CIENA CORP
Form 10-Q
March 08, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549
FORM 10-Q
(Mark one)
þ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended January 31, 2017
OR
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

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

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

(410) 694-5700
(Registrant's telephone number, including area code)
Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES þ NO o
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES þ NO o
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer 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 þ	Accelerated filer o	Non-accelerated filer o (do not check if smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as determined in Rule 12b-2 of the Exchange Act). YES o NO þ
Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

Class	Outstanding at March 3, 2017
common stock, $0.01 par value	141,317,330

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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 January 31,	
	2017	2016
Revenue:		
Products	$506,993	$457,589
Services	114,504	115,526
Total revenue	621,497	573,115
Cost of goods sold:		
Products	286,811	260,482
Services	60,901	61,183
Total cost of goods sold	347,712	321,665
Gross profit	273,785	251,450
Operating expenses:		
Research and development	116,869	108,046
Selling and marketing	85,002	82,478
General and administrative	35,864	31,142
Acquisition and integration costs	—	1,299
Amortization of intangible assets	14,551	16,862
Restructuring costs	2,395	384
Total operating expenses	254,681	240,211
Income from operations	19,104	11,239
Interest and other income (loss), net	370	(8,776)
Interest expense	(15,203)	(12,710)
Income (loss) before income taxes	4,271	(10,247)
Provision for income taxes	410	1,299
Net income (loss)	$3,861	$(11,546)
Basic net income (loss) per common share	$0.03	$(0.08)
Diluted net income (loss) per potential common share	$0.03	$(0.08)
Weighted average basic common shares outstanding	140,682	136,675
Weighted average dilutive potential common shares outstanding	142,184	136,675

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 January 31,	
	2017	2016
Net income (loss)	$3,861	$(11,546)
Change in unrealized gain (loss) on available-for-sale securities, net of tax	(249)	22
Change in unrealized gain (loss) on foreign currency forward contracts, net of tax	1,425	(2,520)
Change in unrealized gain (loss) on forward starting interest rate swap, net of tax	4,492	(329)
Change in cumulative translation adjustments	490	(2,823)
Other comprehensive income (loss)	6,158	(5,650)
Total comprehensive income (loss)	$10,019	$(17,196)

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)

	January 31, 2017	October 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$693,853	$777,615
Short-term investments	250,056	275,248
Accounts receivable, net	595,706	576,235
Inventories	284,595	211,251
Prepaid expenses and other	173,842	172,843
Total current assets	1,998,052	2,013,192
Long-term investments	109,934	90,172
Equipment, building, furniture and fixtures, net	293,150	288,406
Goodwill	267,169	266,974
Other intangible assets, net	127,847	146,711
Other long-term assets	63,942	68,120
Total assets	$2,860,094	$2,873,575
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$273,513	$235,942
Accrued liabilities and other short-term obligations	264,555	310,353
Deferred revenue	113,371	109,009
Current portion of long-term debt	190,122	236,241
Total current liabilities	841,561	891,545
Long-term deferred revenue	78,565	73,854
Other long-term obligations	121,320	124,394
Long-term debt, net	1,019,755	1,017,441
Total liabilities	$2,061,201	$2,107,234
Commitments and contingencies (Note 21)		
Stockholders' equity:		
Preferred stock – par value $0.01; 20,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock – par value $0.01; 290,000,000 shares authorized; 141,262,606 and 139,767,627 shares issued and outstanding	1,413	1,398
Additional paid-in capital	6,737,996	6,715,478
Accumulated other comprehensive loss	(18,171)	(24,329)
Accumulated deficit	(5,922,345)	(5,926,206)
Total stockholders' equity	798,893	766,341
Total liabilities and stockholders' equity	$2,860,094	$2,873,575

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

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

	Three Months Ended January 31,	
	2017	2016
Cash flows provided by operating activities:		
Net income (loss)	$3,861	$(11,546)
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	16,699	14,449
Share-based compensation costs	12,825	14,477
Amortization of intangible assets	18,864	20,506
Provision for inventory excess and obsolescence	5,431	7,016
Provision for warranty	553	4,971
Other	4,452	11,087
Changes in assets and liabilities:		
Accounts receivable	(21,956)	63,332
Inventories	(78,749)	(22,134)
Prepaid expenses and other	(1,004)	6,761
Accounts payable, accruals and other obligations	4,037	(80,014)
Deferred revenue	8,737	(13,925)
Net cash provided by (used in) operating activities	(26,250)	14,980
Cash flows used in investing activities:		
Payments for equipment, furniture, fixtures and intellectual property	(25,706)	(28,873)
Purchase of available for sale securities	(89,897)	(134,869)
Proceeds from maturities of available for sale securities	95,000	30,000
Settlement of foreign currency forward contracts, net	440	(295)
Net cash used in investing activities	(20,163)	(134,037)
Cash flows provided by financing activities:		
Payment of long-term debt	(46,296)	(14,639)
Payment of debt and equity issuance costs	—	(797)
Payment of capital lease obligations	(605)	(1,627)
Proceeds from issuance of common stock	9,708	8,870
Net cash used in financing activities	(37,193)	(8,193)
Effect of exchange rate changes on cash and cash equivalents	(156)	(3,400)
Net decrease in cash and cash equivalents	(83,762)	(130,650)
Cash and cash equivalents at beginning of period	777,615	790,971
Cash and cash equivalents at end of period	$693,853	$660,321
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	$11,831	$9,902
Cash paid during the period for income taxes, net	$5,521	$3,702
Non-cash investing activities		
Purchase of equipment in accounts payable	$5,293	$8,782
Equipment acquired under capital lease	$—	$1,219
Construction in progress subject to build-to-suit lease	$—	$11,522

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

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CIENA CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

(1) INTERIM FINANCIAL STATEMENTS

The interim financial statements included herein for Ciena Corporation and its wholly owned subsidiaries (“Ciena”) have been prepared by Ciena, without audit, pursuant to the rules and regulations of the U.S. Securities and Exchange Commission ("SEC"). In the opinion of management, the financial statements included in this report reflect all normal recurring adjustments that Ciena considers necessary for the fair statement of the results of operations for the interim periods covered and of the financial position of Ciena at the date of the interim balance sheets. Certain information and footnote disclosures normally included in the annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") have been condensed or omitted pursuant to such rules and regulations. The Condensed Consolidated Balance Sheet as of October 31, 2016 was derived from audited financial statements, but does not include all disclosures required by GAAP. However, Ciena believes that the disclosures are adequate to understand the information presented herein. The operating results for interim periods are not necessarily indicative of the operating results for the entire year. These financial statements should be read in conjunction with Ciena’s audited consolidated financial statements and the notes thereto included in Ciena’s annual report on Form 10-K for the fiscal year ended October 31, 2016.

Ciena has a 52 or 53-week fiscal year, with quarters ending on the Saturday nearest to the last day of January, April, July and October, respectively, of each year. Fiscal 2017 and 2016 are 52-week fiscal years. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31, and the fiscal quarters are described as having ended on January 31, April 30 and July 31 of each fiscal year.

(2) SIGNIFICANT ACCOUNTING POLICIES

Business Combinations

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

Use of Estimates

The preparation of the financial statements and related disclosures in conformity with GAAP requires management to make estimates and judgments that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Estimates are used for selling prices for multiple element arrangements, shared-based compensation, convertible notes payable valuations, bad debts, valuation of inventories and investments, recoverability of intangible assets, other long-lived assets and goodwill, income taxes, warranty obligations,

restructuring liabilities, derivatives, incentive compensation, contingencies and litigation. Ciena bases its estimates on historical experience and assumptions that it believes are reasonable. Actual results may differ materially from management's estimates.

Cash and Cash Equivalents

Ciena considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents. Any restricted cash collateralizing letters of credit is included in 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 minority equity investments in privately held technology companies that are classified in other long-term assets. These investments are carried at cost because Ciena owns less than 20% of the voting equity and does not have the ability to exercise significant influence over the companies. Ciena monitors these investments for impairment and makes appropriate reductions to the carrying value when necessary. As of January 31, 2017, the combined carrying value of these investments was $6.0 million. Ciena has not estimated the fair value of these cost method investments because determining the fair value is not practicable. Ciena has not evaluated these investments for impairment as there have not been any events or changes in circumstances that Ciena believes would have had a significant adverse effect on the fair value of these investments.

Inventories

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

Segment Reporting

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

Goodwill

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

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

charge, its operating results would be materially adversely affected in such period.

Long-lived Assets

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

Equipment, Building, Furniture and Fixtures and Internal Use Software

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

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

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

Intangible Assets

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

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

Maintenance Spares

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

Concentrations

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

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

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

Revenue Recognition

Ciena recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the price to the buyer is fixed or determinable; and collectibility

is reasonably assured. Customer purchase agreements and customer purchase orders are generally used to determine the existence of an arrangement. Shipping documents and evidence of customer acceptance, when applicable, are used to verify delivery or services rendered. Ciena assesses whether the price is fixed or determinable based on the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. Ciena assesses collectibility based primarily on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history. Revenue for maintenance services is deferred and recognized ratably over the period during which the services are performed. Shipping and handling fees billed to customers are included in revenue, with the associated expenses included in product cost of goods sold.

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

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

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

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

Warranty Accruals

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

Accounts Receivable, Net

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

Research and Development

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

Advertising Costs

Ciena expenses all advertising costs as incurred.

Legal Costs

Ciena expenses legal costs associated with litigation 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 the end of each reporting period, Ciena reassesses the probability of achieving the performance targets and the performance period required to meet those targets, and the expense is adjusted accordingly. Ciena uses the straight-line method to record expense for share-based awards with only service-based vesting. See Note 19 below.

Income Taxes

Ciena accounts for income taxes using an asset and liability approach 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 2010 and 2012 through 2014 and in Canada for 2011 through 2013. Management does not expect the outcome of these audits to have a material adverse effect on Ciena’s consolidated financial position, results of operations or cash flows. Ciena’s major tax jurisdictions and the earliest open tax years are as follows: United States (2013), United Kingdom (2014), Canada (2011) India (2010) and Brazil (2012). Limited adjustments can be made to Federal U.S. tax returns in earlier years in order to reduce net operating loss carryforwards. Ciena classifies interest and penalties related to uncertain tax positions as a component of income tax expense.

Ciena has not provided for U.S. deferred income taxes on the cumulative unremitted earnings of its non-U.S. affiliates, as it plans to indefinitely reinvest cumulative unremitted foreign earnings outside the U.S., and it is not practicable to determine the unrecognized deferred income taxes. These cumulative unremitted foreign earnings relate to ongoing operations in foreign jurisdictions and are required to fund foreign operations, capital expenditures and future expansion requirements. See Note 21 below.

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 loans, see Note 16 below.

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

- Level 1 inputs are unadjusted quoted prices in active markets for identical assets or liabilities;
- Level 2 inputs are quoted prices for identical or similar assets or liabilities in less active markets or model-derived valuations in which significant inputs are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument; and
- Level 3 inputs are unobservable inputs based on Ciena's assumptions used to measure assets and liabilities at fair value.

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

Restructuring

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

Foreign Currency

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

Derivatives

From time to time, Ciena uses foreign currency forward contracts to reduce variability in certain forecasted non-U.S. Dollar denominated cash flows. Generally, these derivatives have maturities of 12 months or less. Ciena also has

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

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 14 below.

Computation of Net Income (Loss) per Share

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

Software Development Costs

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

Newly Issued Accounting Standards - Effective

In April 2015, Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-03, Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03"). ASU 2015-03 requires debt issuance costs related to a recognized debt liability to be presented in the balance sheet as a direct deduction from the carrying value of that debt liability, consistent with debt discounts. ASU 2015-03 is to be applied on a retrospective basis and represents a change in accounting principle. In August 2015, the FASB issued Accounting Standards Update No. 2015-15, “Interest — Imputation of Interest (Subtopic 835-30): Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements — Amendments to SEC Paragraphs Pursuant to Staff Announcement at June 18, 2015 EITF Meeting” (“ASU 2015-15”), which clarifies the treatment of debt issuance costs from line-of-credit arrangements after the adoption of ASU 2015-03. In particular, ASU 2015-15 clarifies that the SEC staff would not object to an entity deferring and presenting debt issuance costs related to a line-of-credit arrangement as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of such arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. Ciena adopted these ASU's during the first quarter of fiscal 2017. The adoption of ASU 2015-03 resulted in the reclassification of unamortized debt issuance costs related to Ciena's convertible notes and term loans from other long-term assets to current portion of long-term debt and long-term debt, net in Ciena's Consolidated Balance sheets in the amount of $7.9 million at January 31, 2017 and $8.9 million at October 31, 2016. As permitted by ASU 2015-15, Ciena elected not to reclassify unamortized debt issuance costs associated with its ABL Credit Facility (described in Note 17 below) and continue to present such capitalized costs in other assets.

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

Newly Issued Accounting Standards - Not Yet Effective

In May 2014, FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which provides guidance for revenue recognition. This ASU affects any entity that either enters into contracts with customers to transfer goods or services or enters into contracts for the transfer of non-financial assets. This ASU will supersede the revenue recognition

requirements in Topic 605, Revenue Recognition, and most industry-specific guidance. This ASU also supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition-Construction-Type and Production-Type Contracts. The standard will be effective for Ciena beginning in the first quarter of fiscal 2019. For multiple element software arrangements where VSOE of undelivered maintenance does not exist, Ciena currently recognizes revenue for the entire arrangement over the maintenance term. Ciena expects that the adoption of this ASU will require Ciena to determine the stand alone selling price for each of the elements at the contract inception and consequently Ciena expects certain software deliverables will be recognized at a point in time rather than over a period of time. Ciena is continuing to evaluate other possible impacts of the adoption of this ASU on its Consolidated Financial Statements and disclosures, as well as the transition method.

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

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

(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 three months ended January 31, 2017 (in thousands):

	Workforce reduction	Consolidation of excess facilities	Total
Balance at October 31, 2016	$ 868	$ 1,970	$2,838
Additional liability recorded	2,008	387	2,395
Cash payments	(2,512)	(652)	(3,164)
Balance at January 31, 2017	$ 364	$ 1,705	$2,069
Current restructuring liabilities	$ 364	$ 1,269	$1,633
Non-current restructuring liabilities	$ —	$ 436	$436

The following table sets forth the restructuring activity and balance of the restructuring liability accounts for the three months ended January 31, 2016 (in thousands):

	Workforce reduction	Consolidation of excess facilities	Total
Balance at October 31, 2015	$ 591	$ 688	$1,279
Additional liability recorded	393	—	393
Adjustment to previous estimates	—	(9)	(9)
Cash payments	(613)	(148)	(761)
Balance at January 31, 2016	$ 371	$ 531	$902
Current restructuring liabilities	$ 371	$ 336	$707
Non-current restructuring liabilities	$ —	$ 195	$195

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

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

	Quarter Ended January 31,	
	2017	2016
Interest income	$1,282	$686
Gains (losses) on non-hedge designated foreign currency forward contracts	1,024	(4,614)
Foreign currency exchange losses	(2,417)	(4,377)
Other	481	(471)
Interest and other income (loss), net	$370	$(8,776)

Ciena Corporation, as the U.S. parent entity, uses the U.S. Dollar as its functional currency; however, some of its foreign branch offices and subsidiaries use the local currency as their functional currency. During the first three months of fiscal 2017 and the first three months of fiscal 2016, Ciena recorded $2.4 million and $4.4 million in foreign currency exchange rate losses, respectively, as a result of monetary assets and liabilities that were transacted in a currency other than the entity's functional currency, and the re-measurement adjustments were recorded in interest and other income (loss), net on the Condensed Consolidated Statement of Operations. From time to time, Ciena uses foreign currency forwards to hedge these balance sheet exposures. These forwards are not designated as hedges for accounting purposes and any net gain or loss associated with these derivatives is reported in interest and other income

(loss), net on the Condensed Consolidated Statement of Operations. During the first three months of fiscal 2017 and fiscal 2016, Ciena recorded gains of $1.0 million and losses of $4.6 million, respectively, from non-hedge designated foreign currency forward contracts.

(5) SHORT-TERM AND LONG-TERM INVESTMENTS

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

	January 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	$230,090	$ 60	(46)	$230,104
Included in long-term investments	110,035	5	(106)	109,934
	$340,125	$ 65	$ (152)	$340,038
Commercial paper:				
Included in short-term investments	$19,952	—	—	$19,952
	$19,952	$ —	$ —	$19,952

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

The following table summarizes the final legal maturities of debt investments at January 31, 2017 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	$250,042	$250,056
Due in 1-2 years	110,035	109,934
	$360,077	$359,990

(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):

	January 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$529,967	$—	$ —	$529,967
U.S. government obligations	—	340,038	—	340,038
Commercial paper	—	39,925	—	39,925
Foreign currency forward contracts	—	361	—	361
Total assets measured at fair value	$529,967	$380,324	$ —	$910,291
Liabilities:				
Foreign currency forward contracts	$—	$496	$ —	$496
Forward starting interest rate swap	—	1,475	—	1,475
Total liabilities measured at fair value	$—	$1,971	$ —	$1,971

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

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

	January 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$529,967	$19,973	$ —	$549,940
Short-term investments	—	250,056	—	250,056
Prepaid expenses and other	—	361	—	361
Long-term investments	—	109,934	—	109,934
Total assets measured at fair value	$529,967	$380,324	$ —	$910,291
Liabilities:				
Accrued liabilities	$—	$496	$ —	$496
Other long-term obligations	—	1,475	—	1,475
Total liabilities measured at fair value	$—	$1,971	$ —	$1,971

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

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

(7) ACCOUNTS RECEIVABLE

As of January 31, 2017, one customer accounted for 10.5% of Ciena's net accounts receivable and as of October 31, 2016, a different customer accounted for 10.4% of Ciena's net accounts receivable. Ciena has not historically experienced a significant amount of bad debt expense. The allowance for doubtful accounts was $4.0 million as of January 31, 2017 and October 31, 2016.

(8) INVENTORIES

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

	January 31, 2017	October 31, 2016
Raw materials	$43,503	$44,644
Work-in-process	13,959	12,852
Finished goods	197,651	156,402
Deferred cost of goods sold	83,853	59,856
	338,966	273,754
Provision for excess and obsolescence	(54,371)	(62,503)
	$284,595	$211,251

Ciena writes down its inventory for estimated obsolescence or unmarketable inventory by an amount equal to the difference between the cost of inventory and the estimated net realizable value based on assumptions about future demand and market conditions. During the first three months of fiscal 2017, Ciena recorded a provision for excess and obsolescence of $5.4 million, primarily related to a decrease in the forecasted demand for certain Networking Platform products. Deductions from the provision for excess and obsolete inventory relate primarily to disposal activities.

(9) PREPAID EXPENSES AND OTHER

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

	January 31, 2017	October 31, 2016
Prepaid VAT and other taxes	$ 74,598	$ 77,474
Product demonstration equipment, net	38,766	42,259
Deferred deployment expense	18,607	19,138
Prepaid expenses	24,343	25,659
Other non-trade receivables	9,388	4,398
Financing receivable	7,779	3,740
Derivative assets	361	175
	$ 173,842	$ 172,843

Depreciation of product demonstration equipment was $2.4 million and $2.5 million for the first three months of fiscal 2017 and 2016, respectively.

(10) EQUIPMENT, BUILDING, FURNITURE AND FIXTURES

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

	January 31, 2017	October 31, 2016
Equipment, furniture and fixtures	$ 461,146	$ 451,029
Building subject to capital lease	22,947	22,529
Construction in progress subject to build-to-suit lease	58,671	57,602
Leasehold improvements	62,349	60,011
	605,113	591,171
Accumulated depreciation and amortization	(311,963)	(302,765)
	$ 293,150	$ 288,406

Ciena capitalizes construction in progress and records a corresponding long-term liability for build-to-suit lease agreements where Ciena is considered the owner, for accounting purposes, during the construction period. On April 15, 2015, Ciena entered into a build-to-suit lease arrangement pursuant to which the landlord will construct, and Ciena will subsequently lease, two new office buildings at its new Ottawa, Canada campus. The landlord will construct the buildings and contribute up to a maximum of CAD$290.00 per rentable square foot in total construction costs plus certain allowances for tenant improvements, and Ciena will be responsible for any additional construction costs. As of January 31, 2017, total costs incurred under this build-to-suit arrangement were $58.7 million. Upon occupancy of the facilities, Ciena expects this arrangement to qualify as a capital lease. As a result, the facilities will be depreciated over the shorter of their useful lives or the lease term.

The total depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements, was $14.3 million and $11.9 million for the first three months of fiscal 2017 and 2016, respectively.

(11) OTHER INTANGIBLE ASSETS

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

	January 31, 2017			October 31, 2016		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	$ 347,727	$ (258,955)	$ 88,772	$ 347,727	$ (248,128)	$ 99,599
In-process research and development	4,200	—	4,200	4,200	—	4,200
Patents and licenses	7,165	(6,348)	817	7,165	(6,285)	880
	358,647	(324,589)	34,058	358,647	(316,615)	42,032

Customer relationships, covenants not to compete, outstanding purchase orders and contracts						
Total other intangible assets	$717,739	$ (589,892)	$ 127,847	$717,739	$ (571,028)	$ 146,711

The aggregate amortization expense of intangible assets was $18.9 million and $20.5 million for the first three months of fiscal 2017 and 2016, respectively. Expected future amortization of intangible assets for the fiscal years indicated is as follows (in thousands):

Period ended October 31,	
2017 (remaining nine months)	$26,497
2018	22,680
2019	22,133
2020	21,106
2021	18,172
Thereafter	13,059
	$123,647[1]

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

(12) GOODWILL

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

	Balance at October 31, 2016	Acquisitions	Impairments	Translation	Balance at January 31, 2017
Software and Software-Related Services	$201,428	$ —	$ —	$ —	$201,428
Networking Platforms	65,546	—	—	195	65,741
Total	$266,974	$ —	$ —	$ 195	$267,169

(13) OTHER BALANCE SHEET DETAILS

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

	January 31, 2017	October 31, 2016
Maintenance spares, net	$ 45,529	$ 49,535
Deferred debt issuance costs, net [1]	1,283	1,363
Financing receivable	2,018	1,870
Other	15,112	15,352
	$ 63,942	$ 68,120

(1) As described in Note 2 above, in connection with Ciena's adoption of ASU 2015-03 effective January 31, 2017, deferred debt issuance costs associated with its convertible notes and term loans were retrospectively reclassified from other long-term assets to current portion of long-term debt and long-term debt, net on the Condensed Consolidated Balance Sheets. The deferred debt issuance costs reflected relate to Ciena's ABL Credit Facility (described in Note 17 below). The amortization of deferred debt issuance costs for Ciena's ABL Credit Facility is included in interest expense, and was $0.1 million and $0.2 million during the first three months of fiscal 2017 and 2016, respectively.

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

	January 31, 2017	October 31, 2016
Compensation, payroll related tax and benefits	$ 63,251	$ 106,687
Warranty	48,652	52,324
Vacation	36,187	36,112
Capital lease obligations	2,233	2,321
Interest payable	5,486	4,649
Other	108,746	108,260
	$ 264,555	$ 310,353

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

Three months ended January 31,	Beginning Balance	Provisions	Settlements	Ending Balance
2016	$ 56,654	4,971	(4,989)	$56,636
2017	$ 52,324	553	(4,225)	$48,652

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

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

	January 31, 2017	October 31, 2016
Products	$ 48,766	$ 45,216
Services	143,170	137,647
	191,936	182,863
Less current portion	(113,371)	(109,009)
Long-term deferred revenue	$ 78,565	$ 73,854

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

	January 31, 2017	October 31, 2016
Construction liability	$ 58,671	$ 57,602
Capital lease obligations	24,186	24,298
Income tax liability	13,765	14,122
Deferred tenant allowance	8,913	9,164
Straight-line rent	7,342	6,406
Forward starting interest rate swap	1,475	5,967
Other	6,968	6,835
	$ 121,320	$ 124,394

Ciena capitalizes construction in progress and records a corresponding long-term liability for build-to-suit lease agreements where Ciena is considered the owner during the construction period for accounting purposes.

The following is a schedule by fiscal year of future minimum lease payments under capital leases and the present value of minimum lease payments as of January 31, 2017 (in thousands):

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Period ended October 31,	
2017 (remaining nine months)	$3,084
2018	3,842
2019	3,420
2020	2,440
2021	2,335
Thereafter	28,210
Net minimum capital lease payments	43,331
Less: Amount representing interest	(16,912)
Present value of minimum lease payments	26,419
Less: Current portion of present value of minimum lease payments	(2,233)
Long-term portion of present value of minimum lease payments	$24,186

(14) DERIVATIVE INSTRUMENTS

Foreign Currency Derivatives

As of January 31, 2017 and October 31, 2016, Ciena had forward contracts in place to reduce the variability in its Canadian Dollar and Indian Rupee denominated expense, which principally related to its research and development activities. The notional amount of these contracts was approximately $83.1 million and $107.6 million as of January 31, 2017 and October 31, 2016, respectively. These foreign exchange contracts have maturities of 12 months or less and have been designated as cash flow hedges.

During the first three months of fiscal 2017 and fiscal 2016, in order to hedge certain balance sheet exposures, Ciena entered into forward contracts to mitigate risk due to volatility in the Brazilian Real, Canadian Dollar and Mexican Peso. The notional amount of these contracts was approximately $57.8 million and $59.6 million as of January 31, 2017 and October 31, 2016, respectively. These foreign exchange contracts have maturities of 12 months or less and have not been designated as hedges for accounting purposes.

Interest Rate Derivatives

During fiscal 2014, Ciena entered into floating interest rate to fixed interest rate swap arrangements ("interest rate swaps") that fixed the interest rate under the 2019 Term Loan (as defined in Note 16) at 5.004% for the period commencing on July 20, 2015 through July 19, 2018. The total notional amount of these derivatives as of January 31, 2017 and October 31, 2016 was $243.8 million and $244.4 million, respectively.

In May 2016, Ciena entered into interest rate swaps that fixed the total interest rate under the 2021 Term Loan (as defined in Note 16) at 4.62% to 4.87%, depending on the applicable margin, for the period commencing on June 20, 2016 through June 22, 2020. The total notional amount of these derivatives as of January 31, 2017 and October 31, 2016 was $148.9 million and $248.8 million, respectively.

Ciena expects the variable rate payments to be received under the terms of the interest rate swaps to exactly offset the forecasted variable rate payments on the equivalent notional amounts of the term loans. These derivative contracts have been designated as cash flow hedges.

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

(15) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income ("AOCI") for the three months ending January 31, 2017:

	Unrealized Gain/(Loss) on Marketable Securities	Unrealized Gain/(Loss) on Foreign Currency Contracts	Unrealized Gain/(Loss) on Forward Starting Interest Rate Swap	Cumulative Foreign Currency Translation Adjustment	Total
Balance at October 31, 2016	$ 139	$ (1,091)	$ (5,967)	$ (17,410)	$(24,329)
Other comprehensive income (loss) before reclassifications	(249)	1,031	4,044	490	5,316
Amounts reclassified from AOCI	—	394	448	—	842
Balance at January 31, 2017	$ (110)	$ 334	$ (1,475)	$ (16,920)	$(18,171)

The following table summarizes the changes in AOCI for the three months ending January 31, 2016:

	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, 2015	$ (78)	$ (268)	(5,522)	$ (16,258)	$(22,126)
Other comprehensive income (loss) before reclassifications	22	(3,191)	(1,120)	(2,823)	(7,112)
Amounts reclassified from AOCI	—	671	791	—	1,462
Balance at January 31, 2016	$ (56)	$ (2,788)	$ (5,851)	$ (19,081)	$(27,776)

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

(16) SHORT-TERM AND LONG-TERM DEBT

Term Loans

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

On April 25, 2016, Ciena entered into an Incremental Joinder and Amendment Agreement (the “Incremental Term Loan Credit Agreement”) that amended the Term Loan Credit Agreement. The Incremental Term Loan Credit Agreement provided for a new tranche of senior secured term loans under the Term Loan Credit Agreement in an aggregate principal amount of $250 million (the “2021 Term Loan”). The 2021 Term Loan required Ciena to make installment payments of approximately $0.6 million on a quarterly basis. At the beginning of the second quarter of fiscal 2017, Ciena refinanced the 2019 Term Loan and the 2021 Term Loan. See Note 22 below.

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

	January 31, 2017	October 31, 2016
Term Loan Payable due July 15, 2019	$241,635	$241,359
Term Loan Payable due April 25, 2021	245,158	244,944
	$486,793	$486,303

The term loan balances in the table above reflect Ciena's adoption of ASU 2015-03, as described in Note 2 above. Deferred debt issuance costs that were deducted from the carrying amounts of the term loans totaled $4.6 million at January 31, 2017 and $4.9 million at October 31, 2016. Deferred debt issuance costs are amortized using the straight-line method, which approximates the effect of the effective interest rate method, through the maturity of the term loans. The amortization of deferred debt issuance costs for these term loans are included in interest expense, and was $0.3 million and $0.2 million during the first three months of fiscal 2017 and 2016, respectively. The carrying amounts of the term loans listed above are also net of any unamortized discounts.

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

	January 31, 2017	
	Carrying Value	Fair Value[2]
Term Loan Payable due July 15, 2019 [1]	$241,635	$244,375
Term Loan Payable due April 25, 2021[1]	245,158	248,750
	$486,793	$493,125

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

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

Outstanding Convertible Notes Payable

During the first three months of fiscal 2017, Ciena entered into a private transaction to repurchase $46.3 million of the outstanding principal amount of its 0.875% Convertible Senior Notes due June 15, 2017, for an aggregate purchase price of $46.3 million.

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

	January 31, 2017	October 31, 2016
0.875% Convertible Senior Notes due June 15, 2017	$185,122	$231,240
3.75% Convertible Senior Notes due October 15, 2018	347,939	347,630
4.0% Convertible Senior Notes due December 15, 2020	190,023	188,509
	$723,084	$767,379

The convertible notes payable balances in the table above reflects Ciena's adoption of ASU 2015-03, as described in Note 2 above. Deferred debt issuance costs that were deducted from the carrying amounts of the convertible notes payable totaled $3.4 million at January 31, 2017 and $3.9 million at October 31, 2016. Deferred debt issuance costs are amortized using the straight-line method, which approximates the effect of the effective interest rate method, through the maturity of the convertible notes payable. The amortization of deferred debt issuance costs is included in interest expense, and was $0.5 million and $0.7 million during the first three months of fiscal 2017 and 2016, respectively. The carrying amounts of the convertible notes payable listed above are also net of any unamortized discounts.

The principal balance, unamortized discount, deferred debt issuance costs and net carrying value of the liability and equity components of our 2020 notes were as follows as of January 31, 2017 (in thousands):

	Liability Component	Equity Component

	Principal Balance	Unamortized Discount	Deferred Debt Issuance Costs	Net Carrying Amount	Net Carrying Amount
4.0% Convertible Senior Notes due December 15, 2020	$202,160	$ (10,954)	$(1,183)	$190,023	$ 43,131

The following table sets forth, in thousands, the carrying value and the estimated fair value of Ciena's outstanding issues of convertible notes as of January 31, 2017:

	January 31, 2017	
	Carrying Value [1]	Fair Value[2]
0.875% Convertible Senior Notes due June 15, 2017	$185,122	$184,563
3.75% Convertible Senior Notes due October 15, 2018	347,939	471,188
4.0% Convertible Senior Notes due December 15, 2020	190,023	264,759
	$723,084	$920,510

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

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

(17) ABL CREDIT FACILITY

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

As of January 31, 2017, letters of credit totaling $71.3 million were collateralized by the ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of January 31, 2017.

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

	Quarter Ended January 31,	
Numerator	2017	2016
Net income (loss)	$3,861	$(11,546)
Net income (loss) used to calculate Diluted EPS	$3,861	$(11,546)

	Quarter Ended January 31,	
Denominator	2017	2016
Basic weighted average shares outstanding	140,682	136,675
Add: Shares underlying outstanding stock options and restricted stock units and issuable under employee stock purchase plan	1,502	—
Dilutive weighted average shares outstanding	142,184	136,675

	Quarter Ended January 31,	
EPS	2017	2016
Basic EPS	$0.03	$(0.08)
Diluted EPS	$0.03	$(0.08)

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

	Quarter Ended January 31,	
	2017	2016
Shares underlying stock options and restricted stock units	1,556	3,565
0.875% Convertible Senior Notes due June 15, 2017	5,564	12,912
3.75% Convertible Senior Notes due October 15, 2018	17,355	17,355
4.0% Convertible Senior Notes due December 15, 2020	9,198	9,198
Total shares excluded due to anti-dilutive effect	33,673	43,030

(19) SHARE-BASED COMPENSATION EXPENSE

Ciena has outstanding equity awards issued under its 2008 Omnibus Incentive Plan, as well as certain legacy equity plans and equity plans assumed as a result of previous acquisitions. 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 below.

2008 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 January 31, 2017, approximately 1.4 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. The following table is a summary of Ciena’s stock option activity for the period indicated (shares in thousands):

	Shares Underlying Options Outstanding	Weighted Average Exercise Price
Balance at October 31, 2016	1,387	$ 26.90
Exercised	(102)	9.58
Canceled	(187)	27.52
Balance at January 31, 2017	1,098	$ 28.41

The total intrinsic value of options exercised during the first three months of fiscal 2017 and fiscal 2016 was $1.5 million and $1.7 million, respectively. Ciena did not grant any stock options during the first three months of fiscal 2017 or fiscal 2016.

The following table summarizes information with respect to stock options outstanding at January 31, 2017, based on Ciena’s closing stock price on the last trading day of Ciena’s first fiscal quarter of 2017 (shares and intrinsic value in thousands):

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	Options Outstanding at January 31, 2017				Vested Options at January 31, 2017			
Range of Exercise Price	Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value	Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
$0.45 — $11.16	112	2.73	$ 7.48	$ 1,913	110	2.68	$ 7.45	$ 1,896
$11.34 — $17.24	242	5.35	13.31	2,736	231	5.24	13.23	2,631
$17.50 — $30.46	178	1.93	26.02	257	165	1.48	26.61	179
$31.93 — $37.10	323	2.10	35.19	—	322	2.09	35.18	—
$37.82 — $55.63	243	4.48	45.84	—	227	4.34	45.87	—
$0.45 — $55.63	1,098	3.38	$ 28.41	$ 4,906	1,055	3.23	$ 28.42	$ 4,706

Assumptions for Option-Based Awards

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

Restricted Stock Units

A restricted stock unit is a stock award that entitles the holder to receive shares of Ciena common stock as the unit vests. Ciena's outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. Awards subject to service-based conditions typically vest in increments over a three or four-year period. However, the 2008 Plan permits the Company to grant service-based stock awards with shorter vesting periods to certain recipients, including non-employee directors and Ciena's Executive Chairman. Awards with performance-based vesting conditions require the achievement of certain operational, financial or other performance criteria or targets as a condition of vesting, or the acceleration of vesting, of such awards. Ciena recognizes the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based compensation expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon Ciena's determination of whether it is probable that the performance targets will be achieved. At the end of each reporting period, Ciena reassesses the probability of achieving the performance targets and the performance period required to meet those targets.

The following table is a summary of Ciena's restricted stock unit activity for the period indicated, with the aggregate fair value of the balance outstanding at the end of each period, based on Ciena's closing stock price on the last trading day of the relevant period (shares and aggregate fair value in thousands):

	Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value Per Share	Aggregate Fair Value
Balance at October 31, 2016	4,280	$ 19.96	$ 83,511
Granted	1,849		
Vested	(865)		
Canceled or forfeited	(111)		
Balance at January 31, 2017	5,153	$ 21.10	$ 126,808

The total fair value of restricted stock units that vested and were converted into common stock during the first three months of fiscal 2017 and fiscal 2016 was $21.4 million and $23.9 million, respectively. The weighted average fair

value of each restricted stock unit granted by Ciena during the first three months of fiscal 2017 and fiscal 2016 was $23.08 and $19.84 respectively.

Assumptions for Restricted Stock Unit Awards

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

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

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

Amended and Restated Employee Stock Purchase Plan (ESPP)

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

During the first three months of fiscal 2017, Ciena issued 0.5 million shares under the ESPP. At January 31, 2017, 5.4 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 January 31,	
	2017	2016
Product costs	$561	$571
Service costs	628	592
Share-based compensation expense included in cost of sales	1,189	1,163
Research and development	3,209	3,428
Sales and marketing	2,873	4,735
General and administrative	5,453	5,129
Acquisition and integration costs	—	17
Share-based compensation expense included in operating expense	11,535	13,309
Share-based compensation expense capitalized in inventory, net	101	5
Total share-based compensation	$12,825	$14,477

As of January 31, 2017, total unrecognized share-based compensation expense was approximately $95.9 million: (i) $0.4 million, which relates to unvested stock options and is expected to be recognized over a weighted-average period of 1.3 years; and (ii) $95.5 million,which relates to unvested restricted stock units and is expected to be recognized over a weighted-average period of 1.6 years.

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(20) SEGMENTS AND ENTITY WIDE DISCLOSURES

Segment Reporting

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

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

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

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

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

The Networking Platforms segment also includes sales of operating system software and enhanced software features embedded in each of the product lines above. Revenue from this segment is included in product revenue on the Condensed Consolidated Statement of Operations.

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

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

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

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

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

Ciena's long-lived assets, including equipment, building, furniture and fixtures, finite-lived intangible assets and maintenance spares, are not reviewed by the chief operating decision maker for purposes of evaluating performance and allocating resources. As of January 31, 2017, equipment, building, furniture and fixtures, net totaling $293.2 million primarily supported asset groups within Ciena's Networking Platforms and Software and Software-Related Services segments and supported Ciena's unallocated selling and general and administrative activities. As of January 31, 2017, $54.2 million of Ciena's intangible assets, net were assigned to asset groups within Ciena's Networking Platforms segment and $73.6 million of Ciena's intangible assets, net were assigned to asset groups within Ciena's Software and Software-Related Services segment. As of January 31, 2017, all of the maintenance spares, net,

totaling $45.5 million, were assigned to asset groups within Ciena's Global Services segment.

Segment Revenue

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

	Quarter Ended January 31,	
	2017	2016
Revenue:		
Networking Platforms		
Converged Packet Optical	$412,652	$389,168
Packet Networking	72,194	48,197
Optical Transport	5,098	12,145
Total Networking Platforms	489,944	449,510
Software and Software-Related Services		
Software Platforms	17,049	8,079
Software-Related Services	22,331	17,347
Total Software and Software-Related Services	39,380	25,426
Global Services		
Maintenance Support and Training	54,990	56,058
Installation and Deployment	27,919	30,840
Consulting and Network Design	9,264	11,281
Total Global Services	92,173	98,179
Consolidated revenue	$621,497	$573,115

Segment Profit (Loss)

Segment profit (loss) is determined based on internal performance measures used by the chief executive officer to assess the performance of each operating segment in a given period. In connection with that assessment, the chief executive officer excludes the following items: selling and marketing costs; general and administrative costs; 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 (loss) and the reconciliation to consolidated net income (loss) during the respective periods indicated:

	Quarter Ended January 31,	
	2017	2016
Segment profit (loss):		
Networking Platforms	$113,747	$106,982
Software and Software-Related Services	7,700	(3,574)
Global Services	35,469	39,996
Total segment profit	156,916	143,404
Less: Non-performance operating expenses		
Selling and marketing	85,002	82,478
General and administrative	35,864	31,142
Acquisition and integration costs	—	1,299
Amortization of intangible assets	14,551	16,862
Restructuring costs	2,395	384
Add: Other non-performance financial items		
Interest expense and other income (loss), net	(14,833)	(21,486)
Less: Provision for income taxes	410	1,299
Consolidated net income (loss)	$3,861	$(11,546)

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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 January 31,	
	2017	2016
North America	$405,928	$392,704
EMEA	91,543	80,722
CALA	35,146	43,810
APAC	88,880	55,879
Total	$621,497	$573,115

North America includes $379.7 million and $365.2 million of United States revenue for fiscal quarters ended January 31, 2017 and 2016, respectively.

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

	January 31, 2017	October 31, 2016
United States	$ 104,187	$ 103,018
Canada	178,391	173,885
Other International	10,572	11,503
Total	$ 293,150	$ 288,406

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

	Quarter Ended January 31,	
	2017	2016
AT&T	$96,437	$126,600
Verizon	73,089	n/a
Total	$169,526	$126,600

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

Both customers purchased products and services from each of Ciena's operating segments.

(21) COMMITMENTS AND CONTINGENCIES

Foreign Tax Contingencies

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

Litigation

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From May 15 through June 3, 2015, five separate putative class action lawsuits in connection with Ciena's then-pending acquisition of Cyan, Inc. ("Cyan") were filed in the Court of Chancery of the State of Delaware. On June 23, 2015, each of these lawsuits was consolidated into a single case captioned In Re Cyan, Inc. Shareholder Litigation, Consol. C.A. No. 11027-CB. On July 9, 2015, the plaintiffs filed a verified amended class action complaint, which named as defendants Ciena, a Ciena subsidiary created solely for the purpose of effecting the acquisition ("Merger Sub"), and the members of Cyan's board of directors. On August 5, 2015, the defendants filed motions to dismiss the amended complaint. On October 1, 2015, the plaintiffs filed a second amended complaint which named as defendants the members of Cyan's board of directors. Cyan, Ciena, and Merger Sub were not named as defendants. On July 15, 2016, the plaintiffs filed a third amended complaint, which generally alleges that the Cyan board members breached their fiduciary duties by engaging in a conflicted and unfair sales process, failing to maximize stockholder value in the acquisition, taking steps to preclude competitive bidding, and failing to disclose material information necessary for stockholders to make an informed decision regarding the acquisition. The third amended complaint seeks (i) a declaration that the plaintiffs are entitled to a quasi-appraisal remedy, (ii) rescissory damages, (iii) recovery through an accounting of all damages caused as a result of the alleged breaches of fiduciary duties, (iv) compensatory damages, and (v) costs including attorneys' fees and experts' fees. On August 5, 2016, the defendants filed a motion to dismiss the third amended complaint. Ciena believes that the consolidated lawsuit is without merit and intends to defend it vigorously.

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

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

In addition to the matters described above, Ciena is subject to various legal proceedings and claims arising in the ordinary course of business, including claims against third parties that may involve contractual indemnification obligations on the part of Ciena. Ciena does not expect that the ultimate costs to resolve these matters will have a material effect on its results of operations, financial position or cash flows.

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(22) SUBSEQUENT EVENT

Under the Term Loan Credit Agreement, Ciena had two existing term loan tranches, the 2019 Term Loan, with an outstanding aggregate principal amount of $244.4 million, and the 2021 Term Loan, with an outstanding aggregate principal amount of $248.8 million (together, the “Existing Term Loans”).

Following the end of our first quarter of fiscal 2017, on January 30, 2017, Ciena, as borrower, and Ciena Communications, Inc. and Ciena Government Solutions, Inc., as guarantors, entered into an Omnibus Refinancing Amendment to the Credit Agreement, Security Agreement and Pledge Agreement with the lenders party thereto and the administrative agent (the “Refinancing Agreement”), pursuant to which Ciena refinanced the Existing Term Loans into a single term loan with an aggregate principal amount of $400 million maturing on January 30, 2022 (the “2022 Term Loan”). In connection with the transaction, Ciena repaid $93.1 million of outstanding principal under the Existing Term Loans, and the remaining balances under the Existing Term Loans were refinanced and replaced by the 2022 Term Loan. The Refinancing Agreement amends the Term Loan Credit Agreement and provides that the 2022 Term Loan will, among other things:

- mature on January 30, 2022;
- amortize in equal quarterly installments in aggregate amounts equal to 0.25% of the principal amount of the 2022 Term Loan as of January 30, 2017, with the balance payable at maturity;
- be subject to mandatory prepayment on the same basis as the Existing Term Loans under the Term Loan Credit Agreement;
- bear interest, at Ciena’s election, at a per annum rate equal to (a) LIBOR (subject to a floor of 0.75%) plus an applicable margin of 2.50%, or (b) a base rate (subject to a floor of 1.75%) plus an applicable margin of 1.50%; and
- be repayable at any time at Ciena's election, provided that repayment of the 2022 Term Loan with proceeds of certain indebtedness prior to July 30, 2017 will require a prepayment premium of 1% of the aggregate principal amount of such prepayment.

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

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

This quarterly report contains statements that discuss future events or expectations, projections of results of operations or financial condition, changes in the markets for our products and services, trends in our business, business prospects and strategies and other “forward-looking” information. In some cases, you can identify “forward-looking statements” by words like “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intends,” “potential," "targets," or “continue” or the negative of those words and other comparable words. These statements may relate to, among other things, adoption of next-generation network technology and software programmability and control of networks; our competitive landscape; market conditions and growth opportunities; factors impacting our industry; factors impacting the businesses of network operators and their network architectures; our corporate strategy, including our research and development, supply chain and go-to-market initiatives; efforts to increase application of our solutions in customer networks and to increase the reach of our business into new or growing customer and geographic markets; our backlog and seasonality in our business; our acquisition of Cyan, Inc. and its impact on our business and results of operations; expectations for our financial results, revenue, gross margin, operating expense and

key operating measures in future periods; the adequacy of our sources of liquidity to satisfy our working capital needs, capital expenditures, and other liquidity requirements; business initiatives including real estate and IT transitions or initiatives; and market risks associated with financial instruments and foreign currency exchange rates. These statements are subject to known and unknown risks, uncertainties and other factors, and actual events or results may differ materially due to factors such as:

- our ability to execute our business and growth strategies;
- fluctuations in our revenue and operating results and our financial results generally;
- the loss of any of our large customers, a significant reduction in their spending, or a material change in their networking or procurement strategies;
- the competitive environment in which we operate;

- market acceptance of products and services currently under development and delays in product or software development;
- lengthy sales cycles and onerous contract terms with communications service providers, Web-scale providers and other large customers;
- product performance problems and undetected errors;
- our ability to diversify our customer base beyond our traditional customers and broaden the application for our solutions in communications networks;
- the level of growth in network traffic and bandwidth consumption and corresponding level of investment in network infrastructures by network operators;
- the international scale of our operations and fluctuations in currency exchange rates;
- our ability to forecast accurately demand for our products for purposes of inventory purchase practices;
- the impact of pricing pressure and price erosion that we regularly encounter in our markets;
- our ability to enforce our intellectual property rights, and costs we may incur in response to intellectual property right infringement claims made against us;
- the continued availability on commercially reasonable terms of software and other technology under third party licenses;
- failure to maintain the security of confidential, proprietary or otherwise sensitive business information or systems or to protect against cyber security attacks;
- the performance of our third party contract manufacturers;
- changes or disruption in components or supplies provided by third parties, including sole and limited source suppliers;
- our ability to manage effectively our relationships with third party service partners and distributors;
- unanticipated risks and additional obligations in connection with our resale of complementary products or technology of other companies;
- our exposure to the credit risks of our customers and our ability to collect receivables;
- modification or disruption of our internal business processes and information systems;
- the effect of our outstanding indebtedness on our liquidity and business;
- fluctuations in our stock price and our ability to access the capital markets to raise capital;
- unanticipated expenses or disruptions to our operations caused by facilities transitions or restructuring activities;
- inability to attract and retain experienced and qualified personnel;
- disruptions to our operations caused by strategic acquisitions and investments or the inability to achieve the expected benefits and synergies of newly-acquired businesses;
- our ability to grow our software business and address networking strategies including software-defined networking and network function virtualization;
- changes in, and the impact of, government regulations, including with respect to: the communications industry generally; the business of our customers; the use, import or export of products; and the environment, potential climate change and other social initiatives;
- future legislation or executive action in the U.S. relating to tax policy or trade regulation;
- impairment charges caused by the write-down of goodwill or long-lived assets;
- our ability to maintain effective internal controls over financial reporting and liabilities that result from the inability to comply with corporate governance requirements; and
- adverse results in litigation matters.

These are only some of the factors that may affect the forward-looking statements contained in this quarterly report. For a discussion identifying additional important factors that could cause actual results to vary materially from those anticipated in the forward-looking statements, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors” in this quarterly report. You should review these risk factors for a more complete understanding of the risks associated with an investment in our securities. For a more complete understanding of the risks associated with an investment in Ciena’s securities, you should review these risk factors and the rest of this quarterly report in combination with the more detailed description of our business and management’s

discussion and analysis of financial condition and risk factors described in our annual report on Form 10-K, which we filed with the Securities and Exchange Commission ("SEC") on December 21, 2016. However, we operate in a very competitive and rapidly changing environment and new risks and uncertainties emerge, are identified or become apparent from time to time. It is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this quarterly report. You should be aware that the forward-looking statements contained in this quarterly report are based on our current views and assumptions. We undertake no obligation to revise or update any forward-looking statements made in this quarterly report to reflect events or circumstances after the date hereof or to reflect new information or the occurrence of unanticipated events, except as required by law. The forward-looking statements in this quarterly report are intended to be subject to protection afforded by the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

Overview

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

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

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

Market Opportunity

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

Competitive Landscape

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

In addition to the above dynamics, many network operators are continuing to consider a variety of “consumption models,” or approaches to the design and procurement of their network infrastructure. While broader adoption of the consumption

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

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

Strategy

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

Promote Choice and Openness through our OP^n Philosophy. We previously introduced our OP^n Architecture as a focused approach to next-generation networks through scalability, programmability and network level applications. Today, OP^n has evolved and expanded from an architecture into our governing philosophy and broader belief system, which is rooted in enabling choice in the market through openness. Choice is an increasingly important element of our customers' efforts to keep pace with bandwidth demands and emerging service offerings, the shift to more automated and programmable networks, and the need to manage network costs. We believe that the best way to enable choice for our customers is by developing and providing network technologies and strategies that facilitate openness through innovation, virtualization, automation and collaboration. We also believe that we are well-positioned in this regard to offer an expansive range of choice to the market. Our OP^n belief system shapes the operation of our business in a number of ways. It guides our research and development strategy and solutions offerings, including our focus on coherent modem leadership, packet-optical convergence, and on multi-vendor network orchestration, management and control through our Blue Planet software platform. By embracing design principles that leverage open application programming interfaces (APIs), including those found in our Waveserver platform, we believe we facilitate openness and choice. By offering collaborative tools and environments, including our Emulation Cloud and DevOps Toolkit, we enable the development, testing and customization of services and applications. Our OP^n belief system also influences our go-to-market approach, as we expect to partner increasingly with an ecosystem of solutions vendors and virtual network function providers, and to integrate services and applications across multi-vendor and multi-domain networks. We intend to offer solutions and pursue opportunities across a range of customer consumption models in order to drive the evolution of next-generation network infrastructures and accelerate the realization of our OP^n philosophy.

Extend Technology Leadership and Expand Application of our Solutions. Our product development strategy is focused on maintaining our leading technology offerings and expanding our role and the application of our solutions in customer networks. Our research and development efforts seek to advance and extend our coherent modem

technology leadership, including our WaveLogic coherent optical processor and high-speed indium phosphide and silicon photonics technologies (HSPC) acquired from TeraXion during fiscal 2016, to address network operator requirements for performance, power and cost. We are also focused on introducing terabit per second and greater transmission speeds, and expanding the high-capacity and operationally-efficient service delivery capabilities in our Packet Networking and Converged Packet Optical products for access and metro networks, data center interconnect, submarine networks, and other WAN applications. In addition, we are seeking to increase software programmability of networks and to enable network operators to automate and accelerate the creation and delivery of new, cloud-based services. These efforts include investments in our Blue Planet software platform — which is designed to automate, orchestrate, and manage physical network resources and virtualized services across data centers and the WAN — and its integration across our portfolio and with additional third party network resources.

Increase Diversification of our Business. The continued diversification of our business is a key element of our strategy to address the dynamic environment of our industry. We believe this diversification positions us to continue to grow our business and to better withstand potential slowdowns adversely affecting particular geographies, markets, customer segments and

applications. We intend to pursue initiatives that broaden sales to existing customers across our solutions portfolio and also to secure additional relationships with a diverse set of network operators in high-growth customer segments and geographies.

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

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

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

Repurchase of Convertible Notes

During the first quarter of 2017, we repurchased $46.3 million of the outstanding aggregate principal amount of our 0.875% Convertible Senior Notes due June 15, 2017 (the “2017 Notes”) in a private transaction, for an aggregate purchase price of $46.3 million. As of January 31, 2017, $185.3 million in aggregate principal amount of our 2017 Notes remained outstanding. We regularly evaluate alternatives to manage our capital structure and reduce our debt and may continue to opportunistically repurchase our outstanding convertible notes. See Note 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this quarterly report for more information relating to our outstanding convertible notes.

Term Loan Refinancing

Following the end of our first quarter of fiscal 2017, on January 30, 2017, we entered into an Omnibus Refinancing Amendment to the Credit Agreement, Security Agreement, and Pledge Agreement (the “Refinancing Agreement”) that

amends our existing Term Loan Credit Agreement, dated July 15, 2014, as amended (the "Term Loan Credit Agreement") and provides for the refinancing of the two existing tranches of term loans under the Term Loan Credit Agreement. Under the Refinancing Agreement the two existing tranches of term loans — the first with an aggregate principal amount of $244.4 million maturing on July 15, 2019, and the second with an aggregate principal amount of $248.8 million maturing on April 25, 2021 (together, the "Existing Term Loans") — were combined into a single term loan with a reduced aggregate principal amount of $400 million maturing on January 30, 2022 (the "2022 Term Loan"). As a result, we repaid $93.1 million of outstanding principal under the Existing Term Loans, and the remaining balances under the Existing Term Loans were refinanced and replaced by the 2022 Term Loan. See Note 22 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this quarterly report for more information relating to our term loan refinancing.

Company-Wide Enterprise Resource Planning Platform Upgrade

During the first quarter of fiscal 2017, we upgraded our company-wide enterprise resource planning ("ERP") platform to support our finance, supply chain, services, tax, and information technology processes. The system changes were undertaken due to changes in support and software life-cycle decisions by the ERP platform vendor, not in response to any actual or perceived deficiencies in our internal control over financial reporting, and did not materially change our existing internal controls in design or operation. The ERP platform upgrade resulted in an intentional and temporary shut down of certain systems during the beginning of the first quarter of fiscal 2017.

Financial Results for First Quarter of Fiscal 2017 and Sequential Comparison

Revenue for the first quarter of fiscal 2017 was $621.5 million, representing a sequential decrease of 13.2% from $716.2 million in the fourth quarter of fiscal 2016. We typically experience reductions in order volume toward the end of the calendar year, as the procurement cycles of some of our customers slow and network deployment activity at service providers is curtailed. This seasonality in our order flows across our operating segments and geographic regions can result in weaker, seasonally affected revenue results in the first quarter of our fiscal year. Revenue-related details reflecting sequential changes from the fourth quarter of fiscal 2016 include:

- Product revenue for the first quarter of fiscal 2017 decreased by $75.5 million, primarily reflecting revenue decreases in Converged Packet Optical within our Networking Platforms segment.
- Service revenue for the first quarter of fiscal 2017 decreased by $19.2 million.
- North America revenue for the first quarter of fiscal 2017 was $405.9 million, a decrease from $463.1 million in the fourth quarter of fiscal 2016. This primarily reflects revenue decreases of $50.3 million within our Networking Platforms segment and $8.7 million within our Global Services segment. These decreases were partially offset by an increase of $1.8 million within our Software and Software-Related Services segment.
- Europe, Middle East and Africa ("EMEA") revenue for the first quarter of fiscal 2017 was $91.5 million, a decrease from $112.5 million in the fourth quarter of fiscal 2016. This primarily reflects revenue decreases of $12.1 million within our Networking Platforms segment and $10.0 million within our Global Services segment.These decreases were partially offset by an increase of $1.1 million within our Software and Software-Related Services segment.
- Caribbean and Latin America ("CALA") revenue for the first quarter of fiscal 2017 was $35.2 million, a decrease from $46.8 million in the fourth quarter of fiscal 2016. This primarily reflects revenue decreases of $9.3 million within our Networking Platforms segment and $1.7 million within our Global Services segment.
- Asia Pacific ("APAC") revenue for the first quarter of fiscal 2017 was $88.9 million, a decrease from $93.8 million in the fourth quarter of fiscal 2016. This primarily reflects a decrease of $4.5 million within our Networking Platforms segment.
- For the first quarter of fiscal 2017, two customers accounted for greater than 10% of total revenue. AT&T accounted for 15.5% of total revenue and Verizon accounted for 11.8%. AT&T accounted for 18.3% of total revenue in the fourth quarter of fiscal 2016.

Gross margin for the first quarter of fiscal 2017 was 44.1%, a decrease from 44.5% in the fourth quarter of fiscal 2016. Reduced gross margin for the first quarter of fiscal 2017 primarily reflects market-based price erosion partially offset by increased software revenue, product cost reductions and lower warranty expense.

Operating expense was $254.7 million for the first quarter of fiscal 2017, a decrease from $258.9 million in the fourth quarter of fiscal 2016. First quarter fiscal 2017 operating expense primarily reflects a decrease of $11.9 million in selling and marketing expense, partially offset by increases of $4.4 million in research and development expense and $3.7 in general and administrative expense.

Income from operations for the first quarter of fiscal 2017 was $19.1 million, compared to income from operations of $59.7 million during the fourth quarter of fiscal 2016. Our net income for the first quarter of fiscal 2017 was $3.9 million, or $0.03 per diluted common share, compared to a net income of $36.6 million or $0.25 per diluted common

share, for the fourth quarter of fiscal 2016.

We used cash in operations of $26.3 million during the first quarter of fiscal 2017, compared to $136.7 million of cash generated from operations during the fourth quarter of fiscal 2016. As of January 31, 2017, we had $693.9 million in cash and cash equivalents, $250.1 million of short-term investments in U.S. treasury securities and commercial paper and $109.9 million of long-term investments in U.S. treasury securities. This compares to $777.6 million in cash and cash equivalents, $275.2 million of short-term investments in U.S. treasury securities and commercial paper and $90.2 million of long-term investments in U.S. treasury securities, at October 31, 2016.

As of January 31, 2017, we had 5,613 employees, which reflects an increase from 5,555 at October 31, 2016 and an increase from 5,363 at January 31, 2016.

Consolidated Results of Operations

Operating Segments

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

Quarter ended January 31, 2017 compared to the quarter ended January 31, 2016

Revenue

During the first three months of fiscal 2017, approximately 18.5% of our revenue was non-U.S. Dollar denominated, including sales in Canadian Dollar, Euro, British Pound, Brazilian Real and Japanese Yen. During the first three months of fiscal 2017 as compared to the first three months of fiscal 2016, the U.S. Dollar fluctuated against these currencies. Consequently, our revenue reported in U.S. Dollars on a constant currency basis was slightly reduced by approximately $1.1 million or 0.2%. The table below (in thousands, except percentage data) sets forth the changes in our operating segment revenue for the periods indicated:

	Quarter Ended January 31,				Increase	
	2017	%*	2016	%*	(decrease)	%**
Revenue:						
Networking Platforms						
Converged Packet Optical	$412,652	66.4	$389,168	67.9	$23,484	6.0
Packet Networking	72,194	11.6	48,197	8.4	23,997	49.8
Optical Transport	5,098	0.8	12,145	2.1	(7,047)	(58.0)
Total Networking Platforms	489,944	78.8	449,510	78.4	40,434	9.0
Software and Software-Related Services						
Software Platforms	17,049	2.7	8,079	1.4	8,970	111.0
Software-Related Services	22,331	3.6	17,347	3.0	4,984	28.7
Total Software and Software-Related Services	39,380	6.3	25,426	4.4	13,954	54.9
Global Services						
Maintenance Support and Training	54,990	8.9	56,058	9.8	(1,068)	(1.9)
Installation and Deployment	27,919	4.5	30,840	5.4	(2,921)	(9.5)
Consulting and Network Design	9,264	1.5	11,281	2.0	(2,017)	(17.9)
Total Global Services	92,173	14.9	98,179	17.2	(6,006)	(6.1)
Consolidated revenue	$621,497	100.0	$573,115	100.0	$48,382	8.4

* Denotes % of total revenue

** Denotes % change from 2016 to 2017

- Networking Platforms segment revenue increased, primarily reflecting product line sales increases of $24.0 million of our Packet Networking products and $23.5 million of our Converged Packet Optical products, partially offset by a decrease of $7.0 million in sales of our Optical Transport products.

Converged Packet Optical sales reflect increases of $32.4 million of our 6500 Packet-Optical Platform and $12.4 million of our Waveserver stackable interconnect system. These increases were partially offset by sales decreases of $12.1 million of our Z-Series Packet-Optical Platform, $4.9 million of our 5430 Reconfigurable Switching System and $4.3 million of our CoreDirector® Multiservice Optical Switches.

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Packet Networking sales primarily reflect increases of $18.7 million of our 3000 and 5000 family of service delivery and aggregation switches and $4.9 million of our 8700 Packetwave Platform.

Optical Transport sales have continued to experience significant declines, as expected. Our Optical Transport products have either been previously discontinued, or are expected to be discontinued, reflecting network operators' transition toward next-generation converged network architectures addressed by solutions within our Converged Packet Optical product line.

- Software and Software-Related Services segment revenue increased, primarily reflecting sales increases of $9.0 million of our software platforms and $5.0 million in software-related services. The increase in software platform sales reflects increases of $7.0 million in sales of our Blue Planet software platform and advanced software applications and $1.0 million in sales of our OneControl Unified Management System. The increase in software-related services is primarily due to sales increases of $3.1 million of software subscription services, $1.0 million of services supporting our Blue Planet software platform and advance software applications, and $1.0 million of software-enabled services.
- Global Services segment revenue decreased, primarily reflecting sales decreases of $2.9 million of our installation and deployment services, $2.0 million of our consulting and network design services, and $1.1 million of our maintenance support and training.

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. Part of our business and growth strategy is to continue to diversify our customer base and secure additional communications service provider customers outside of North America, including in high-growth geographies such as India. We believe that this is an important part of our strategy and required for continued revenue growth. 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 and 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 January 31,				Increase	
	2017	%*	2016	%*	(decrease)	%**
North America	$405,928	65.3	$392,704	68.5	$13,224	3.4
EMEA	91,543	14.7	80,722	14.1	10,821	13.4
CALA	35,146	5.7	43,810	7.6	(8,664)	(19.8)
APAC	88,880	14.3	55,879	9.8	33,001	59.1
Total	$621,497	100.0	$573,115	100.0	$48,382	8.4

* Denotes % of total revenue

** Denotes % change from 2016 to 2017

- North America revenue primarily reflects increases of $12.6 million within our Software and Software-Related Services segment and $6.1 million within our Networking Platforms segment, partially offset by a revenue decrease of $5.5 million within our Global Services segment. The increase within our Software and Software-Related Services segment primarily reflects sales increases of $5.9 million of our Blue Planet software platform and advanced software applications, $3.2 million of our software subscription services, $1.0 million of our OneControl Unified Management System and $1.0 million in services supporting our Blue Planet software platform and advanced software applications. The revenue increase within our Networking Platforms segment primarily reflects a product line increase of $13.3 million of Packet Networking sales, partially offset by product line decreases of $5.4 million of Converged Packet Optical sales and $1.8 million in Optical Transport sales. The revenue increase within Packet Networking primarily reflects an increase of $10.5 million in sales of our 3000 and 5000 family of service delivery and aggregation switches to AT&T.

- EMEA revenue primarily reflects increases of $12.0 million within our Networking Platform segment and $1.0 million within our Software and Software-Related Services segment, partially offset by a revenue decrease of $2.0 million within our Global Services segment. Networking Platform segment revenue reflects a product line increase of $13.2 million in Converged Packet Optical sales, primarily due to increased sales of the 6500 Packet-Optical Platform to certain communication service providers.

- CALA revenue primarily reflects a decrease of $10.8 million within our Networking Platform segment, partially offset by a revenue increase of $2.0 million within our Global Services segment. CALA revenue primarily reflects decreased sales in Mexico.
- APAC revenue primarily reflects an increase of $33.1 million within our Networking Platform segment. The revenue increase within our Networking Platforms segment primarily reflects an increase of our 6500 Packet-Optical Platform sales to communication service providers, particularly in India, submarine network operators, enterprise customers and sales through our strategic relationship with Ericsson. The timing of revenue recognition for large network projects in this region can result in significant variations in revenue results in any particular quarter.

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 associated with our provision of services including installation, deployment, maintenance support, consulting and training activities and, when applicable, estimated losses on committed customer contracts. The majority of these costs relate to personnel, including employee and third party contractor-related costs.

Our gross profit as a percentage of revenue, or “gross margin,” has improved in recent fiscal years, from 41.4% in fiscal 2014 to 44.7% in fiscal 2016. However, gross margin, particularly when viewed on a quarterly basis, can fluctuate due to a number of factors. Our gross margin remains highly dependent upon on our continued ability to drive product cost reductions relative to the price erosion that we regularly encounter in our markets. Moreover, to retain or secure key customers, we may agree to pricing or other unfavorable commercial terms that adversely affect our gross margin. Our success in taking share and winning new business can result in additional costs associated with the early stages of network deployments, including an increased concentration of lower margin “common” equipment sales and installation services, as compared to higher margin products including channel cards, software services and maintenance services. Gross margin can also be impacted by changes in expense for excess and obsolete inventory and warranty obligations and our revenue concentration within a particular segment, product line, geography, or customer.

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 January 31,				Increase	
	2017	%*	2016	%*	(decrease)	%**
Total revenue	$621,497	100.0	$573,115	100.0	$ 48,382	8.4
Total cost of goods sold	347,712	55.9	321,665	56.1	26,047	8.1
Gross profit	$273,785	44.1	$251,450	43.9	$ 22,335	8.9

* Denotes % of total revenue

** Denotes % change from 2016 to 2017

Quarter Ended January 31, Increase

	2017	%*	2016	%*	(decrease)	%**
Product revenue	$506,993	100.0	$457,589	100.0	$ 49,404	10.8
Product cost of goods sold	286,811	56.6	260,482	56.9	26,329	10.1
Product gross profit	$220,182	43.4	$197,107	43.1	$ 23,075	11.7

* Denotes % of product revenue
** Denotes % change from 2016 to 2017

	Quarter Ended January 31,				Increase	
	2017	%*	2016	%*	(decrease)	%**
Service revenue	$114,504	100.0	$115,526	100.0	$(1,022)	(0.9)
Service cost of goods sold	60,901	53.2	61,183	53.0	(282)	(0.5)
Service gross profit	$53,603	46.8	$54,343	47.0	$(740)	(1.4)

* Denotes % of services revenue
** Denotes % change from 2016 to 2017

- Gross profit as a percentage of revenue reflects improved product gross profit partially offset by reduced services gross profit.
- Gross profit on products as a percentage of product revenue benefited from increased software revenue, product cost reductions and lower warranty expense partially offset by market-based price erosion.
- Gross profit on services as a percentage of services revenue decreased primarily due to increased installation and deployment costs due to certain early stage deployment activities.

Operating Expense

We expect operating expense to increase in fiscal 2017 from the level reported for fiscal 2016 in order to fund our research and development initiatives, to provide for investments in the re-engineering of company-wide enterprise resource planning platforms, and to fund the transition of key facilities. In particular, the development of our new facilities and the transition of our operations in Ottawa, Canada and Gurgaon, India will require significant effort, time and cost.

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, 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 and severance and other employee-related costs, associated with our acquisition of Cyan on August 3, 2015 and our acquisition of the HSPC assets from TeraXion and its wholly-owned subsidiary on February 1, 2016.

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

Restructuring costs primarily reflect actions Ciena has taken to better align our 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:

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	Quarter Ended January 31,				Increase	
	2017	%*	2016	%*	(decrease)	%**
Research and development	$116,869	18.8	$108,046	18.9	$8,823	8.2
Selling and marketing	85,002	13.7	82,478	14.4	2,524	3.1
General and administrative	35,864	5.8	31,142	5.4	4,722	15.2
Acquisition and integration costs	—	—	1,299	0.2	(1,299)	(100.0)
Amortization of intangible assets	14,551	2.3	16,862	2.9	(2,311)	(13.7)
Restructuring costs	2,395	0.4	384	0.1	2,011	523.7
Total operating expenses	$254,681	41.0	$240,211	41.9	$14,470	6.0

* Denotes % of total revenue

** Denotes % change from 2016 to 2017

- Research and development expense was adversely affected by $1.8 million as a result of foreign exchange rates, net of hedging, primarily due to a weaker U.S. Dollar in relation to the Canadian Dollar. Including the effect of foreign exchange rates, research and development expenses increased by $8.8 million. This change reflects increases of $4.4 million in employee and compensation costs and $5.1 million in facilities and information technology costs. These increases were partially offset by a decrease of $1.2 million in professional services.
- Selling and marketing expense increased by $2.5 million, primarily reflecting increases of $1.0 million in employee and compensation costs, $0.6 million in facilities and information technology costs and $0.6 million in technology related costs.
- General and administrative expense increased by $4.7 million, primarily reflecting increases of $1.5 million in employee and compensation costs and $2.5 million for professional services and legal fees.
- Acquisition and integration costs incurred during fiscal 2016 reflects expense for financial, legal and accounting advisors and severance and other employee compensation costs, related to our acquisition of Cyan on August 3, 2015 and our acquisition of certain HSPC assets of TeraXion and its wholly-owned subsidiary on February 1, 2016.
- Amortization of intangible assets decreased due to certain intangible assets having reached the end of their economic lives.
- Restructuring costs increased reflecting a global workforce reduction of approximately 50 employees in the first quarter of fiscal 2017 as part of our business optimization strategy to improve our gross margin, constrain operating expense and redesign certain business processes, systems, and resources.

Other items

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

	Quarter Ended January 31,				Increase	
	2017	%*	2016	%*	(decrease)	%**
Interest and other income (loss), net	$370	0.1	$(8,776)	(1.5)	$9,146	104.2
Interest expense	$15,203	2.4	$12,710	2.2	$2,493	19.6
Provision for income taxes	$410	0.1	$1,299	0.2	$(889)	(68.4)

* Denotes % of total revenue

** Denotes % change from 2016 to 2017

- Interest and other income (loss), net primarily reflects a $7.6 million gain in foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity.
- Interest expense increased primarily due to the 2021 Term Loan that was entered into in the second quarter of fiscal 2016. For additional information about our term loans, see Note 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.
- Provision for income taxes decreased primarily due to lower foreign tax expense.

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Segment Profit (Loss)

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

	Quarter Ended January 31,			
	2017	2016	Increase (decrease)	%*
Segment profit (loss):				
Networking Platforms	$113,747	$106,982	$6,765	6.3
Software and Software-Related Services	$7,700	$(3,574)	$11,274	315.4
Global Services	$35,469	$39,996	$(4,527)	(11.3)

* Denotes % change from 2016 to 2017

- Networking Platforms segment profit increased, primarily due to higher sales volume, as described above, partially offset by reduced gross margin and higher research and development costs. The reduced gross margin primarily reflects market-based price erosion partially offset by product cost reductions and lower warranty expense.
- Software and Software-Related Services segment profit reflects higher sales volume, as described above, and improved gross margin, partially offset by increased research and development costs. Research and development costs primarily reflect increased expenses relating to the continued development of our Blue Planet software platform.
- Global Services segment profit decreased, primarily due to lower sales volume, as described above, and reduced gross margin. The reduced gross margin is primarily due to increased installation and deployment costs due to certain early stage deployment activities.

Liquidity and Capital Resources

For the three months ended January 31, 2017, we used in $26.3 million in cash to fund our operating needs, as our working capital requirements of $88.9 million exceeded our net income (adjusted for non-cash charges) of $62.6 million. The increase in working capital was primarily driven by inventory increases of $78.7 million. We further invested $25.7 million in capital expenditures for the purchase of equipment, furniture and fixtures. For additional details, see the discussion below entitled, “Cash from Operations.”

Our total cash, cash equivalents and investments decreased by $89.2 million during the first three months of fiscal 2017, as a result of the cash used in to fund operations and capital expenditures described above totaling $52.0 million, as well as the repurchase of an additional $46.3 million in outstanding 0.875% Convertible Senior Notes due June 15, 2017. Proceeds from the issuance of equity under our employee stock purchase plans provided approximately $9.7 million in cash during the period. We expect to repay the balance of the outstanding 2017 Notes with additional cash and investments on hand.

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

	January 31, 2017	October 31, 2016	Increase (decrease)
Cash and cash equivalents	$693,853	$777,615	$(83,762)
Short-term investments in marketable debt securities	250,056	275,248	(25,192)
Long-term investments in marketable debt securities	109,934	90,172	19,762
Total cash and cash equivalents and investments in marketable debt securities	$1,053,843	$1,143,035	$(89,192)

As more fully described in Note 22, following the end of our first quarter of fiscal 2017, we refinanced our existing Term Loans into a single term loan with an aggregate principal amount of $400 million, maturing on January 30, 2022 (the “2022 Term Loan”). In connection with the transaction, Ciena repaid $93.1 million of outstanding principal under the Existing Term Loans utilizing cash, cash equivalents and investments on hand.

Our principal sources of liquidity on hand include our cash and investments, which as of January 31, 2017 totaled $1.1 billion, as well as our ABL Credit Facility. 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 $250 million with a maturity date of December 31, 2020. We principally use the ABL Credit Facility to support the issuance of letters of credit that arise in the ordinary course of our business and thereby to reduce our use of cash required to collateralize these instruments. As of January 31, 2017, letters of credit totaling $71.3 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of January 31, 2017. Based on past performance and current expectations, we believe that cash from operations, cash and investments and other sources of liquidity, including our ABL Credit Facility, will satisfy the working capital needs, capital expenditures, the repayment of our outstanding 0.875% convertible senior notes due June 15, 2017 and other liquidity requirements associated with our operations through at least the next 12 months.

The amount of cash, cash equivalents and short-term investments held by our foreign subsidiaries was $52.4 million as of January 31, 2017. Given this amount, we do not believe that there are significant amounts held by foreign subsidiaries in which we consider earnings to be permanently reinvested, that may not be available for U.S. operations. In the event such funds held by our foreign subsidiaries were repatriated, we believe that any resulting tax implications would not be material.

We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our operating or investment plans and may consider capital raising and other market opportunities that may be available to us. During fiscal 2017, we have repurchased $46.3 million in aggregate principal amount of our outstanding 2017 Notes. For additional information about our convertible notes, see Note 16 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report. We regularly evaluate alternatives to manage our capital structure and reduce our debt and may continue to opportunistically repurchase our outstanding convertible notes.

Cash from Operations

The following sections set forth the components of our $26.3 million of cash used in operating activities during the first three months of fiscal 2017:

Net income (adjusted for non-cash charges)

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

	Three months ended January 31, 2017
Net income	$ 3,861
Adjustments for non-cash charges:	
Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	16,699
Share-based compensation costs	12,825
Amortization of intangible assets	18,864
Provision for inventory excess and obsolescence	5,431
Provision for warranty	553
Other	4,452
Net income (adjusted for non-cash charges)	$ 62,685

Working Capital

We used $88.9 million of cash for working capital during the period. The following tables set forth the major components of the cash used in working capital (in thousands):

	Three months ended January 31, 2017
Cash used in accounts receivable	$ (21,956)
Cash used in inventories	(78,749)
Cash used in prepaid expenses and other	(1,004)
Cash provided by accounts payable, accruals and other obligations	4,037
Cash provided by deferred revenue	8,737
Total cash used for working capital	$ (88,935)

As compared to the end of fiscal 2016:

- The $22.0 million of cash used by accounts receivable during the first three months of fiscal 2017 reflects increased sales volume at the end of the first quarter of fiscal 2017;
- The $78.7 million of cash used in inventory during the first three months of fiscal 2017 primarily reflects increases in finished goods to meet customer delivery schedules for the beginning of the second quarter of fiscal 2017;
- Cash used in prepaid expense and other during the first three months of fiscal 2017 was $1.0 million, primarily reflecting lower product demonstration equipment, partially offset by an increase in a financing receivable;
- The $4.0 million of cash provided by accounts payable, accruals and other obligations during the first three months of fiscal 2017 reflects increased inventory purchases at the end of the first quarter of fiscal 2017, partially offset by the timing of bonus payments to employees under our annual cash incentive compensation plan; and
- The $8.7 million of cash provided by deferred revenue during the first three months of fiscal 2017 represents an increase in advanced payments received from customers prior to revenue recognition.

Our days sales outstanding (DSOs) for the first three months of fiscal 2017 were 86 days and our inventory turns for the first three months of fiscal 2017 were 4.0.

Cash Paid for Interest

The following tables set forth the cash paid for interest during the period (in thousands):

	Three months ended January 31, 2017
0.875% Convertible Senior Notes due June 15, 2017[1]	$ 1,013
3.75% Convertible Senior Notes, due October 15, 2018[2]	—
4.0% Convertible Senior Notes, due December 15, 2020[3]	3,750
Term Loan due July 15, 2019[4]	2,342
Term Loan due April 25, 2021[5]	2,702
Interest rate swaps[6]	1,174
ABL Credit Facility[7]	348
Capital leases	502
Cash paid during period	$ 11,831

(1) Interest on our outstanding 0.875% Convertible Senior Notes, due June 15, 2017, is payable on June 15 and December 15 of each year.

(2) Interest on our outstanding 3.75% Convertible Senior Notes, due October 15, 2018, is payable on April 15 and October 15 of each year.

(3)

Interest on our outstanding 4.0% Convertible Senior Notes, due December 15, 2020, is payable on June 15 and December 15 of each year.

(4) Interest on the 2019 Term Loan was payable periodically based on the underlying market index rate selected for borrowing. The 2019 Term Loan bore interest at LIBOR plus a spread of 3.00% subject to a minimum LIBOR rate of

0.75%. At the end of the first quarter of fiscal 2017, prior to the term loan refinancing, the interest rate on the 2019 Term Loan was 3.78%.

(5) Interest on the 2021 Term Loan was payable periodically based on the underlying market index rate selected for borrowing. The 2021 Term Loan bore interest at LIBOR plus a spread of 3.25% to 3.50% subject to a minimum LIBOR rate of 0.75%. At the end of the first quarter of fiscal 2017, prior to the term loan refinancing, the interest rate on the 2021 Term Loan was 4.28%.

(6) Prior to the term loan refinancing, payments on our interest rate swaps were variable and effectively fixed the total interest rate under the 2019 Term Loan at 5.004% from July 20, 2015 through July 19, 2018 and the 2021 Term Loan at 4.62% to 4.87%, depending on applicable margin, from June 20, 2016 through June 22, 2020.

(7) During the first three months of fiscal 2017, we utilized the ABL Credit Facility to collateralize certain standby letters of credit and paid $0.3 million in commitment fees, interest expense and other administrative charges relating to our ABL Credit Facility.

For additional information about our convertible notes and term loans, ABL Credit Facility and interest rate swaps, see Notes 14, 16 and 17 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report. For additional information relating to the refinancing of our 2019 Term Loan and our 2021 Term Loan following the end of the first quarter of fiscal 2017, see Note 22 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

Contractual Obligations

The following is a summary of our future minimum payments under contractual obligations as of January 31, 2017 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Principal due at maturity on convertible notes [1]	$752,385	$185,258	$350,000	$217,127	$—
Principal due on term loans [2]	493,125	5,000	246,875	241,250	—
Interest due on convertible notes	57,061	21,436	28,125	7,500	—
Interest due on term loans [2]	67,910	20,140	34,737	13,033	—
Payments due under interest rate swaps [2]	7,290	3,864	3,090	336	—
Operating leases [3]	134,010	26,913	41,029	28,263	37,805
Purchase obligations [4]	265,097	265,097	—	—	—
Capital leases— equipment	4,598	1,763	2,835	—	—
Capital leases— buildings [5]	124,587	4,302	14,672	15,045	90,568
Other obligations	2,628	1,036	1,592	—	—
Total [6]	$1,908,691	$534,809	$722,955	$522,554	$128,373

(1) Includes the accretion of the principal amount on our outstanding 4.0% Convertible Senior Notes, due December 15, 2020 payable at maturity at a rate of 1.85% per year compounded semi-annually, commencing December 27, 2012.

(2) Does not include the effect of our Refinancing Agreement which aggregated our Existing Term Loans into a single with a reduced aggregate principal amount. Interest on the term loans and payments due under the interest rate swaps are variable and were calculated using the rate in effect on the balance sheet date. For additional information about our term loans and the interest rate swaps, see Notes 14, 16 and 22 to our Condensed Consolidated Financial Statements included in Item 1 of Part I of this report.

(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.

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

(5) 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. 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.

(6) As of January 31, 2017, we also had approximately $13.8 million of other long-term obligations in our Condensed 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, if any, 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 January 31, 2017 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Standby letters of credit	$76,526	$38,584	$14,748	$10,767	$ 12,427

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, goodwill, income taxes, warranty obligations, restructuring, derivatives and hedging, and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. 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.

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 $48.8 million and $45.2 million as of January 31, 2017 and October 31, 2016, 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 $143.2 million and $137.7 million as of January 31, 2017 and October 31, 2016, 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 the end of 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 19 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 January 31, 2017, total unrecognized compensation expense was $95.9 million: (i) $0.4 million, which relates to unvested stock options and is expected to be recognized over a weighted-average period of 1.3 years; and (ii) $95.5 million which relates to unvested restricted stock units and 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 2017, 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 2017. 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 cash incentive compensation in any interim period in fiscal 2017 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 $15.0 million of expense in the first three months of fiscal 2017 associated with our cash incentive bonus plan for fiscal 2017.

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 $5.4 million and $7.0 million in the first three months of fiscal 2017 and 2016, respectively. The charges in fiscal 2017 primarily were related to a decrease in the forecasted demand for certain Networking Platform products. Our inventory net of allowance for excess and obsolescence was $284.6 million and $211.3 million as of January 31, 2017 and October 31, 2016, 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 $595.7 million and $576.2 million as of January 31, 2017 and October 31, 2016, respectively. Our allowance for doubtful accounts was $4.0 million as of January 31, 2017 and October 31, 2016, respectively.

Goodwill

Our goodwill was generated from the acquisition of Cyan during fiscal 2015 and the acquisition of the HSPC assets from TeraXion during fiscal 2016, and is primarily related to expected synergies. Goodwill is the excess of the purchase price over the fair values assigned to the net assets acquired in a business combination. We test goodwill for impairment on an annual basis, which we have determined to be the last business day of fiscal September each year. We also test goodwill for impairment between annual tests if an event occurs or circumstances change that would, more likely than not, reduce the fair value of the reporting unit below its carrying value.

The first step in the process of assessing goodwill impairment is to compare the fair value of the reporting unit with the unit’s carrying amount, including goodwill. If this test indicates that the fair value is less than the carrying value, then step two as amended by ASU No. 2017-04, which we adopted in the first quarter in fiscal 2017, requires goodwill impairments to be measured on the basis of the fair value of the reporting unit relative to the reporting unit's carrying amount. A non-cash goodwill impairment charge would have the effect of decreasing earnings or increasing losses in such period. If we are required to take a substantial impairment charge, our operating results would be materially adversely affected in such period. As of January 31, 2017 and October 31, 2016, the goodwill balance was $267.2 million and $267.0 million, respectively.

Long-lived Assets

Our long-lived assets include: equipment, building, furniture and fixtures; finite-lived intangible assets; in-process research and development; and maintenance spares. As of January 31, 2017 and October 31, 2016, these assets totaled $466.5 million and $484.7 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

We provide a valuation allowance for our deferred tax assets in excess of deferred tax liabilities because we have concluded that it is more likely than not that such deferred tax assets will ultimately not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income (including the reversals of deferred tax liabilities) during the periods in which those deferred tax assets will become deductible. We assess available positive and negative evidence regarding our ability to realize our deferred tax assets and record a valuation allowance when it is more likely than not that deferred tax assets will not be realized. To form a conclusion, management considers our recent financial results and trends and makes judgments and estimates related to projections of profitability, the timing and extent of the use of net operating loss carryforwards, and tax planning strategies. At January 31, 2017, we were not in a three-year cumulative loss position. However, management determined that a valuation allowance is still necessary, due to, among other things, the relatively low level of cumulative pre-tax income during this period — cumulative 12-quarter profit was only recently achieved in the second half of fiscal 2016 — and our lengthy history of operating losses. We will continue to evaluate future financial performance to determine whether such profitability is both sustainable and significant enough to provide sufficient evidence to support reversal of all or a portion of the valuation allowance. Any future release of valuation allowance may be recorded as a tax benefit increasing net income or as an adjustment to paid-in capital, based on tax ordering requirements. The valuation allowance balance at January 31, 2017 was $1.5 billion.

Warranty

Our liability for product warranties, included in other accrued liabilities, was $48.7 million and $52.3 million as of January 31, 2017 and October 31, 2016, 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 $0.6 million and $5.0 million for the first three months of fiscal 2017 and 2016, respectively. See Note 13 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 $2.8 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 loans.

Following the end of our first quarter of fiscal 2017, on January 30, 2017, we entered into a Refinancing Agreement which aggregated our 2019 Term Loan and 2021 Term Loan into our 2022 Term Loan, a single term loan with a reduced aggregate principal amount. See Note 22 to our Condensed Consolidated Financial Statements for information relating to this transaction. The 2022 Term Loan bears interest at LIBOR plus a spread of 2.5%, subject to a minimum LIBOR rate of 0.75%. During February 2017, we entered into interest rate swap arrangements ("interest rate swaps") that combined with remaining interest rates swaps mentioned below, fix the total interest rate under the 2022 Term Loan at 4.5% from February 2017 through July 2018. Additionally, these swaps fix the interest rate for the majority of the principal under the 2022 Term Loan from July 2018 through January 2021.

Prior to the Refinancing Agreement transaction above, the 2019 Term Loan bore interest at LIBOR plus a spread of 3.00% subject to a minimum LIBOR rate of 0.75% and the 2021 Term Loan bore interest at LIBOR plus a spread ranging from 3.25% to 3.50% subject to a minimum LIBOR rate of 0.75%, with the actual spread determined according to our total net leverage ratio. During fiscal 2014, we entered into interest rate swaps that fixed the total interest rate under the 2019 Term Loan at 5.004%, for the period commencing on July 20, 2015 through July 19, 2018. During fiscal 2016, we entered into interest rate swaps that fixed the total interest rate under the 2021 Term Loan at 4.62% to 4.87%, depending on the applicable spread, for the period commencing on June 20, 2016 through June 22, 2020.

As such, a 100 basis point (1.0%) increase in the LIBOR rate as of our most recent LIBOR rate setting would have an immaterial impact in annualized interest expense on our 2022 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. For example, the announcement of the United Kingdom (UK) referendum in which voters approved an exit from the European Union (EU), commonly referred to as "Brexit," has previously caused, and may continue to cause, significant volatility in currency exchange rate fluctuations. Due to our global sales presence, some of our sales transactions and revenue are non-U.S. Dollar denominated, with the Canadian Dollar, Euro and Brazilian Real 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 three months of fiscal 2017, approximately 18.5% of revenue was non-U.S. Dollar denominated. During the first three months of fiscal 2017 as compared to the three months of fiscal 2016, the U.S. Dollar strengthened against the Euro and British Pound, primarily offset by weakening against the Canadian Dollar, Japanese Yen and Brazilian Real, consequently, our revenue reported in U.S. Dollars was slightly reduced by approximately $1.1 million or 0.2%. As they relate 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, Indian Rupee and Brazilian Real. During the first three months of fiscal 2017, approximately 51% 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 three months of fiscal 2017, research and

development expense was adversely affected by approximately $1.8 million, net of hedging, primarily due to the weakening of the U.S. Dollar in relation to the Canadian Dollar in comparison to the first three months of fiscal 2016. From time to time, we use 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 and are designated as cash flow hedges. At the inception of the cash flow hedge, and on an ongoing basis, we assess 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 our foreign branch offices and subsidiaries use the local currency as their functional currency. During the first three months of fiscal 2017, we recorded $2.4 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, we use foreign currency forwards to hedge these balance sheet exposures. These forwards are not designated as hedges for accounting purposes and any net gain or loss associated with these derivatives is reported in interest and other income (loss), net on the Condensed Consolidated Statement of Operations. During first three months of fiscal 2017, we recorded gains of $1.0 million from these derivatives. See Note 2, Note 4 and Note 14 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 issues of 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 or due to increased volatility in our stock price, and decrease as the market price of our stock falls or due to decreased volatility in our stock price. 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 16 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

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

From May 15 through June 3, 2015, five separate putative class action lawsuits in connection with Ciena’s then-pending acquisition of Cyan, Inc. (“Cyan”) were filed in the Court of Chancery of the State of Delaware. On June 23, 2015, each of these lawsuits was consolidated into a single case captioned In Re Cyan, Inc. Shareholder Litigation, Consol. C.A. No. 11027-CB. On July 9, 2015, the plaintiffs filed a verified amended class action complaint, which named as defendants Ciena, a Ciena subsidiary created solely for the purpose of effecting the acquisition (“Merger Sub”), and the members of Cyan’s board of directors. On August 5, 2015, the defendants filed motions to dismiss the amended complaint. On October 1, 2015, the plaintiffs filed a second amended complaint which named as defendants the members of Cyan’s board of directors. Cyan, Ciena, and Merger Sub were not named as defendants. On July 15, 2016, the plaintiffs filed a third amended complaint, which generally alleges that the Cyan board members breached their fiduciary duties by engaging in a conflicted and unfair sales process, failing to maximize stockholder value in the acquisition, taking steps to preclude competitive bidding, and failing to disclose material information necessary for

stockholders to make an informed decision regarding the acquisition. The third amended complaint seeks (i) a declaration that the plaintiffs are entitled to a quasi-appraisal remedy, (ii) rescissory damages, (iii) recovery through an accounting of all damages caused as a result of the alleged breaches of fiduciary duties, (iv) compensatory damages, and (v) costs including attorneys' fees and experts' fees. On August 5, 2016, the defendants filed a motion to dismiss the third amended complaint. We believe that the consolidated lawsuit is without merit and intend to defend it vigorously.

As a result of our acquisition of Cyan in August 2015, we became a defendant in a securities class action lawsuit. On April 1, 2014, a purported stockholder class action lawsuit was filed in the Superior Court of California, County of San Francisco,

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

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

In addition to the matters described above, 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

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.

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 can take significant time to implement. A significant portion of our quarterly revenue is generated from customer orders received in that same quarter (which we refer to as "book to revenue"). Increased reliance on book to revenue introduces a number of risks, including the inherent difficulty in forecasting the amount and timing of book to revenue in any given quarter, and may increase the likelihood of fluctuations in our results. Accordingly, our revenue for a particular quarter is difficult to predict, and a shortfall in expected orders in a given quarter can materially adversely affect our revenue and results of operations for that quarter or future quarterly periods. 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 customers, in particular our large communications service provider customers;
- changes in networking strategies;
- order timing, volume and cancellations;
- backlog levels;
- the level of competition and pricing pressure in our industry;
- 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 improved efficiencies in our supply chain;
- the pace and impact of price erosion that we regularly encounter in our markets;

- our incurrence of start-up costs, including lower margin phases of projects required 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;
- availability of components and manufacturing capacity;
- 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 customers, including large communications service providers, account for a significant portion of our revenue. 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 network operators in additional customer segments and geographies, a significant portion of our revenue remains concentrated among a small number of customers, including large communications service providers. For example, AT&T accounted for approximately 18.4% of fiscal 2016 revenue, and our ten largest customers contributed 51.1% of fiscal 2016 revenue. Consequently, our financial results are closely correlated with the spending of a relatively small number of customers. Our business and results of operations can be materially adversely impacted by reductions in spending or capital expenditure budgets by our largest customers. A number of our large service provider customers, including AT&T, from which we experienced a decline in annual revenue during fiscal 2016, have announced various procurement initiatives or efforts to reduce capital expenditures on network infrastructure in future periods. Moreover, because we do not have long-term contracts that obligate AT&T or our other customers to purchase any minimum or guaranteed order volumes, and customers often have the right to modify or cancel orders, there can be no assurance as to customer spending levels, which can be unpredictable, and sales to any customer could significantly decrease or cease at any time.

Because a number of our largest customers are communications service providers, our business and results of operations can be significantly affected by market, industry or competitive dynamics adversely affecting this segment. Our communications service provider customers face a rapidly shifting competitive landscape as cloud service operators, "over-the-top" and other content providers challenge their traditional business models and network infrastructures. Moreover, a number of our communications service provider customers, including AT&T, Verizon and Centurylink, have recently announced significant acquisition transactions. Such transactions have in the past, and may in the future, result in spending delays or deferrals, or changes in preferred vendors, as the integration of combined network infrastructures proceed and procurement strategies are determined. There can be no assurance that we will be able to maintain the revenue levels we have previously achieved with customers, including our communications service provider customers. The loss of any of our largest customers, or a significant reduction in their spending, could have a material adverse effect on our business and results of operations.

We face intense competition that could hurt our sales and results of operations, and we expect the competitive landscape in which we operate to continue to broaden to include additional solutions providers.
We face an intense competitive market for sales of communications networking equipment, software and services. Competition is intense on a global basis, as we and our competitors aggressively seek to capture market share and displace incumbent equipment vendors. 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. Moreover, there has been a trend toward vendor consolidation by certain customers in our markets, which we believe may bolster the resources and advantages of larger, more diversified competitors. 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.

Generally, competition in our markets 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 strength of existing business relationships;
- ability to offer comprehensive networking solutions, consisting of equipment, software and network consulting services;
- ability to adapt to customer needs and accommodate different consumption models;
- 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 software programmability and management;
- space and power considerations;
- manufacturing and lead-time capability; and
- services and support capabilities.

In an effort to maintain our incumbency or secure new customer opportunities, we have in the past, and may in the future, agree to aggressive pricing, commercial concessions and other unfavorable terms that result in low or negative gross margins on a particular order or group of orders. Competition can also result in commercial and legal terms and conditions that place a disproportionate amount of risk on us.

We expect the competitive landscape in which we operate to continue to broaden and to increase, as network operators pursue a diverse range of consumption models and network strategies. As these changes occur, we expect that our business will compete more directly with additional networking solution suppliers, including IP router vendors, data center switch providers and other suppliers or integrators of networking technology. In addition, as we seek increased customer adoption of our Blue Planet software platform, and network operator demands for software programmability, management and control increase, we expect to compete more directly with software vendors and information technology vendors or integrators of these solutions. We may also face competition from system and component vendors, including those in our supply chain, who develop networking products based on off-the-shelf or commoditized hardware technology, referred to as "white box" hardware; particularly where a customer's network strategy seeks to emphasize deployment of such product offerings or adopt a disaggregated approach to the procurement of hardware and software. The expansion of our competitive landscape, and entry of new competitors into our markets and customers, may adversely impact our business and results of operations. 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 or country where we operate. Global financial markets experienced periods of significant volatility and instability during fiscal 2016. Broad macroeconomic weakness and market volatility have previously resulted in sustained periods of decreased demand for our products and services, which has 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 in turn adversely affect spending levels of our customers and their end users, and could 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 us 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 in international markets 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 resulted, and may in the future result, in shortages in availability of important components for our solutions, product allocation challenges, deployment delays 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, ability to meet development commitments 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 commercial arrangements or standard purchase orders. 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. Moreover, our access to necessary components could be adversely impacted by competition from component vendors, including those in our supply chain, who develop competing networking products based on off-the-shelf or commoditized hardware technology, referred to as “white box” hardware. 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 an adequate 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 that we had not anticipated. There is no guarantee that our new products, including our Blue Planet software platform, or enhancements to other solutions will achieve market acceptance or that the timing of market adoption will be as predicted. As a result, there is a significant possibility that some of our development decisions, including significant expenditures on acquisitions, research and development costs, or investments in technologies, will not meet our expectations, 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 adversely affected. Network equipment sales to communications service providers, Web-scale providers and other large customers often involve lengthy sales cycles and protracted contract negotiations that may require us to agree to 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 to us 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 custom 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, make commercial concessions or 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.

If the market for software solutions does not evolve in the way we anticipate or if customers do not adopt our Blue Planet solutions, we may not be able to realize a key part of our business strategy and the intended benefits of our acquisition of Cyan.

A key part of our business strategy and ability to derive the anticipated benefits of our acquisition of Cyan will depend on our ability to gain market adoption for our Blue Planet software platform. If the markets relating to software solutions, including SDN, NFV, service orchestration and software management and control, do not develop as we anticipate, or if we are unable to increase market awareness and adoption of our Blue Planet solutions as the preferred solution within those markets, demand for our Blue Planet solutions may not grow. As a result, the success of our Cyan acquisition and our long-term success in the software market will depend to a significant extent on potential customers recognizing the benefits of our next-generation Blue Planet software solutions, and the willingness of service providers and high-performance data center and other network operators to increase their use of SDN and NFV solutions in their networks. The market for these solutions is at an early stage, and it is difficult to predict important trends, including the potential growth, if any, of this market. If the market for these software solutions does not evolve in the way we anticipate or if customers do not adopt our solutions, we may not to be able to increase sales of our Blue Planet platform, and our revenue and profitability would be adversely affected. If we are not able to successfully achieve these objectives, certain of the anticipated benefits of the merger may not be realized fully, or may take longer to realize than expected.

Changes in networking or procurement strategies among our customers could adversely affect our business, competitive position and results of operations.

Growing bandwidth demands, network operator efforts to reduce costs and requirements for enhanced network programmability and automation are causing network operators to consider a diverse range of approaches to the design and procurement of network infrastructure. We refer to these different approaches as “consumption models.” These consumption models can include: the traditional systems procurement of fully integrated solutions including hardware, software and services from the same vendor; the procurement of a fully integrated hardware solution from one vendor with the separate use of a network operator’s own SDN-based control; the procurement of an integrated photonic line system with open interfaces from one vendor and the separate or “disaggregated” procurement of modem technology from a different vendor; or the use of published reference designs and open source specifications for the procurement of off-the-shelf or commoditized hardware (often referred to as “white box” hardware) to be used with open source software. We believe that network operators will continue to consider a variety of different consumption models. Many of these approaches are in their very early stages of development and evaluation, and the types of models and their levels of adoption will depend in significant part on the nature of the operator and its particular network and network applications. Among our customers, AT&T is pursuing network strategies that emphasize enhanced software programmability, management and control of networks, and deployment of “white box” hardware. Other network operator customers, including Web-scale providers, are playing a leading role in the transition to software-defined networking or the standardization of communications network solutions. The potential for different approaches to the procurement of networking infrastructure will require network operators and vendors to assess and possibly broaden their existing commercial models over time. Adoption of a range of consumption models may alter and broaden our competitive landscape to include other technology vendors, including component vendors and software vendors. If we are unable to offer attractive solutions that accommodate the range of consumption models ultimately adopted by our customers or within our markets, or if we are unable to modify or existing commercial model accordingly, our business, competitive position and results of operations could be adversely affected.

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

Our hardware and software networking solutions, including our Blue Planet software platform, are based on complex technology, and we can experience unanticipated delays in developing, manufacturing and introducing these solutions to market. Delays in product development efforts by us or our supply chain 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-effectiveness 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 or produce 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 performance. 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 our Blue Planet software platform, and other solutions targeting metro network applications and data center interconnect. 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.

Direct or indirect efforts to increase our sales and market share in targeted international markets and customer segments may be unsuccessful.

Part of our business and growth strategy is to expand our geographic reach and increase market share in international markets. This strategy includes selling to Web-scale network operators with global operations as well as to service provider customers in additional geographies, including Asia-Pacific and India. This diversification of our markets and customer base has been a significant component of the growth of our business. Our efforts to continue to increase our sales and market share in international markets may ultimately be unsuccessful, and failure to do so could limit our growth and could harm our results of operations.

In addition, in order to sell our products into new geographic markets, diversify our customer base and broaden the application for our solutions in communications networks, we continue to promote sales initiatives and foster strategic channel sales relationships. Specifically, we are targeting sales opportunities around the world with Web-scale providers, cloud infrastructure providers, communications service providers, enterprises, wireless operators, cable and multiservice operators, submarine network operators, research and education institutions, and federal, state and local governments. To succeed in some of these geographic markets and customer segments, we often need to leverage strategic sales channels and distribution arrangements, 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 relationships. 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 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;
- tax and customs changes that adversely impact our global sourcing strategy, manufacturing practices, transfer-pricing, or competitiveness of our products for global sales;
- 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;
- significant changes to free trade agreements, trade protection measures, tariffs, 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, environmental regulations, 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.

The U.S. government has indicated a willingness to revise, renegotiate, or terminate various, existing multilateral trade agreements and to impose new taxes on certain goods imported into the U.S. Because we rely upon a global sourcing strategy and third party contract manufacturers in markets outside of the U.S. to perform substantially all of the manufacturing of our products, such steps, if adopted, could adversely impact our business and operations, and may make our products less competitive in the U.S. and other markets. At this time, it remains unclear what actions, if any, the U.S. government will take with respect to such trade agreements, tax policy related to international commerce, or imposition of tariffs on goods imported into the U.S. There can be no assurance that any future legislation or executive action in the U.S. relating to tax policy and trade regulation would not adversely affect our business, operations and financial results.

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 or contractual 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 a number of cases these suppliers may require longer lead times for fulfillment than we have with our customers. Thus, our practice of buying inventory based on forecasted demand exposes us to the risk that our customers ultimately may not order the products we have forecast or will purchase fewer products than forecast. As a result, we may purchase inventory in anticipation of sales

that ultimately do not occur. We regularly incur, on a quarterly basis, costs related to our excess or obsolete inventory. 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. Also, customers often have the right to modify, reduce or cancel purchase quantities, and spending levels can be uncertain and subject to significant fluctuation. Our products are highly configurable, and certain new products have overlapping feature sets or application as existing products. Accordingly, it is increasingly possible that customers may forgo purchases of certain products we have inventoried in favor of a similar, newer product. 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. In addition, our intellectual property strategy must continually evolve to protect our proprietary rights in new solutions, including our software solutions. 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 increase 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 network operators adopt software management and 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.

Our solutions, including our Blue Planet software platform, utilize elements of open source or publicly available software. As network operators seek to enhance programmability of networks, we 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 increases 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.

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

We rely upon third party contract manufacturers with facilities in Canada, Mexico, Thailand and the United States to perform substantially all of the manufacturing of our products. There are a number of risks associated with our dependence on contract manufacturers, including:

- reduced control over delivery schedules and planning;
- reliance on the quality assurance procedures of third parties;
- potential uncertainty regarding manufacturing yields and costs;
- availability of manufacturing capability and capacity, particularly during periods of high demand;
- risks and uncertainties associated with the locations or countries where our products are manufactured, including potential manufacturing disruptions caused by social, geopolitical or environmental factors;
- changes in U.S. law or policy governing foreign trade, manufacturing, development and investment in the countries where we currently manufacture our products, including the World Trade Organization Information Technology Agreement or other free trade agreements;
- limited warranties provided to us; and
- potential misappropriation of our intellectual property.

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 may 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. The process of qualifying a new contract manufacturer and commencing volume production is expensive and time-consuming, and if we are required to change or qualify a new contract manufacturer, we would likely lose sales revenue and damage our existing customer relationships.

A substantial portion of our products are manufactured by third party contract manufacturers in Mexico. The U.S. government has indicated a willingness to revise, renegotiate, or terminate various multilateral trade agreements and to impose new taxes on certain goods imported into the U.S. Such steps, if adopted, could adversely impact our business and operations, and may make our products less competitive in the U.S. and other markets. At this time, it remains unclear what actions, if any, will be taken by the U.S. government with respect to such trade agreements, tax policy related to international commerce, or the imposition of tariffs on goods imported into the U.S. There can be no assurance that any future legislation or executive action in the in the U.S. relating to tax policy and trade regulation would not adversely affect our business, operations and financial results.

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

In the ordinary course of our business, we maintain on our network systems, and the networks of third party providers, certain information that is confidential, proprietary or otherwise sensitive in nature. This information includes intellectual property, financial information and confidential business information relating to us and our customers, suppliers and other business partners. 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 us 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 those systems and storage applications maintained by our third party providers, may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. The network solutions we sell to end customers may be exposed to similar risks. 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 our relationships with third party service partners effectively 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 to ensure 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 us. Moreover, certain service partners may provide similar services for other companies, including our competitors. We may not be able to manage our relationships with our service partners effectively, 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.

As our service offering expands and customers look to identify vendors capable of managing, integrating and optimizing multi-domain, multi-vendor networks with unified software, our relationships with third party service partners will become increasingly important. 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 company with global operations, we face exposure to adverse movements in foreign currency exchange rates. For example, the announcement of Brexit and the outcome of the U.S. presidential election each have caused, and may continue to cause, significant volatility in currency exchange rate fluctuations. 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. During the first quarter of fiscal 2017, we undertook 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 require a significant investment of capital and human resources and may be costly and disruptive to our operations, and they 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 our current system upgrade or other initiatives. 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.

As of the date of this report, we had approximately $752.4 million in indebtedness repayable at maturity under our outstanding convertible 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 $250 million senior secured asset-based revolving credit facility and an outstanding senior secured term loan with $400 million repayable at maturity. 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 or 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 the transition of two of our significant research and development facilities, which will affect a large number of our employees. The lease for our Lab 10 building on the Carling Campus in Ottawa, Canada will expire in fiscal 2018, and the leases for our facilities in Gurgaon, India will expire in fiscal 2018 and fiscal 2019. The Ottawa and Gurgaon facilities represent our two largest research and development sites, and they house both significant headcount including key engineering personnel and a large amount of sophisticated lab equipment. In Ottawa, we are in the process of developing a new research and development campus, and we will be transitioning our existing operations and personnel to the new campus during 2017 in anticipation of the expiration of the Lab 10 lease. In Gurgaon, we recently entered into a lease for a new building adjacent to one of our existing facilities, and we will be transitioning certain of our existing operations and personnel to the new building during 2017 and 2018. 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 additional or unanticipated expense and adverse effects on our cash position and cash flows.

The potential effects of the referendum on the UK’s membership in the European Union remain uncertain.
On June 23, 2016, the United Kingdom (UK) held a referendum in which voters approved an exit from the European Union (EU), commonly referred to as "Brexit." The referendum was advisory, and the terms of any withdrawal are subject to a negotiation period that could last at least two years after the government of the UK formally initiates a withdrawal process. This will be either accompanied or followed by additional negotiations between the EU and the UK concerning the future relations between the parties. Nevertheless, the referendum has created significant uncertainty about the future relationship between the UK and the EU. It is possible that the level of economic activity in this region will be adversely impacted and that there will be increased regulatory and legal complexities, including those relating to tax, trade, security, and employees. Such changes could be costly and potentially disruptive to our operations and business relationships in these markets. In addition, Brexit could lead to economic uncertainty, including significant volatility in global stock markets and currency exchange rates, that may adversely impact our business. While we have adopted certain financial measures to reduce the risks of doing business

internationally, we cannot ensure that such measures will be adequate to allow us to operate without disruption or adverse impact to our business and financial results in the affected regions.

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 financial results 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. Strategic transactions, including our acquisition of Cyan in fiscal 2015 and our acquisition of the high-speed photonics components (“HSPC”) assets from TeraXion in fiscal 2016, can involve numerous additional risks, including:

- failure to achieve the anticipated transaction benefits or the projected financial results and operational synergies;
- greater than expected 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;
- the loss of key employees;
- disruption on termination of business relationships with customers, suppliers, vendors, landlords, licensors and other business partners;

- ineffective internal controls over financial reporting;
- dependence on unfamiliar suppliers or manufacturers;
- assumption of or exposure to unanticipated liabilities, including intellectual property infringement or other legal claims; and
- adverse tax or accounting impact.

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

We are a party to claims and litigation in the normal course of our business. Such litigation can be expensive, lengthy, and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict and may harm our operating results or financial condition. For additional information regarding certain of the legal proceedings in which we are involved, see Item 1, “Legal Proceedings,” contained in Part II of this report.

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. During 2015, the FCC approved rules that would regulate broadband internet service providers as telecommunications service carriers under Title II of the Telecommunications Act and adopted net neutrality regulations that prohibit blocking, degrading or prioritizing certain types of internet traffic. The future impact of these rules is uncertain in light of the recent change in FCC leadership. In addition to the net neutrality rules, similar changes in regulatory requirements covering access to, management of, or carriage of traffic on the internet in the United States and 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 established certain trade and tariff requirements under which we have implemented a global approach to the sourcing and manufacture of our products, as well as the distribution and fulfillment to customers around the world. Changes or restrictions impacting the import of our components to manufacturing facilities outside of the U.S., the importation of finished goods to the U.S., or the export of products globally, would adversely affect our operations, increase our costs and adversely impact our revenue. 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. These 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 goodwill or long-lived assets, and these impairment charges would adversely affect our operating results.

As of January 31, 2017 our balance sheet includes $267.2 million of goodwill. This amount represents the remaining excess of the total purchase price of our acquisitions of Cyan and the HSPC assets from TeraXion over the fair value of the net assets acquired. We test each reporting unit for impairment of goodwill on an annual basis, and between annual tests if an event occurs or circumstances change that would, more likely than not, reduce the fair value of the reporting unit below its carrying value. As of January 31, 2017, our balance sheet also includes $466.5 million in long-lived assets, which includes $127.8 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 for our business or any particular operating segment, we may be required to reassess goodwill or long-lived assets and we could record an impairment charge. Any impairment charge relating to goodwill or 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 the upgrade of our company-wide enterprise resource planning platform during the first quarter of 2017, 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 2016, our closing stock price ranged from a high of $25.30 per share to a low of $15.73 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.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds
Not applicable.

Item 3. Defaults Upon Senior Securities
Not applicable.

Item 4. Mine Safety Disclosures
Not applicable.

Item 5. Other Information
Not applicable.

Item 6. Exhibits

3.1	Second Amended and Restated Bylaws of Ciena Corporation *
10.1	Omnibus Refinancing Amendment to Credit Agreement (dated as of July 15, 2014, as amended), Security Agreement, and Pledge Agreement, dated as of January 30, 2017, by and among Ciena Corporation, as borrower, Ciena Communications, Inc. and Ciena Government Solutions, Inc., as guarantors, Bank of America, N.A. as administrative agent, and the lenders party thereto
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 January 27, 2017

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: March 8, 2017	By:	/s/ Gary B. Smith Gary B. Smith President, Chief Executive Officer and Director (Duly Authorized Officer)
Date: March 8, 2017	By:	/s/ James E. Moylan, Jr. James E. Moylan, Jr. Senior Vice President, Finance and Chief Financial Officer (Principal Financial Officer)