$120.6 million and \$117.4 million, respectively. AT&T also accounted for greater than 10% of Ciena's revenue for the six months ended April 30, 2014 and 2015 with total revenue of \$221.0 million and \$234.0 million, respectively. AT&T purchases products and services from each of Ciena's operating segments.

## (20) COMMITMENTS AND CONTINGENCIES

### Ontario Grant

Ciena was awarded a conditional grant from the Province of Ontario in June 2011. Under this strategic jobs investment fund grant, Ciena can receive up to an aggregate of CAD\$25.0 million in funding for eligible costs relating to certain next-generation, coherent optical transport development initiatives over the period from November 1, 2010 to October 31, 2015. Amounts received under the grant are subject to recoupment in the event that Ciena fails to achieve certain minimum investment, employment and project milestones. As of April 30, 2015, Ciena has recorded a CAD\$25.0 million benefit to date, as a reduction in research and development expenses. As of April 30, 2015, the amount receivable from this grant was CAD\$1.9 million.

### Foreign Tax Contingencies

As of October 31, 2014 and April 30, 2015, Ciena had accrued liabilities of \$0.5 million and \$1.1 million, respectively, related to preliminary assessment notices from the India tax authorities asserting deficiencies in payments for the tax years 2009 and 2010 related to income taxes. This contingency has been reported as a component of other long-term liabilities. Although Ciena estimates that it could be exposed to possible losses of up to \$2.7 million, it has not accrued a liability of such amount as of April 30, 2015. Ciena has not accrued the additional income tax liability because it does not believe that such a loss is more likely than not. Ciena continues to evaluate the

likelihood of a probable and reasonably possible loss, if any, related to these assessments. As a result, future increases or decreases to accrued liabilities may be necessary and will be recorded in the period when such amounts are estimable and more likely than not to occur.

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 pending acquisition of Cyan, Inc. ("Cyan") were filed in the Court of Chancery of the State of Delaware:

• *Luvishis v. Cyan, Inc., et al.*, C.A. No. 11027-CB, filed May 15, 2015

• *Poll v. Cyan, Inc., et al.*, C.A. No. 11028-CB, filed May 15, 2015

• *Canzano v. Floyd, et al.*, C.A. No. 11052-CB, filed May 20, 2015

• *Kassis v. Cyan, Inc., et al.*, C.A. No. 11069-CB, filed May 27, 2015

• *Fenske v. Cyan, Inc., et al.*, C.A. No. 11090-CB, filed June 3, 2015

Each of the complaints names as defendants Cyan (except for the Canzano complaint), members of the Cyan board of directors, Ciena and Neptune Acquisition Subsidiary, Inc. ("Merger Sub"). The complaints allege, among other things, that the Cyan board members breached their fiduciary duties by failing to take steps to maximize the value of Cyan to its public stockholders, taking steps to avoid competitive bidding for Cyan, failing to properly value Cyan and obtain the best exchange ratio from Ciena, and ignoring or not protecting against certain conflicts of interest. The complaints also allege that Ciena and Merger Sub aided and abetted the alleged breaches of fiduciary duties by the Cyan board members. The complaints seek the following: (i) preliminary and permanent injunctive relief enjoining Cyan and Ciena from consummating the merger; (ii) in the event the merger is consummated prior to the entry of the court's final judgment, rescission of the merger or rescissory damages; and (iii) monetary damages and costs, including attorneys fees and experts fees. These lawsuits are at a preliminary stage. However, Ciena believes that the lawsuits are without merit and intends to defend them 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.

## (21) SUBSEQUENT EVENTS

### Pending Acquisition of Cyan, Inc.

On May 3, 2015, Ciena entered into a definitive merger agreement to acquire Cyan, Inc. (“Cyan”), a Delaware corporation and leading provider of SDN, NFV and metro packet-optical solutions, in a cash and stock transaction. Subject to the terms and conditions set forth in the merger agreement, at closing each outstanding Cyan share will be exchanged for consideration equal to the value of 0.224 shares of Ciena common stock, 89% of which will be delivered in Ciena common stock and 11% will be delivered in cash based on the value of Ciena common stock at closing. Ciena also will assume Cyan’s outstanding convertible notes, subject to certain conversion and repurchase rights of the holders triggered by the acquisition, as well as Cyan’s outstanding equity awards. At the time of signing of the merger agreement, the transaction was valued at approximately \$400.0 million (or \$335.0 million, net of estimated cash acquired) and inclusive of Cyan’s \$50 million outstanding convertible notes on an as-converted basis. Certain Cyan officers and directors and affiliated stockholders, including investment funds affiliated with certain directors, who, at the time of signing of the merger agreement collectively controlled approximately 40% of the voting power of the then outstanding shares of Cyan common stock, have entered into voting agreements with Ciena that obligate them to vote in favor of the merger, subject to certain exceptions and limitations. The transaction, which is expected to close in Ciena’s fourth fiscal quarter of 2015, is subject to approval by Cyan shareholders and satisfaction of certain other customary closing conditions, including the receipt of certain regulatory approvals.

During the second quarter of fiscal 2015, Ciena incurred approximately \$1.0 million of acquisition-related costs associated with this pending transaction.

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

Some of the statements contained in this quarterly report discuss future events or expectations, contain projections of results of operations or financial condition, changes in the markets for our products and services, or state other “forward-looking” information. Ciena’s “forward-looking” information is based on various factors and was derived using numerous assumptions. In some cases, you can identify these “forward-looking statements” by words like “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intends,” “potential” or “continue” or the negative words and other comparable words. You should be aware that these statements only reflect our current predictions and beliefs. These statements are subject to known and unknown risks, uncertainties and other factors, and actual events or results may differ materially. Important factors that could cause our actual results to be materially different from the forward-looking statements are disclosed throughout this report, particularly in Item 1A “Risk Factors” of Part II of this report below. 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 in our annual report on Form 10-K, which we filed with the Securities and Exchange Commission (“SEC”) on December 19, 2014. Ciena undertakes no obligation to revise or update any forward-looking statements.

### Overview

We are a network specialist focused on communications networking solutions that enable converged, next-generation architectures, optimized to create and deliver the broad array of high-bandwidth services relied upon by business 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. These solutions enable network operators to adopt software-programmable network infrastructures that offer the on-demand experience required by end users of services and applications. At the same time, these solutions yield business and operational value for network operators.

Our Converged Packet Optical, Packet Networking, Optical Transport and Software products are used, individually or as part of an integrated solution, in networks operated by communications service providers, cable operators,

Web-scale providers, governments, enterprises, research and education institutions and other network operators across the globe. Our products allow network operators to scale capacity, increase transmission speeds, allocate network traffic and adapt to changing end-user demands through rapid service creation and delivery. Our solutions also include network management and control software and network-level software applications that facilitate automation and efficient service delivery. To complement our hardware and software solutions, we offer a broad range of network transformation solutions and related support services that help our customers design, optimize, deploy, manage and maintain their networks.

The rapid proliferation of communications services and devices, together with increased mobility and growth in cloud-based services, have fundamentally affected the demands placed upon communications networks and how they are designed.

Network operators also face a rapidly changing business environment that includes a shifting competitive landscape and challenges to existing business models. Our OP<sup>n</sup> Architecture, and the increased network scalability, flexibility and programmability that it enables, is designed to meet these challenges. Our OP<sup>n</sup> network approach allows for network-level software applications to control and configure the network dynamically, while flexible interfaces integrate computing, storage and network resources. This approach enables highly configurable infrastructures that can meet the "on-demand" requirements of end-users and the changing services they rely upon. By enhancing software programmability and control, enabling network functions virtually, and reducing required network elements, our OP<sup>n</sup> approach optimizes network infrastructures to connect content data centers, and users to such content. At the same time, our approach creates business and operational value for our customers by increasing scale at reduced cost and facilitating rapid introduction of new, revenue-generating service offerings. Our OP<sup>n</sup> Architecture, which underpins our solutions offering and guides our research and development strategy, is described more fully in the "Strategy" section below.

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](http://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](http://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. Information contained on our website is not a part of this report.

#### 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, technology convergence, increased mobility, and evolving cloud-based service offerings and on-demand end-user service expectations. These conditions have created market opportunities and challenges that have impacted how networks are designed and services are consumed. These conditions have also resulted in a diverse set of network operator customer segments, and shifting competitive landscapes for network operators and the vendors that support them. Existing and emerging network operators are competing to distinguish their service offerings and rapidly introduce differentiated, revenue-generating services. At the same time, network operators continue to seek to manage the costs of their network and to ensure a profitable business model. These dynamics are driving technology convergence of network features, functions and layers, virtualization of certain network functions, and the adoption of software-based network control and programmability. We believe that these dynamics, and the need to adapt to changing business conditions, are creating an environment that will cause network operators to adopt infrastructures that are more open, programmable and automated. We also believe that these conditions will require vendors and network operators to leverage an open ecosystem of virtualized resources provided by a variety of third parties and will drive increased openness and interoperability of network infrastructures.

In recent periods, we have seen certain of our large service provider customers, including some in North America, take steps to constrain their capital expenditure budgets. This measured spending environment has adversely impacted segments of our market and the spending levels we have experienced from certain of these customers as compared to prior periods. During fiscal 2014 and the first six months of fiscal 2015, we were able to continue to grow total revenue, in part, as a result of our strategy of focusing on certain higher growth segments of the network infrastructure market and the shift in spending toward next-generation solutions that enable network operators to better monetize their network infrastructures. We also benefited from our efforts to diversify our customer base to include additional customer segments, such as Web-scale providers and multi-service operators, and to secure additional service provider customers in geographies including Brazil and India. We believe that our results underscore the importance of having established customer relationships with both traditional communications service providers and Web-scale providers as

their purchasing decisions and focus on open, on-demand network environments become increasingly interdependent. Our broader corporate strategy to capitalize on market dynamics and drive profitable growth of our business includes the initiatives set forth in the "Strategy" section below.

#### Competitive Landscape

We continue to encounter a highly competitive and fragmented marketplace. Our sales of Converged Packet Optical solutions face an intense competitive environment as we and our competitors introduce new, high-capacity, high-speed network solutions and seek adoption of these solutions and our network architectural approach, particularly in metro applications. Our sales of Packet Networking solutions, including our 8700 Packetwave Platform, also face a highly competitive marketplace for data center interconnection and connecting users-to-content, with additional competitors, including traditional IP router

vendors. We expect the current competitive landscape to remain challenging and dynamic. As networking technologies become more software-driven, and network features and layers continue to converge, our competitive landscape continues to broaden beyond traditional competitors. As a result, we are competing with, and expect to compete increasingly with, additional vendors focused on IP routing, information technology and software.

Within these competitive dynamics, maintaining incumbency with key customers domestically and abroad, and securing new opportunities with network operators, often require that we agree to aggressive pricing, significant commercial concessions or other unfavorable commercial terms. These terms have previously and may in the future adversely affect our quarterly results of operations and contribute to fluctuations in our results. These terms can also elongate our revenue recognition or cash collection cycles, add start-up costs to initial sales or deployment of our solutions, require financial commitments or performance bonds, and include onerous contractual commitments that place a disproportionate allocation of risk upon us.

## Strategy

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

**Promotion of Our OP<sup>n</sup> Architecture.** Our OP<sup>n</sup> Architecture enables a programmable infrastructure that brings together the reliability and capacity of optical networking with the flexibility and economics of packet networking technologies. Our OP<sup>n</sup> Architecture leverages this convergence to enable network operators to scale their networks efficiently and cost effectively, while applying advanced software-based network control and network-level software applications for enhanced programmability. The software-driven aspects of this architecture become increasingly important as network operators increasingly seek to leverage an open ecosystem of virtualized resources to enable the real-time analytics and network agility required for on-demand, next-generation network architectures. We see opportunities in offering a portfolio of OP<sup>n</sup> Architecture solutions that facilitate the transition to these next-generation networks and that are optimized to create new services rapidly and to meet end-user demands.

**Research and Development Investment to Expand the Role and Application of Our Solutions.** Our product development initiatives are focused on opportunities that enable Ciena to expand its role in customer networks and to address a more diverse set of network applications. We are investing in our OP<sup>n</sup> Architecture with current development efforts focused on expanding high-capacity service delivery capabilities in our Packet Networking and Converged Packet Optical products for metro networks, data center interconnectivity and wide area network applications. Our research and development efforts also seek to extend our existing technologies, including our WaveLogic coherent optical processor for 200G and 400G optical transport, and to introduce Terabit per second and greater transmission speeds. In the packet area, we are increasing the scale, density and capability of our packet offerings, and reducing power and space requirements, for applications in metro networks, user aggregation and data center connectivity. In the software area, we are focusing on Agility Matrix, our network function virtualization (NFV) solution, in order to provide virtual network functions in managed service applications. We are also focused on increasing programmability and software control of networks. These efforts include our joint initiative with Ericsson to develop an expanded software-defined networking (SDN) multilayer WAN controller that spans network layers, as well as Ciena's direct efforts to develop software-based networking control platforms and network-level software applications.

**Go-to-Market Model to Expand Our Role and Reach.** Our go-to-market model is focused on driving sales growth from the diversification of our business and further penetrating additional customer verticals and international markets. We are also focused on further penetrating Internet content providers, data center operators and other emerging network operators that form the "Web-scale" marketplace, which are changing the ways in which information and services are accessed and provided. To expand the geographic reach of our direct sales resources, we have pursued strategic channel opportunities that enable sales through third parties, including service providers,

systems integrators and value-added resellers. Through the packet-optical resale element of our strategic relationship with Ericsson, we are seeking to expand our geographic reach, as well as the application of our products in customer networks. We also remain focused on expanding the application of our products by existing customers, including communications service provider customers and cable and multiservice operators. These sales efforts seek opportunities for our solutions in applications including metro aggregation, data center interconnectivity, managed services offerings, cloud-based services, business Ethernet services and mobile backhaul.

**Business Optimization to Yield Operating Leverage.** We are actively pursuing initiatives to improve our gross margin, constrain operating expense and redesign certain business processes, systems, and resources. These initiatives include portfolio optimization and engineering efforts to drive improved efficiencies in the design and development of our solutions and procurement initiatives to consolidate vendors and to ensure that our product cost model remains ahead of market-based price erosion. We are also focused on transforming our supply chain, including efforts to reduce our material and overhead costs,

reduce customer lead times and improve inventory management and logistics. Our initiatives also include significant investments in the re-engineering of company-wide enterprise resource planning platforms, improved automation of key business processes and systems, and the off-shoring of certain business functions. We seek to leverage these initiatives to promote the profitable growth of our business and to drive additional operating leverage.

#### Pending Acquisition of Cyan, Inc.

On May 3, 2015, we entered into a definitive merger agreement to acquire Cyan, Inc. (“Cyan”), a leading provider of SDN, NFV and metro packet-optical solutions with fiscal 2014 revenues of approximately \$101.0 million. At the time of the signing of the merger agreement, this stock and cash transaction was valued at approximately \$400.0 million (or \$335.0 million, net of estimated cash acquired) and inclusive of Cyan’s outstanding \$50 million convertible notes on an as-converted basis. This acquisition is intended to advance a strategy that started with the introduction of our OPn architecture and was extended with the launch of our Agility software division in fiscal 2014. Ciena believes that Cyan’s complementary, best-in-class software solutions portfolio, when paired with our Agility portfolio, will strengthen Ciena’s software solutions portfolio and provides orchestration and network management capabilities that accelerate Ciena’s software development strategy and present a longer-term market and revenue opportunity. Ciena believes that this strategic acquisition will accelerate the availability of Ciena to offer a complete, on-demand solution for virtualized networks and services in an open ecosystem, and will enable Ciena to play a leading role in the transformation of the network from the delivery of pure capacity to the creation of capability on-demand.

Subject to the terms and conditions of the merger agreement, at closing each Cyan share will be exchanged for merger consideration equal to the value of 0.224 shares of our common stock, 89% of which will be delivered in our common stock and 11% will be delivered in cash based on the value of our common stock at closing. We plan to pay the cash consideration portion of the merger consideration from cash on hand. In connection with the acquisition, Ciena will also assume Cyan’s \$50 million in outstanding principal amount of 8.0% Convertible Senior Secured Notes due 2019. Under the terms of the indenture governing the notes, for a period following closing, the note holders may elect to convert such notes at an increased conversion rate, or alternatively require that all or a portion of their notes be purchased for cash at a purchase price equal to the principal plus accrued interest. In the event that any note holders do not make either such election, such notes will become obligations of Ciena. Based on the structure of the transaction, Cyan’s outstanding warrants will be deemed to have been automatically exercised upon closing. In addition, Ciena will also assume Cyan’s outstanding equity awards. Certain Cyan officers and directors and affiliated stockholders, including investment funds affiliated with certain directors, who at the time of the signing of the merger agreement collectively controlled approximately 40% of the voting power of the then outstanding shares of Cyan common stock, have entered into voting agreements with Ciena that obligate them to vote in favor of the merger, subject to certain exceptions and limitations. The transaction, which is expected to close in our fourth fiscal quarter of 2015, is subject to approval by Cyan shareholders and satisfaction of certain other customary closing conditions, including the receipt of certain regulatory approvals.

During the second quarter of fiscal 2015, Ciena incurred approximately \$1.0 million of acquisition-related costs associated with this pending transaction. We expect to incur a number of non-recurring costs associated with the merger during the remainder of fiscal 2015. These costs and expenses include fees associated with financial, legal and accounting advisors, facilities and systems consolidation costs, and severance and other potential employment-related costs, including payments that may be made to certain Cyan executives. Some of these costs are payable regardless of whether the merger is completed. We currently expect to incur approximately \$30.0 million of such expenses, with the substantial majority of such costs to be recognized as acquisition and integration costs and restructuring costs during our third and fourth quarters of fiscal 2015.

Except where specifically indicated, the discussion in this “Management’s Discussion and Analysis of Financial Condition and Results of Operations” does not give effect to the possible consummation of the pending acquisition of Cyan and the effect on our results of operations.

Maturity of 4.0% Convertible Senior Notes due 2015



On March 15, 2015, our outstanding 4.0% Convertible Senior Notes due 2015 (the “2015 Notes”) matured. As a result of conversion elections made by holders of a substantial majority of the outstanding 2015 Notes under the terms of the indenture governing the 2015 Notes, together with certain private exchange transactions conducted by us prior to maturity, approximately \$180.6 million in aggregate principal amount of the 2015 Notes, representing 96.3% of the outstanding aggregate principal amount of the 2015 Notes, was settled through the issuance of Ciena common stock at or prior to maturity. In total, we issued approximately 8.9 million shares of Ciena common stock as a result of the conversion elections and private exchange transactions in respect of the 2015 Notes. We repaid in cash approximately \$6.9 million in aggregate principal amount of the 2015 Notes at maturity. See Item 2 of Part II of this report for additional information relating to the issuance of shares of Ciena common stock in connection with the 2015 Notes.

New Product Introduction

We have introduced a number of new product platforms and chipsets during fiscal 2015 and in May 2015 launched our new Waveserver™ product. Waveserver is a stackable data center interconnect (DCI) platform that allows network operators, including Web-scale providers and data center operators, to scale bandwidth quickly and to support high-speed data transfer, virtual machine migration and disaster recovery/backup between data centers. Waveserver is a specialized platform, purpose-built for connecting data centers within a single metro area. It is optimized for the capacity, speed, space and power requirements of data center environments. Waveserver is designed to leverage the data server user experience, with open APIs and server-like deployment, provisioning and programmability via smart devices. Revenue from sales of Waveserver will be included in our Converged Packet Optical segment.

## Financial Results

Revenue for the second quarter of fiscal 2015 was \$621.6 million, representing a sequential increase of 17.5% from \$529.2 million in the first quarter of fiscal 2015. Revenue-related details reflecting sequential changes from the first quarter of fiscal 2015 include:

Product revenue for the second quarter of fiscal 2015 increased by \$89.6 million, reflecting an increase of \$96.4 million in Converged Packet Optical, partially offset by decreases of \$5.9 million in Optical Transport and \$1.7 million in Packet Networking.

Service revenue for the second quarter of fiscal 2015 increased by \$2.9 million.

North America revenue for the second quarter of fiscal 2015 was \$397.2 million, an increase from \$331.5 million in the first quarter of fiscal 2015. This primarily reflects increases of \$73.6 million in Converged Packet Optical, partially offset by decreases of \$4.6 million in Software and Services, \$1.7 million in Packet Networking and \$1.6 million in Optical Transport,

Europe, Middle East and Africa ("EMEA") revenue for the second quarter of fiscal 2015 was \$102.2 million, a decrease from \$111.0 million in the first quarter of fiscal 2015. This primarily reflects decreases of \$3.9 million in Converged Packet Optical, \$2.9 million in Optical Transport and \$1.5 million in Software and Services.

Caribbean and Latin America ("CALA") revenue for the second quarter of fiscal 2015 was \$47.9 million, an increase from \$42.8 million in the first quarter of fiscal 2015. This primarily reflects an increase of \$6.7 million in Converged Packet Optical, partially offset by a \$1.5 million decrease in Optical Transport.

Asia Pacific ("APAC") revenue for the second quarter of fiscal 2015 was \$74.3 million, an increase from \$43.9 million in the first quarter of fiscal 2015. This primarily reflects increases of \$19.9 million in Converged Packet Optical and \$9.8 million in Software and Services.

For the second quarter of fiscal 2015, AT&T accounted for 18.9% of total revenue. This compares to 22.0% of total revenue in the first quarter of fiscal 2015.

Gross margin for the second quarter of fiscal 2015 was 43.8%, an increase from 43.5% in the first quarter of fiscal 2015.

Operating expense was \$230.0 million for the second quarter of fiscal 2015, an increase from \$226.1 million in the first quarter of fiscal 2015. Second quarter fiscal 2015 operating expense primarily reflects increases of \$5.8 million in selling and marketing expense and \$4.4 million in research and development expense, partially offset by a decrease of \$8.1 million in restructuring expense. Operating expense for the second quarter of fiscal 2015 also reflects \$1.0 million in acquisition and integration costs, principally related to legal and accounting service fees, associated with our pending acquisition of Cyan described above.

As a result of the revenue increase discussed above, income from operations for the second quarter of fiscal 2015 was \$42.4 million, compared to income from operations of \$4.2 million during the first quarter of fiscal 2015. Our net income for the second quarter of fiscal 2015 was \$20.7 million, or \$0.17 per diluted common share. This compares to a net loss of \$18.8 million or \$0.17 per diluted common share, for the first quarter of fiscal 2015.

We generated cash from operations of \$37.8 million during the second quarter of fiscal 2015, consisting of \$79.8 million in cash provided by net income adjusted for non-cash charges and a \$42.0 million use of cash related to increases in working capital. This compares with \$22.1 million of cash generated from operations during the first quarter of fiscal 2015, consisting of \$16.4 million in cash provided by net losses adjusted for non-cash charges and \$5.7 million provided by cash related to reductions in working capital.

As of April 30, 2015, we had \$586.3 million in cash and cash equivalents, \$145.1 million of short-term investments in U.S. treasury securities and commercial paper, and \$85.2 million of long-term investments in U.S. treasury securities. This compares

to \$325.1 million in cash and cash equivalents, \$90.1 million of short-term investments in U.S. treasury securities and commercial paper and \$15.0 million of long-term investments in U.S. treasury securities, at April 30, 2014, and \$586.7 million in cash and cash equivalents, \$140.2 million of short-term investments in U.S. treasury securities and commercial paper, and \$50.1 million of long-term investments in U.S. treasury securities at October 31, 2014. As of April 30, 2015, we had 5,108 employees, a decrease from 5,161 at October 31, 2014 and an increase from 4,998 at April 30, 2014.

## Consolidated Results of Operations

### Operating Segments

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

**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 Ciena's family of CoreDirector® Multiservice Optical Switches and the OTN configuration for the 5410 Reconfigurable Switching System. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations. In May 2015, we launched our new Waveserver™ product. Revenue from sales of Waveserver will be included in our Converged Packet Optical segment.

**Packet Networking** — includes Ciena's 3000 family of service delivery switches and service aggregation switches and the 5000 family of service aggregation switches. This segment also includes Ciena's 8700 Packetwave Platform and Ciena's Ethernet packet configuration for the 5410 Service Aggregation Switch. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations.

**Optical Transport** — includes the 4200 Advanced Services Platform, Corestream® Agility Optical Transport System, 5100/5200 Advanced Services Platform, Common Photonic Layer (CPL) and 6100 Multiservice Optical Platform. This segment includes sales from SONET/SDH, transport and data networking products, as well as certain enterprise-oriented transport solutions that support storage and LAN extension, interconnection of data centers, and virtual private networks. This segment also includes operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations.

**Software and Services** — includes Ciena's Agility software portfolio, which includes a SDN multilayer WAN controller, NFV platform, and network level software applications for enabling on-demand, high-bandwidth WAN services delivered in an open network ecosystem. This segment also includes the OneControl Unified Management System, ON-Center® Network & Service Management Suite, Ethernet Services Manager and Optical Suite Release. This segment includes a broad range of services for consulting and network design, installation and deployment, maintenance support and training activities. Except for revenue from the software portion of this segment, which is included in product revenue, revenue from this segment is included in services revenue on the Condensed Consolidated Statement of Operations.

Quarter ended April 30, 2014 compared to the quarter ended April 30, 2015

Revenue

During the first quarter of fiscal 2015, the U.S. dollar strengthened against a number of foreign currencies, including the Canadian Dollar and Euro, in which we have our most significant foreign currency revenue exposure. Consequently, our total revenue reported in U.S. dollars during the second quarter of fiscal 2015 was adversely impacted by approximately \$22.5 million or 3.5% as compared to the second quarter of fiscal 2014. 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	
	2014	%*	2015	%*	(decrease)	%**
Revenue:						
Converged Packet Optical	\$356,840	63.7	\$432,911	69.6	\$76,071	21.3
Packet Networking	66,526	11.9	53,288	8.6	(13,238)	(19.9)
Optical Transport	29,616	5.3	16,454	2.7	(13,162)	(44.4)
Software and Services	107,079	19.1	118,949	19.1	11,870	11.1
Consolidated revenue	\$560,061	100.0	\$621,602	100.0	\$61,541	11.0

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

Converged Packet Optical revenue increased, primarily reflecting a \$74.0 million increase in sales of our 6500 Packet-Optical Platform, largely driven by network operator demand for high-capacity, optical transport for coherent 40G and 100G network infrastructure. Segment revenue also reflects increases of \$3.7 million in sales of our 5430 Reconfigurable Switching System and \$3.4 million in sales of the OTN configuration for the 5410 Reconfigurable Switching System. These increases were partially offset by a \$5.0 million decrease in sales of our CoreDirector® Multiservice Optical Switches. The strong performance of this segment, particularly as compared to the steady declines we have experienced and expect to continue to experience in Optical Transport segment revenue, reflects the preference of network operators to adopt next-generation architectures that enable the convergence of high-capacity, coherent optical transport with integrated OTN switching and control plane functionality.

Packet Networking revenue decreased, reflecting a \$14.9 million decrease in sales of our 3000 and 5000 families of service delivery and aggregation switches. This decrease was partially offset by increases of \$1.2 million in sales of our 8700 Packetwave Platform, which became available for sale in the fourth quarter of fiscal 2014, and \$1.1 million in sales of our 5410 Service Aggregation Switch.

Optical Transport revenue decreased, reflecting decreases of \$7.3 million in sales of our 4200 Advanced Services Platform, \$3.0 million in sales of our other stand-alone transport products and \$2.9 million of our 5100/5200 Advanced Services Platform. Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced meaningful declines in annual revenue in recent years. We expect this trend to continue, reflecting network operators' transition toward next-generation converged network architectures as described above.

Software and Services revenue increased, reflecting increases of \$6.0 million in installation and deployment services revenue, \$2.7 million in maintenance and support services revenue, \$1.8 million in consulting revenue and \$1.4 million in software revenue.

Our operating segments each engage in business and operations across four geographic regions: North America, EMEA, CALA and APAC. Results for North America include only activities in the United States and Canada. The following table reflects our geographic distribution of revenue principally based on the relevant location for our delivery of products and performance of services. Our revenue, particularly when considered by geographic distribution, can fluctuate significantly from quarter to quarter. Among other things, the timing of revenue recognition for large network projects, particularly outside of North America, can result in large variations in geographic revenue results in any particular quarter. The table below (in thousands, except percentage data) sets forth the changes in geographic distribution of revenue for the periods indicated:

	Quarter Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
North America	\$377,769	67.4	397,181	63.9	\$19,412	5.1
EMEA	95,114	17.0	102,194	16.4	7,080	7.4
CALA	40,234	7.2	47,891	7.7	7,657	19.0

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APAC	46,944	8.4	74,336	12.0	27,392	58.4
Total	\$560,061	100.0	\$621,602	100.0	\$61,541	11.0

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\* Denotes % of total revenue

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\*\* Denotes % change from 2014 to 2015

North America revenue reflects increases of \$38.5 million in Converged Packet Optical sales and \$3.9 million in Software and Services sales. These increases were partially offset by decreases of \$13.9 million in Packet Networking sales and \$9.1 million in Optical Transport sales. Converged Packet Optical sales reflect a \$40.6 million increase in sales of our 6500 Packet-Optical Platform, partially offset by a decrease of \$2.4 million in sales of our CoreDirector® Multiservice Optical Switches. Sales of our 6500 Packet-Optical Platform reflect increased sales to AT&T, cable and multiservice operator customers and Web-scale providers, partially offset by decreased sales to certain large communication service provider customers.

EMEA revenue reflects a \$14.6 million increase in sales of Converged Packet Optical sales, partially offset by decreases of \$4.3 million in Software and Services sales and \$3.7 million in Optical Transport sales. Converged Packet Optical sales reflects increases of \$13.7 million in sales of our 6500 Packet-Optical Platform and \$3.5 million in sales of our OTN configuration for the 5410 Reconfigurable Switching System. These increases were partially offset by a \$2.3 million decrease in sales of our CoreDirector® Multiservice Optical Switches. Sales of our 6500 Packet-Optical Platform reflect increased sales to submarine network operators, cable and multiservice operator customers and Web-scale providers, partially offset by decreased sales to certain large communication service providers.

CALA revenue reflects increases of \$4.4 million in Converged Packet Optical sales, \$2.4 million in Software and Services sales and \$1.1 million in Optical Transport sales. Converged Packet Optical sales reflect a \$10.7 million increase in sales of our 6500 Packet-Optical Platform, partially offset by a decrease of \$5.6 million in sales of our 5430 Reconfigurable Switching System.

APAC revenue reflects increases of \$18.6 million in Converged Packet Optical sales and \$10.0 million in Software and Services sales. These increases were partially offset by a \$1.6 million decrease in Optical Transport sales. Converged Packet Optical sales reflect increases of \$11.7 million in sales of our 5430 Reconfigurable Switching System and \$10.5 million in sales of our 6500 Packet-Optical Platform. These increases were partially offset by a \$3.4 million decrease in sales of our OTN configuration for the 5410 Reconfigurable Switching System. Sales of our 6500 Packet-Optical Platform reflect increased sales to submarine network operators and communication service providers.

#### Cost of Goods Sold and Gross Profit

Product cost of goods sold consists primarily of amounts paid to third party contract manufacturers, component costs, employee-related costs and overhead, shipping and logistics costs associated with manufacturing-related operations, warranty and other contractual obligations, royalties, license fees, amortization of intangible assets, cost of excess and obsolete inventory and, when applicable, estimated losses on committed customer contracts.

Services cost of goods sold consists primarily of direct and third party costs, including employee-related costs, associated with our provision of services including installation, deployment, maintenance support, consulting and training activities and, when applicable, estimated losses on committed customer contracts.

Our gross profit as a percentage of revenue, or “gross margin,” is susceptible to fluctuations due to a number of factors. In any given period, gross margin can vary significantly depending upon the mix and concentration of revenue by segment, product line within a particular segment, geography and customers. Gross margin can also be affected by our concentration of lower margin "common" equipment sales and higher margin channel cards, the mix of lower margin installation services within our service revenue, our introduction of new products, and changes in expense for excess and obsolete inventory and warranty obligations. We expect that gross margins will be subject to fluctuation based on our level of success in driving product cost reductions relative to the market-based price erosion we typically encounter. Accordingly gross margin can be adversely affected by the level of pricing pressure and competition that we encounter in the market. In an effort to retain or secure customers, enter new markets or capture market share, we may agree to pricing or other unfavorable commercial terms that result in lower or negative gross margins on a particular order or group of orders. Gross margin can also be affected as a result of our degree of success in



implementing certain optimization initiatives focused on rationalizing our supply chain and consolidating third party contract manufacturers and distribution sites. These factors and market dynamics may result in fluctuation in our results of operations and can adversely affect our gross margin and results of operations in certain periods.

Service gross margin can be affected by the mix of customers and services, particularly the mix between deployment and maintenance services, geographic mix and the timing and extent of any investments in internal resources to support this business.

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

	Quarter Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Total revenue	\$560,061	100.0	\$621,602	100.0	\$61,541	11.0
Total cost of goods sold	322,370	57.6	349,191	56.2	26,821	8.3
Gross profit	\$237,691	42.4	\$272,411	43.8	\$34,720	14.6

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

	Quarter Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Product revenue	\$460,821	100.0	\$511,880	100.0	\$51,059	11.1
Product cost of goods sold	257,632	55.9	286,898	56.0	29,266	11.4
Product gross profit	\$203,189	44.1	\$224,982	44.0	\$21,793	10.7

\* Denotes % of product revenue

\*\* Denotes % change from 2014 to 2015

	Quarter Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Service revenue	\$99,240	100.0	\$109,722	100.0	\$10,482	10.6
Service cost of goods sold	64,738	65.2	62,293	56.8	(2,445 )	(3.8 )
Service gross profit	\$34,502	34.8	\$47,429	43.2	\$12,927	37.5

\* Denotes % of services revenue

\*\* Denotes % change from 2014 to 2015

Gross profit as a percentage of revenue increased as a result of the factors described below.

Gross profit on products as a percentage of product revenue remained relatively unchanged as a result of our relative success in driving product cost reductions and realizing improved manufacturing efficiencies as compared to the market-based price erosion we encountered during the period.

Gross profit on services as a percentage of services revenue increased, primarily due to increased sales of higher margin software subscription services and reductions in repair costs to support maintenance contracts.

#### Operating Expense

We expect operating expense to increase slightly in fiscal 2015 from the level reported for fiscal 2014 to support the growth of our business, to fund our research and development initiatives and to provide for investments in the re-engineering of company-wide enterprise resource planning platforms. Operating expense consists of the component elements described below.

Research and development expense primarily consists of salaries and related employee expense (including share-based compensation expense), prototype costs relating to design, development, and testing of our products, depreciation expense and third-party consulting costs.

Selling and marketing expense primarily consists of salaries, commissions and related employee expense (including share-based compensation expense), and sales and marketing support expense, including travel, demonstration units, trade show expense and third-party consulting costs.



General and administrative expense primarily consists of salaries and related employee expense (including share-based compensation expense), and costs for third-party consulting and other services.

Acquisition and integration costs consist of expenses for financial, legal and accounting advisors, facilities and systems consolidation costs associated with our pending acquisition of Cyan.

Amortization of intangible assets primarily reflects the amortization of purchased technology and customer relationships from our past acquisitions.

Restructuring costs primarily reflect actions Ciena has taken to better align its workforce, facilities and operating costs with perceived market opportunities, business strategies and changes in market and business conditions.

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

	Quarter Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Research and development	\$ 103,492	18.5	\$ 105,202	16.9	\$ 1,710	1.7
Selling and marketing	83,662	14.9	82,471	13.3	(1,191 )	(1.4 )
General and administrative	31,882	5.7	30,302	4.9	(1,580 )	(5.0 )
Acquisition and integration costs	—	—	1,020	0.2	1,020	100.0
Amortization of intangible assets	11,493	2.1	11,019	1.8	(474 )	(4.1 )
Restructuring costs	—	—	(17 )	—	(17 )	n/a
Total operating expenses	\$ 230,529	41.2	\$ 229,997	37.1	\$ (532 )	(0.2 )

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

Research and development expense benefited from \$6.4 million as a result of foreign exchange rates, net of hedging, primarily due to a stronger U.S. dollar in relation to the Canadian Dollar. Including the benefit from foreign exchange rates, research and development expenses increased by \$1.7 million, primarily reflecting increases of \$1.8 million in facilities and information technology costs and a \$1.7 million reduction in reimbursements from our strategic jobs investment fund grant from the province of Ontario, partially offset by a \$2.0 million decrease in professional services.

Selling and marketing expense benefited from \$5.1 million as a result of foreign exchange rates, primarily due to a stronger U.S. dollar in relation to the Euro and the Canadian Dollar. Including the benefit from foreign exchange rates, selling and marketing expense decreased by \$1.2 million, primarily reflecting a decrease in travel and related costs.

General and administrative expense benefited from \$1.2 million as a result of foreign exchange rates, primarily due to a stronger U.S. dollar in relation to the Euro. Including the benefit from foreign exchange rates, general and administrative expense decreased by \$1.6 million, primarily due to a decrease in legal fees and other consulting services.

Acquisition and integration costs reflect approximately \$1.0 million of legal and accounting costs associated with the pending acquisition of Cyan.

Amortization of intangible assets decreased due to certain intangible assets having reached the end of their economic lives.

Restructuring costs remained relatively unchanged.

Other items

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



	Quarter Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Interest and other income (loss), net	\$(1,905 )	(0.3 )	\$(5,549 )	(0.9 )	\$(3,644 )	191.3
Interest expense	\$11,020	2.0	\$12,947	2.1	\$1,927	17.5
Provision for income taxes	\$4,395	0.8	\$3,265	0.5	\$(1,130 )	(25.7 )

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

Interest and other income (loss), net reflects a \$4.2 million loss due to the remeasurement of assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity, partially offset by a \$1.5 million non-cash gain related to the change in fair value of the embedded redemption feature associated with our 2015 Notes which matured during the second quarter of fiscal 2015.

Interest expense increased primarily due to the Term Loan that was entered into in the third quarter of fiscal 2014. For additional information about our Term Loan, see Note 15 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Provision for income taxes decreased primarily due to foreign tax expense, which is largely a result of reductions in income from our Brazilian operations.

Six months ended April 30, 2014 compared to the six months ended April 30, 2015

#### Revenue

During the first six months of fiscal 2015, as compared to the first six months of fiscal 2014, the U.S. dollar strengthened against a number of foreign currencies, including the Canadian Dollar and Euro, in which we have our most significant foreign currency revenue exposure. Consequently, our total revenue reported in U.S. dollars was adversely impacted by approximately \$32.8 million or 2.8% as compared to the first six months of fiscal 2014. The table below (in thousands, except percentage data) sets forth the changes in our operating segment revenue for the periods indicated:

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Revenue:						
Converged Packet Optical	\$690,241	63.1	\$769,471	66.9	\$79,230	11.5
Packet Networking	118,235	10.8	108,271	9.4	(9,964 )	(8.4 )
Optical Transport	69,713	6.4	38,793	3.4	(30,920 )	(44.4 )
Software and Services	215,575	19.7	234,229	20.3	18,654	8.7
Consolidated revenue	\$1,093,764	100.0	\$1,150,764	100.0	\$57,000	5.2

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

Converged Packet Optical revenue increased reflecting an \$88.2 million increase in sales of our 6500 Packet-Optical Platform, largely driven by service provider demand for high-capacity, optical transport for coherent 40G and 100G network infrastructures. In addition, sales of the OTN configuration for the 5410 Reconfigurable Switching System and our 5430 reconfigurable switching system increased by \$5.9 million and \$1.8 million respectively. These increases were partially offset by a \$16.7 million decrease in sales of our CoreDirector® Multiservice Optical Switches. The strong performance of this segment, particularly as compared to the expected revenue declines in Optical Transport segment revenue, reflects the preference of network operators to adopt next-generation architectures that enable the convergence of high-capacity, coherent optical transport with integrated OTN switching and control plane functionality.

Packet Networking revenue decreased reflecting decreases of \$10.0 million in sales of our 3000 and 5000 families of service delivery and aggregation switches, \$1.9 million in sales of our legacy broadband products and \$1.0 million in sales of our 5410 Service Aggregation Switch to support wireless backhaul, Ethernet business services and residential

broadband applications. These decreases were offset by a \$3.0 million increase in sales of our 8700 Packetwave Platform, which became available for sale in the fourth quarter of fiscal 2014.

Optical Transport revenue decreased reflecting sales decreases of \$12.1 million of 5100/5200 Advanced Services Platform, \$11.9 million in our 4200 Advanced Services Platform, and \$6.9 million in other stand-alone transport products. Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced meaningful declines in annual revenue in recent years, reflecting network operators' transition toward next-generation network architectures as described above.

Software and Services revenue increased reflecting increases of \$8.4 million in maintenance and support services, \$5.4 million in installation and deployment services, \$2.7 million in network transformation consulting services and \$2.1 million in software sales.

Revenue from sales to customers outside of the United States is reflected as International in the geographic distribution of revenue below. The table below (in thousands, except percentage data) sets forth the changes in geographic distribution of revenue for the periods indicated:

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
North America	\$733,617	67.1	\$728,716	63.3	\$(4,901)	(0.7)
EMEA	183,833	16.8	213,200	18.5	29,367	16.0
CALA	92,915	8.5	90,633	7.9	(2,282)	(2.5)
APAC	83,399	7.6	118,215	10.3	34,816	41.7
Total	\$1,093,764	100.0	\$1,150,764	100.0	\$57,000	5.2

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

North America revenue reflects decreases of \$22.7 million in Optical Transport sales and \$9.1 million in Packet Networking sales. These decreases were partially offset by increases of \$19.0 million in Converged Packet Optical sales and \$7.9 million in Software and Services sales. Optical Transport sales reflect decreases of \$14.1 million of sales of our other stand-alone transport products and \$8.4 million of sales of our 4200 Advanced Services Platform. Converged Packet Optical sales reflect an increase of \$31.7 million of sales of our 6500 Packet-Optical Platform, partially offset by a decrease of \$12.9 million of sales of our CoreDirector® Multiservice Optical Switches. Sales of our 6500 Packet-Optical Platform reflect increased sales to AT&T, cable and multiservice operator customers and Web-scale providers, partially offset by decreased sales to certain large communication service provider customers. EMEA revenue reflects a \$41.4 million increase in sales of Converged Packet Optical. This increase was partially offset by decreases of \$6.2 million in Optical Transport sales and \$5.4 million in Software and Services sales. Converged Packet Optical sales reflect increases of \$36.9 million of sales of our 6500 Packet-Optical Platform and \$4.3 million of sales of our 5430 Reconfigurable Switching System. Sales of our 6500 Packet-Optical Platform reflect increased sales to submarine network operators, Web-scale providers, certain large communication service providers and cable and multiservice operator customers.

CALA revenue reflects a \$9.6 million decrease in Converged Packet Optical sales. This decrease was partially offset by increases of \$6.6 million in Software and Services sales and \$1.1 million in Optical Transport sales. Converged Packet Optical sales reflect a \$19.7 million decrease in sales of our 5430 Reconfigurable Switching System. This decrease was partially offset by increases of \$8.6 million in sales of our 6500 Packet-Optical Platform and \$2.4 million of sales of our 5410 Reconfigurable Switching System.

APAC revenue reflects increases of \$28.4 million in Converged Packet Optical sales and \$9.6 million in Software and Services sales. These increases were partially offset by a \$3.2 million decrease in sales of Optical Transport. Converged Packet Optical sales reflect increases of \$18.7 million of sales of our 5430 Reconfigurable Switching System and \$12.2 million of sales of our 6500 Packet-Optical Platform. These increases were partially offset by a decrease of \$2.5 million of sales of our 5410 Reconfigurable Switching System. Sales of our 5430 Reconfigurable Switching System reflect increased sales to communication service providers and submarine network operators. Sales



of our 6500 Packet-Optical Platform reflect increased sales to communication service providers and sales through our strategic relationship with Ericsson.

## Cost of Goods Sold and Gross Profit

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

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Total revenue	\$1,093,764	100.0	\$1,150,764	100.0	\$57,000	5.2
Total cost of goods sold	630,222	57.6	648,058	56.3	17,836	2.8
Gross profit	\$463,542	42.4	\$502,706	43.7	\$39,164	8.4

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Product revenue	\$893,762	100.0	\$934,195	100.0	\$40,433	4.5
Product cost of goods sold	502,848	56.3	523,446	56.0	20,598	4.1
Product gross profit	\$390,914	43.7	\$410,749	44.0	\$19,835	5.1

\* Denotes % of product revenue

\*\* Denotes % change from 2014 to 2015

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Service revenue	\$200,002	100.0	\$216,569	100.0	\$16,567	8.3
Service cost of goods sold	127,374	63.7	124,612	57.5	(2,762)	(2.2)
Service gross profit	\$72,628	36.3	\$91,957	42.5	\$19,329	26.6

\* Denotes % of services revenue

\*\* Denotes % change from 2014 to 2015

Gross profit as a percentage of revenue increased as a result of the factors described below.

Gross profit on products as a percentage of product revenue remained relatively unchanged as a result of our relative success in driving product cost reductions and realizing improved manufacturing efficiencies as compared to the market-based price erosion we encountered during the period.

Gross profit on services as a percentage of services revenue increased primarily due to increased sales of higher margin software subscription services and reduced repair costs to support maintenance service contracts.

## Operating Expense

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

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Research and development	\$204,989	18.7	\$205,963	17.9	\$974	0.5
Selling and marketing	162,010	14.8	159,183	13.8	(2,827)	(1.7)
General and administrative	61,979	5.7	59,855	5.2	(2,124)	(3.4)
Acquisition and integration costs	—	—	1,020	0.1	1,020	—
Amortization of intangible assets	23,932	2.2	22,038	1.9	(1,894)	(7.9)
Restructuring costs	115	—	8,068	0.7	7,953	—
Total operating expenses	\$453,025	41.4	\$456,127	39.6	\$3,102	0.7

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015

Research and development expense benefited \$10.9 million, as a result of foreign exchange rates, net of hedging, primarily due a stronger U.S. dollar in relation to the Canadian dollar. Including this benefit, research and development expenses increased by \$1.0 million primarily reflecting increases of \$3.5 million in facilities and information systems expense, \$1.4 million in employee compensation and related costs, \$1.0 million in technology and related costs and a \$1.7 million reduction in reimbursements from our strategic jobs investment fund grant from the province of Ontario. These increases were partially offset by decreases of \$5.0 million in professional services and \$2.0 million in prototype expense.

Selling and marketing expense benefited \$7.7 million as a result of foreign exchange rates, primarily due to a stronger U.S. dollar in relation to the Euro and Canadian dollar. Including this benefit, selling and marketing expenses decreased by \$2.8 million, primarily reflecting decreases of \$1.8 million of travel and related costs, and \$1.0 million in professional services.

General and administrative expense benefited \$1.9 million as a result of foreign exchange rates, primarily due to a stronger U.S. dollar in relation to the Euro and Canadian dollar. Including this benefit, general and administrative expense decreased by \$2.1 million primarily reflecting a decrease of \$4.0 million in professional services, partially offset by an increase of \$1.3 million in employee compensation and related costs.

Acquisition and integration costs reflect approximately \$1.0 million of legal and accounting costs associated with the pending acquisition of Cyan.

Amortization of intangible assets decreased due to certain intangible assets having reached the end of their economic lives.

Restructuring costs primarily reflect certain severance and related expense associated with headcount reductions and initiatives to improve efficiency. During fiscal 2015, we have incurred approximately \$8.1 million in restructuring costs, reflecting a global workforce reduction of approximately 125 employees in the first quarter of fiscal 2015 as part of our business optimization strategy to improve our gross margin, constrain operating expense and redesign certain business processes, systems, and resources. As we look to manage operating expense and drive further efficiency and leverage from our operations, we will continue to assess allocation of headcount, facilities and other resources to ensure that they are optimized toward key growth opportunities.

#### Other items

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

	Six Months Ended April 30,				Increase	
	2014	%*	2015	%*	(decrease)	%**
Interest and other income (loss), net	\$(7,903)	(0.7)	\$(13,782)	(1.2)	\$(5,879)	74.4
Interest expense	\$22,048	2.0	\$26,608	2.3	\$4,560	20.7
Provision for income taxes	\$6,660	0.6	\$4,315	0.4	\$(2,345)	(35.2)

\* Denotes % of total revenue

\*\* Denotes % change from 2014 to 2015



Interest and other income (loss), net reflects a \$7.6 million loss due to the remeasurement of assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity, partially offset by a \$2.6 million non-cash gain related to the change in fair value of the embedded redemption feature associated with our 2015 Notes that matured in the second quarter of fiscal 2015.

Interest expense increased primarily due to the Term Loan entered into in the third quarter of fiscal 2014. For additional information about our Term Loan, see Note 15 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Provision for income taxes decreased primarily due to foreign tax expense, which is largely a result of reduced income from our Brazilian operations.

### Segment Profit

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

	Quarter Ended April 30,			
	2014	2015	Increase (decrease)	%*
Segment profit:				
Converged Packet Optical	\$96,581	\$121,772	\$25,191	26.1
Packet Networking	\$8,196	\$4,751	\$(3,445)	(42.0)
Optical Transport	\$4,709	\$4,729	\$20	0.4
Software and Services	\$24,713	\$35,957	\$11,244	45.5

\* Denotes % change from 2014 to 2015

Converged Packet Optical segment profit increased, primarily due to increased sales volume partially offset by lower gross margin and increased research and development expense. Increased sales volume is largely driven by service provider demand for convergence of high-capacity, coherent 40G and 100G network infrastructures with integrated OTN switching and control plane functionality.

Packet Networking segment profit decreased primarily due to decreased sales volume, partially offset by reductions in research and development costs.

Optical Transport segment profit remained relatively unchanged as a result of higher gross margin on reduced sales volume. Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced in recent years, and we expect will continue to experience, meaningful declines in annual revenue, reflecting network operators' transition toward next-generation network architectures as described above.

Software and Services segment profit increased primarily due to increases in sales of installation services, software subscription services, support and consulting services, and increased margin due to lower repair costs to support maintenance service contracts. These increases were partially offset by increases in software research and development expense.

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

	Six Months Ended April 30,			
	2014	2015	Increase (decrease)	%*
Segment profit:				
Converged Packet Optical	\$ 175,279	\$ 204,429	\$ 29,150	16.6
Packet Networking	\$ 8,581	\$ 11,282	\$ 2,701	31.5
Optical Transport	\$ 20,359	\$ 10,615	\$ (9,744)	(47.9)
Software and Services	\$ 54,334	\$ 70,417	\$ 16,083	29.6

\* Denotes % change from 2014 to 2015

Converged Packet Optical segment profit increased, primarily due to increased sales volume, partially offset by increased research and development expense. Increased sales volume is largely driven by service provider demand for convergence of high-capacity, coherent 40G and 100G network infrastructures with integrated OTN switching and control plane functionality.

Packet Networking segment profit increased due to reduced research and development costs, partially offset by lower sales volume and lower gross margin.

Optical Transport segment profit decreased, primarily due to reduced sales volume and decreased gross margin.

Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced meaningful declines in annual revenue in recent years, reflecting network operators' transition toward next-generation network architectures as described above.

Software and Services segment profit increased primarily due to increases in sales of installation services, software subscription services, support and consulting services, and increased margin due to lower repair costs to support maintenance service contracts. These increases were partially offset by increased software research and development expense.

#### Liquidity and Capital Resources

At April 30, 2015, our principal sources of liquidity were cash and cash equivalents, investments in marketable debt securities, representing U.S. treasuries and commercial paper, and our ABL Credit Facility. The following table sets forth changes in our cash and cash equivalents and investments in marketable debt securities (in thousands):

	October 31, 2014	April 30, 2015	Increase (decrease)
Cash and cash equivalents	\$ 586,720	\$ 586,338	\$(382)
Short-term investments in marketable debt securities	140,205	145,089	4,884
Long-term investments in marketable debt securities	50,057	85,233	35,176
Total cash and cash equivalents and investments in marketable debt securities	\$ 776,982	\$ 816,660	\$ 39,678

The change in total cash and cash equivalents and investments in marketable debt securities during the first six months of fiscal 2015 was primarily related to the following:

- \$59.9 million cash generated from operations, consisting of \$96.2 million provided by net income (adjusted for non-cash charges) offset by \$36.3 million used in working capital;

- \$21.9 million used for purchases of equipment, furniture, and fixtures and intellectual property;

- \$10.4 million provided by settlement of foreign currency forward contracts, net;

- \$4.7 million used to pay capital lease obligations;

- \$2.0 million used for the purchase of a cost method investment;

- \$8.2 million used for repayment of long-term debt;

\$10.0 million provided by stock issuances under our employee stock purchase plan and exercise of stock options; and \$3.3 million decrease due to the effect of exchange rate changes on cash and cash equivalents.

Ciena and certain of its subsidiaries are parties to a senior secured asset-based revolving credit facility (the “ABL Credit Facility”) providing for a total commitment of \$200.0 million with a maturity date of December 31, 2016. 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, 2015, letters of credit totaling \$60.4 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of April 30, 2015.

We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our operating plans and may consider capital raising and other market opportunities that may be available to us. Based on past performance and current expectations, we believe that our cash, cash equivalents, investments and other sources of liquidity, including our ABL Credit Facility, will satisfy the working capital needs, capital expenditures, and other liquidity requirements associated with our operations through at least the next 12 months. In assessing these liquidity requirements, we have considered the expected payments relating to the cash component of the merger consideration to be paid upon closing of our pending acquisition of Cyan and related acquisition, integration and restructuring costs. The following sections set forth the components of our \$59.9 million of cash generated from operating activities during the first six months of fiscal 2015:

Net income (adjusted for non-cash charges)

The following table sets forth (in thousands) our net income (adjusted for non-cash charges) during the period:

	Six months ended April 30, 2015
Net income	\$1,874
Adjustments for non-cash charges:	
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	27,322
Share-based compensation costs	22,136
Amortization of intangible assets	26,439
Provision for inventory excess and obsolescence	10,834
Provision for warranty	7,658
Other	(94)
Net income (adjusted for non-cash charges)	\$96,169

#### Working Capital

##### Accounts Receivable, Net

Cash used by accounts receivable during the first six months of fiscal 2015, net of a \$0.6 million provision for doubtful accounts, was \$34.9 million. Our days sales outstanding (DSOs) increased from 85 days for the first six months of fiscal 2014 to 87 days for the first six months of fiscal 2015.

The following table sets forth (in thousands) changes to our accounts receivable, net of allowance for doubtful accounts, from the end of fiscal 2014 through the end of the second quarter of fiscal 2015:

	October 31, 2014	April 30, 2015	Increase (decrease)
Accounts receivable, net	\$518,981	\$553,306	\$34,325

##### Inventory

Cash generated from decreases in inventory during the first six months of fiscal 2015 was \$29.2 million. Our inventory turns increased from 3.4 turns during the first six months of fiscal 2014 to 4.9 turns during the first six



months of fiscal 2015. Our inventory balance, as reported on our Condensed Consolidated Balance Sheet, decreased by \$40.1 million during the first six months of fiscal 2015 reflecting, in part, certain supply chain initiatives to improve manufacturing efficiencies and inventory management and the reduction of deferred costs of sales. The reduction of the deferred costs of sales relates to the completion of certain submarine network projects. This change reflects \$29.2 million of cash provided by inventory and a

\$10.8 million non-cash provision for excess and obsolescence. The following table sets forth (in thousands) changes to the components of our inventory from the end of fiscal 2014 through the end of the second quarter of fiscal 2015:

	October 31, 2014	April 30, 2015	Increase (decrease)
Raw materials	\$64,853	\$57,343	\$(7,510 )
Work-in-process	8,371	10,567	2,196
Finished goods	165,799	147,825	(17,974 )
Deferred cost of goods sold	75,763	50,951	(24,812 )
Gross inventory	314,786	266,686	(48,100 )
Provision for inventory excess and obsolescence	(60,126 )	(52,093 )	8,033
Inventory	\$254,660	\$214,593	\$(40,067 )

#### Prepaid expense and other

Cash used in prepaid expense and other during the first six months of fiscal 2015 was \$4.1 million, reflecting higher prepaid value added taxes partially offset by lower deferred deployment costs.

#### Accounts payable, accruals and other obligations

Utilization of cash resources for accounts payable, accruals and other obligations during the first six months of fiscal 2015 was \$39.8 million. This amount reflects a \$16.4 million decrease in our accounts payable, accruals and other obligations plus additional liabilities recorded for the following items: \$1.5 million related to our foreign currency forward contracts, \$2.2 million related to our forward starting interest rate swap and \$7.7 million relating to warranties, \$5.3 million for financing activities relating to unpaid capital leases and \$6.8 million for investing activities related to equipment purchases.

The following table sets forth (in thousands) changes in our accounts payable, accruals and other obligations from the end of fiscal 2014 through the end of the second quarter of fiscal 2015:

	October 31, 2014	April 30, 2015	Increase (decrease)
Accounts payable	\$209,777	\$210,002	\$225
Accrued liabilities	276,608	253,871	(22,737 )
Other long-term obligations	45,390	51,456	6,066
Accounts payable, accruals and other obligations	\$531,775	\$515,329	\$(16,446 )

#### Interest Paid on Convertible Notes, ABL Credit Facility and Term Loan

The final interest payment owing on our 4.0% convertible senior notes, due March 15, 2015, was paid during the second fiscal quarter of 2015. We paid \$3.8 million of interest on these convertible notes during the first six months of fiscal 2015.

Interest on our outstanding 0.875% convertible senior notes, due June 15, 2017, is payable on June 15 and December 15 of each year. We paid \$2.2 million in interest on these convertible notes during the first six months of fiscal 2015.

Interest on our outstanding 3.75% convertible senior notes, due October 15, 2018, is payable on April 15 and October 15 of each year. We paid \$6.6 million in interest on these convertible notes during the first six months of fiscal 2015.

Interest on our outstanding 4.0% convertible senior notes, due December 15, 2020, is payable on June 15 and December 15 of each year. We paid \$3.8 million in interest on these convertible notes during the first six months of fiscal 2015.

Interest on our outstanding Term Loan, due July 15, 2019, is payable periodically based on the underlying market index rate selected for borrowing. We paid \$4.7 million in interest on this term loan during the first six months of fiscal 2015.

During the first six months of fiscal 2015, we utilized the ABL Credit Facility to collateralize certain standby letters of credit. We paid \$0.9 million in commitment fees, interest expense and other administrative charges relating to our ABL Credit Facility during the first six months of fiscal 2015.

For additional information about our convertible notes and Term Loan, see Note 15 to our Condensed Consolidated Financial Statements included in in Item 1 of Part I of this report.

#### Deferred revenue

Deferred revenue increased by \$13.3 million during the first six months of fiscal 2015. Product deferred revenue represents either payments received in advance of shipment or payments received after shipment but before revenue recognition. Services deferred revenue is related to payment for service contracts for which revenue will be recognized over the contract term. The following table reflects (in thousands) the balance of deferred revenue and the change in this balance from the end of fiscal 2014 through the first six months of fiscal 2015:

	October 31, 2014	April 30, 2015	Increase (decrease)
Products	\$50,457	\$57,481	\$7,024
Services	95,161	101,484	6,323
Total deferred revenue	\$145,618	\$158,965	\$13,347

#### Contractual Obligations

On October 23, 2014, Ciena Canada, Inc., a subsidiary of Ciena, entered into a lease agreement to lease an office building located at 5050 Innovation Drive, Ottawa, Canada. On April 15, 2015, Ciena Canada, Inc. entered into a work letter and a lease agreement related to the construction and lease of two new office buildings in Ottawa, Canada, consisting of a rentable area of approximately 254,318 square feet, that will be built adjacent to the premises subject to the October 2014 lease. These facilities are expected to be part of a future campus that will replace Ciena's largest facility and a key research and development center located in the "Lab 10" building on the former Nortel Carling Campus in Ottawa, Canada. With respect to the lease entered into in the second quarter of fiscal 2015, the future minimum rental commitments to be paid over the 15-year lease term are approximately CAD\$112.9 million.

The following is a summary of our future minimum payments under contractual obligations as of April 30, 2015 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Principal due at maturity on convertible notes (1)	\$1,067,127	\$—	\$500,000	\$350,000	\$217,127
Principal due on Term Loan	248,125	2,500	5,000	240,625	—
Interest due on convertible notes	101,875	25,000	47,813	21,562	7,500
Interest due on Term Loan (2)	39,321	9,428	18,519	11,374	—
Operating leases (3)	149,020	33,336	52,248	21,121	42,315
Purchase obligations (4)	181,795	181,795	—	—	—
Capital leases— equipment	7,952	6,252	1,700	—	—
Capital leases— buildings (5)	137,981	1,698	8,837	15,938	111,508
Other obligations	4,242	3,339	903	—	—
Total (6)	\$1,937,438	\$263,348	\$635,020	\$660,620	\$378,450

(1)

Includes the accretion of the principal amount on the 2020 Notes payable at maturity at a rate of 1.85% per year compounded semi-annually, commencing December 27, 2012.

(2) Interest on the Term Loan is variable and was calculated using the rate in effect on the balance sheet date.

(3) Does not include variable insurance, taxes, maintenance and other costs required by the applicable operating lease. These costs are not expected to have a material future impact.

Purchase obligations relate to purchase order commitments to our contract manufacturers and component suppliers (4) for inventory. In certain instances, we are permitted to cancel, reschedule or adjust these orders. Consequently, only a portion of the amount reported above relates to firm, non-cancelable and unconditional obligations.

This represents the total minimum lease payments due for all buildings that are subject to capital lease accounting, as well as buildings that are expected to be recorded as capital leases upon the commencement of the lease term. (5) Payment timing is based on the expected commencement of the lease term. Does not include variable insurance, taxes, maintenance and other costs required by the applicable capital lease. These costs are not expected to have a material future impact.

As of April 30, 2015, we also had approximately \$14.1 million of other long-term obligations in our Condensed (6) Consolidated Balance Sheet for unrecognized tax positions that are not included in this table because the timing of any cash settlement with the respective tax authority cannot be reasonably estimated.

Some of our commercial commitments, including some of the future minimum payments in operating leases set forth above and certain commitments to customers, are secured by standby letters of credit collateralized under our ABL Credit Facility or restricted cash. Restricted cash balances are included in other current assets or other long-term assets depending upon the duration of the underlying letter of credit obligation. The following is a summary of our commercial commitments secured by standby letters of credit by commitment expiration date as of April 30, 2015 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Standby letters of credit	\$60,385	\$31,976	\$14,133	\$6,278	\$7,998

#### Off-Balance Sheet Arrangements

We do not engage in any off-balance sheet financing arrangements. In particular, we do not have any equity interests in so-called limited purpose entities, which include special purpose entities (SPEs) and structured finance entities.

#### Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expense, and related disclosure of contingent assets and liabilities. By their nature, these estimates and judgments are subject to an inherent degree of uncertainty. On an ongoing basis, we reevaluate our estimates, including those related to share-based compensation, bad debts, inventories, intangible and other long-lived assets, income taxes, warranty obligations, restructuring, derivatives and hedging, and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Among other things, these estimates form the basis for judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. To the extent that there are material differences between our estimates and actual results, our consolidated financial statements will be affected.

We believe that the following critical accounting policies reflect those areas where significant judgments and estimates are used in the preparation of our consolidated financial statements.

#### Revenue Recognition

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

We apply the percentage-of-completion method to long-term arrangements where we are required to undertake significant production, customization or modification engineering, and reasonable and reliable estimates of revenue and cost are available.

Utilizing the percentage-of-completion method, we recognize revenue based on the ratio of actual costs incurred to date to total estimated costs expected to be incurred. In instances that do not meet the percentage-of-completion method criteria, recognition of revenue is deferred until there are no uncertainties regarding customer acceptance. Unbilled percentage- of-completion revenues recognized are included in accounts receivable, net. Billings in excess of revenues recognized on these contracts are recorded within deferred revenue. The percentage of total revenue recognized using the percentage-of-completion method for the first six months ended April 30, 2014 and April 30, 2015 were 2.9% and 1.7%, respectively.

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.

We limit 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. We determine the selling price for each deliverable based upon the selling price hierarchy for multiple-deliverable arrangements. Under this hierarchy, we use 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, we use our 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 our pricing and discounting practices for the specific product or service when sold separately. In determining whether VSOE exists, we require that a substantial majority of the selling prices for a product or service fall within a reasonably narrow pricing range. We have generally been unable to establish TPE of selling price because our go-to-market strategy differs from that of others in our markets, and the extent of customization and differentiated features and functions varies among comparable products or services from our peers. We determine 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.

Our total deferred revenue for products was \$50.5 million and \$57.5 million as of October 31, 2014 and April 30, 2015, respectively. Our services revenue is deferred and recognized ratably over the period during which the services are to be performed. Our total deferred revenue for services was \$95.2 million and \$101.5 million as of October 31, 2014 and April 30, 2015, respectively.

#### Share-Based Compensation

We estimate the fair value of our restricted stock unit awards based on the fair value of our common stock on the date of grant. Our outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. We recognize the estimated fair value of service-based awards, net of estimated forfeitures, as share-based expense ratably over the vesting period on a straight-line basis. Awards with performance-based vesting conditions require the achievement of certain financial or other performance criteria or targets as a condition to the vesting, or acceleration of vesting. We recognize 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 our determination of



whether it is probable that the performance targets will be achieved. At each reporting period, we reassess the probability of achieving the performance targets and the performance period required to meet those targets and the expense is adjusted accordingly. Determining whether the performance targets will be achieved involves judgment, and the estimate of expense may be revised periodically based on changes in 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 cost is reversed.

Because share-based compensation expense is based on awards that are ultimately expected to vest, the amount of expense takes into account estimated forfeitures. We estimate forfeitures at the time of grant and revise these estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Changes in these estimates and assumptions can materially affect the measurement of estimated fair value of our share-based compensation. See Note 18 to our Condensed Consolidated Financial Statements in Item 1 of Part I of this report for information regarding our assumptions related to share-based compensation and the amount of share-based compensation expense we incurred for the periods covered in this report. As of April 30, 2015, total unrecognized compensation expense was \$78.9 million, which relates to unvested restricted stock units and this expense is expected to be recognized over a weighted-average period of 1.6 years.

We recognize 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 us upon an employee's disposition of a share-based award exceeds the deferred tax asset, if any, associated with the award that we had recorded. When assessing whether a tax benefit relating to share-based compensation has been realized, we follow 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 our 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 our 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.

#### Incentive Compensation Expense

We provide incentive-based compensation opportunities to employees through cash incentive awards and, as described in "Share-Based Compensation" above, performance-based equity awards. The expense associated with these awards is reflected as a component of employee-related expense within our operating expense and costs of goods sold, as applicable.

For fiscal 2015, the Compensation Committee has approved an annual cash incentive arrangement generally applicable to full-time employees excluding commissioned salespersons, with the aggregate amount of any awards payable dependent upon the achievement of certain financial and operational goals for fiscal 2015. Given that the awards are generally contingent upon achieving annual objectives, the payment of cash incentive awards is not expected to be made until after fiscal year-end results are finalized. As a result, the expense that we accrue for incentive compensation in any interim period in fiscal 2015 is based upon estimates of expected financial results for the year and expected performance against relevant operating objectives. Because assessing actual performance against many of these objectives cannot generally occur until at or near fiscal year-end, determining the amount of expense that we incur in our interim financial statements for incentive compensation involves the judgment of management. Amounts accrued are subject to change in future interim periods if actual future financial results or operational performance are better or worse than expected. We incurred an aggregate of \$26.3 million of expense in the first six months of fiscal 2015 associated with our cash incentive bonus plan for fiscal 2015.

#### Reserve for Inventory Obsolescence

We make estimates about future customer demand for our products when establishing the appropriate reserve for excess and obsolete inventory. We write down inventory that has become obsolete or unmarketable by an amount equal to the difference between the cost of inventory and the estimated market value based on assumptions about future demand and market conditions. Inventory write downs are a component of our product cost of goods sold. Upon recognition of the write down, a new lower cost basis for that inventory is established, and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis. In an effort to limit our exposure to delivery delays and to satisfy customer needs we purchase inventory based on forecasted sales across our product lines. In addition, part of our research and development strategy is to promote the convergence of similar features and functionalities across our product lines. Each of these practices exposes us to the risk that our customers will not order products for which we have forecasted sales, or will purchase less than we have forecasted. Historically, we have experienced write downs due to changes in our strategic direction, discontinuance of a product and declines in market conditions. We recorded charges for excess and obsolete inventory of \$13.0 million and \$10.8 million in the first six months of fiscal 2014 and 2015, respectively. The charges in fiscal 2015 primarily related to the discontinuance of certain parts and components used in the manufacture of Converged Packet Optical products and decreases in forecasted demand for our legacy, stand-alone WDM and SONET/SDH-based transport platforms and our 5410 Service Aggregation Switch. Our inventory net of allowance for excess and obsolescence was \$254.7 million and \$214.6 million as of October 31, 2014 and April 30, 2015, respectively.

#### Allowance for Doubtful Accounts Receivable

Our allowance for doubtful accounts receivable is based on management's assessment, on a specific identification basis, of the collectibility of customer accounts. We perform ongoing credit evaluations of our customers and generally have not required collateral or other forms of security from customers. In determining the appropriate balance for our allowance for doubtful accounts receivable, management considers each individual customer account receivable in order to determine collectibility. In doing so, we consider creditworthiness, payment history, account activity and communication with such customer. If a customer's financial condition changes, or if actual defaults are higher than our historical experience, we may be required to take a charge for an allowance for doubtful accounts receivable which could have an adverse impact on our results of operations. Our accounts receivable, net of allowance for doubtful accounts, was \$519.0 million and \$553.3 million as of

October 31, 2014 and April 30, 2015, respectively. Our allowance for doubtful accounts was \$2.1 million and \$2.4 million as of October 31, 2014 and April 30, 2015, respectively.

#### Long-lived Assets

Our long-lived assets include: equipment, building, furniture and fixtures, finite-lived intangible assets and maintenance spares. As of October 31, 2014 and April 30, 2015, these assets totaled \$309.4 million and \$302.8 million, net, respectively. We test long-lived assets for impairment whenever events or changes in circumstances indicate that the assets' carrying amount is not recoverable from its undiscounted cash flows. Our long-lived assets are assigned to asset groups which represent the lowest level for which we identify cash flows. We measure impairment loss as the amount by which the carrying amount of the asset or asset group exceeds its fair value.

#### Deferred Tax Valuation Allowance

As of April 30, 2015, we have recorded a valuation allowance offsetting substantially all our net deferred tax assets of \$1.5 billion. When measuring the need for a valuation allowance, we assess both positive and negative evidence regarding the realizability of these deferred tax assets. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. In determining net deferred tax assets and valuation allowances, management is required to make judgments and estimates related to projections of profitability, the timing and extent of the utilization of net operating loss carryforwards, applicable tax rates, transfer pricing methodologies and tax planning strategies. The valuation allowance is reviewed quarterly and is maintained until sufficient positive evidence exists to support a reversal. Because evidence such as our operating results during the most recent three-year period is afforded more weight than forecasted results for future periods, our cumulative loss during this three-year period represents sufficient negative evidence regarding the need for nearly a full valuation allowance. We will release this valuation allowance when management determines that it is more likely than not that our deferred tax assets will be realized. Any future release of valuation allowance may be recorded as a tax benefit increasing net income or as an adjustment to paid-in capital, based on tax ordering requirements.

#### Warranty

Our liability for product warranties, included in other accrued liabilities, was \$56.0 million and \$54.0 million as of October 31, 2014 and April 30, 2015, respectively. Our products are generally covered by a warranty for periods ranging from one to five years. We accrue for warranty costs as part of our cost of goods sold based on associated material costs, technical support labor costs and associated overhead. Material cost is estimated based primarily upon historical trends in the volume of product returns within the warranty period and the cost to repair or replace the equipment. Technical support labor cost is estimated based primarily upon historical trends and the cost to support the customer cases within the warranty period. The provision for product warranties was \$12.4 million and \$7.7 million for the first six months of fiscal 2014 and 2015, respectively. See Note 12 to the Condensed Consolidated Financial Statements included in Item 1 of Part I of this report. The provision for warranty claims may fluctuate on a quarterly basis depending upon the mix of products and customers in that period. If actual product failure rates, material replacement costs, service or labor costs differ from our estimates, revisions to the estimated warranty provision would be required. An increase in warranty claims or the related costs associated with satisfying our warranty obligations could increase our cost of sales and negatively affect our gross margin.

#### Item 3. Quantitative and Qualitative Disclosures About Market Risk

The following discussion about our market risk disclosures involves forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements. We are exposed to market risk related to changes in interest rates and foreign currency exchange rates.

Interest Rate Sensitivity. We currently hold investments in U.S. Government obligations and commercial paper with varying maturities. See Notes 5 and 6 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report for information relating to investments and fair value. These investments are sensitive to interest rate movements, and their fair value will decline as interest rates rise and increase as interest rates decline. The estimated impact on these investments of a 100 basis point (1.0%) increase in interest rates across the yield curve from rates in effect as of the balance sheet date would be a \$1.8 million decline in value.

Our earnings and cash flows from operations may be exposed to changes in interest rates because of the floating rate of interest in our Term Loan. See Note 15 to our Condensed Consolidated Financial Statements for information relating to the Term Loan. The Term Loan bears interest at LIBOR plus a spread of 300 basis points subject to a minimum LIBOR rate of 0.75%. As of April 30, 2015, the interest rate in effect on our Term Loan was 3.75%. During fiscal 2014, Ciena entered into

interest rate cap arrangements to limit the interest rate under the Term Loan to a maximum LIBOR rate of 0.75% plus a spread of 300 basis points through July 2015. Also in fiscal 2014, Ciena entered into interest rate swap arrangements ("interest rate swap") that fix the total interest rate under the Term Loan at 5.004%, for the period commencing on July 20, 2015 through July 19, 2018. As such, a 100 basis point increase in the LIBOR rate as of our most recent LIBOR rate setting would have an immaterial impact in annualized interest expense on our Term Loan as recognized in our Condensed Consolidated Financial Statements.

**Foreign Currency Exchange Risk.** As a global concern, our business and results of operations are exposed to and can be impacted by movements in foreign currency exchange rates. Due to our global sales presence, some of our sales transactions and revenue are non-U.S. dollar denominated, with the Canadian Dollar and Euro being our most significant foreign currency revenue exposures. If the U.S. dollar strengthens against these currencies, our revenue for these transactions reported in U.S. dollars would decline. For our U.S. dollar denominated sales, an increase in the value of the U.S. dollar would increase the real costs of our products to customers in markets outside the United States, which could impact our competitive position. During the first six months of fiscal 2015, approximately 21.8% of revenue was non-U.S. dollar denominated. During the first six months of fiscal 2015 as compared to the six months of fiscal 2014, the U.S. dollar strengthened against a number of foreign currencies, including the Canadian Dollar and Euro and, consequently, our revenue reported in U.S. dollars was adversely impacted by approximately \$32.8 million or 2.8%. As it relates to costs of goods sold, employee-related and facilities costs associated with certain manufacturing-related operations in Canada represent our primary exposure to foreign currency exchange risk. With regard to operating expense, our primary exposure to foreign currency exchange risk relates to the Canadian Dollar, British Pound, Euro and Indian Rupee. During the first six months of fiscal 2015, approximately 50.7% of our operating expense was non-U.S. dollar denominated. If these or other currencies strengthen, costs reported in U.S. dollars will increase. During the first six months of fiscal 2015, research and development expense benefited approximately \$10.9 million, net of hedging, due to the strengthening of the U.S. dollar in relation to the Canadian Dollar in comparison to the first six months of fiscal 2014. Selling and marketing expense and general and administrative expenses also benefited \$7.7 million and \$1.9 million, respectively, due to foreign exchange rates, primarily due to the strengthening of the U.S. dollar in relation to the Euro and the Canadian dollar in comparison to the first six months of fiscal 2014.

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 twelve months or less and are designated as cash flow hedges. At the inception of the cash flow hedge, and on an ongoing basis, Ciena assesses whether the forward contract 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 the 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.

Ciena Corporation, as the U.S. parent entity, uses the U.S. dollar as its functional currency; however some of Ciena's foreign branch offices and subsidiaries use the local currency as their functional currency. During the first six months of fiscal 2015, Ciena recorded \$22.5 million in foreign currency exchange losses, 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. See Note 2, Note 4 and Note 13 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

**Convertible Notes Outstanding.** The fair market value of each of our outstanding convertible notes is subject to interest rate and market price risk due to the convertible feature of the notes and other factors. Generally the fair

market value of fixed interest rate debt will increase as interest rates fall and decrease as interest rates rise. The fair market value of the notes may also increase as the market price of our stock rises and decrease as the market price of the stock falls. Interest rate and market value changes affect the fair market value of the notes, and may affect the prices at which we would be able to repurchase such notes were we to do so. These changes do not impact our financial position, cash flows or results of operations. For additional information on the fair value of our outstanding notes, see Note 15 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

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As of the end of the period covered by this report, we carried out an evaluation under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended). Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

#### Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) during the most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II — OTHER INFORMATION

### Item 1. Legal Proceedings

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.

On May 15, 2015, two putative class action lawsuits in connection with Ciena's pending acquisition of Cyan Inc. ("Cyan") were filed in the Court of Chancery of the State of Delaware, naming Cyan, Ciena, Neptune Acquisition Subsidiary, Inc. (a Ciena subsidiary created solely for the purpose of effecting the transaction) and members of the Cyan board of directors as defendants. . The cases are captioned *Luvishis v. Cyan, Inc., et al.*, C.A. No. 11027-CB, and *Poll v. Cyan, Inc., et al.*, C.A. No. 11028-CB. On May 20, 2015, a third putative class action lawsuit was filed in the Court of Chancery of the State of Delaware under the caption *Canzano v. Floyd, et al.*, Case No. 11052-CB, naming Ciena, Neptune Acquisition Subsidiary, Inc. and members of the Cyan board as defendants. On May 27, 2015, a fourth putative class action lawsuit was filed in the Court of Chancery of the State of Delaware under the caption *Kassis v. Cyan, Inc., et al.*, Case No. 11069-CB, naming Ciena, Cyan, Neptune Acquisition Subsidiary, Inc. and members of the Cyan board of directors as defendants. On June 3, 2015, a fifth putative class action lawsuit was filed in the Court of Chancery of the State of Delaware under the caption *Fenske v. Cyan, Inc., et al.*, Case No. 11090-CB, naming Cyan, Ciena, Neptune Acquisition Subsidiary, Inc. and members of the Cyan board as defendants. These complaints allege, among other things, that members of the Cyan board breached their fiduciary duties by failing to take steps to maximize the value of Cyan to its public stockholders, taking steps to avoid competitive bidding, failing to properly value Cyan and obtain the best exchange ratio, and ignoring or not protecting against conflicts of interest. The complaints also allege that Cyan, Ciena and Neptune Acquisition Subsidiary, Inc. have aided and abetted the Cyan board members' breaches of their fiduciary duties. The actions seek (i) preliminary and permanent injunctive relief enjoining Cyan and Ciena from consummating the merger; (ii) in the event the merger is consummated prior to the entry of the Court's final judgment, rescission of the merger or awarding rescissory damages; and (iii) recovery through an accounting by the defendants of all damages caused by them as a result of the alleged breaches of fiduciary duties. The actions also seek to recover costs, including attorneys' fees and experts' fees. These lawsuits are in a preliminary stage and Ciena intends to defend them vigorously.



In addition to the matter described above, we are 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. We do not expect that the ultimate costs to resolve these matters will have a material effect on our results of operations, financial position or cash flows.

Item 1A. Risk Factors

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Investing in our securities involves a high degree of risk. In addition to the other information contained in this report, you should consider the following risk factors before investing in our securities.

### Risks Relating to Our Business

Our revenue and operating results can fluctuate significantly and unpredictably from quarter to quarter.

Our revenue and results of operations can fluctuate significantly and unpredictably from quarter to quarter. Our budgeted expense levels are based on our visibility into customer spending plans and our projections of future revenue and gross margin. Customer spending levels are uncertain and subject to change and reductions in our expense levels to react to deviations from our projections can take significant time to implement. Because the percentage of revenue that we generate from customer orders placed during that quarter has increased as compared to prior periods, this may increase the likelihood of fluctuations in our results. Our revenue for a particular quarter is difficult to predict, and a shortfall in expected revenue could materially adversely affect our results of operations. Additional factors that contribute to fluctuations in our revenue and operating results include:

- broader macroeconomic conditions, including weakness and volatility in global markets, that affect our customers;
- changes in capital spending by large communications service providers;
- order timing, volume and cancellations;
- backlog levels;
- the level of competition and pricing pressure we encounter;
- the impact of commercial concessions or unfavorable commercial terms required to maintain incumbency or secure new opportunities with key customers;
- our level of success in achieving cost reductions and efficiencies in our supply chain;
- the level of start-up costs we incur to support initial deployments, gain new customers or enter new markets;
- the timing of revenue recognition on sales, particularly relating to large orders;
- the mix of revenue by product segment, geography and customer in any particular quarter;
- installation service availability and readiness of customer sites;
- adverse impact of foreign exchange; and
- seasonal effects in our business.

Quarterly fluctuations from these and other factors may also cause our results of operations to fall short of or to exceed significantly the expectations of securities analysts or investors, which may cause volatility in our stock price.

A small number of large communications service providers account for a significant portion of our revenue, and the loss of any of these customers, or a significant reduction in their spending, could have a material adverse effect on our business and results of operations.

While our customer base has diversified in recent years to include a number of network operators and new customer verticals, including Web-scale providers and cable and multiservice operators, a significant portion of our revenue remains concentrated among a few, large global communications service providers. By way of example, AT&T accounted for approximately 18.5% of fiscal 2014 revenue, and our largest ten customers contributed 56.4% of fiscal 2014 revenue. Consequently, our financial results are closely correlated with the spending of a relatively small number of customers and can be significantly affected by market, industry or competitive dynamics affecting their businesses. Our reliance upon a relatively small number of customers also increases our exposure to changes in their network priorities and purchasing strategies. These customers have previously undertaken, and may undertake in the future, procurement initiatives to support their network strategy, which initiatives may include reductions in capital expenditure, commercial concessions from suppliers and reductions in the number of direct suppliers of networking technology. Because the terms of our framework contracts do not obligate customers to purchase any minimum or guaranteed order quantities, and customers often have the right to modify or cancel orders, there can be no assurance

as to spending levels, and spending levels can be unpredictable. A significant change in network priorities, a reduction in spending by our key customers, the loss of one or more of our large customers, or market or industry factors adversely affecting service providers generally, could have a material adverse effect on our business, financial condition and results of operations.

We face intense competition that could hurt our sales and results of operations.

We face a competitive market for sales of communications networking equipment, software and services, and this level of competition could result in pricing pressure, reduced demand, commercial concessions, lower gross margins and loss of market share that could harm our business and results of operations. Competition is particularly intense, both in the U.S. and abroad, as

we and our competitors aggressively seek to displace incumbent equipment vendors at large service providers and secure new customers. In an effort to maintain our incumbency and secure additional customer opportunities, we have in the past, and may in the future, agree to aggressive pricing, commercial concessions and other unfavorable terms that reduce our revenue and result in low or negative gross margins on a particular order or group of orders. We expect this level of competition to continue, as multinational equipment vendors seek to promote adoption of competing architectural approaches for next-generation networks and retain incumbent positions with large customers globally. We also expect our competitive landscape to broaden. As network technologies, features and layers converge, and demands for software programmability, management and control increase, we expect that our business will overlap more directly with additional networking solution suppliers, including IP router vendors, system integrators, software vendors and other information technology vendors.

Competition in our markets, generally, is based on any one or a combination of the following factors:

- product functionality, speed, capacity, scalability and performance;
- price and total cost of ownership of our solutions;
- incumbency and existing business relationships;
- ability to offer comprehensive networking solutions, consisting of equipment, software and network consulting services;
- product development plans and the ability to meet customers' immediate and future network requirements;
- flexibility and openness of platforms, including ease of integration, interoperability and integrated management;
  - manufacturing and lead-time capability; and
- services and support capabilities.

A small number of very large companies have historically dominated our industry, many of which have substantially greater financial and marketing resources, broader product offerings and more established relationships with service providers and other customer segments than we do. Because of their scale and resources, they may be perceived to be a better fit for the procurement or network operating and management strategies of large service providers. We also compete with a number of smaller companies that provide significant competition for a specific product, application, customer segment or geographic market. Due to the narrower focus of their efforts, these competitors may achieve commercial availability of their products more quickly or may be more attractive to customers in a particular product niche. If competitive pressures increase or if we fail to compete successfully in our markets, our business and results of operations could suffer.

Our business and operating results could be adversely affected by unfavorable changes in macroeconomic and market conditions and reductions in the level of spending by customers in response to these conditions.

Our business and operating results, which depend significantly on general economic conditions and demand for our products and services, could be materially adversely affected by unfavorable or uncertain macroeconomic and market conditions, globally or with respect to a particular region where we operate. Broad macroeconomic weakness and market volatility have previously resulted in sustained periods of decreased demand for our products and services that have adversely affected our operating results. Macroeconomic and market conditions could be adversely affected by a variety of political, economic or other factors in the United States and international markets that could adversely affect spending levels of our customers and their end users, and create volatility or deteriorating conditions in the markets in which we operate. Macroeconomic uncertainty or weakness could result in:

- reductions in customer spending and delay, deferral or cancellation of network infrastructure initiatives;
- increased competition for fewer network projects and sales opportunities;
- increased pricing pressure that may adversely affect revenue, gross margin and profitability;
- difficulty forecasting operating results and making decisions about budgeting, planning and future investments;

- increased overhead and production costs as a percentage of revenue;
- tightening of credit markets needed to fund capital expenditures by Ciena or our customers;
- customer financial difficulty, including longer collection cycles and difficulties collecting accounts receivable or write-offs of receivables; and
- increased risk of charges relating to excess and obsolete inventories and the write-off of other intangible assets.

Reductions in customer spending in response to unfavorable or uncertain macroeconomic and market conditions, globally or with respect to a particular region where we operate, would adversely affect our business, results of operations and financial condition.

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

We maintain a global sourcing strategy and depend on third party suppliers for support in our product design and development, and in the sourcing of key product components and subsystems. Our products include optical and electronic components for which reliable, high-volume supply is often available only from sole or limited sources. Increases in market demand or scarcity of resources or manufacturing capability have previously resulted in shortages in availability of important components for our solutions, allocation challenges and increased lead times. We are exposed to risks relating to unfavorable economic conditions or other similar challenges affecting the businesses and results of operations of our component providers that can affect their liquidity levels, ability to continue investing in their businesses, and manufacturing capability. These and other challenges affecting our suppliers could expose our business to increased costs, loss or lack of supply, or discontinuation of components that can result in lost revenue, additional product costs, increased lead times and deployment delays that could harm our business and customer relationships. We do not have any guarantees of supply from these third parties, and in certain cases are relying upon temporary or transitional commercial arrangements. As a result, there is no assurance that we will be able to secure the components or subsystems that we require, in sufficient quantity and quality, and on reasonable terms. The loss of a source of supply, or lack of sufficient availability of key components, could require that we locate an alternate source or redesign our products, either of which could result in business interruption, increased costs and negatively affect our product gross margin and results of operations. Our business and results of operations would be negatively affected if we were to experience any significant disruption or difficulties with key suppliers affecting the price, quality, availability or timely delivery of required components.

Investment of research and development resources in communications networking technologies for which there is not a matching market opportunity, or failure to sufficiently or timely invest in technologies for which there is market demand, would adversely affect our revenue and profitability.

The market for communications networking hardware and software solutions is characterized by rapidly evolving technologies, changes in market demand and increasing adoption of software-based networking solutions. We continually invest in research and development to sustain or enhance our existing hardware and software solutions and to develop or acquire new technologies including new software platforms. There is often a lengthy period between commencing these development initiatives and bringing new or improved solutions to market. During this time, technology preferences, customer demand and the markets for our solutions, or those introduced by our competitors, may move in directions we had not anticipated. There is no guarantee that our new products or enhancements will achieve market acceptance or that the timing of market adoption will be as predicted. There is a significant possibility, therefore, that some of our development decisions, including significant expenditures on acquisitions, research and development costs, or investments in technologies, will not turn out as anticipated, and that our investment in some projects will be unprofitable. There is also a possibility that we may miss a market opportunity because we failed to invest, or invested too late, in a technology, product or enhancement sought by our customers. Changes in market demand or investment priorities may also cause us to discontinue existing or planned development for new products or features, which can have a disruptive effect on our relationships with customers. If we fail to make the right investments or fail to make them at the right time, our competitive position may suffer, and our revenue and profitability could be harmed.

Network equipment sales to communications service providers, Web-scale providers and other large customers often involve lengthy sales cycles and protracted contract negotiations and may require us to assume commercial terms or conditions that negatively affect pricing, risk allocation, payment and the timing of revenue recognition.

Our sales initiatives, particularly with communications service providers, Web-scale providers and other large customers, often involve lengthy sales cycles. These selling efforts often involve a significant commitment of time and resources by us and our customers that may include extensive product testing, laboratory or network certification,

network or region-specific product certification and homologation requirements for deployment in networks. Even after a customer awards its business or decides to purchase our solutions, the length of deployment time can vary depending upon the customer's schedule, site readiness, the size of the network deployment, the degree of configuration required and other factors. Additionally, these sales also often involve protracted and sometimes difficult contract negotiations in which we may deem it necessary to agree to unfavorable contractual or commercial terms that adversely affect pricing, expose us to penalties for delays or non-performance, and require us to assume a disproportionate amount of risk. To maintain incumbency with key customers for existing and future business opportunities, we may be required to offer discounted pricing, to make commercial concessions or to offer less favorable terms as compared to our historical business arrangements with these customers. We may also be requested to provide deferred payment terms, vendor or third-party financing or other alternative purchase structures that extend the timing of payment and revenue recognition. Alternatively, customers may insist upon terms and conditions that we deem too onerous or not in our best interest, and we may be unable to reach a commercial agreement. As a result, we may incur

substantial expense and devote time and resources to potential sales opportunities that never materialize or result in lower than anticipated sales.

We may experience delays in the development of our products that may negatively affect our competitive position and business.

Our hardware and software networking solutions are based on complex technology, and we can experience unanticipated delays in developing, manufacturing and introducing these solutions to market. Delays in these and other product development efforts may affect our reputation with customers, affect our ability to seize market opportunities and impact the timing and level of demand for our products. The development of new technologies may increase the complexity of supply chain management or require the acquisition, licensing or interworking with the technology of third parties. As a result, each step in the development cycle of our products presents serious risks of failure, rework or delay, any one of which could adversely affect the cost-effective and timely development of our products. We may encounter delays relating to engineering development activities and software, design, sourcing and manufacture of critical components, and the development of prototypes. In addition, intellectual property disputes, failure of critical design elements, and other execution risks may delay or even prevent the release of these products. If we do not successfully develop products in a timely manner, our competitive position may suffer, and our business, financial condition and results of operations could be harmed.

Product performance problems and undetected errors affecting the performance, reliability or security of our products could damage our business reputation and negatively affect our results of operations.

The development and production of sophisticated hardware and software for communications network equipment is highly complex. Some of our products can be fully tested only when deployed in communications networks or when carrying traffic with other equipment, and software products may contain bugs that can interfere with expected operations. As a result, undetected defects or errors, and product quality, interoperability, reliability and performance problems are often more acute for initial deployments of new products and product enhancements. We have recently launched, and are in the process of launching, a number of new hardware and software platforms, including solutions targeting metro network applications or Web-scale operators or enterprise end users. Unanticipated product performance problems can relate to the design, manufacturing, installation, operation and interoperability of our products. Undetected errors can also arise as a result of defects in components, software or manufacturing, installation or maintenance services supplied by third parties, and technology acquired from or licensed by third parties. From time to time we have had to replace certain components, provide software remedies or other remediation in response to defects or bugs, and we may have to do so again in the future. There can be no assurance that such remediation would not have a material impact on our business and results of operations. In addition, unanticipated security vulnerabilities relating to our products or the activities of our supply chain, including any actual or perceived exposure of our solutions to malicious software or cyber-attacks, could adversely affect our business and reputation. Product performance, reliability, security and quality problems can negatively affect our business, and may result in some or all of the following effects:

- damage to our reputation, declining sales and order cancellations;
- increased costs to remediate defects or replace products;
- payment of liquidated damages, contractual or similar penalties, or other claims for performance failures or delays;
- increased warranty expense or estimates resulting from higher failure rates, additional field service obligations or other rework costs related to defects;
- increased inventory obsolescence;
- costs and claims that may not be covered by liability insurance coverage or recoverable from third parties; and
- delays in recognizing revenue or collecting accounts receivable.



These and other consequences relating to undetected errors affecting the quality, reliability and security of our products could negatively affect our business and results of operations.

Efforts by us or by our strategic third party channel partners to sell our solutions into targeted geographic markets and customer segments may be unsuccessful.

In order to sell our products into new geographic markets, diversify our customer base beyond our traditional customers and broaden the application for our solutions in communications networks, we continue to promote sales initiatives and foster strategic channel sales relationships, including the packet-optical resale element of our strategic relationship with Ericsson. Specifically, we are targeting sales opportunities with Web-scale providers, cloud infrastructure providers, communications service providers, enterprises, wireless operators, cable operators, submarine network operators, research and education institutions, and federal, state and local governments. We also seek to expand our geographic reach and increase market share in international markets, including Brazil, the Middle East and India. To succeed in some of these geographic markets and

customer segments we often need to leverage strategic sales channels and distribution arrangements successfully, and we expect these relationships to be an important part of our business. There can be no assurance we will realize the expected benefits of these third party sales partners. In some cases we compete in certain business areas with our third party channel partners or may have divergent interests. Our efforts to manage and drive the intended benefits of such sales relationships may ultimately be unsuccessful, and difficulties selling through our third party channels could limit our growth and could harm our results of operations.

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

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

- the impact of economic conditions in countries outside the United States;
- effects of adverse changes in currency exchange rates;
- greater difficulty in collecting accounts receivable and longer collection periods;
- difficulty and cost of staffing and managing foreign operations;
- less protection for intellectual property rights in some countries;
- adverse tax and customs consequences, particularly as related to transfer-pricing issues;
- social, political and economic instability;
- compliance with certain testing, homologation or customization of products to conform to local standards;
- higher incidence of corruption or unethical business practices that could expose us to liability or damage our reputation;
- trade protection measures, export compliance, domestic preference procurement requirements, qualification to transact business and additional regulatory requirements; and
- natural disasters, epidemics and acts of war or terrorism.

Our international operations are also subject to complex foreign and U.S. laws and regulations, including anti-corruption laws, antitrust or competition laws, and data privacy laws, among others. Violations of these laws and regulations could result in fines and penalties, criminal sanctions against us or our employees, prohibitions on the conduct of our business and on our ability to offer our products and services in certain geographies, and significant harm to our business reputation. There can be no assurance that any individual employee, contractor, agent or other business partner will not violate these legal requirements or our policies to mitigate these risks. Additionally, the costs of complying with these laws (including the costs of investigations, auditing and monitoring) could also adversely affect our current or future business.

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

We may be required to write off significant amounts of inventory as a result of our inventory purchase practices, the obsolescence of product lines or unfavorable market conditions.

To avoid delays and meet customer demand for shorter delivery terms, we place orders with our contract manufacturers and component suppliers based on forecasts of customer demand. In prior periods, we have increased inventory levels for our 6500 Packet Optical Platform in order to reduce customer lead times and meet forecasted volumes. Our practice of buying inventory based on forecasted demand exposes us to the risk that our customers ultimately may not order the products we have forecast or will purchase fewer products than forecast. As a result, we may purchase inventory in anticipation of sales that ultimately do not occur. Market uncertainty can also limit our

visibility into customer spending plans and compound the difficulty of forecasting inventory at appropriate levels. Moreover, our customer purchase agreements generally do not include any minimum purchase commitment, customers often have the right to modify, reduce or cancel purchase quantities, and spending levels can be uncertain and subject to significant fluctuation. As we introduce new products with overlapping feature sets or application, it is increasingly possible that customers may forgo purchases of certain products we have inventoried in favor of next-generation products with similar or increased functionality. We may also be exposed to the risk of inventory write offs as a result of certain supply chain initiatives, including consolidation and transfer of key manufacturing activities. If we are required to write off or write down a significant amount of inventory, our results of operations for the applicable period would be materially adversely affected. Our intellectual property rights may be difficult and costly to enforce.

We generally rely on a combination of patents, copyrights, trademarks and trade secret laws to establish and maintain proprietary rights in our products and technology. Although we have been issued numerous patents and other patent applications are currently pending, there can be no assurance that any of these patents or other proprietary rights will not be challenged, invalidated or circumvented, or that our rights will provide us with any competitive advantage. In addition, there can be no assurance that patents will be issued from pending applications or that claims allowed on any patents will be sufficiently broad to protect our technology. Further, the laws of some foreign countries may not protect our proprietary rights to the same extent as do the laws of the United States.

We are subject to the risk that third parties may attempt to access, divert or use our intellectual property without authorization. Protecting against the unauthorized use of our products, technology and other proprietary rights is difficult, time-consuming and expensive, and we cannot be certain that the steps that we are taking will prevent or minimize the risks of such unauthorized use. Litigation may be necessary to enforce or defend our intellectual property rights or to determine the validity or scope of the proprietary rights of others. Such litigation could result in substantial cost and diversion of management time and resources, and there can be no assurance that we will obtain a successful result. Any inability to protect and enforce our intellectual property rights could harm our ability to compete effectively.

We may incur significant costs in response to claims by others that we infringe their intellectual property rights. From time to time third parties may assert claims or initiate litigation or other proceedings related to patent, copyright, trademark and other intellectual property rights to technologies and related standards that are relevant to our business. The rate of infringement assertions by patent assertion entities is increasing, particularly in the United States. Generally, these patent owners neither manufacture nor use the patented invention directly, and they seek solely to derive value from their ownership through royalties from patent licensing programs.

We could be adversely affected by litigation, other proceedings or claims against us, as well as claims against our manufacturers, suppliers or customers, alleging infringement of third party proprietary rights by our products and technology, or components thereof. Regardless of the merit of these claims, they can be time-consuming, divert the time and attention of our technical and management personnel, and result in costly litigation. These claims, if successful, could require us to:

- pay substantial damages or royalties;
- comply with an injunction or other court order that could prevent us from offering certain of our products;
- seek a license for the use of certain intellectual property, which may not be available on commercially reasonable terms or at all;
- develop non-infringing technology, which could require significant effort and expense and ultimately may not be successful; and
- indemnify our customers or other third parties pursuant to contractual obligations to hold them harmless or pay expenses or damages on their behalf.

Any of these events could adversely affect our business, results of operations and financial condition. Our exposure to risks associated with the use of intellectual property may be increased as a result of acquisitions, as we have a lower level of visibility into the development process with respect to such technology and the steps taken to safeguard against the risks of infringing the rights of third parties.

Our products incorporate software and other technology under license from third parties, and our business would be adversely affected if this technology were no longer available to us on commercially reasonable terms.

We integrate third party software and other technology into our operating system, network management and control platforms and other products. As networks adopt open software control and virtualized network functions, we believe that we will be increasingly required to work with third party technology providers. As a result, we may be required to license certain software or technology from third parties, including competitors. Licenses for software or other technology may not be available or may not continue to be available to us on commercially reasonable terms. Third party licensors may insist on unreasonable financial or other terms in connection with our use of such technology. Our

failure to comply with the terms of any license may result in our inability to continue to use such license, which may result in significant costs, harm our market opportunities and require us to obtain or develop a substitute technology.

As networks become more open and software programmable, we also expect that we and other communications networking solutions vendors will increasingly contribute to and use technology or open source software developed by standards settings bodies or other industry forums that seek to promote the integration of network layers and functions. The terms of such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. This may increase our risks associated with our use of such software and may require us to seek licenses from third parties, to re-engineer our products or to discontinue the sale of such solutions. Difficulty obtaining and

maintaining technology licenses with third parties may disrupt development of our products, increase our costs and adversely affect our business.

If our contract manufacturers do not perform as we expect, our business and results of operations may be adversely affected.

We rely on third party contract manufacturers to perform the manufacturing of our products, and our future success will depend on our ability to manage these manufacturing resources and ensure sufficient volumes and quality of our products. There are a number of risks associated with our dependence on contract manufacturers, including:

- reduced control over delivery schedules and planning;
- reliance on the quality assurance procedures of third parties;
- potential uncertainty regarding manufacturing yields and costs;
- availability of manufacturing capability and capacity, particularly during periods of high demand;
- risks and uncertainties relating to the locations and geographies of our international contract manufacturing sites;
- limited warranties provided to us;
- potential misappropriation of our intellectual property; and
- potential manufacturing disruptions, including disruptions caused by geopolitical events or environmental factors affecting the locations and geographies of our international contract manufacturing sites.

These and other risks could impair our ability to fulfill orders, harm our sales and impact our reputation with customers. If our contract manufacturers are unable or unwilling to continue manufacturing our products or components of our products, or if our contract manufacturers discontinue operations, we would be required to identify and qualify alternative manufacturers, which could cause us to be unable to meet our supply requirements to our customers and result in the breach of our customer agreements. Qualifying a new contract manufacturer and commencing volume production are expensive and time-consuming, and if we are required to change or qualify a new contract manufacturer, we would likely lose sales revenue and damage our existing customer relationships.

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

In the ordinary course of our business, we maintain on our network systems certain information that is confidential, proprietary or otherwise sensitive in nature. This information includes intellectual property, financial information and confidential business information relating to Ciena and our customers, suppliers and other business partners. We also produce networking equipment solutions and software used by network operators to ensure security and reliability in their management and transmission of data. Our customers, particularly those in regulated industries, are increasingly focused on the security features of our technology solutions, and maintaining the security of information sensitive to Ciena and our business partners is critical to our business and reputation. Companies in the technology industry have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access to networks or sensitive information. Our network systems and storage applications, and the technology solutions that we offer to end customers, may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. In some cases, it is difficult to anticipate or to detect immediately such incidents and the damage caused thereby. If an actual or perceived breach of network security occurs in our network or in the network of a business partner, the market perception of our products could be harmed. While we continually work to safeguard our products and internal network systems to mitigate these potential risks, there is no assurance that such actions will be sufficient to prevent cyber-attacks or security breaches. Security incidents involving access or improper use of our systems, networks or products could compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. These security events could also negatively impact our reputation and our competitive position and could result in litigation with third parties, regulatory action, loss of business, potential liability and increased remediation costs, any of which could have

a material adverse effect on our financial condition and results of operations.

Our failure to manage effectively our relationships with third party service partners could adversely impact our financial results and relationship with customers.

We rely on a number of third party service partners, both domestic and international, to complement our global service and support resources. We rely upon these partners for certain installation, maintenance and support functions. In addition, as network operators increasingly seek to rely on vendors to perform additional services relating to the design, construction and operation of their networks, the scope of work performed by our support partners is likely to increase and may include areas where we have less experience providing or managing such services. We must successfully identify, assess, train and certify qualified service partners in order to ensure the proper installation, deployment and maintenance of our products, as well as the

skillful performance of other services associated with expanded solutions offerings, including site assessment and construction-related services. Vetting and certification of these partners can be costly and time-consuming, and certain partners may not have the same operational history, financial resources and scale as Ciena. Moreover, certain service partners may provide similar services for other companies, including our competitors. We may not be able to manage effectively our relationships with our service partners, and we cannot be certain that they will be able to deliver services in the manner or time required or that we will be able to maintain the continuity of their services. We may also be exposed to a number of risks or challenges relating to the performance of our service partners, including:

- delays in recognizing revenue;
- liability for injuries to persons, damage to property or other claims relating to the actions or omissions of our service partners;
- our services revenue and gross margin may be adversely affected; and
- our relationships with customers could suffer.

If we do not manage effectively our relationships with third party service partners, or if they fail to perform these services in the manner or time required, our financial results and relationships with customers could be adversely affected.

We may be adversely affected by fluctuations in currency exchange rates.

As a global concern, we face exposure to adverse movements in foreign currency exchange rates. Due to our global presence, a significant percentage of our revenue, operating expense and assets and liabilities are non-U.S. dollar denominated and therefore subject to foreign currency fluctuation. We face exposure to currency exchange rates as a result of the growth in our non-U.S. dollar denominated operating expense in Canada, Europe, Asia and Latin America. An increase in the value of the U.S. dollar could increase the real cost to our customers of our products in those markets outside the United States where we sell in dollars, and a weakened dollar could increase the cost of local operating expenses and procurement of materials or service that we purchase in foreign currencies. From time to time, we may hedge against currency exposure associated with anticipated foreign currency cash flows or assets and liabilities denominated in foreign currency. Such attempts to offset the impact of currency fluctuations are costly, and no amount of hedging can be effective against all circumstances. Losses associated with these hedging instruments and the adverse effect of foreign currency exchange rate fluctuation may negatively affect our results of operations.

We may be exposed to unanticipated risks and additional obligations in connection with our resale of complementary products or technology of other companies.

We have entered into agreements with strategic supply partners that permit us to distribute their products or technology. We may rely upon these relationships to add complementary products or technologies, diversify our product portfolio, or address a particular customer or geographic market. We may enter into additional original equipment manufacturer (OEM), resale or similar strategic arrangements in the future. We may incur unanticipated costs or difficulties relating to our resale of third party products. Our third party relationships could expose us to risks associated with the business, financial condition, intellectual property rights and supply chain continuity of such partners, as well as delays in their development, manufacturing or delivery of products or technology. We may also be required by customers to assume warranty, indemnity, service and other commercial obligations, including potential liability to customers, greater than the commitments, if any, made to us by our technology partners. Some of our strategic supply partners are relatively small companies with limited financial resources. If they are unable to satisfy their obligations to us or our customers, we may have to expend our own resources to satisfy these obligations. Exposure to these risks could harm our reputation with key customers and could negatively affect our business and our results of operations.



Our exposure to the credit risks of our customers and resellers may make it difficult to collect receivables and could adversely affect our revenue and operating results.

In the course of our sales to customers and resale channel partners, we may have difficulty collecting receivables, and our business and results of operations could be exposed to risks associated with uncollectible accounts. Lack of liquidity in the capital markets, macroeconomic weakness and market volatility may increase our exposure to these credit risks. Our attempts to monitor customer payment capability and to take appropriate measures to protect ourselves may not be sufficient, and it is possible that we may have to write down or write off accounts receivable. Such write-downs or write-offs could negatively affect our operating results for the period in which they occur, and, if large, could have a material adverse effect on our revenue and operating results.

Our business is dependent upon the proper functioning of our internal business processes and information systems, and modification or interruption of such systems or external factors may disrupt our business, processes and internal controls.

We rely upon a number of internal business processes and information systems to support key business functions, and the efficient operation of these processes and systems is critical to managing our business. Our business processes and information systems must be sufficiently scalable to support the growth of our business and may require modifications or upgrades that expose us to a number of operational risks. We have commenced a significant upgrade of our company-wide enterprise resource planning platform that will impact multiple locations, functions and processes. We are also currently pursuing initiatives to transform and optimize our business operations through the reengineering of certain other processes, investment in automation, and engagement of strategic partners or resources to assist with certain business functions. These changes will require a significant investment of capital and human resources and may be costly and disruptive to our operations, and could impose substantial demands on management time. These changes may also require changes in our information systems, modification of internal control procedures and significant training of employees or third party resources. There can be no assurance that our business and operations will not experience disruption in connection with this transition. Even if we do not encounter these adverse effects or disruption in our business, the design and implementation of these new systems may be more costly than anticipated.

Our information technology systems, and those of third party information technology providers or business partners, may also be vulnerable to damage or disruption caused by circumstances beyond our control, including catastrophic events, power anomalies or outages, natural disasters, viruses or malware, and computer system or network failures. We may also be exposed to cyber-security related incidents, including unauthorized access of information systems and disclosure or diversion of intellectual property or confidential data. There can be no assurance that our business systems or those of our third party business partners would not be subject to similar incidents, exposing us to significant cost, reputational harm and disruption or damage to our business.

Outstanding indebtedness under our convertible notes and senior secured credit facilities may adversely affect our liquidity and results of operations and could limit our business.

At April 30, 2015, indebtedness on our outstanding convertible notes totaled approximately \$1.0 billion in aggregate principal, including the accretion of principal at maturity on our 4.0% convertible senior notes due in 2020 ("2020 Notes"). In the event that some or all of these notes are converted into common stock, the ownership interests of our existing stockholders will be diluted, and any sales of such shares in the public market following conversion may adversely affect the market price for our common stock. We are also a party to credit agreements relating to a \$200 million senior secured asset-based revolving credit facility and a \$250 million senior secured term loan. The agreements governing these credit facilities contain certain covenants that limit our ability, among other things, to incur additional debt, create liens and encumbrances, pay cash dividends, redeem or repurchase stock, enter into certain acquisition transactions or transactions with affiliates, repay certain indebtedness, make investments or dispose of assets. The agreements also include customary remedies, including the right of the lenders to take action with respect to the collateral securing the loans, that would apply should we default or otherwise be unable to satisfy our debt obligations.

Our indebtedness could have important negative consequences, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing, particularly in unfavorable capital and credit market conditions;
- debt service and repayment obligations that may adversely impact our results of operations and reduce the availability of cash resources for other business purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business and the markets; and

placing us at a possible competitive disadvantage to competitors that have better access to capital resources.

We may also enter into additional transactions or credit facilities, including equipment loans, working capital lines of credit and other long-term debt, which may increase our indebtedness and result in additional restrictions upon our business. In addition, major debt rating agencies regularly evaluate our debt based on a number of factors. There can be no assurance that we will be able to maintain our existing debt ratings and failure to do so could adversely affect our cost of funds, liquidity and access to capital markets.

Significant volatility and uncertainty in the capital markets may limit our access to funding on favorable terms or at all.

The operation of our business requires significant capital. We have accessed the capital markets in the past and have successfully raised funds, including through the issuance of equity, convertible notes and other indebtedness, to increase our cash position, support our operations and undertake strategic growth initiatives. We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our long-term operating plans, and we may consider it necessary or advisable to raise additional capital or incur additional indebtedness in the future. If we raise additional funds through further issuance of equity or securities convertible into equity, or undertake certain transactions intended to address our existing indebtedness, our existing stockholders could suffer dilution in their percentage ownership of our company and our leverage and outstanding indebtedness could increase. Global capital markets have undergone periods of significant volatility and uncertainty in recent years, and there can be no assurance that such financing alternatives would be available to us on favorable terms or at all, should we determine it necessary or advisable to seek additional cash resources.

Facilities transitions could be disruptive to our operations and may result in unanticipated expense and adverse effects to our cash position and cash flows.

We have recently undertaken and expect to undertake in the future a number of significant facilities transitions affecting a number of our largest employee populations. The lease term for our “Lab 10” building on the Carling Campus in Ottawa, Canada will expire in fiscal 2018, and the lease term for our development facility in Gurgaon, India will expire in fiscal 2017. Both locations house sophisticated research and development lab equipment and significant headcount including key engineering personnel. We will be transitioning our operations in Ottawa to new facilities in contemplation of the expiration of the Lab 10 lease. Relocating our engineering operations may be costly, and there can be no assurance that the transition of key engineering functions to a successor facility will not be disruptive or adversely affect productivity. Significant facilities transitions could be disruptive to our operations and may result in unanticipated expense and adverse effects on our cash position and cash flows.

Restructuring activities could disrupt our business and affect our results of operations.

We have previously taken steps, including reductions in force, office closures, and internal reorganizations to reduce the size and cost of our operations, improve efficiencies, or realign our organization and staffing to better match our market opportunities and our technology development initiatives. We may take similar steps in the future as we seek to realize operating synergies, optimize our operations to achieve our target operating model and profitability objectives, or better reflect changes in the strategic direction of our business. These changes could be disruptive to our business, including our research and development efforts, and could result in significant expense, including accounting charges for inventory and technology-related write-offs, workforce reduction costs and charges relating to consolidation of excess facilities. Substantial expense or charges resulting from restructuring activities could adversely affect our results of operations and use of cash in those periods in which we undertake such actions.

If we are unable to attract and retain qualified personnel, we may be unable to manage our business effectively.

Competition to attract and retain highly skilled technical, engineering and other personnel with experience in our industry is intense, and our employees have been the subject of targeted hiring by our competitors. Competition is particularly intense in certain jurisdictions where we have research and development centers, including the Silicon Valley area of Northern California, and we may experience difficulty retaining and motivating existing employees and attracting qualified personnel to fill key positions. Because we rely upon equity awards as a significant component of compensation, particularly for our executive team, a lack of positive performance in our stock price, reduced grant levels, or changes to our compensation program may adversely affect our ability to attract and retain key employees. In addition, none of our executive officers is bound by an employment agreement for any specific term. The loss of members of our management team or other key personnel could be disruptive to our business, and, were it necessary, it could be difficult to replace members of our management team or other key personnel. If we are unable to attract

and retain qualified personnel, we may be unable to manage our business effectively, and our operations and results of operations could suffer.

Strategic acquisitions and investments could disrupt our operations and may expose us to increased costs and unexpected liabilities.

We may acquire or make investments in other technology companies, or enter into other strategic relationships, to expand the markets we address, diversify our customer base or acquire, or accelerate the development of, technology or products. To do so, we may use cash, issue equity that could dilute our current stockholders, or incur debt or assume indebtedness. These transactions, including our pending acquisition of Cyan, Inc. ("Cyan"), involve numerous risks, including:

- significant acquisition and integration costs;

- disruption due to the integration and rationalization of operations, products, technologies and personnel;
- diversion of management attention;
- difficulty completing projects of the acquired company and costs related to in-process projects;
- difficulty managing customer transitions or entering into new markets;
- loss of key employees;
- ineffective internal controls over financial reporting;
- dependence on unfamiliar suppliers or manufacturers;
- assumption of or exposure to unanticipated liabilities, including intellectual property infringement claims; and
- adverse tax or accounting effects including amortization expense related to intangible assets and charges associated with impairment of goodwill.

As a result of these and other risks, our acquisitions, investments or strategic transactions may not reap the intended benefits and may ultimately have a negative impact on our business, results of operation and financial condition.

Changes in government regulation affecting the communications industry and the businesses of our customers could harm our prospects and operating results.

The Federal Communications Commission, or FCC, has jurisdiction over the U.S. communications industry, and similar agencies have jurisdiction over the communication industries in other countries. Many of our largest customers, including service providers and multiservice network operators, are subject to the rules and regulations of these agencies. On February 26, 2015, the FCC approved rules that would regulate Internet service providers as telecommunications service carriers under Title II of the Telecommunications Act. The impact of these rules are uncertain, and challenges to these rules are expected. These and similar changes in regulatory requirements covering access to, management of, or carriage of traffic on the Internet in the United States or other internationally could serve as a disincentive to certain wireline or wireless network operators, including certain of our customers, to invest in their network infrastructures or introduce new services. Such changes could adversely affect the sale of our products and services. Similarly, changes in regulatory tariff requirements or other regulations relating to pricing or terms of carriage on communications networks could slow the development or expansion of network infrastructures and adversely affect our business, operating results, and financial condition.

Government regulations affecting the use, import or export of products could adversely affect our operations, negatively affect our revenue and increase our costs.

The United States and various foreign governments have imposed controls, license requirements and other restrictions on the usage, import or export of some of the technologies that we sell. Government regulation of usage, import or export of our products, or our technology within our products, or our failure to obtain required approvals for our products, could harm our international and domestic sales and adversely affect our revenue and costs of sales. Failure to comply with such regulations could result in enforcement actions, fines, penalties or restrictions on export privileges. In addition, costly tariffs on our equipment, restrictions on importation, trade protection measures and domestic preference requirements of certain countries could limit our access to these markets and harm our sales. For example, India's government has implemented security regulations applicable to network equipment vendors and has previously imposed significant tariffs on certain communications equipment. These and other regulations could adversely affect the sale or use of our products, substantially increase our cost of sales and adversely affect our business and revenue.

Government regulations related to the environment, potential climate change and other social initiatives could adversely affect our business and operating results.

Our operations are regulated under various federal, state, local and international laws relating to the environment and potential climate change. If we were to violate or become liable under these laws or regulations, we could incur fines, costs related to damage to property or personal injury, and costs related to investigation or remediation activities. Our product design efforts and the manufacturing of our products are also subject to evolving requirements relating to the presence of certain materials or substances in our equipment, including regulations that make producers for such products financially responsible for the collection, treatment and recycling of certain products. For example, our operations and financial results may be negatively affected by environmental regulations, such as the Waste Electrical and Electronic Equipment (WEEE) and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) that have been adopted by the European Union. Compliance with these and similar environmental regulations may increase our cost of designing, manufacturing, selling and removing our products. The SEC has adopted disclosure requirements regarding the use of “conflict minerals” mined from the Democratic Republic of Congo and adjoining countries (“DRC”) and procedures regarding a manufacturer's efforts to prevent the sourcing of such minerals from the DRC. Certain of these minerals are present in our products. SEC rules implementing these requirements may have the effect of reducing the pool of suppliers who can supply

DRC “conflict free” components and parts, and we may not be able to obtain conflict free products or supplies in sufficient quantities for our operations. Because our supply chain is complex, we may face reputational challenges with our customers, stockholders and other stakeholders if we are unable to verify sufficiently the origins for the “conflict minerals” used in our products and cannot assert that our products are “conflict free”. Environmental or similar social initiatives may also make it difficult to obtain supply of compliant components or may require us to write off non-compliant inventory, which could have an adverse effect on our business and operating results.

We may be required to write down long-lived assets, and these impairment charges would adversely affect our operating results.

As of April 30, 2015, our balance sheet includes \$302.8 million in long-lived assets, which includes \$102.2 million of intangible assets. Valuation of our long-lived assets requires us to make assumptions about future sales prices and sales volumes for our products. These assumptions are used to forecast future, undiscounted cash flows upon which our estimates are based. Periods of significant uncertainty or instability of macroeconomic conditions can make forecasting future business difficult. If actual market conditions differ or our forecasts change, we may be required to reassess long-lived assets and could record an impairment charge. Any impairment charge relating to long-lived assets would have the effect of decreasing our earnings or increasing our losses in such period. If we are required to take a substantial impairment charge, our operating results would be materially adversely affected in such period.

Failure to maintain effective internal controls over financial reporting could have a material adverse effect on our business, operating results and stock price.

Section 404 of the Sarbanes-Oxley Act of 2002 requires that we include in our annual report a report containing management's assessment of the effectiveness of our internal controls over financial reporting as of the end of our fiscal year and a statement as to whether or not such internal controls are effective. Compliance with these requirements has resulted in, and is likely to continue to result in, significant costs and the commitment of time and operational resources. Certain ongoing initiatives, including a significant upgrade of our company-wide enterprise resource planning platform that is underway, will necessitate modifications to our internal control systems, processes and related information systems. Similarly, other efforts to transform business processes, including our supply chain operations, or to transition certain functions to third party resources or providers, will require further changes to our control environment as we optimize our business and operations. Our expansion into new regions could pose further challenges to our internal control systems. We cannot be certain that our current design for internal control over financial reporting, or any additional changes to be made, will be sufficient to enable management to determine that our internal controls are effective for any period, or on an ongoing basis. If we are unable to assert that our internal controls over financial reporting are effective, market perception of our financial condition and the trading price of our stock may be adversely affected, and customer perception of our business may suffer.

Our stock price is volatile.

Our common stock price has experienced substantial volatility in the past and may remain volatile in the future. Volatility in our stock price can arise as a result of a number of the factors discussed in this “Risk Factors” section. During fiscal 2014, our closing stock price ranged from a high of \$26.20 per share to a low of \$14.16 per share. The stock market has experienced significant price and volume fluctuation that has affected the market price of many technology companies, with such volatility often unrelated to the operating performance of these companies. Divergence between our actual or anticipated financial results and published expectations of analysts, or the expectations of the market generally, can cause significant swings in our stock price. Our stock price can also be affected by market conditions in our industry as well as announcements that we, our competitors, vendors or our customers may make. These may include announcements of financial results or changes in estimated financial results, technological innovations, the gain or loss of customers or key opportunities. Our common stock is also included in certain market indices, and any change in the composition of these indices to exclude our company would adversely



affect our stock price. These and other factors affecting macroeconomic conditions or financial markets may materially adversely affect the market price of our common stock in the future.

Risks Relating to Our Pending Acquisition of Cyan, Inc.

Unanticipated regulatory actions could prevent, or substantially delay, consummation of the merger.

Under the provisions of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the "HSR Act"), our pending acquisition of Cyan, Inc. ("Cyan") may not be completed until the expiration of a statutory 30-day waiting period, or the early termination of that waiting period, following the parties' filing of their respective notification and report forms. On May 15, 2015, we and Cyan each filed with the Federal Trade Commission (the "FTC") and the Department of Justice (the "DOJ") notification

and report forms under the HSR Act. Absent early termination, the waiting period with respect to the notifications filed under the HSR Act will expire on June 15, 2015, unless otherwise extended or terminated earlier than that date. The FTC or DOJ may effectively extend the statutory waiting period by requesting additional information regarding the merger and its potential effects on competition. The FTC or DOJ could also seek to enjoin completion of the merger or impose conditions on its approval such as requiring the divestiture of assets, businesses or product lines of Cyan or Ciena.

Notwithstanding the expiration of the statutory waiting period, at any time before or after completion of the merger, the FTC or DOJ could act under the antitrust laws to prevent a substantial lessening of competition or the creation of a monopoly, including by seeking to enjoin completion of the transaction or seeking divestiture of assets, businesses or product lines of Cyan or Ciena. A delay could, among other things, increase the chance that: an event occurs that constitutes a material adverse effect with respect to Cyan and thereby may cause the failure of a Ciena closing condition; other adverse effects with respect to Cyan could occur, such as the loss of key personnel, potentially affecting the success of the combined entities; or an event could occur that causes a failure of a Cyan closing condition.

Under the merger agreement, we and Cyan generally must use our respective reasonable best efforts to obtain all regulatory approvals required to complete the merger, including the expiration or early termination of the waiting period under the HSR Act. However, we are not required under the merger agreement to accept or agree to limitations on our right to control or operate its business or assets (including the business or assets of Cyan and its subsidiaries after closing) or to agree to sell or otherwise dispose of, hold (through the establishment of a trust or otherwise) or divest all or any portion of our business, assets or operations (including the business, assets or operations of Cyan and its subsidiaries after closing) in order to obtain such regulatory approvals, nor are we obligated to engage in litigation with any governmental authorities in order to obtain any regulatory approvals.

The closing of the merger is subject to conditions and if these conditions are not satisfied or waived, the merger will not be completed.

The closing of the merger is subject to a number of conditions as set forth in the merger agreement that must be satisfied or waived, including Cyan stockholder approval of the proposal to adopt the merger agreement and certain other matters, the expiration or termination of the waiting period applicable to the merger under the HSR Act, the absence of any law, regulation, order, judgment or injunction restraining, enjoining or otherwise prohibiting the closing of the merger, the declaration by the SEC of the effectiveness of the registration statement on Form S-4 filed by us in respect of the shares of our common stock to be issued in the merger, and the approval of the listing on the New York Stock Exchange of the shares of our common stock to be issued in the merger.

The closing of the merger is also dependent on the accuracy of representations and warranties made by the parties to the merger agreement (subject to customary materiality qualifiers and other customary exceptions) and the performance in all material respects by the parties of obligations imposed under the merger agreement. Under the merger agreement, we and Cyan generally must use our respective reasonable best efforts to obtain all regulatory approvals required to complete the merger, including the expiration or early termination of the waiting period under the HSR Act. However, we are not required under the merger agreement to accept or agree to limitations on our right to control or operate its business or assets (including the business or assets of Cyan and its subsidiaries after the closing) or to agree to sell or otherwise dispose of, hold (through the establishment of a trust or otherwise) or divest all or any portion of our business, assets or operations (including the business, assets or operations of Cyan and its subsidiaries after closing) in order to obtain such regulatory approvals, nor are we obligated to engage in litigation with any governmental authorities in order to obtain any regulatory approvals.

There can be no assurance as to whether or when the conditions to the closing of the merger will be satisfied or waived or as to whether or when the merger will be consummated.

We will be subject to business uncertainties until consummation of the merger.

Uncertainty about the effect of the merger on employees and customers may have an adverse effect on us or the combined company following the merger. These uncertainties could disrupt our business and cause customers, suppliers, vendors, partners and others to defer entering into contracts with us or making other decisions concerning us or seek to change or cancel existing business relationships with us. The uncertainty and difficulty of integration could

also cause key employees to leave their employment.

The merger agreement may be terminated in accordance with its terms and the merger may not be consummated. Either we or Cyan may terminate the merger agreement under certain circumstances, including, among other reasons, if the merger is not completed by November 30, 2015.

Lawsuits have been filed against us and Cyan challenging the merger, and one or more adverse rulings may prevent the merger from being completed.

On May 15, 2015, two putative class action lawsuits in connection with the merger were filed in the Court of Chancery of the State of Delaware, naming us, Cyan, our wholly owned subsidiary Neptune Acquisition Subsidiary, Inc. and members of the Cyan board of directors as defendants. The cases are captioned Luvishis v. Cyan, Inc., et al., C.A. No. 11027-CB, and Poll v. Cyan, Inc., et al., C.A. No. 11028-CB. On May 20, 2015, a third putative class action lawsuit was filed in the Court of Chancery of the State of Delaware under the caption Canzano v. Floyd, et al., Case No. 11052-CB, naming us, Neptune Acquisition Subsidiary, Inc. and members of the Cyan board of directors as defendants. On May 27, 2015, a fourth putative class action lawsuit was filed in the Court of Chancery of the State of Delaware under the caption Kassis v. Cyan, Inc., et al., Case No. 11069-CB, naming us, Cyan, Neptune Acquisition Subsidiary, Inc. and members of the Cyan board of directors as defendants. Neptune Acquisition Subsidiary, Inc. On June 3, 2015, a fifth putative class action lawsuit was filed in the Court of Chancery of the State of Delaware under the caption Fenske v. Cyan, Inc., et al., Case No. 11090-CB, naming Cyan, Ciena, Neptune Acquisition Subsidiary, Inc. and members of the Cyan board as defendants. Each of the complaints generally alleges, among other things, that members of the Cyan board breached their fiduciary duties by failing to take steps to maximize the value of Cyan to its public stockholders, taking steps to avoid competitive bidding or deter superior proposals, failing to properly value Cyan and obtain the best exchange ratio, and ignoring or not protecting against conflicts of interest. The complaints also allege that we, Cyan and Merger Sub have aided and abetted the Cyan board members' breaches of their fiduciary duties. The actions seek (i) preliminary and permanent injunctive relief enjoining us and Cyan from consummating the merger; (ii) in the event the merger is consummated prior to the entry of the Court's final judgment, rescission of the merger or awarding rescissory damages; and (iii) recovery through an accounting by the defendants of all damages caused by them as a result of the alleged breaches of fiduciary duties. The actions also seek to recover costs, including attorneys' fees and experts' fees. These lawsuits are in a preliminary stage. Additional lawsuits may be filed against us, Cyan, Neptune Acquisition Subsidiary, Inc. and our respective directors and officers alleging similar or additional claims. The outcome of the putative class action lawsuits described above or any other lawsuit that may be brought challenging the merger is uncertain. An adverse judgment for monetary damages could have an adverse effect on our operations and liquidity. A preliminary injunction could delay or jeopardize the completion of the merger, and an adverse judgment granting permanent injunctive relief could indefinitely enjoin completion of the merger. Additional lawsuits may be filed against us, Cyan and/or the board of directors of either company in connection with the merger.

One of the conditions to the closing of the merger is that no governmental entity of competent jurisdiction shall have enacted, issued, promulgated, enforced or entered any law, injunction, order or other judgment which is in effect and restrains, enjoins or otherwise prohibits the closing of the merger. Therefore, if the plaintiffs in the above actions or in any additional lawsuit that may be filed secure injunctive relief or other relief prohibiting, delaying or otherwise adversely affecting the parties' ability to complete the merger, then such injunctive or other relief may prevent the merger from becoming effective within the expected timeframe or at all.

We may fail to realize the anticipated benefits of the merger.

The success of the merger will depend on, among other things, our ability to combine our business with that of Cyan in a manner that facilitates growth opportunities and realizes anticipated growth and cost savings. We believe that the merger will provide an opportunity for long-term revenue growth based on Cyan's software capabilities as well as near term value in Cyan's packet-optical hardware business. The addition of Cyan's technology also is expected to accelerate our availability to offer a complete on-demand solution for virtualized networks and services in an open ecosystem. However, we must successfully combine our business with Cyan's business in a manner that permits these benefits to be realized. In addition, we must achieve the anticipated growth and cost savings without adversely affecting current revenues and investments in future growth. If we are not able to successfully achieve these objectives, the anticipated benefits of the merger may not be realized fully, or at all, or may take longer to realize than expected.

The failure to integrate successfully the business and operations of Cyan in the expected time frame may adversely affect our future results.

Historically, we and Cyan have operated as independent companies, and we will continue to do so until the completion of the merger. There can be no assurances that our businesses can be integrated successfully. It is possible that the integration process could result in the loss of key Ciena or Cyan employees, the loss of customers, the disruption of either company's or both companies' ongoing businesses or in unexpected integration issues, greater than expected integration costs and an overall post-completion integration process that takes longer than originally anticipated. See the risk factors entitled "-We may be unable to retain Cyan personnel successfully after the merger is completed" and "-We will be subject to business uncertainties until consummation of the merger" above. Specifically, the following issues, among others, must be addressed in integrating our operations with those of Cyan in order to realize the anticipated benefits of the merger so the combined company performs as expected:

- combining the companies' operations and corporate functions;
- combining our business with Cyan's business and meeting the capital requirements of the combined company, in a manner that permits us to achieve the cost savings or revenue synergies anticipated to result from the merger, the failure of which would result in the anticipated benefits of the merger not being realized in the time frame currently anticipated or at all;
- integrating the companies' technologies and unifying the hardware and software solutions offerings and services available to customers;
- identifying and eliminating redundant and underperforming functions and assets;
- harmonizing the companies' operating practices, employee-related policies and compensation programs, internal controls and other policies, procedures and processes;
- maintaining existing agreements with customers, distributors and vendors and avoiding delays in entering into new agreements with prospective customers, distributors and vendors;
- addressing possible differences in business backgrounds, corporate cultures and management philosophies;
- consolidating the companies' administrative, information technology and business systems infrastructure;
- coordinating distribution and marketing efforts; and
- effecting actions that may be required in connection with obtaining regulatory approvals.

In addition, at times the attention of certain members of our management and resources may be focused on completion of the merger and the integration of the businesses of the two companies and diverted from day-to-day business operations, which may disrupt our ongoing business and the business of the combined company.

Combining our business with Cyan's business may be more difficult, costly or time-consuming than expected, which may adversely affect our business results and negatively affect the value of our common stock following the merger. We and Cyan have entered into the merger agreement because we believe that the merger will be in the best interests of our stockholders and that combining our business with Cyan's business will produce market and revenue opportunities, benefits and cost savings. If we are not able to successfully combine the businesses in an efficient and effective manner, the anticipated benefits and cost savings of the merger may not be realized fully, or at all, or may take longer to realize than expected, and the value of our common stock may be affected adversely.

An inability to realize the full extent of the anticipated benefits of the merger and the other transactions contemplated by the merger agreement, as well as any delays encountered in the integration process, could have an adverse effect upon our revenues, level of expenses and operating results, which may adversely affect the value of our common stock after the completion of the merger.

In addition, the actual integration may result in additional and unforeseen expenses, and the anticipated benefits of the integration plan may not be realized. Actual growth and cost savings, if achieved, may be lower than what we expect and may take longer to achieve than anticipated. If we are not able to adequately address integration challenges, we may be unable to successfully integrate our operations with those of Cyan or to realize the anticipated benefits of the integration of the two companies.

We will incur significant transaction and merger-related costs in connection with the merger.

We have incurred and expect to incur a number of non-recurring costs associated with the merger. These costs and expenses include fees paid to financial, legal and accounting advisors, facilities and systems consolidation costs, severance and other potential employment-related costs, including payments that may be made to certain Cyan executives, filing fees, printing expenses and other related charges. Some of these costs are payable regardless of whether the merger is completed. We currently estimate the aggregate amount of our expenses to be \$30.0 million. There are also a large number of processes, policies, procedures, operations, technologies and systems that must be integrated in connection with the merger and the integration of the two companies' businesses. While we have assumed that a certain level of expenses would be incurred in connection with the merger and the other transactions contemplated by the merger agreement, there are many factors beyond our control that could affect the total amount or the timing of the integration and implementation expenses.

There may also be additional unanticipated significant costs in connection with the merger that we may not recoup. These costs and expenses could reduce the realization of efficiencies, strategic benefits and additional income we

expect to achieve from the merger. Although we expect that these benefits will offset the transaction expenses and implementation costs over time, this net benefit may not be achieved in the near term or at all.

Third parties may terminate or alter existing contracts or relationships with us or Cyan.

Cyan has contracts with customers, suppliers, vendors, landlords, licensors and other business partners that may require Cyan to obtain consent from these other parties in connection with the merger. If these consents cannot be obtained, Cyan may suffer a

loss of potential future revenue and may lose rights that are material to its business and the business of the combined company. In addition, third parties with whom we or Cyan currently have relationships may terminate or otherwise reduce the scope of their relationship with either party in anticipation of the merger. Any such disruptions could limit our ability to achieve the anticipated benefits of the merger. The adverse effect of such disruptions could also be exacerbated by a delay in the completion of the merger or the termination of the merger agreement.

We may be unable to retain Cyan personnel successfully after the merger is completed.

The success of the merger will depend in part on our ability to retain the talents and dedication of key professionals currently employed by Cyan. It is possible that these employees may decide not to remain with Cyan while the merger is pending or with the combined company after the merger is consummated. If key employees terminate their employment, or if an insufficient number of employees is retained to maintain effective operations, the combined company's business activities may be adversely affected and management's attention may be diverted from successfully integrating Cyan to hiring suitable replacements, all of which may cause the combined company's business to suffer. In addition, we and Cyan may not be able to locate suitable replacements for any key employees that leave either company or offer employment to potential replacements on reasonable terms.

## Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

On March 15, 2015, our outstanding 4.0% Convertible Senior Notes due 2015 (the "2015 Notes") matured. As a result of conversion elections made by holders of a substantial majority of the outstanding 2015 Notes under the terms of the indenture governing the 2015 Notes, together with certain, separate, privately negotiated exchange transactions conducted by us prior to maturity, approximately \$180.6 million in aggregate principal amount of the 2015 Notes, representing 96.3% of the outstanding 2015 Notes, was settled through the issuance of Ciena common stock. In total, we issued approximately 8.9 million shares of Ciena common stock as a result of conversions and exchanges in respect of the 2015 Notes. We also repaid in cash approximately \$6.9 million in aggregate principal amount of the 2015 Notes at maturity.

Based upon conversion elections made by the holders of the 2015 Notes, Ciena issued an aggregate of 8,898,387 shares of its common stock in transactions exempt from registration under the Securities Act of 1933, as amended (the "Securities Act") by virtue of Section 3(a)(9) thereof because no commission or other remuneration was paid in connection with any conversion of the 2015 Notes or any resulting issuance of shares of the Company's common stock.

In addition, prior to maturity of the 2015 Notes, Ciena entered into certain, separate, privately negotiated exchange transactions and issued an aggregate of 36,745 additional shares of Ciena common stock in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act. The issuance of the common stock to certain holders of the 2015 Notes as an inducement to convert their 2015 Notes did not involve a public offering, the solicitation of offers for the 2015 Notes was not done by any form of general solicitation or general advertising, and offers for the 2015 Notes were only solicited from persons who represented to Ciena that they were "accredited investors" within the meaning of Rule 501 of Regulation D promulgated under the Securities Act.

## Item 3. Defaults Upon Senior Securities

Not applicable.

## Item 4. Mine Safety Disclosures

Not applicable.

## Item 5. Other Information



Not applicable.

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Item 6. Exhibits

- 2.1 Agreement and Plan of Merger, dated as of May 3, 2015, among Ciena Corporation, Neptune Acquisition Subsidiary, Inc. and Cyan, Inc.\*
- 2.2 First Amendment to Agreement and Plan of Merger dated as of June 2, 2015, among Ciena Corporation, Neptune Acquisition Subsidiary, Inc. and Cyan, Inc. \*\*\*
- 10.1 Form of Voting Agreement\*
- 10.2 First Amendment to Credit Agreement and First Amendment to Certain Pledge Agreements, dated April 15, 2015\*\*
- 10.3 Omnibus Fourth Amendment to Credit Agreement and First Amendment to U.S. Pledge Agreement and Canadian Pledge Agreement, date April 15, 2015\*\*
- 10.4 Amendment No. 1 to the Lease Agreement dated October 23, 2014, between Innovation Blvd II Limited and Ciena Canada, Inc., dated April 15, 2015\*\*
- 10.5 Lease Agreement between Innovation Blvd II Limited and Ciena Canada, Inc., dated April 15, 2015\*\*
- 31.1 Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934 as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934 as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document
- \* Incorporated by reference from Ciena's Current Report on Form 8-K filed May 4, 2015
- \*\* Incorporated by reference from Ciena's Current Report on Form 8-K filed June 3, 2015
- \*\*\* Incorporated by reference from Ciena's Registration Statement on Form S-4 filed June 4, 2015

**SIGNATURES**

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

Ciena Corporation

Date: June 10, 2015

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

Date: June 10, 2015

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