

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended **October 31, 2013**
- OR**
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____
Commission file number **0-21969**

Ciena Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
Incorporation or organization)

23-2725311

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

7035 Ridge Road, Hanover, MD
(Address of principal executive offices)

21076
(Zip Code)

(410) 694-5700

(Registrant's telephone number, including area code)

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

Title of Each Class
Common Stock, \$0.01 par value

Name of Each Exchange on Which Registered
The NASDAQ Stock Market

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES NO

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.4-5 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

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

The aggregate market value of the Registrant's Common Stock held by non-affiliates of the Registrant was approximately \$1.1 billion based on the closing price of the Common Stock on the NASDAQ Global Select Market on May 1, 2013.

The number of shares of Registrant's Common Stock outstanding as of December 12, 2013 was 103,708,240 .

DOCUMENTS INCORPORATED BY REFERENCE

Part III of the Form 10-K incorporates by reference certain portions of the Registrant's definitive proxy statement for its 2014 Annual Meeting of Stockholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this report.

**CIENA CORPORATION
ANNUAL REPORT ON FORM 10-K
FOR FISCAL YEAR ENDED OCTOBER 31, 2013**

TABLE OF CONTENTS

	Page
<u>PART I</u>	
Item 1. Business	3
Item 1A. Risk Factors	18
Item 1B. Unresolved Staff Comments	28
Item 2. Properties	28
Item 3. Legal Proceedings	29
Item 4. Mine Safety Disclosures	29
<u>PART II</u>	
Item 5. Market for Registrant’s Common Stock, Related Stockholder Matters and Issuer Purchases of Equity Securities	29
Item 6. Selected Consolidated Financial Data	31
Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	33
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	55
Item 8. Financial Statements and Supplementary Data	56
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	90
Item 9A. Controls and Procedures	91
Item 9B. Other Information	91
<u>PART III</u>	
Item 10. Directors, Executive Officers and Corporate Governance	92
Item 11. Executive Compensation	92
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	92
Item 13. Certain Relationships and Related Transactions, and Director Independence	92
Item 14. Principal Accountant Fees and Services	92
<u>PART IV</u>	
Item 15. Exhibits and Financial Statement Schedules	93
Signatures	94
Index to Exhibits	95

PART I

The information in this annual report contains certain forward-looking statements, including statements related to our business prospects and strategies, the markets for our products and services, and trends in our business and markets that involve risks and uncertainties. Our actual results may differ materially from the results discussed in these forward-looking statements. Factors that might cause such a difference include those discussed in “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this annual report.

Item 1. Business

Overview

We are a network specialist focused on networking solutions that enable converged, next-generation architectures, optimized to handle the broad array of high-bandwidth communications services relied upon by business and consumer end users. We provide equipment, software and services that support the transport, switching, aggregation, service delivery and management of voice, video and data traffic on communications networks.

Our Converged Packet Optical, Packet Networking, Optical Transport and Software products are used, individually or as part of an integrated, programmable solution, in networks operated by communications service providers, cable operators, governments, enterprises, research and education institutions, content service providers and other network operators across the globe. Our products allow network operators to scale capacity, increase transmission speeds, allocate network traffic and deliver services to end users. Our network solutions also include an integrated software suite that provides network and service management capabilities that unify our product portfolio, facilitating automation and software-defined programmability to enable efficient service delivery. To complement our product portfolio, we offer a broad range of Network Transformation Solutions and related support services that help our customers design, optimize, deploy, manage and maintain their networks. We believe that the close, collaborative partnership with customers enabled by our engagement model and services offering is an important component of our network specialist approach and a significant differentiator for Ciena with our customers.

Rapid proliferation of and reliance by end users upon communications services and devices, increased mobility and growth in cloud-based services have fundamentally affected the demands placed upon communications networks and how they are designed. Network operators face a challenging and rapidly changing environment that requires that their network infrastructures be robust enough to address increasing capacity needs and be flexible enough to adapt to new application and service offerings. Network operators are competing to distinguish their service offerings to end users and generate revenue, while managing the costs required to implement and maintain their networks. To address these business, infrastructure and service delivery challenges, we believe network operators need a flexible infrastructure that can be adapted to support a variety of applications and controlled through the use of software.

Our OPⁿ Architecture is designed to meet these challenges by providing increased scalability and programmability, as well as network-level software applications to control and configure the network dynamically. Through this network approach, we seek to enable high-capacity, configurable infrastructures that can adapt to the changing needs of end-users and the applications that they require, while providing flexible interfaces for the integration of computing, storage and network resources. By increasing network flexibility for service delivery, reducing required network elements and enabling increased scale at reduced cost, our solutions simplify networks. At the same time, our approach facilitates the creation of new service offerings, creating business and operational value for our customers. Our OPⁿ Architecture, which underpins our solutions offering and guides our research and development strategy, is described more fully in “Strategy” below.

Certain Financial Information and Segment Data

We generated revenue of \$2.1 billion in fiscal 2013, as compared to \$1.8 billion in fiscal 2012. For more information regarding our results of operations, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of Part II of this annual report. During the first quarter of fiscal 2013, Ciena reorganized its internal organization structure and the management of its business into new operating segments. See Note 18 to the Consolidated Financial Statements found in Item 8 of Part II of this annual report. As a result of this reorganization, our operations are currently organized into four separate operating segments: “Converged Packet Optical,” “Packet Networking,” “Optical Transport,” and “Software and Services.”

The matters discussed in this “Business” section should be read in conjunction with the Consolidated Financial Statements found in Item 8 of Part II of this annual report, which include additional financial information about our operating segments, total assets, revenue, measures of profit and loss, and financial information about geographic areas and customers representing greater than 10% of revenue.

Corporate Information and Access to SEC Reports

We were incorporated in Delaware in November 1992 and completed our initial public offering on February 7, 1997. Our principal executive offices are located at 7035 Ridge Road, Hanover, Maryland 21076. Our telephone number is (410) 694-5700, and our website address is www.ciena.com. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, available free of charge in the "Investors" section of our website as soon as reasonably practicable after we file these reports with the Securities and Exchange Commission (the "SEC"). We routinely post the reports above, recent news and announcements, financial results and other important information about our business on our website at www.ciena.com. Information contained on our website is not a part of this annual report.

On December 12, 2013 we announced our intention to transfer the listing of our common stock from the NASDAQ Global Select Market to the New York Stock Exchange, effective on or about December 23, 2013. Ciena common stock will continue to trade under the stock symbol "CIEN."

Industry Background

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, increased mobility, expanded service offerings, and evolving end user demands. These conditions have created market opportunities and business challenges, and they have changed competitive landscapes for Ciena and its customers. Existing and emerging network operators are competing to distinguish their service offerings and rapidly introduce differentiated, revenue-generating services. At the same time, network operators continue to seek to manage network expense and operate their businesses profitably. These dynamics are driving technology convergence of network features, functions and layers, virtualization of certain network functions, and increasing demand for software-based network programmability. We believe these market dynamics will cause network operators to adopt communications network infrastructures that are increasingly more automated, robust and configurable.

Network Traffic Growth Driving Increased Capacity Requirements and Transmission Speeds

Optical networks, which carry voice, video and data traffic using multiple wavelengths of light across fiber optic cables, have experienced a multi-year period of strong traffic growth, and industry analysts project continued growth for the foreseeable future. Increasing network traffic is being driven by growing use of, and reliance upon, a broad range of communications services by consumer and business end users, as well as the expansion of bandwidth-intensive wireline and wireless services. Mobile applications, including Internet, video and data services from the proliferation of smartphones, tablets and other wireless devices are further increasing network traffic. Business customers seeking to improve automation and productivity are increasingly dependent upon bandwidth-intensive communications services that facilitate global operations, employee mobility and seamless access to critical business applications and data. Enterprise technology trends such as virtualization, cloud computing and machine-to-machine connections are placing new capacity requirements on networks. At the same time, an increasing portion of network traffic is being driven by growth of consumer-oriented applications and adoption of mobile and broadband technologies. These include peer-to-peer Internet applications, video services, multimedia downloads, cloud-based consumer services and online gaming. We believe that this traffic growth will require that network operators add capacity or transition to higher capacity networks with increased transmission speeds.

Multiservice Traffic and Transition to Software-Defined Programmable Network Architectures

We expect that the broadening mix of high-bandwidth, data and video communications services will require upgrades to existing network infrastructures, including wireless and wireline networks. We believe that this mix of high-bandwidth and latency-sensitive data traffic, and an increased focus on controlling network costs, are driving a transition from multiple, purpose-built and disparate SONET/SDH-based networks to a more efficient, converged, multi-purpose packet-optical network architecture. The industry has previously experienced such network technology transitions, and these upgrade and investment cycles tend to happen over multi-year periods. For instance, from the mid 1980s to the mid 1990s, service providers focused network upgrades on the transition required to digitize voice traffic. From the mid 1990s to the mid 2000s, service providers focused network upgrades on the transition to SONET/SDH networks designed to reliably handle substantially more network traffic. We believe that the industry is currently experiencing a network transition to flexible, multi-purpose OTN/Ethernet packet-based network architectures that more efficiently handle a growing mix of high-bandwidth communications services and a greater concentration of data traffic.

Drivers for Network Transformation

We believe the following areas are illustrative of the significant transition in the services, applications and performance required from today's networks, and we believe that transition will fundamentally change how communications networks are designed and managed.

- *Mobility.* The emergence of smart mobile devices and tablets that deliver integrated voice, audio, photo, video, email and mobile Internet capabilities is rapidly changing the service type and magnitude of data traffic carried by wireless networks. The increase in availability and improved ease of use of mobile web-based applications expands the reach of virtualized services beyond a wireline connection. For instance, consumer-driven video and gaming are being virtualized, allowing broad access, regardless of the device or the network used. Because most wireless traffic ultimately travels over a wireline network in order to reach its destination, growth in mobile communications continues to place demands upon wireline networks.
- *“Cloud” Services.* Cloud services are characterized by the sharing of computing, storage and network resources to improve economics through higher utilization of networked elements. IT and network service providers are centralizing these resources in order to offer usage-based and metered services that are hosted remotely across a network. Prevalent cloud-based services include Platform as a Service (PaaS), Software as a Service (SaaS) and Infrastructure as a Service (IaaS). As a result, smaller enterprises and consumers can subscribe to an expanding range of cloud services to replace local computing and storage requirements. Larger enterprises and data center operators may use private clouds to consolidate their own resources and public clouds to accommodate peak demand situations, sometimes in combination. Today, infrastructures exist to dynamically allocate centralized storage and computing resources. As a result, network architectures must be capable of adapting in real time to changing capacity requirements and locations.
- *Network Virtualization .* Virtualization is the process of decoupling physical IT or communications assets from the logical services or capabilities they can provide. This approach has many appealing attributes, such as minimizing expensive resources while adding flexibility and scale. The virtualization of computing, storage and network resources elevates the value of connectivity and drives demand for network infrastructures that offer greater programmability, scale, and flexibility. Now, these virtualization principles are being applied to communications networks. Network operators are seeking to virtualize costly, single-function or dedicated network appliances, such as firewalls and WAN-accelerators, by deploying their functionality on centralized, generic servers. Consequently, fewer devices are needed and those devices can be reconfigured to serve a variety of network functions.
- *Machine-to-Machine (M2M) Applications .* In the past, communications services largely related to the connection of locations. With the growth of and increasing reliance upon mobile applications, this model has shifted to connectivity of people-to-people or people-to-content. As the number of networked connections between devices and servers grows, M2M-related traffic is expected to represent an increasing portion of Internet traffic. Today, we are beginning to see growth in device-to-device connection requirements. In addition to increasing network capacity requirements, this trend also dramatically increases the complexity of connectivity and the number of connections the network must accommodate and manage. These connections provide value-added services and allow users to share data that can be monitored and analyzed by applications residing on various devices. We expect service traffic relating to the interconnection of machines or devices to grow as Internet and cloud content delivery, smartgrid applications, health care and safety monitoring, resource/inventory management, home entertainment, consumer appliances and other mobile data applications become more widely adopted.

Strategy

We believe that the shift that is underway in network architectures to next-generation, converged infrastructures represents significant, long-term opportunities for our business. We believe that market trends underlying this shift, including the proliferation of devices running mobile web applications, the prevalence of video applications, the increase in machine-to-machine connections, and the shift of enterprise and consumer applications to cloud-based or virtualized network environments, are indicative of increasing use and dependence by consumers and enterprises upon a growing variety of broadband applications and services. We expect that these services will continue to require network operators to invest in converged next-generation network infrastructures that are more automated, open and software programmable.

Our corporate strategy to capitalize on these market dynamics, promote operational efficiency and drive profitable growth of our business includes the following initiatives:

Promotion of our Open Architecture for Next-Generation Networks. The services and applications running on communications networks require that more of the traffic on these networks be packet-oriented. The traditional approach to this

problem has been to add IP routing capability at many points of intersection in the network. As capacity needs grow, this approach becomes unnecessarily complex and costly. We reduce the cost and complexity of growing networks with a programmable infrastructure that brings together the reliability and capacity of optical networking with the flexibility and economics of packet networking technologies. Combining these attributes with network level applications creates an approach we call our "OPⁿ Architecture". Our OPⁿ Architecture leverages the convergence of optical and packet networking to enable network scale, applies advanced control plane software for network programmability, and enables cloud-level applications to integrate and optimize network resources — along with computing and storage resources — in a virtualized environment. The software-driven aspects of this architecture become increasingly important as our service provider customers seek to rapidly create new, differentiated services based on next-generation architectures. We intend to promote the scalability, programmability, flexibility and cost-effectiveness attributes of our OPⁿ Architecture, and we see opportunities in offering a portfolio of carrier-class solutions that facilitates the transition to converged, next-generation networks.

Alignment of Research and Development Investment with Growth Opportunities. We seek to ensure that our product development initiatives and investments are closely aligned with our market growth opportunities, shifts in network architectures and the changing dynamics faced by network operators. We are investing in our OPⁿ Architecture with current development efforts focused on expanding packet capabilities in our Packet Networking and Converged Packet Optical products for metro and service aggregation applications and on optimizing our core network solutions for application in metro networks. Our research and development efforts seek to extend and converge our existing technologies, including our WaveLogic coherent optical processor for 40G and 100G optical transport, and introduce 400G and greater transmission speeds. In the packet area, we are increasing the scale and capability of our packet offerings and integrating standards-based open control interfaces. In the software area, we are enhancing our network management and planning applications. We are also focusing on initiatives to increase software-defined programmability and control of networks and to develop network-level software applications that configure networks and support new service introduction.

Evolution of our Go-to-Market Model. We seek to evolve our go-to-market sales model, from both coverage and engagement perspectives.

Coverage. Through direct sales resources as well as our strategic channel relationships, our coverage model is focused on penetrating high-growth geographic markets, selling into key customer segments and addressing additional network applications with our solutions. We seek to enhance our brand internationally, expand our geographic reach and increase market share in international markets, including Brazil, the Middle East, Russia, Japan and India. We intend to pursue opportunities to diversify our customer base beyond our traditional customers. We are expanding our sales efforts to: capture opportunities arising from enterprise migration to, and increased reliance upon, cloud-based services; build upon our reputation with government agencies and research and educational institutions as a trusted network equipment supplier; and target content service providers and other network operators emerging as a result of network modernization drivers and the adoption of new communication services. We seek to expand the application of our solutions, including metro aggregation and submarine networks, and in support of cloud-based services, business Ethernet services and mobile backhaul. We intend to pursue selling initiatives and strategic channel opportunities, including relationships with key resellers. We also intend to sell into enterprise end users through our service provider customers, systems integrators and value-added resellers.

Engagement. Our strategy is to leverage our close, collaborative relationships with customers in the design, development, implementation and support of their networks and to promote a close alignment of our solutions with customer network priorities. We believe that this engagement model is a key differentiator for our business and provides us with unique insight into the business and network needs of our customers. We seek to expand our Network Transformation Solutions offering to address the network modernization and service delivery demands of our customers, as well as their desire to derive additional value from their network infrastructures. We believe this services-oriented solutions offering shifts our value proposition beyond the sale of our next-generation communications networking equipment and allows us to play a key role in the design and evolution of our customers' networks to support their strategic business objectives. By understanding our customers' infrastructure and business needs, and the evolving markets in which they compete, we believe our engagement approach creates additional business and operational value for our customers.

Business optimization to yield operating leverage. We seek to improve the operational efficiencies in our business and gain additional operating leverage. We are focused on the transformation and redesign of certain business processes, systems, and resources. These initiatives include additional investments, re-engineering and automation of certain key business processes, including the engagement of strategic partners or resources to assist with select business functions. In addition, we are focused on optimizing our supply chain, including efforts to reduce our material and overhead costs in an effort to increase efficiency and reduce the cost to produce our product solutions. These initiatives include portfolio and process optimization, reducing our

fulfillment, shipping and logistics expense, and identifying ways to drive improved efficiencies in the design and development of our solutions. We seek to leverage these opportunities to promote the profitable growth of our business.

Customers and Markets

Our customer base, and the geographic markets and customer segments into which we sell our products and services, have expanded in recent years. As a result of the industry dynamics discussed above, additional network operators supporting new communications services and applications continue to emerge. The network infrastructure needs of our customers vary, depending upon their size, location, the nature of their end users and the services that they deliver and support. We sell our product and service solutions through our direct sales force and third party channel partners to end user network operators in the following customer segments.

Communications Service Providers

Our service provider customers include regional, national and international wireline and wireless carriers, as well as service provider consortia offering services over submarine networks. Our customers include AAPT, Allstream, AT&T, Australia Japan Cable, Bell Canada, BT, Cable & Wireless, CenturyLink, France Telecom, Japan-US Cable, Korea Telecom, PLDT, Rascom, Reliance, SEA-ME-WE 4, SingTel, Southern Cross, Sprint, Tata Communications, Telefonica, Telmex, Telus, Verizon, Vimpelcom, Vodafone and XO Communications. Communications service providers are our historical customer base and continue to represent a significant majority of our revenue. We provide service providers with products from the wireline network core to its edge where end users gain access. Our service provider solutions address growing bandwidth demand from multiservice traffic growth and support key service provider offerings, including carrier-managed services, wide area network ("WAN") consolidation, data center and inter-site connectivity, wireless backhaul and business Ethernet services.

Cable & Multiservice Operators (MSO)

Our customers include leading cable and multiservice operators in the United States and internationally. These customers include Comcast, Cox, RCN, Rogers, Time Warner Cable and Virgin Media. Our cable and multiservice operator customers rely upon us for carrier-grade, Ethernet transport and switching products and high-capacity coherent optical transport. Our platforms allow cable operators to integrate voice, video and data applications over a converged infrastructure and to scale their networking infrastructure to keep ahead of the bandwidth and application demands of their subscribers. Our products support key cable applications including business Ethernet services, wireless backhaul, broadcast and digital video, voice over IP, and video on demand.

Enterprise

Our enterprise customers include large, multi-site commercial organizations, including participants in the financial, health care, transportation, utilities and retail industries. Our solutions enable enterprises to leverage network resources to achieve operational improvements, increased automation and information technology cost reductions. Our products enable inter-site connectivity between data centers, sales offices, manufacturing plants, retail stores and research and development centers, using an owned or leased private fiber network or a carrier-managed service. Our products facilitate key enterprise applications including IT virtualization, cloud computing, business Ethernet services, business continuity, online collaboration, video conferencing, low latency networking and WAN encryption. Our products also enable our enterprise customers to prevent unexpected network downtime and ensure the safety, security and availability of their data.

Content Service Providers

Our customers include global providers of a diverse range of Internet content services and applications such as search, social media, video, real-time communications and cloud-based offerings to consumers and enterprises. Our customers require massive scale, low latency, reliability and performance to interconnect critical data centers and connect end-users to network resources and content. Our customers leverage high-capacity coherent optics, packet switching, automated service provisioning and software-based network control to deliver flexible, high-performance connectivity services on demand in a virtualized network environment.

Government, Research and Education

Our government customers include federal and state agencies in the United States as well as international government entities. Our government and research and education customers seek to take advantage of technology innovation, improve their information infrastructure and facilitate increased collaboration. Our solutions feature ultra-high capacity and service flexibility

to meet the requirements of supercomputing systems. Our solutions offering promotes network assurance, security and reliability while improving network performance, capacity and flexibility. We collaborate with leading institutions to provide government, research and education communities with optimized networks that minimize cost and complexity, through initiatives that support intelligent control plane technologies, interoperability and scalability.

Products and Services

Our product portfolio consists of our Converged Packet Optical, Packet Networking and Optical Transport products. Our network solutions also include an integrated software suite, which provides network management capabilities that unify our product portfolio and provide automation, software-defined programmability and management features that enable efficient service delivery. These products, together with our network transformation solutions and support services offerings, allow us to offer customers comprehensive solutions to address their communications network priorities.

Converged Packet Optical

Our Converged Packet Optical portfolio includes networking solutions optimized for the convergence of coherent optical transport, OTN switching and packet switching.

Utilizing our coherent 40G and 100G optical transport technology, our 6500 Packet-Optical Platform provides a flexible, scalable dense wavelength division multiplexing (DWDM) solution that adds capacity to core, regional and metro networks and enables efficient transport at high transmission speeds. Our 6500 Packet-Optical Platform features our WaveLogic coherent optical processors. Our third generation of this custom silicon chipset facilitates deployment over existing fiber plant (terrestrial and submarine), scales capacity to 40G, 100G and greater transmission speeds, and minimizes the need for certain network equipment, such as amplifiers, regenerators and dispersion compensating devices. Our 6500 Packet-Optical Platform also includes certain integrated switching elements, addressing market demand for converged network features, functions and layers to drive more robust and cost-effective network infrastructures. This platform — which includes several chassis sizes and a comprehensive set of line cards — can be utilized from the customer premises, where space and power are limited, to the metropolitan/regional core, where the need for high capacity and carrier-class performance is essential.

Our Converged Packet Optical portfolio also includes products that provide packet switching capability to allocate network capacity efficiently and enable rapid service delivery. Our 5430 Reconfigurable Switching System includes a family of multi-terabit reconfigurable switching systems that utilize intelligent mesh networking to provide resiliency and feature an integrated optical control plane to automate the provisioning and bandwidth control of high-capacity services. These platforms flexibly support a mix of Carrier Ethernet/MPLS, OTN, WDM, and SONET/SDH switching to facilitate the transition to a service-enabling infrastructure. Our CoreDirector® Multiservice Optical Switch and 5430 Reconfigurable Switching System offer multiservice, multi-protocol switching systems that consolidate the functionality of an add/drop multiplexer, digital cross-connect and packet switch into a single, high-capacity intelligent switching system. These products address both core and metro segments of communications networks and support key managed services, including Ethernet/TDM Private Line and IP services.

Packet Networking

Our Packet Networking products allow customers to utilize the automation and capacity created by our Converged Packet Optical products in core and metro networks and to deliver new, revenue-generating services to consumers and enterprises. These products have applications from the edge of metro and core networks, where they aggregate traffic, to the access tiers of networks where they can be deployed to support wireless backhaul infrastructures and deliver business data services. As a key element of our OPⁿ Architecture, our Packet Networking products facilitate network simplicity and cost effectiveness, including reduced costs associated with power and space, as compared to traditional IP routing network designs. Our Packet Networking products also enable a flexible and open architecture that reduces the complexity of growing networks and adding services.

Our Packet Networking products principally include our 3000 family of service delivery switches and service aggregation switches, the 5000 series of service aggregation switches, and our Ethernet packet configuration for the 5410 Service Aggregation Switch. These products support the access and aggregation tiers of communications networks and have principally been deployed to support wireless backhaul infrastructures and business data services. Employing sophisticated, carrier-grade Ethernet switching technology, these products deliver "quality of service" capabilities, virtual local area networking and switching functions, and carrier-grade operations, administration, and maintenance features. This segment also includes stand-alone broadband products that transition voice networks to support Internet-based telephony, video services and DSL.

[Table of Contents](#)

Our Packet Networking products utilize our Service-Aware Operating System ("SAOS") in conjunction with our network management software suite to reduce customer operating expense and accelerate network operators' time-to-revenue for business, mobile and consumer data services. We have also integrated key features and attributes of SAOS on our Converged Packet-Optical products to ensure seamless service delivery and operations between our Packet Networking and Converged Packet-Optical portfolios.

Optical Transport

Our Optical Transport products include stand-alone WDM and SONET/SDH-based optical transport solutions that add capacity to core, regional and metro networks and enable cost-effective and efficient transport of voice, video and data traffic at high transmission speeds. The products in this segment principally include the 4200 Advanced Services Platform, Corestream® Agility Optical Transport System, 5100/5200 Advanced Services Platform, Common Photonic Layer (CPL), and 6100 Multiservice Optical Platform. Our Optical Transport portfolio includes our traditional SONET/SDH transport and data networking products, as well as certain enterprise-oriented transport solutions that support storage and LAN extension, interconnection of data centers, and virtual private networks.

Software and Services

Network Management and Network Control Software

Our integrated software offering includes our OneControl Unified Management System, an integrated network and service management software that unifies our product portfolio, provides automated management features and enables efficient service delivery. Our network management tools offer a comprehensive set of functions, from monitoring network performance and provisioning the network, to full service level management across a variety of network layers and domains. These software solutions can track individual services across multiple product suites, facilitating planned network maintenance, outage detection and identification of customers or services affected by network performance. Our integrated software suite is a robust, service aware framework that improves network utilization and availability, while delivering enhanced performance monitoring and reliability. By increasing network automation, minimizing network downtime and monitoring network performance and service metrics, our software tools enable customers to improve cost effectiveness, while increasing the performance and functionality of their network operations. This software suite also includes Ciena OnePlanner, a suite of planning tools that helps network operators utilize their networks more efficiently, and our ON-Center® Network & Service Management Suite, Ethernet Services Manager, Optical Suite Release and network level applications.

Network Transformation Solutions and Support Services

To complement our product portfolio, we offer a broad range of consulting and support services that help our customers design, optimize, deploy, manage and maintain their communications networks. We believe that our broad set of service offerings is an important component of our network specialist approach and a significant differentiator from our competitors. We believe that our services offering and our close collaborative engagement with customers provide us with valued insight into network and business challenges faced by our customers, enabling them to modernize and gain value from their network infrastructures. Our network transformation solutions offering enables us to work closely with our customers in the assessment, planning, deployment, and transformation of their networks. We believe that customers place significant value on the strategic, consultative engagements afforded by our services offering and on our ability to partner with them through services-oriented solutions that address their network and business needs.

Our services and support portfolio includes the following offerings:

- Network transformation solutions, including:
 - Network analysis, planning and design; and
 - Network optimization, migration, modernization and assurance services.
- Maintenance and support services, including:
 - helpdesk and technical assistance;
 - training;
 - spares and logistics management;
 - engineering dispatch and on-site professional services;
 - equipment repair and replacement; and
 - software maintenance and updates.
- Deployment services, including turnkey installation and turn-up and test services;
- Network management and operations center services; and

- Project management services, including staging, site preparation and installation support activities.

We provide these services using a combination of internal resources and qualified third party service partners.

Product Development

Our industry is subject to rapid technological developments, evolving service delivery requirements, standards and protocols, and shifts in customer and end user network demand. To remain competitive, we must continually enhance existing product platforms by adding new features and functionality, increasing transmission speeds and capacity, and introducing new network solutions that address multiservice traffic growth and enable new service offerings. Our research and development strategy has been to pursue technology convergence. This enables us to consolidate network features and functionalities onto a single platform, helping network operators architect robust, feature-rich networks that require fewer network elements and address cost, space and power limitations. We believe these converged, next-generation networking solutions promote rapid service delivery and allow network operators to derive business and operational value from their network infrastructures.

We are investing in our OPⁿ Architecture, our approach to building next-generation networks. Our OPⁿ Architecture, which underpins our solutions offering and guides our research and development strategy, leverages the convergence of optical and packet technologies to increase network scale cost effectively, while emphasizing software-enabled programmability, automation and open interfaces. Through this network approach, we seek to enable high-capacity, configurable infrastructures that can be managed and adapted by network-level applications, and to provide flexible interfaces for the integration of computing and storage resources in a unified network. Our product development initiatives also include design and development work intended to address growing opportunities, such as metropolitan network applications, enterprise networking, cloud infrastructure and packet-based infrastructure solutions for next-generation, high-capacity networks. To address these opportunities and realize our network vision, our current development efforts are focused upon:

- Improving and converging technologies across our portfolio, including:
 - Extending our leadership in 40G, 100G, and 400G long-haul transport;
 - Continued development of our WaveLogic coherent optical processor to improve network capacity, transmission speed, spectral efficiency and reach;
 - Expanding packet networking capabilities and features for our high-capacity Ethernet aggregation switches, for metro and service aggregation applications, mobile backhaul and business Ethernet services;
- Developing products that increase software-based network programmability and control, including:
 - software-defined networking control layer;
 - network level applications that automate various network functions, support new service introduction and monetize network assets; and
 - software-based virtualization of features or functions traditionally supported by hardware network elements.
- Designing solutions that enable network operators to achieve improved cost and efficiency, including with respect to power, space and cost per bit.

Our research and development efforts are also geared toward portfolio optimization and engineering changes intended to drive cost reductions across our platforms.

To ensure that our product development investments and solutions offerings are closely aligned with market demand, we continually seek input from customers and promote collaboration among our product development, marketing and global field organizations. In some cases, we work with third parties pursuant to technology licenses, original equipment manufacturer (OEM) arrangements and other strategic technology relationships or investments, to develop new components or products, modify existing platforms or offer complementary technology to our customers. In addition, we participate in industry and standards organizations, where appropriate, and incorporate information from these affiliations throughout the product development process.

We regularly review our existing product offerings and prospective development projects to determine their fit within our portfolio and broader corporate strategy. We assess the market demand, technology evolution, prospective return on investment and growth opportunities, as well as the costs and resources necessary to develop and support these products. In recent years, our strategy has been to pursue technology and product convergence that allows us to consolidate multiple network technologies, features or functionalities on a single platform, or to control and manage multiple elements throughout the network from a single management system, ultimately creating more robust, integrated and cost-effective network tools. We have also shifted our strategic development approach from delivering point products to providing a focused combination of networking equipment, software and service solutions that address the business and network needs of our customers.

[Table of Contents](#)

Within our global products group, we maintain a team of skilled engineers with extensive experience in the areas of photonics, packet and circuit switching, network system design, and embedded operating system and network management software. Our research and development expense was \$379.9 million, \$364.2 million and \$383.4 million, for fiscal 2011, 2012 and 2013, respectively. For more information regarding our research and development expense, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of Part II of this report.

Sales and Marketing

We sell our communications networking solutions through our direct sales resources as well as through strategic channel relationships. In addition to securing new customers in growth geographies and customer market segments, our sales strategy has focused on building long-term, consultative relationships with existing customers. We believe this engagement model promotes our network specialist approach, allows us to address a wider range of applications with our customers, and helps ensure the alignment of our expertise with our customers’ business and network requirements. We believe this approach also provides opportunities to participate in future projects relating to the transition or expansion of existing network infrastructures and to cross-sell solutions across our portfolio.

Within our global field organization, we maintain a direct sales presence that is organized geographically around the following markets: (i) United States and Canada; (ii) Caribbean and Latin America; (iii) Europe, Middle East and Africa; and (iv) Asia-Pacific. These regions include sales personnel that focus on one or more of the following customer segments: communications service providers, including traditional wireline service providers, wireless providers, cable and multiservice operators, enterprise customers, content service providers and government, research and education. Within each geographic area, we maintain specific teams that focus on a particular region, country, customer or market vertical. These teams include sales management, account salespersons, and systems engineers, as well as strategic marketing, services and commercial management personnel, who ensure we operate closely with and provide a high level of support to our customers. Certain of our global sales teams also focus on submarine network opportunities and emerging customer segments including content service providers and cloud infrastructure providers.

We also maintain a global channel program that works with resellers, systems integrators, service providers, and other third party distributors who market and sell our products and services. Our third party channel sales and other distribution arrangements enable us to reach additional geographic regions and customer segments. We intend to pursue and foster targeted strategic channel relationships in an effort to enable us to sell our products as a complement to the broader offering of these vendors or integrators, including, in particular, in support of enterprise-oriented applications and cloud-based services. We also see opportunities to leverage these strategic channel relationships to address additional customer segments, emerging applications for our solutions and growth geographies. Our use of channel partners has been a key component in our sales to government, research and education and enterprise customers. We believe this strategy and our use of third party channels afford us expanded market opportunities and reduce the financial and operational risk of entering these additional markets.

To support our sales efforts, we engage in marketing activities intended to position and promote our brand as well as our product, software and service offerings. Our marketing team supports sales efforts through direct customer interaction, industry events, public relations, industry analysts, social media, tradeshow, our website and other marketing channels for our customers and channel partners.

Operations and Supply Chain Management

Operations personnel within our global products group manage our relationships with our third party manufacturers and manage our supply chain. In addition, this team also addresses component procurement and sourcing, product testing and quality, fulfillment and logistics relating to our sales, support and professional services, and distribution efforts.

We utilize a global sourcing strategy that emphasizes procurement of materials and product manufacturing in lower cost regions. We rely upon third party contract manufacturers, with facilities in Canada, Mexico, Thailand and the United States, to perform nearly all of the manufacturing of our products. We also rely upon third party supply partners to perform design and prototype development, component sourcing, full production, final assembly, testing and customer order fulfillment. As a result, we are exposed to risks associated with the business continuity of these third parties and other events or conditions affecting the locations where they operate. We are also exposed to risks associated with their markets and business practices including the level of corruption or protection of intellectual property. To address customer concerns and to mitigate the related risks to our business, operations and intellectual property, we have been reducing the reliance of our supply chain upon suppliers in China and are currently transitioning, or expect to transition, the procurement of certain components and the manufacture and assembly of our product platforms to alternate locations.

We are currently utilizing a direct order fulfillment model for the sale of certain products, and are engaged in initiatives to expand this model to a broader set of products. This model allows us to rely on our third party contract manufacturers to perform final system integration and testing prior to shipment of products from their facilities directly to our customers. For certain products, we continue to perform a portion of the system assembly, software application, final system integration and testing internally. We believe that our sourcing and manufacturing strategy allows us to conserve capital, lower costs of product sales, adjust quickly to changes in market demand, and operate without dedicating significant resources to manufacturing-related plant and equipment. As part of our effort to optimize our operations, we continue to focus on driving cost reductions through sourcing, design and engineering efforts, rationalizing our supply chain and consolidating distribution sites and service logistics partners. These efforts include process optimization and initiatives, such as vendor-managed inventory models, to drive improved efficiencies in our sourcing, logistics and fulfillment.

Our manufacturers procure components necessary for assembly and manufacture of our products based on our specifications, approved vendor lists, bills of materials and testing and quality standards. Our manufacturers' activity is based on rolling forecasts that we provide to them to estimate demand for our products. This build-to-forecast purchase model exposes us to the risk that our customers will not order those products for which we have forecast sales, or will purchase less than we have forecast. As a result, we incur carrying charges or obsolete material charges for components purchased by our manufacturers. We work closely with our manufacturers to manage material, quality, cost and delivery times, and we continually evaluate their services to ensure performance on a reliable and cost-effective basis.

Our products include some components that are proprietary in nature, only available from one or a small number of suppliers, or manufactured by sole or limited sources responsible for production. If component supplies become limited, production at a manufacturer is disrupted or we experience difficulty in our relationship with a key supplier or manufacturer, we may encounter manufacturing delays that could adversely affect our business.

Backlog

Generally, we make sales pursuant to purchase orders issued under framework agreements that govern the general commercial terms and conditions of the sale of our products and services. These agreements do not obligate customers to purchase any minimum or guaranteed order quantities. Our backlog includes orders for products that have not been shipped and for services that have not yet been performed. In addition, backlog also includes orders relating to products that have been delivered and services that have been performed, but are awaiting customer acceptance under the applicable purchase terms. Generally, our customers may cancel or change their orders with limited advance notice, or they may decide not to accept these products and services, although both cancellation and non-acceptance are infrequent. Orders in backlog may be fulfilled several quarters following receipt or may relate to multi-year support service obligations. As a result, backlog should not be viewed as an accurate indicator of future revenue in any particular period.

Our backlog increased from \$902.0 million as of October 31, 2012 to \$1.0 billion as of October 31, 2013 . Backlog includes product and service orders from commercial and government customers combined. Backlog at October 31, 2013 includes approximately \$167.3 million , primarily related to orders for maintenance and support services, that are not expected to be filled within fiscal 2014. Backlog at October 31, 2012 included approximately \$140.5 million , primarily related to orders for maintenance and support services, that were not expected to be filled within fiscal 2013. Our presentation of backlog may not be comparable with figures presented by other companies in our industry.

Seasonality

Like other companies in our industry, we have experienced quarterly fluctuations in customer activity due to seasonal considerations. 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 can result in somewhat weaker revenue results in the first quarter of our fiscal year. These seasonal effects do not apply consistently and do not always correlate to our financial results. Accordingly, they should not be considered a reliable indicator of our future revenue or results of operations.

Competition

Competition among communications network solution vendors remains intense. The markets in which we compete are characterized by rapidly advancing and converging technologies, introduction of new network solutions and selling efforts to displace incumbent vendors and secure market share. Successfully competing in these markets is based on any one or a combination of the following factors:

[Table of Contents](#)

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

In this intense and fragmented competitive environment, securing new opportunities, particularly in international markets, often requires that we agree to unfavorable commercial terms or pricing, financial commitments requiring collateralized performance bonds or similar instruments that place cash resources at risk, and other onerous contractual commitments that place a disproportionate allocation of risk upon us as the vendor. These terms can adversely affect our results of operations.

Competition for sales of communications networking solutions is dominated by a small number of very large, multi-national companies. Our competitors include Alcatel-Lucent, Cisco, Ericsson, Fujitsu, Huawei, Juniper Networks, and ZTE. Many of these competitors have substantially greater financial, operational and marketing resources than Ciena, significantly broader product offerings or more extensive customer bases. We expect our competitive landscape to broaden and competition to increase as network technologies, features and layers continue to converge. As this convergence occurs, and requirements for software programmability and virtualization increase, we expect to compete with a broader group of vendors offering their own network architectural approaches. We expect that we may increasingly compete with IP router vendors, system integrators and information technology and software vendors, as well as suppliers of networking technology traditionally geared toward different network users, layers or functions.

We also continue to compete with several smaller, but established, companies that offer one or more products that compete directly or indirectly with our offerings or whose products address specific niches within the markets and customer segments we address. These competitors include ADVA, BTI, Cyan, Coriant, Infinera and Transmode. In addition, there are a variety of earlier-stage companies with products targeted at specific segments of the communications networking market. These competitors often employ aggressive competitive and business tactics as they seek to gain entry to certain customers or markets. Due to these practices and the narrower focus of their development efforts, these competitors may be able to develop and introduce products more quickly, or offer commercial terms that are more attractive to customers.

Patents, Trademarks and Other Intellectual Property Rights

The success of our business and technology leadership is significantly dependent upon our proprietary and internally developed technology. We rely upon patents, copyrights, trademarks, and trade secret laws to establish and maintain proprietary rights in our technology. We maintain a patent incentive program that seeks to reward innovation. We regularly file applications for patents and have a significant number of patents in the United States and other countries where we do business. As of December 1, 2013, we had 1,397 U.S. patents, 225 pending U.S. patent applications and over 406 non-U.S. patents.

We also rely on non-disclosure agreements and other contracts and policies regarding confidentiality with employees, contractors and customers, to establish proprietary rights and protect trade secrets and confidential information. Our practice is to require employees and relevant consultants to execute non-disclosure and proprietary rights agreements upon commencement of their employment or consulting arrangements with us. These agreements acknowledge our ownership of intellectual property developed by the individual during the course of his or her work with us. The agreements also require that these persons maintain the confidentiality of all proprietary information disclosed to them.

Enforcing proprietary rights, especially patents, can be costly and uncertain. Moreover, monitoring unauthorized use of our technology is difficult, and we cannot be certain that the steps that we are taking will detect or prevent all unauthorized use. In recent years, we have filed suit to enforce our intellectual property rights. We have also been subject to several claims related to patent infringement, including by competitors and by non-practicing entities or "patent trolls," and have been requested to indemnify customers pursuant to contractual indemnity obligations relating to infringement claims made by third parties. Intellectual property infringement assertions could cause us to incur substantial costs, including settlement costs and legal fees in the defense of related actions. If we are not successful in defending these claims, our business could be adversely affected. For example, we may be required to enter into a license agreement requiring us to make ongoing royalty payments, required to redesign our products or prohibited from selling any infringing technology.

Our operating system, element and network management software and other products incorporate software and components under licenses from third parties. As network requirements for increased software-defined programmability increase, and we continue to advance our OPn Architecture through the development and sale of network level applications, we may be required to license additional technology from third parties in order to develop new products or product enhancements. Failure to obtain or maintain such licenses or other third party intellectual property rights could affect our development efforts, or to require us to re-engineer our products or obtain alternate technologies.

In connection with our acquisition of substantially all of the optical networking and Carrier Ethernet assets of Nortel's Metro Ethernet Networks business (the "MEN Business") on March 19, 2010 (the "MEN Acquisition"), we obtained a non-exclusive license to use patents and other intellectual property controlled or exclusively owned by Nortel in connection with our manufacture, sale and support of a broad range of optical networking and Carrier Ethernet products and services and natural evolutions of such products and services. We also obtained an exclusive license to use a narrower set of patents and other intellectual property owned by Nortel in connection with Ciena's manufacture, sale and support of optical networking and Carrier Ethernet products and services within a narrower field of use and subject to certain limitations. As part of this license, we granted Nortel a non-exclusive license to use the patents and other intellectual property (except trademarks) that we acquired as part of the MEN Business in connection with the manufacture and sale of products and services in the fields of Nortel's other businesses (including those businesses sold and to be sold to other parties) and natural evolutions of such fields.

Environmental Matters

Our business and operations are subject to environmental laws in various jurisdictions around the world, including the Waste Electrical and Electronic Equipment (WEEE) and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulations adopted by the European Union. We are also subject to disclosure and related requirements that apply to the presence of "conflict minerals" in our products or supply chain. We seek to operate our business in compliance with such laws relating to the materials and content of our products and product takeback and recycling. Environmental regulation is increasing, particularly outside of the United States, and we expect that our domestic and international operations may be subject to additional environmental compliance requirements, which could expose us to additional costs. To date, our compliance costs relating to environmental regulations have not resulted in a material cost or effect on our business, results of operations or financial condition.

Employees

As of October 31, 2013, we had a global workforce consisting of 4,754 employees. We have not experienced any work stoppages, and we consider the relationships with our employees to be good. Competition to attract and retain highly skilled technical, engineering and other personnel with experience in our industry is intense. We believe that our future success depends in critical part on our continued ability to recruit, motivate and retain such qualified personnel.

Directors and Executive Officers

The table below sets forth certain information concerning our directors and executive officers:

Name	Age	Position
Patrick H. Nettles, Ph.D.	70	Executive Chairman of the Board of Directors
Gary B. Smith	53	President, Chief Executive Officer and Director
Stephen B. Alexander	54	Senior Vice President and Chief Technology Officer
Rick Dodd	44	Senior Vice President, Global Marketing
James A. Frodsham	47	Senior Vice President and Chief Strategy Officer
François Locoh-Donou	42	Senior Vice President, Global Products Group
Philippe Morin	48	Senior Vice President, Global Field Organization
James E. Moylan, Jr.	62	Senior Vice President, Finance and Chief Financial Officer
Andrew C. Petrik	50	Vice President and Controller
David M. Rothenstein	45	Senior Vice President, General Counsel and Secretary
Harvey B. Cash (1)(3)	75	Director
Bruce L. Claflin (1)(2)	62	Director
Lawton W. Fitt (2)	60	Director
Judith M. O'Brien (1)(3)	63	Director
Michael J. Rowny (2)	63	Director
Patrick T. Gallagher (2)(3)	58	Director

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- (1) Member of the Compensation Committee
 - (2) Member of the Audit Committee
 - (3) Member of the Governance and Nominations Committee

Our Directors hold staggered terms of office, expiring as follows: Ms. O'Brien and Messrs. Cash and Smith in 2014; Messrs. Claflin and Gallagher in 2015; and Ms. Fitt, Dr. Nettles and Mr. Rowny in 2016.

Patrick H. Nettles, Ph.D. has served as a Director of Ciena since April 1994 and as Executive Chairman of the Board of Directors since May 2001. From October 2000 to May 2001, Dr. Nettles was Chairman of the Board of Directors and Chief Executive Officer of Ciena, and he was President and Chief Executive Officer from April 1994 to October 2000. Dr. Nettles serves as a Trustee for the California Institute of Technology and serves on the board of directors of Axcelis Technologies, Inc. and The Progressive Corporation. Dr. Nettles has previously served on the board of directors of Appttrigger, Inc., formerly known as Carrius Technologies, Inc., and on the board of directors of Optiwind Corp, a privately held company

Gary B. Smith joined Ciena in 1997 and has served as President and Chief Executive Officer since May 2001. Mr. Smith has served on Ciena's Board of Directors since October 2000. Prior to his current role, his positions with Ciena included Chief Operating Officer, and Senior Vice President, Worldwide Sales. Mr. Smith previously served as Vice President of Sales and Marketing for INTELSAT and Cray Communications, Inc. Mr. Smith also serves on the board of directors for Avaya Inc. and CommVault Systems, Inc. Mr. Smith is a member of the President's National Security Telecommunications Advisory Committee, the Global Information Infrastructure Commission and the Center for Corporate Innovation (CCI).

Stephen B. Alexander joined Ciena in 1994 and has served as Chief Technology Officer since September 1998 and as a Senior Vice President since January 2000. Mr. Alexander has previously served as General Manager of Products & Technology and General Manager of Transport and Switching and Data Networking.

Rick Dodd has served as Ciena's Senior Vice President, Global Marketing since December 2010 and is responsible for Ciena's product, solutions and corporate marketing organizations and provides strategic support to Ciena's global field organization and global products groups. Mr. Dodd previously worked at Infinera Corporation from September 2003 to December 2010 and served in roles including Vice President of Product Marketing and Vice President of Corporate Marketing. Mr. Dodd previously served as an Associate Partner at venture capital firm Kleiner, Perkins, Caufield and Byers and as Ciena's Director of Strategic Marketing.

James A. Frodsham joined Ciena in May 2004 and has served as Senior Vice President and Chief Strategy Officer since March 2010 with responsibility for our strategic planning and corporate development activities. In August 2010, Mr. Frodsham assumed responsibility for the integration of the MEN Business, which was substantially completed in fiscal 2011. Mr. Frodsham previously served as Senior Vice President, General Manager of Ciena's former Broadband Access Group from October 2004 to October 2005 and Metro and Enterprise Solutions Group from May 2004 to October 2004. From August 2000 to January 2003, Mr. Frodsham served as chief operating officer of Innovance Networks, an optical networking company. On December 23, 2003, Innovance filed a Notice of Intent to make a proposal pursuant to Part III of the Bankruptcy and Insolvency Act (Canada). Prior to that, Mr. Frodsham was employed for more than ten years in senior level positions with Nortel Networks in product development and marketing strategy, including as Vice President, Product Line Marketing, Optical Networking Group, from December 1998 to June 2000. Mr. Frodsham serves on the board of directors of Innovance Networks.

François Locoh-Donou has served as Ciena's Senior Vice President, Global Products Group since August 2011. In this capacity, Mr. Locoh-Donou leads Ciena's engineering, supply chain, product line management, quality/customer advocacy, and product marketing and solutions organizations on a global basis. Mr. Locoh-Donou joined Ciena in August 2002 and served as Ciena's Vice President and General Manager, EMEA from June 2005 to August 2011.

Philippe Morin joined Ciena in March 2010 in connection with Ciena's acquisition of Nortel's MEN Business and has served as Senior Vice President, Global Field Organization since August 2011, where he is responsible for leading Ciena's global sales and services organizations. From March 2010 to August 2011, Mr. Morin served as Ciena's Senior Vice President, Global Products Group. Mr. Morin previously served as President of Nortel's MEN Business from May 2006 until Ciena's completion of the MEN Acquisition in March 2010. In January 2009, Nortel Networks Corporation and certain of its subsidiaries filed voluntary petitions in the United States under Chapter 11 of the U.S. Bankruptcy Code. From January 2003 to May 2006, Mr. Morin held the position of Nortel's General Manager of Optical Networks. Mr. Morin previously held other positions at Nortel in manufacturing, marketing, sales and product management both in North America and Europe.

James E. Moylan, Jr. has served as Senior Vice President, Finance and Chief Financial Officer since December 2007.

Andrew C. Petrik joined Ciena in 1996 and has served as Vice President, Controller since August 1997 and served as Treasurer from August 1997 to October 2008.

David M. Rothenstein joined Ciena in January 2001 and has served as Senior Vice President, General Counsel and Secretary since November 2008. Mr. Rothenstein served as Vice President and Associate General Counsel from July 2004 to October 2008 and previously as Assistant General Counsel.

Harvey B. Cash has served as a Director of Ciena since April 1994. Mr. Cash is a general partner of InterWest Partners, a venture capital firm in Menlo Park, California, which he joined in 1985. Mr. Cash serves on the board of directors of First Acceptance Corp., Silicon Laboratories, Inc. and Argonaut Group, Inc. and has previously served on the boards of directors of i2 Technologies, Inc., Voyence, Inc. and Staktek Holdings, Inc.

Bruce L. Claflin has served as a Director of Ciena since August 2006. Mr. Claflin served as President and Chief Executive Officer of 3Com Corporation from January 2001 until his retirement in February 2006. Mr. Claflin joined 3Com as President and Chief Operating Officer in August 1998. Prior to 3Com, Mr. Claflin served as Senior Vice President and General Manager, Sales and Marketing, for Digital Equipment Corporation. Mr. Claflin also worked for 22 years at IBM, where he held various sales, marketing and management positions, including general manager of IBM PC Company's worldwide research and development, product and brand management, as well as president of IBM PC Company Americas. Mr. Claflin also serves on the board of directors of Advanced Micro Devices (AMD), where he is currently Chairman of the Board and Chairman of its Nominating and Governance Committee.

Lawton W. Fitt has served as a Director of Ciena since November 2000. From October 2002 to March 2005, Ms. Fitt served as Director of the Royal Academy of Arts in London. From 1979 to October 2002, Ms. Fitt was an investment banker with Goldman Sachs & Co., where she was a partner from 1994 to October 2002, and a managing director from 1996 to October 2002. In addition to her service as a director of non-profit organizations, Ms. Fitt currently serves on the boards of directors of Thomson Reuters, The Carlyle Group LP and The Progressive Corporation, and she has previously served on the boards of directors of Overture Acquisition Corporation and Frontier Communications Company.

Judith M. O'Brien has served as a Director of Ciena since July 2000. Since November 2012, Ms. O'Brien has served as a partner and head of the Emerging Company Practice Group at the law firm of King & Spalding. Ms. O'Brien served as Executive Vice President and General Counsel of Obopay, Inc., a provider of mobile payment services, from November 2006 through December 2010. From February 2001 until October 2006, Ms. O'Brien served as a Managing Director at Incubic Venture Fund, a venture capital firm. From August 1980 until February 2001, Ms. O'Brien was a lawyer with Wilson Sonsini Goodrich & Rosati, where, from February 1984 to February 2001, she was a partner specializing in corporate finance, mergers and acquisitions and general corporate matters. Ms. O'Brien serves on the board of directors of Theatro Labs, Inc, a privately-held company, and has previously served on the board of directors of Adaptec, Inc.

Michael J. Rowny has served as a Director of Ciena since August 2004. Mr. Rowny has been Chairman of Rowny Capital, a private equity firm, since 1999. From 1994 to 1999, and previously from 1983 to 1986, Mr. Rowny was with MCI Communications in positions including President and Chief Executive Officer of MCI's International Ventures, Alliances and Correspondent group, acting Chief Financial Officer, Senior Vice President of Finance, and Treasurer. Mr. Rowny's career in business and government has also included positions as Chairman and Chief Executive Officer of the Ransohoff Company, Chief Executive Officer of Hermitage Holding Company, Executive Vice President and Chief Financial Officer of ICF Kaiser International, Inc., Vice President of the Bendix Corporation, and Deputy Staff Director of the White House. Mr. Rowny also serves on the board of directors of Neustar, Inc.

Patrick T. Gallagher has served as a Director of Ciena since May 2009. Mr. Gallagher currently serves as Chairman of Harmonic Inc, a public company and global provider of high-performance video solutions to the broadcast, cable, telecommunications and managed service provider sectors. From March 2008 until April 2012, Mr. Gallagher was Chairman of Ubiquisys Ltd., a leading developer and supplier of femtocells for the global 3G mobile wireless market. From January 2008 until February 2009, Mr. Gallagher was Chairman of Macro 4 plc, a global software solutions company, and from May 2006 until March 2008, served as Vice Chairman of Golden Telecom Inc., a leading facilities-based provider of integrated communications in Russia and the CIS. From 2003 until 2006, Mr. Gallagher was Executive Vice Chairman and served as Chief Executive Officer of FLAG Telecom Group and, prior to that role, held various senior management positions at British Telecom. Mr. Gallagher also serves on the board of directors of Sollers JSC.

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 depend in part on our projections of future revenue and gross margin, and substantial reductions in expense can take time to implement. Uncertainty or lack of visibility into customer spending, and changes in economic or market conditions that affect customer spending, can make it difficult to forecast future revenue and margins. In addition, increases in the percentage of a given quarter's revenue generated from orders placed during that quarter, along with significant order volume late that quarter, could further result in variability and less predictability in our quarterly revenue and cash flow. Consequently, our level of operating expense or inventory may be high relative to revenue, which could harm our profitability and cash flow. Additional factors that contribute to fluctuations in our revenue and operating results include:

- broader macroeconomic conditions, including weakness and volatility in global markets, that affect our customers;
- changes in capital spending by large communications service providers;
- order flow and backlog levels;
- the timing of our ability to recognize revenue on sales;
- the mix of revenue by product segment, geography and customer in any particular quarter;
- the level of competition and pricing pressure we encounter;
- seasonal effects in our business;
- the level of start-up costs we incur to support initial deployments, gain new customers or enter new markets; and
- our level of success in improving manufacturing efficiencies and achieving cost reductions in our supply chain.

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

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

We face a competitive market for sales of communications networking equipment, software and services, and this level of competition could result in pricing pressure, reduced demand, lower gross margins and loss of market share that could harm our business and results of operations. Competition is particularly intense as we and our competitors aggressively seek to displace incumbent equipment vendors at large service providers and secure new customers. In an effort to secure customer opportunities and capture market share, we have in the past, and may in the future, agree to commercial terms or pricing that result in low or negative gross margins on a particular order or group of orders. We expect this level of competition to continue or potentially increase, as multinational equipment vendors seek to promote adoption of their network architectural approaches and retain incumbent positions with large customers around the world. We also expect our competitive landscape to broaden. As network technologies, features and layers converge and demands for software programmability of networks increases, we expect that our business will overlap more directly with additional networking suppliers, including IP router vendors, system integrators, software vendors and other information technology vendors.

Competition in our markets, generally, is based on any one or a combination of the following factors: product features; functionality and performance; price; services offerings; manufacturing capability and lead-times; incumbency and existing business relationships; scalability and flexibility of products to meet the immediate and future network; and service requirements of network operators. 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. In addition, a number of these vendors are putting forth competing visions for how next-generation network architectures should be designed. Because of their scale and resources, they may be perceived to be a better fit for the procurement, or network operating and management, strategies of large service providers. We also compete with a number of smaller companies that provide significant competition for a specific product, application, customer segment or geographic market. Due to the narrower focus of their efforts, these competitors may achieve commercial availability of their products more quickly or may be more attractive to customers. If competitive pressures increase or 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 capital expenditure by customers in response to these conditions.

Our business and operating results could be materially adversely affected by reduced customer spending in response to unfavorable or uncertain macroeconomic and market conditions, globally or with respect to a particular region where we operate. Broad macroeconomic weakness and market volatility have previously resulted in sustained periods of decreased demand for our products and services that have adversely affected our operating results. Macroeconomic and market conditions could be adversely affected by a variety of political, economic or other factors in the United States and elsewhere that could adversely affect spending levels, as well as create volatility or deteriorating conditions in the markets in which we operate. Continuation of, or an increase in, 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, budgeting and planning;
- higher overhead costs as a percentage of revenue;
- tightening of credit markets needed to fund capital expenditures by our customers and us;
- 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 and results of operations.

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

A significant portion of our revenue is concentrated among a few, large global communications service providers. By way of example, AT&T accounted for approximately 17.9% of fiscal 2013 revenue, and our largest ten customers contributed 59.4% of fiscal 2013 revenue. Consequently, our financial results are closely correlated with the spending of a relatively small number of service provider customers and can be significantly affected by market or industry changes that affect their businesses. These factors can include consumer and enterprise spending on communication services, macroeconomic volatility, the adoption of new communications products and services, the emergence of competing network operators and changing demands of end user customers. Because the terms of our framework contracts do not obligate customers to purchase any minimum or guaranteed order quantities, spending by these service providers can be unpredictable and sporadic, our revenue and operating results can fluctuate on a quarterly basis. Reliance upon a relatively small number of service providers increases our exposure to changes in their network and purchasing strategies. Some of our customers are pursuing efforts to outsource the management and operation of their networks, or have indicated a procurement strategy to reduce the number of vendors from which they purchase equipment, which may benefit our larger competitors. Our concentration in revenue has increased in the past as a result of consolidation among a number of our largest customers. Consolidation may increase the likelihood of temporary or indefinite reductions in customer spending or changes in network strategy that could harm our business and operating results. The loss of one or more of our large service provider customers, a significant reduction in their spending, or market or industry factors adversely affecting service providers generally, would have a material adverse effect on our business, financial condition and results of operations.

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

We maintain a global sourcing strategy and depend on third party suppliers for support in our product design and development and the sourcing of key product components and subsystems. Our products include optical and electronic components for which reliable, high-volume supply is often available only from sole or limited sources. Increases in market demand or scarcity of resources or manufacturing capability have previously resulted in shortages in availability of important components for our solutions, allocation challenges and increased lead times. We are exposed to risks relating to unfavorable economic conditions or other similar challenges affecting the businesses of our component providers that can affect their liquidity levels, ability to continue investing in their businesses, and manufacturing capability. This could expose our business to increased costs, 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 guarantee of supply from these third parties, and in certain cases are relying upon temporary or transitional commercial arrangements. As a result, there is no assurance that we will be able to secure the components or subsystems that we require, in sufficient quantity and quality on reasonable terms. The loss of a source of supply, or lack of sufficient availability of key

components, could require that we locate an alternate source or redesign our products, each of which could increase our costs and negatively affect our product gross margin and results of operations. Our business and results of operations would be negatively affected if we were to experience any significant disruption or difficulties with key suppliers affecting the price, quality, availability or timely delivery of required components.

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

The market for communications networking equipment is characterized by rapidly evolving technologies and changes in market demand. We continually invest in research and development to sustain or enhance our existing products and to develop or acquire new product technologies. Our current development efforts are focused upon enhancing our software and network-level applications, extending our OneConnect control plane across the 5400 and 6500 platform families, expanding packet applications on service delivery switches, aggregation switches, and coherent optical transport platforms, extending our WaveLogic chipset, enabling 40G and 100G coherent optical transport across our portfolio, and introducing 400G transmission products. There is often a lengthy period between commencing these development initiatives and bringing new or improved products to market. During this time, technology preferences, customer demand and the market for our products, or those introduced by our competitors, may move in directions we had not anticipated. There is no guarantee that our new products or enhancements will achieve market acceptance or that the timing of market adoption will be as predicted. There is a significant possibility, therefore, that some of our development decisions, including significant expenditures on acquisitions, research and development costs, or investments in technologies, will not turn out as anticipated, and that our investment in some projects will be unprofitable. There is also a possibility that we may miss a market opportunity because we failed to invest, or invested too late, in a technology, product or enhancement sought by our customers. Changes in market demand or investment priorities may also cause us to discontinue existing or planned development for new products or features, which can have a disruptive effect on our relationships with customers. If we fail to make the right investments or fail to make them at the right time, our competitive position may suffer and our revenue and profitability could be harmed.

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

Our products are based on complex technology, and we can experience unanticipated delays in developing and manufacturing these solutions. Our current development efforts are focused upon enhancing our software applications, extending our OneConnect control plane across the 5400 and 6500 platform families, expanding packet applications on service delivery switches, aggregation switches, and coherent optical transport platforms, extending our WaveLogic chipset for 40G and 100G coherent optical transport across our portfolio and introducing 400G transmission products. Delays in these and other product development efforts may affect our reputation with customers, affect our ability to seize market opportunities and impact the timing and level of demand for our products. Each step in the development life cycle of our products presents serious risks of failure, rework or delay, any one of which could adversely affect the cost-effective and timely development of our products. We may encounter delays relating to engineering development activities and software, design, sourcing and manufacture of critical components, and the development of prototypes. In addition, intellectual property disputes, failure of critical design elements, and other execution risks may delay or even prevent the release of these products. If we do not successfully develop products in a timely manner, our competitive position may suffer and our business, financial condition and results of operations could be harmed.

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

The development and production of sophisticated hardware and software for communications network equipment is complicated. Some of our products can be fully tested only when deployed in communications networks or when carrying traffic with other equipment. 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 are in the process of launching a number of new platforms. Unanticipated product performance problems can relate to the design, manufacturing and installation 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. 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, would adversely affect our business and reputation. Product performance, reliability, security and quality problems can negatively affect our business, including through:

- damage to our reputation, declining sales and order cancellations;

[Table of Contents](#)

- 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.

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

A significant portion of our revenue comes from sales to large communications service providers. These sales typically involve lengthy sales cycles, extensive product testing, and demonstration laboratory or network certification, including network-specific or region-specific product certification or homologation processes. 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. We may also be requested to provide deferred payment terms, vendor or third-party financing, or offer other alternative purchase structures that extend the timing of payment and revenue recognition. Moreover, our purchase agreements generally do not include minimum purchase commitments, and customers often have the right to modify, delay, reduce or cancel previous orders. These terms may negatively affect our revenue and results of operations and increase our susceptibility to quarterly fluctuations in our financial results. Moreover, service providers 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.

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

We continue to take steps, including sales initiatives and strategic channel relationships, to sell our products into new markets, growth geographies and diverse customer segments beyond our traditional service provider customer base. Specifically, we are targeting opportunities in Brazil, the Middle East, Russia, Japan and India. We are also targeting sales opportunities with enterprises, wireless operators, cable operators, submarine network operators, content service providers, cloud infrastructure providers, research and education institutions, and federal, state and local governments. We believe sales to these customer segments, as well as emerging network operators supporting new communications services and applications, will be an important component of our growth strategy. In many cases, we have less experience in these markets and customer segments, and they may have less familiarity with our company. To succeed in some of these geographic markets and customer segments we have engaged or intend to leverage strategic sales channels and distribution arrangements and expect these relationships to be an important part of our business. Our efforts may be unsuccessful, and difficulties selling into these target markets, including through third party channels, could limit our growth and harm our results of operations.

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

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

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

- natural disasters, epidemics and acts of war or terrorism.

We expect that we may enter new international markets and withdraw from or reduce operations in others. Our global operations expose us to additional risk and expense that could give rise to unanticipated liabilities, costs or other difficulties that could adversely affect our operations and financial results.

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

To avoid delays and meet customer demand for shorter delivery terms, we place orders with our contract manufacturers and component suppliers based in part on forecasts of customer demand. As a result, our business is exposed to the risk that our customers ultimately may not order the products we have forecast, or will purchase fewer products than forecast. As features and functionalities converge across our product lines, and we introduce new products with overlapping feature sets, it is increasingly possible that customers may forgo purchases of one product we have inventoried in favor of another product with similar functionality. 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, and customers often have the right to modify, reduce or cancel purchase quantities. 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. As a result, we may purchase inventory in anticipation of sales that ultimately do not occur. If we are required to write off or write down a significant amount of inventory, our results of operations for the period would be materially adversely affected.

Our intellectual property rights may be difficult and costly to enforce.

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

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

We can 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, can require us to:

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

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

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

We rely on a number of third party service partners, both domestic and international, to complement our global service and support resources. We rely upon these partners for certain installation, maintenance and support functions. In addition, as network operators seek to increasingly 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, and 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 resource and scale as Ciena. Moreover, certain partners may provide similar services for other companies, including our competitors. We may not be able to manage effectively our relationships with our service partners and 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:

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

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

We may be 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 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 these situations carefully and 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 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 our business. Our business processes and information systems need to be sufficiently scalable to support the growth of our business and may require modifications or upgrades that expose us to a number of operational risks. We are currently pursuing initiatives to transform and optimize our business operations through the reengineering of certain processes, investment in automation and engagement of strategic partners or resources to assist with certain business functions. These changes may be costly and disruptive to our operations, and could impose substantial demands on management time.

These changes may also require changes in our information systems, modification of internal control procedures and significant training of employees or third party resources. There can be no assurance that our business and operations will not experience any disruption in connection with this transition. 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.

Data 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 sensitive data on our networks, including our intellectual property and proprietary or confidential business information relating to our business and that of our customers and business partners. The secure maintenance of this information 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. Our network and storage applications may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. In some cases, it is difficult to anticipate or immediately detect such incidents and the damage caused thereby. These data breaches and any unauthorized access or disclosure of our information could compromise our intellectual property and expose sensitive business information. Cyber-attacks could also cause us to incur significant remediation costs, disrupt key business operations and divert attention of management and key information technology resources. These incidents could also subject us to liability, expose us to significant expense, and cause significant harm to our reputation and business.

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

At October 31, 2013, indebtedness on our outstanding convertible notes totaled approximately \$1.2 billion in aggregate principal, including the accretion of principal at maturity on our 2020 Notes. 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;
- incurrence of debt service and repayment obligations that 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.

During fiscal 2012, we entered into a \$150 million senior secured asset-based revolving Credit Facility. In addition to customary remedies that would apply should we default under the credit agreement governing this facility, we may be subject to lender control over certain cash assets and required to comply with a fixed charge coverage ratio in the event that we do not maintain the requisite level of availability under the facility. The credit agreement also contains customary covenants that limit our ability to, among other things, pay cash dividends, incur debt, create liens and encumbrances, redeem or repurchase stock, enter into certain acquisition transactions, repay indebtedness, make investments or dispose of assets. The Credit Facility matures on August 13, 2015, provided that it will mature early on December 15, 2014, if any of Ciena's 4.0% convertible senior notes due March 15, 2015 are then outstanding. We may also enter into additional transactions or lending facilities, including equipment

loans, working capital lines of credit and other long-term debt, that may increase our indebtedness and result in additional restrictions upon our business.

Significant volatility and uncertainty in the capital markets may limit our access to funding.

We have accessed the capital markets in the past and successfully raised funds, through the issuance of equity or convertible debt, 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 may consider it necessary or advisable to raise additional capital in the future. 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, 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 our cash position and cash flows.

We have recently undertaken and expect to undertake a number of significant facilities transitions affecting a number of our largest employee populations. The lease of our “Lab 10” building on the Carling Campus in Ottawa, Canada will expire in fiscal 2017, and we are currently considering facilities and development alternatives in advance of the expiration of this lease. In addition, the lease for our research and development facility in Gurgaon, India will expire in October 2014. While we have an agreement to lease for periods beyond such date, the parties have not yet executed an extension of the lease. Both locations include sophisticated research and development lab equipment and significant headcount including key engineering personnel. Locating appropriate alternative space for our engineering operations may be costly, and there can be no assurance that the transition of key engineering functions to a successor facility will not be disruptive or adversely affect productivity. Significant facilities transitions could be disruptive to our operations and may result in unanticipated expense and adverse effects on our cash position and cash flows.

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

We have previously taken steps, including reductions in force, office closures, and internal reorganizations to reduce the size and cost of our operations, improve efficiencies, or realign our organization and staffing to better match our market opportunities and our technology development initiatives. We may take similar steps in the future as we seek to realize operating synergies, optimize our operations to achieve our target operating model and profitability objectives, or better reflect changes in the strategic direction of our business. These changes could be disruptive to our business, including our research and development efforts, and may 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. 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. 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. In addition, none of our executive officers is bound by an employment agreement for any specific term. If we are unable to attract and retain qualified personnel, we may be unable to manage our business effectively, and our operations and results of operations could suffer.

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

As a global concern, we face exposure to adverse movements in foreign currency exchange rates. Historically, our sales were primarily denominated in U.S. dollars. As a result of our increased global presence, a larger percentage of our revenue and operating expense are now 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. From time to time, we may hedge against currency exposure associated with anticipated foreign currency cash flows. There can be no assurance that any hedging instruments will be effective, and losses associated with these instruments and the adverse effect of foreign currency exchange rate fluctuation may negatively affect our results of operations.

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 embedded operating system, network management system tools and other products. Licenses for this technology may not be available or 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, including free open source software, may result in our inability to continue to use such license, which may result in significant costs and require us to obtain or develop a substitute technology. As networks become more open and software programmable, we expect that communications networking solutions vendors, including Ciena, will increasingly contribute to and use technology developed by standards settings bodies or other industry forums that seek to promote the integration of network layers and functions. This may increase risks associated with our use or reliance upon third party or open source software. Difficulty obtaining and maintaining third party technology licenses may disrupt development of our products and increase our costs.

Strategic acquisitions and investments 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 would dilute our current stockholders' ownership, or incur debt or assume indebtedness. These transactions involve numerous risks, including:

- significant 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;
- loss of key employees;
- ineffective internal controls over financial reporting;
- dependence on unfamiliar suppliers or manufacturers;
- exposure to unanticipated liabilities, including intellectual property infringement claims; and
- adverse tax or accounting effects including amortization expense related to intangible assets and charges associated with impairment of goodwill.

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

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

The Federal Communications Commission, or FCC, has jurisdiction over the U.S. communications industry, and similar agencies have jurisdiction over the communication industries in other countries. Many of our largest customers, including service providers and multiservice network operators, are subject to the rules and regulations of these agencies. Changes in regulatory requirements applicable to wireline or wireless communications and the Internet in the United States or other countries could serve as a disincentive to providers to invest in their communications network infrastructures or introduce new services. These changes could adversely affect the sale of our products and services. 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 and negatively affect our revenue and increase our costs.

The United States and various foreign governments have imposed controls, license requirements and other restrictions on the usage, import or export of some of the technologies that we sell. Government regulation of usage, import or export of our products, 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 or penalties and restrictions on export privileges. In addition, costly tariffs on our equipment, restrictions on importation, trade protection measures and domestic preference requirements of certain countries could limit our access to these markets and harm our sales. For example, India's government has implemented security regulations applicable to network equipment vendors, and has imposed significant tariffs that may inhibit sales of certain

communications equipment, including equipment manufactured in China, where certain of our products are assembled. These and other regulations could adversely affect the sale or use of our products, substantially increase our cost of sales and adversely affect our business and revenue.

Government regulations related to the environment and potential climate change 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. These regulations may also make it difficult to obtain supply of compliant components or may require us to write off non-compliant inventory, which could have an adverse effect on our business and operating results.

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

As of October 31, 2013, our balance sheet includes \$366.9 million in long-lived assets, which includes \$185.8 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, we may be required to reassess long-lived assets and could record an impairment charge. Any impairment charge relating to long-lived assets would have the effect of decreasing our earnings or increasing our losses in such period. If we are required to take a substantial impairment charge, our operating results would be materially adversely affected in such period.

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

Section 404 of the Sarbanes-Oxley Act of 2002 requires that we include in our annual report a report containing management's assessment of the effectiveness of our internal controls over financial reporting as of the end of our fiscal year and a statement as to whether or not such internal controls are effective. Compliance with these requirements has resulted in, and is likely to continue to result in, significant costs and the commitment of time and operational resources. Changes in our business, including certain initiatives to transform business processes, to invest in information systems or to transition certain functions to third party resources or providers, will necessitate modifications to our internal control systems, processes and information systems as we optimize our business and operations. Our increased global operations and expansion into new regions could pose additional 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 2013, our closing stock price ranged from a high of \$27.67 per share to a low of \$13.16 per share. The stock market has experienced significant price and volume fluctuation that has affected the market price of many technology companies, with such volatility often unrelated to the operating performance of these companies. Divergence between our actual or anticipated financial results and published expectations of analysts can cause significant swings in our stock price. Our stock price could also be affected by announcements that we, our competitors, or our customers may make, particularly announcements related to acquisitions or other significant transactions. Our common stock is 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 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Overview . As of October 31, 2013 , all of our properties are leased and we do not own any real property. We lease facilities globally related to the ongoing operations of our four business segments and related functions. Our principal executive offices are located in two buildings in Hanover, Maryland. In addition, we currently occupy two supply chain and logistics facilities in Linthicum, Maryland.

Our largest facility is our research and development center located at “Lab 10” on the former Nortel Carling Campus in Ottawa, Canada. See below for information regarding the lease associated with this engineering facility. We also have engineering and/or service facilities located in San Jose, California; Alpharetta, Georgia; Spokane, Washington; Kanata, Canada; and Gurgaon, India. In addition, we lease various smaller offices in the United States, Mexico, South America, Europe, the Middle East and the Asia-Pacific region to support our sales and services operations. We believe the facilities we are now using are adequate and suitable for our business requirements.

Hanover, Maryland Headquarters Lease . Ciena entered into a lease agreement dated November 3, 2011, with W2007 RDG Realty, L.L.C. relating to office space for its new corporate headquarters in Hanover, Maryland, consisting of an agreed-upon rentable area of approximately 154,100 square feet. At the commencement date, the minimal rental commitments to be paid over the 15-year lease term were approximately \$61.8 million.

Carling, Ottawa Lease . Ciena Canada, Inc., a subsidiary of Ciena, and Public Works and Government Services Canada (PWGSC) are parties to a lease agreement relating to Ciena’s lease of the “Lab 10” building on the former Nortel Carling Campus in Ottawa, Canada (the “Lease”). This facility consists of a rentable area of 265,000 square feet. During the term of the lease, we will incur lease expense, consisting of both base rent and fixed additional operating expense, ranging from approximately CAD \$7.2 million per year to approximately CAD \$10.9 million . The Lease, originally entered into in March 2010 with an affiliate of Nortel as part of Ciena's acquisition of Nortel's Metro Ethernet Networks assets, initially had a ten-year term, but was subject to an early termination feature that allowed Nortel to reduce the term of the lease in exchange for its payment of an early termination fee of up to \$33.5 million. In October 2010, Nortel sold the Carling Campus, including the "Lab 10" building, to PWGSC, which directed Nortel in December 2010 to exercise its early termination right. Accordingly, during the first quarter of fiscal 2011, Ciena received from Nortel both notice of early termination shortening the Lease to five years and the corresponding \$33.5 million early termination payment. The Lease was subsequently amended, however, to extend the term to September 18, 2017.

Restructuring . We attempt to sublease properties that we no longer occupy. As part of our restructuring costs, we provide for the estimated cost of the future net lease expense for these facilities. The cost is based on the fair value of future minimum lease payments under contractual obligations offset by the fair value of the estimated future sublease payments that we may receive. As of October 31, 2013 , our accrued restructuring liability related to these properties was \$1.9 million . If actual market conditions relating to the use of these facilities are less favorable than those projected by management, additional restructuring costs associated with these facilities may be required. For additional information regarding our lease obligations, see Note 20 to the Consolidated Financial Statements in Item 8 of Part II of this annual report.

Item 3. Legal Proceedings

On July 26, 2013, Ciena and Cheetah Omni LLC entered into a settlement agreement relating to patent litigation pending in the United States District Court for the Eastern District of Texas. The proceeding arose on July 29, 2011, when Cheetah Omni filed a complaint against Ciena and several other defendants alleging that certain of the parties' products infringe upon multiple U.S. patents relating to reconfigurable optical add-drop multiplexer (ROADM) technologies. The complaint sought injunctive relief and damages. Under the terms of the settlement, Ciena agreed to make a one-time payment of \$1.5 million to Cheetah Omni in exchange for a fully paid-up license to all of the patents-in-suit, a release from all claims for damages and other relief relating to such patents, and a covenant not to sue Ciena at any time on any non-medical patents owned by or assigned to Cheetah Omni on the effective date of the settlement agreement and through July 26, 2017. On August 9, 2013, the district court granted the parties' joint stipulation of dismissal with prejudice.

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 and 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 4. Mine Safety Disclosures

Not applicable.

PART II**Item 5. Market for Registrant's Common Stock, Related Stockholder Matters and Issuer Purchases of Equity Securities**

(a) During fiscal 2013, our common stock was traded on the NASDAQ Global Select Market under the symbol "CIEN." On December 12, 2013, we announced our intention to transfer the listing of our common stock from the NASDAQ Global Select Market to the New York Stock Exchange, effective on or about December 23, 2013. Ciena common stock will continue to trade under the stock symbol "CIEN."

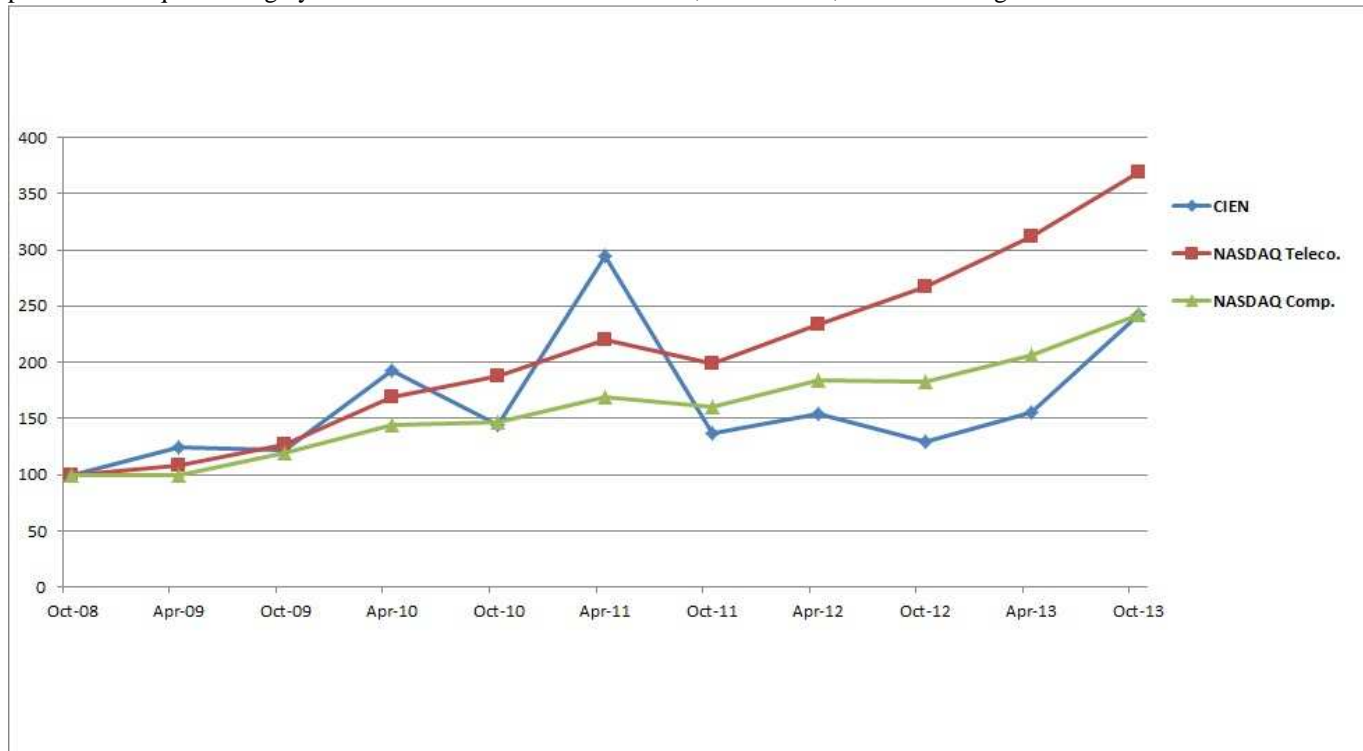
The following table sets forth the high and low sales prices of our common stock, as reported on the NASDAQ Global Select Market, for the fiscal periods indicated.

	High	Low
Fiscal Year 2012		
First Quarter ended January 31	\$ 15.34	\$ 10.38
Second Quarter ended April 30	\$ 17.16	\$ 13.44
Third Quarter ended July 31	\$ 16.81	\$ 11.49
Fourth Quarter ended October 31	\$ 17.98	\$ 12.17
Fiscal Year 2013		
First Quarter ended January 31	\$ 16.48	\$ 13.16
Second Quarter ended April 30	\$ 17.53	\$ 14.32
Third Quarter ended July 31	\$ 22.96	\$ 14.91
Fourth Quarter ended October 31	\$ 27.67	\$ 19.92

[Table of Contents](#)

As of December 12, 2013, there were approximately 800 holders of record of our common stock and 103,708,240 shares of common stock outstanding. We have never paid cash dividends on our capital stock. We intend to retain earnings for use in our business, and we do not anticipate paying any cash dividends in the foreseeable future.

The following graph shows a comparison of cumulative total returns for an investment in our common stock, the NASDAQ Telecommunications Index and the NASDAQ Composite Index from October 31, 2008 to October 31, 2013. The NASDAQ Composite Index measures all domestic and international based common stocks listed on The Nasdaq Stock Market. The NASDAQ Telecommunications Index contains securities of NASDAQ-listed companies classified according to the Industry Classification Benchmark as Telecommunications and Telecommunications Equipment, which include providers of fixed-line and mobile telephone services, and makers and distributors of high-technology communication products. This graph is not deemed to be “filed” with the SEC or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and the graph shall not be deemed to be incorporated by reference into any prior or subsequent filing by us under the Securities Act of 1933, as amended, or the Exchange Act.



Assumes \$100 invested in Ciena Corporation, the NASDAQ Telecommunications Index and the NASDAQ Composite Index, respectively, on October 31, 2008 with all dividends reinvested at month-end.

(b) Not applicable.

(c) Not applicable.

Item 6. Selected Consolidated Financial Data

The following selected consolidated financial data should be read in conjunction with Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the Consolidated Financial Statements and the notes thereto included in Item 8, “Financial Statements and Supplementary Data.” We have a 52 or 53-week fiscal year, which ends on the Saturday nearest to the last day of October in each year. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 2009, 2010, 2011 and 2013 consisted of 52 weeks and fiscal 2012 consisted of 53 weeks.

	Year Ended October 31, (in thousands)				
	2009	2010	2011	2012	2013
Cash and cash equivalents	\$ 485,705	\$ 688,687	\$ 541,896	\$ 642,444	\$ 346,487
Short-term investments	\$ 563,183	\$ —	\$ —	\$ 50,057	\$ 124,979
Long-term investments	\$ 8,031	\$ —	\$ 50,264	\$ —	\$ 15,031
Total assets	\$ 1,504,383	\$ 2,118,093	\$ 1,951,418	\$ 1,881,143	\$ 1,802,770
Short-term convertible notes payable	\$ —	\$ —	\$ —	\$ 216,210	\$ —
Long-term convertible notes payable	\$ 798,000	\$ 1,442,705	\$ 1,442,364	\$ 1,225,806	\$ 1,212,019
Total liabilities	\$ 1,048,545	\$ 1,958,800	\$ 1,937,545	\$ 1,970,115	\$ 1,885,447
Stockholders’ equity (deficit)	\$ 455,838	\$ 159,293	\$ 13,873	\$ (88,972)	\$ (82,677)

Statement of Operations Data:

	Year Ended October 31, (in thousands, except per share data)				
	2009	2010	2011	2012	2013
Revenue	\$ 652,629	\$ 1,236,636	\$ 1,741,970	\$ 1,833,923	\$ 2,082,546
Cost of goods sold	367,799	739,135	1,032,824	1,109,699	1,217,371
Gross profit	284,830	497,501	709,146	724,224	865,175
Operating expenses:					
Research and development	190,319	327,626	379,862	364,179	383,408
Selling and marketing	134,527	193,515	251,990	266,338	304,170
General and administrative	47,509	102,692	126,242	114,002	122,432
Acquisition and integration costs	—	101,379	42,088	—	—
Amortization of intangible assets	24,826	99,401	69,665	51,697	49,771
Restructuring costs	11,207	8,514	5,781	7,854	7,169
Goodwill impairment	455,673	—	—	—	—
Change in fair value of contingent consideration	—	(13,807)	(3,289)	—	—
Total operating expenses	864,061	819,320	872,339	804,070	866,950
Loss from operations	(579,231)	(321,819)	(163,193)	(79,846)	(1,775)
Interest and other income (loss), net	9,487	3,917	6,022	(15,200)	(5,744)
Interest expense	(7,406)	(18,619)	(37,926)	(39,653)	(44,042)
Gain (loss) on cost method investments	(5,328)	—	7,249	—	—
Gain (loss) on extinguishment of debt	—	4,948	—	—	(28,630)
Loss before income taxes	(582,478)	(331,573)	(187,848)	(134,699)	(80,191)
Provision (benefit) for income taxes	(1,324)	1,941	7,673	9,322	5,240
Net loss	\$ (581,154)	\$ (333,514)	\$ (195,521)	\$ (144,021)	\$ (85,431)
Basic net loss per common share	\$ (6.37)	\$ (3.58)	\$ (2.04)	\$ (1.45)	\$ (0.83)
Diluted net loss per potential common share	\$ (6.37)	\$ (3.58)	\$ (2.04)	\$ (1.45)	\$ (0.83)
Weighted average basic common shares outstanding	91,167	93,103	95,854	99,341	102,350
Weighted average dilutive potential common shares outstanding	91,167	93,103	95,854	99,341	102,350

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This report contains statements that discuss future events or expectations, projections of results of operations or financial condition, changes in the markets for our products and services, or other "forward-looking" information. Our "forward-looking" information is based on various factors and was derived using numerous assumptions. In some cases, you can identify these "forward-looking statements" by words like "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "intends," "potential" or "continue" or the negative of those words and other comparable words. You should be aware that these statements only reflect our current predictions and beliefs. These statements are subject to known and unknown risks, uncertainties and other factors, and actual events or results may differ materially. Important factors that could cause our actual results to be materially different from the forward-looking statements are disclosed throughout this report, particularly under the heading "Risk Factors" in Item 1A of Part I of this annual report. You should review these risk factors for a more complete understanding of the risks associated with an investment in our securities. We undertake no obligation to revise or update any forward-looking statements. The following discussion and analysis should be read in conjunction with our "Selected Consolidated Financial Data" and consolidated financial statements and notes thereto included elsewhere in this annual report.

Overview

We are a network specialist focused on networking solutions that enable converged, next-generation architectures, optimized to handle the broad array of high-bandwidth communications services relied upon by business and consumer end users. We provide equipment, software and services that support the transport, switching, aggregation, service delivery and management of voice, video and data traffic on communications networks.

Our Converged Packet Optical, Packet Networking, Optical Transport and Software products are used, individually or as part of an integrated, programmable solution, in networks operated by communications service providers, cable operators, governments, enterprises, research and education institutions, content service providers and other network operators across the globe. Our products allow network operators to scale capacity, increase transmission speeds, allocate network traffic and deliver services to end users. Our network solutions also include an integrated software suite that provides network and service management capabilities that unify our product portfolio, facilitating automation and software-defined programmability to enable efficient service delivery. To complement our product portfolio, we offer a broad range of Network Transformation Solutions and related support services that help our customers design, optimize, deploy, manage and maintain their networks. We believe that the close, collaborative partnership with customers enabled by our engagement model and services offering is an important component of our network specialist approach and a significant differentiator for Ciena with our customers.

Rapid proliferation of and reliance by end users upon communications services and devices, increased mobility and growth in cloud-based services have fundamentally affected the demands placed upon communications networks and how they are designed. Network operators face a challenging and rapidly changing environment that requires that their network infrastructures be robust enough to address increasing capacity needs and be flexible enough to adapt to new application and service offerings. Network operators are competing to distinguish their service offerings to end users and generate revenue, while managing the costs required to implement and maintain their networks. To address these business, infrastructure and service delivery challenges, we believe network operators need a flexible infrastructure that can be adapted to support a variety of applications and controlled through the use of software.

Our OPⁿ Architecture is designed to meet these challenges by providing increased scalability and programmability, as well as network-level software applications to control and configure the network dynamically. Through this network approach, we seek to enable high-capacity, configurable infrastructures that can adapt to the changing needs of end-users and the applications that they require, while providing flexible interfaces for the integration of computing, storage and network resources. By increasing network flexibility for service delivery, reducing required network elements and enabling increased scale at reduced cost, our solutions simplify networks. At the same time, our approach facilitates the creation of new service offerings, creating business and operational value for our customers. Our OPⁿ Architecture, which underpins our solutions offering and guides our research and development strategy, is described more fully in the "Strategy" section of the description of our business under Item 1 of Part 1 of this annual report.

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 and Strategy

We believe that the shift that is underway in network architectures to next-generation, converged infrastructures represents significant, long-term opportunities for our business. We believe that market trends underlying this shift, including the proliferation of devices running mobile web applications, the prevalence of video applications, the increase in machine-to-machine connections, and the shift of enterprise and consumer applications to cloud-based or virtualized network environments, are indicative of increasing use and dependence by consumers and enterprises upon a growing variety of broadband applications and services. We expect that these drivers will continue to require network operators to invest in converged next-generation network infrastructures that are more automated, open and software programmable. Our corporate strategy to capitalize on these market dynamics, promote operational efficiency and drive profitable growth of our business includes the initiatives set forth in the "Strategy" section of the description of our business in Item 1 of Part 1 of this annual report.

Global Market Conditions and Competitive Landscape

During fiscal 2013, we gained considerable momentum in our business and financial results and experienced a steadily improving market environment, particularly as reflected in the spending patterns and decisions of our largest North American service provider customers. We believe that this spending reflects customer preference of, and a shift in network spending toward, high-capacity, next-generation network architectures. Improved conditions during fiscal 2013 followed a lengthy period of macroeconomic uncertainty and volatility, which caused cautious customer behavior in our industry and markets. These conditions, most notably in Europe, had previously resulted in lower levels of capital expenditure on communications network infrastructure. Because the market opportunity and improved conditions during fiscal 2013 described above are in their early stages, we remain uncertain as to their longer-term effect on the growth of our markets and business, as well as our results of operations.

Although we are beginning to see network operators adopt converged network architectures that align well with our OP[®] Architecture and solutions offering, particularly in North America, competition in our sector remains significant. We continue to encounter a highly competitive marketplace, particularly for our converged packet optical products, as we and our competitors have introduced new, high-capacity, high-speed network solutions and have aggressively sought to capture market share. In this intense and fragmented competitive environment, securing new opportunities, particularly in international markets, often requires that we agree to unfavorable commercial terms that can elongate the revenue recognition cycle, add startup costs to deployment of our solutions in customer networks, require financial commitments or performance bonds that place cash resources at risk, and other onerous contractual commitments that place a disproportionate allocation of risk upon the vendor. These terms can adversely affect our results of operations and contribute to fluctuations in our results. We expect the competitive landscape to remain challenging and dynamic as we and other multinational equipment vendors introduce new, competing, next-generation platforms, seek adoption of network architectural approaches and compete to obtain new business or retain incumbent positions with large customers around the world. As networking technologies, features or layers converge, our competitive landscape may broaden beyond traditional competitors to include additional competitors focused on IP routing, information technology and software.

Operational Reorganization

To address the growing need to transport, aggregate and manage multiple types of services, network operators are increasingly demanding and adopting solutions that enable the convergence of both network functions and network layers, particularly the integration of transport, OTN switching and packet switching capabilities. Our OP[®] Architecture and our continued development and addition of features to our solutions portfolio are intended to address the market and networking design dynamics faced by network operators. Specifically, we continue to converge OTN switching and packet switching functionality into our coherent optical transport solutions. At the same time, we are integrating more transport functionality and packet switching into our switching platforms. To address these changes in our markets and the convergence of certain solutions portfolios, during the first quarter of fiscal 2013, we reorganized our organizational structure and the management of our business into the following new operating segments: (i) Converged Packet Optical; (ii) Packet Networking; (iii) Optical Transport; and (iv) Software and Services. Notably, our Converged Packet Optical segment consists of our former Packet-Optical Switching segment with the addition of our 6500 Packet-Optical Platform. We have recast segment revenue and segment profit for fiscal 2011 and fiscal 2012 presented in this Form 10-K to reflect the new operating segments. See "Results of Operations — Operating Segments" below for additional details regarding our new operating segments effective for fiscal 2013 and the product families and platforms that make up these segments.

Convertible Debt Exchange Offer Transactions

On December 27, 2012, we issued \$187.5 million in aggregate principal amount of new 4.0% Convertible Senior Notes due 2020 (the “2020 Notes”) in separate, private transactions with holders in exchange for \$187.5 million in aggregate principal amount of our outstanding 4.0% Convertible Senior Notes due 2015 (the “2015 Notes”). Certain terms of the new 2020 Notes are the same as the 2015 Notes that they replaced, including the 4.0% annual cash interest rate and the conversion rate of 49.0557 shares of Ciena common stock per \$1,000 in original principal amount, which is equal to an initial conversion price of \$20.385 per share. Unlike the 2015 Notes, however, the principal amount of the 2020 Notes will accrete at a rate of 1.85% per year commencing December 27, 2012, compounding on a semi-annual basis. The accreted portion of the principal is payable in cash upon maturity but does not bear cash interest and is not convertible into additional Ciena common stock. Consequently, in the event the 2020 Notes are converted, the accreted liability will extinguish without payment. Accretion of principal is reflected as a non-cash component of interest expense during the term of the 2020 Notes. The 2020 Notes also provide us with the option, at our election, to convert the 2020 Notes in whole or in part, prior to maturity, into the underlying common stock, provided the trading price of our common stock exceeds \$26.50 (or 130% of the then applicable conversion price) for the required measurement period. If we elect to convert the 2020 Notes on or before maturity, holders would receive a make-whole premium payable in Ciena common stock, or its cash equivalent, at our election. The 2020 Notes will mature on December 15, 2020. Following these private exchange offer transactions, \$187.5 million in aggregate principal amount of the 2015 Notes remained outstanding with terms unchanged. We believe that the extension of maturity enabled by these exchange transactions has strengthened our balance sheet and provided enhanced financial flexibility. See Note 12 to our Consolidated Financial Statements included in Item 8 of Part II of this report for a summary of the 2020 Notes, including an explanation of the \$28.6 million loss on the extinguishment of a portion of the 2015 Notes and the separate accounting for the debt and equity components of the 2020 Notes.

Financial Results for Fourth Quarter of Fiscal 2013

Revenue for the fourth quarter of fiscal 2013 was \$583.4 million , representing a sequential increase of 8.4% from \$538.4 million in the third quarter of fiscal 2013 . Revenue-related details reflecting sequential changes from the third quarter of fiscal 2013 include:

- Product revenue for the fourth quarter of fiscal 2013 increased by \$39.0 million , primarily reflecting an increase of \$48.9 million in Converged Packet Optical and an increase of \$4.0 million in software. These increases were partially offset by a decrease of \$13.6 million in Optical Transport .
- Service revenue for the fourth quarter of fiscal 2013 increased by \$6.0 million .
- Revenue from the United States for the fourth quarter of fiscal 2013 was \$326.2 million , a decrease from \$339.5 million in the third quarter of fiscal 2013 .
- International revenue for the fourth quarter of fiscal 2013 was \$257.2 million , an increase from \$198.9 million in the third quarter of fiscal 2013 .
- As a percentage of revenue, international revenue was 44.1% during the fourth quarter of fiscal 2013 , an increase from 37.0% during the third quarter of fiscal 2013 .
- For the fourth quarter of fiscal 2013 , one customer accounted for greater than 10% of revenue, representing 16.5% of total revenue. There were two customers that each accounted for greater than 10% of revenue in the third quarter of fiscal 2013 , representing an aggregate of 31.8% of total revenue.

Gross margin for the fourth quarter of fiscal 2013 was 39.7% , a decrease from 42.4% in the third quarter of fiscal 2013 . Gross margin for the fourth quarter of fiscal 2013 was largely impacted by the recognition of Converged Packet Optical revenue for certain large international network builds with tier one customers, primarily in our Caribbean and Latin American region, with initial deployments including a higher mix of lower margin common equipment.

Operating expense was \$232.1 million for the fourth quarter of fiscal 2013 , an increase from \$213.4 million in the third quarter of fiscal 2013 . Fourth quarter operating expense reflects increases of \$11.9 million in selling and marketing expense and \$7.4 million in research and development expense. Increased selling and marketing expense was primarily due to increased variable compensation expense resulting from strong order flow during fiscal 2013. As expected, increased research and development expense also reflects development costs relating to certain planned activities, the timing of which moved from the third to the fourth fiscal quarter of 2013.

In spite of the increased revenue in the fourth quarter of fiscal 2013 , our lower margin and increased operating expense as described above resulted in a loss from operations for the fourth quarter of fiscal 2013 of \$0.4 million , as compared to a \$14.8 million income from operations during the third quarter of fiscal 2013 . Our net loss for the fourth quarter of fiscal 2013 was

[Table of Contents](#)

\$9.8 million , or \$0.09 per share. This compares to a net loss of \$1.2 million or \$0.01 per share, for the third quarter of fiscal 2013 .

We generated \$3.6 million in cash from operations during the fourth quarter of fiscal 2013 , consisting of \$45.5 million provided by net losses adjusted for non-cash charges, partially offset by a \$41.9 million use of cash related to changes in working capital. We generated \$42.0 million in cash from operations during the third quarter of fiscal 2013 , consisting of \$53.9 million from net losses adjusted for non-cash charges, partially offset by an \$11.9 million use of cash related to changes in working capital.

As of October 31, 2013 , we had \$346.5 million in cash and cash equivalents, \$125.0 million of short-term investments in U.S. treasury securities and commercial paper and \$15.0 million of long-term investments in U.S. treasury securities. This compares to \$378.2 million in cash and cash equivalents, \$100.0 million of short-term investments in U.S. treasury securities and \$15.0 million of long-term investments in U.S. treasury securities at July 31, 2013 and \$642.4 million in cash and cash equivalents and \$50.1 million of short-term investments in U.S. treasury securities at October 31, 2012 .

As of October 31, 2013 , we had 4,754 employees, an increase from 4,680 as of July 31, 2013 and an increase from 4,481 and 4,339 at October 31, 2012 and 2011 , respectively.

Consolidated Results of Operations

Operating Segments

For the reasons described in "Overview" above, during the first quarter of fiscal 2013, Ciena reorganized its internal organizational structure and the management of its business into the following new operating segments:

- *Converged Packet Optical* — includes networking solutions optimized for the convergence of coherent optical transport, OTN switching and packet switching. These platforms enable automated packet-optical infrastructures that create and efficiently allocate high-capacity bandwidth for the delivery of a wide variety of enterprise and consumer-oriented network services. Products in this segment include the 6500 Packet-Optical Platform featuring Ciena's WaveLogic coherent optical processors. Products also include Ciena's family of CoreDirector® Multiservice Optical Switches, its 5430 Reconfigurable Switching System and its OTN configuration for the 5410 Reconfigurable Switching System. These products include multiservice, multi-protocol switching systems that consolidate the functionality of an add/drop multiplexer, digital cross-connect and packet switch into a single, high-capacity intelligent switching system. These products address both the core and metro segments of communications networks and support key managed services, Ethernet/TDM Private Line, Triple Play and IP services. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.
- *Packet Networking* — principally includes Ciena's 3000 family of service delivery switches and service aggregation switches, the 5000 series of service aggregation switches, and its Ethernet packet configuration for the 5410 Service Aggregation Switch. These products support the access and aggregation tiers of communications networks and have principally been deployed to support wireless backhaul infrastructures and business data services. Employing sophisticated, carrier-grade Ethernet switching technology, these products deliver quality of service capabilities, virtual local area networking and switching functions, and carrier-grade operations, administration, and maintenance features. This segment also includes stand-alone broadband products that transition voice networks to support Internet-based (IP) telephony, video services and DSL. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.
- *Optical Transport* — includes optical transport solutions that add capacity to core, regional and metro networks and enable cost-effective and efficient transport of voice, video and data traffic at high transmission speeds. Ciena's principal products in this segment include the 4200 Advanced Services Platform, Corestream® Agility Optical Transport System, 5100/5200 Advanced Services Platform, Common Photonic Layer (CPL), and 6100 Multiservice Optical Platform. This segment includes sales from SONET/SDH, transport and data networking products, as well as certain enterprise-oriented transport solutions that support storage and LAN extension, interconnection of data centers, and virtual private networks. This segment also includes operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.
- *Software and Services* — includes Ciena's network software suite, including the OneControl Unified Management System, an integrated network and service management software designed to automate and simplify network management, operation and service delivery. These software solutions can track individual services across multiple product suites, facilitating planned network maintenance, outage detection and identification of customers or services affected by network performance. This segment includes the ON-Center® Network & Service Management Suite, Ethernet Services Manager, Optical Suite Release and network level applications. This segment includes a broad range of consulting, network design and support services from Ciena's Network Transformation Solutions offering. This segment also includes installation and deployment, maintenance support and training activities. Except for revenue from the software portion of this segment, which is included in product revenue, revenue from this segment is included in services revenue on the Consolidated Statement of Operations.

Fiscal 2012 compared to Fiscal 2013

Revenue

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

[Table of Contents](#)

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
Revenue:						
Converged Packet Optical	\$ 951,245	51.9	\$ 1,187,231	57.0	\$ 235,986	24.8
Packet Networking	128,982	7.0	222,898	10.7	93,916	72.8
Optical Transport	353,620	19.3	233,821	11.2	(119,799)	(33.9)
Software and Services	400,076	21.8	438,596	21.1	38,520	9.6
Consolidated revenue	<u>\$ 1,833,923</u>	<u>100.0</u>	<u>\$ 2,082,546</u>	<u>100.0</u>	<u>\$ 248,623</u>	<u>13.6</u>

* Denotes % of total revenue

** Denotes % change from 2012 to 2013

- **Converged Packet Optical revenue** increased significantly, reflecting a \$176.7 million increase in sales of our 6500 Packet-Optical Platform, largely driven by service provider demand for high-capacity, optical transport for coherent 40G and 100G network infrastructures. In addition, sales of our 5430 reconfigurable switching system and the OTN configuration for the 5410 Reconfigurable Switching System increased by \$71.0 million and \$10.3 million respectively. These increases were partially offset by a \$22.0 million decrease in sales of our CoreDirector® Multiservice Optical Switches. The strong performance of this segment, particularly as compared to the expected annual revenue declines in Optical Transport segment revenue, reflects the preference of network operators to adopt next-generation architectures that enable the convergence of high-capacity, coherent optical transport with integrated OTN switching and control plane functionality.
- **Packet Networking revenue** increased, reflecting a \$101.0 million increase in sales of our 3000 and 5000 families of service delivery and aggregation switches. This increase was slightly offset by a \$4.9 million decrease in sales of our 5410 Service Aggregation Switch and a \$2.7 million decrease in sales of our older stand-alone broadband products. Segment revenue benefited from the expansion of Ethernet business services by our North American service provider customers and sales of service delivery and aggregation products in support of their related network initiatives.
- **Optical Transport revenue** decreased, reflecting sales decreases of \$55.0 million in our 4200 Advanced Services Platform, \$42.6 million in other stand-alone transport products and \$22.1 million in our 5100/5200 Advanced Services Platform. Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced meaningful declines in annual revenue in recent years, reflecting network operators' transition toward next-generation network architectures as described above.
- **Software and Services revenue** increased, reflecting sales increases of \$15.0 million in software, \$14.2 million in installation and deployment, \$7.6 million in maintenance and support services and \$1.7 million in network transformation consulting services.

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

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
United States	\$ 972,576	53.0	\$ 1,217,462	58.5	\$ 244,886	25.2
International	861,347	47.0	865,084	41.5	3,737	0.4
Total	<u>\$ 1,833,923</u>	<u>100.0</u>	<u>\$ 2,082,546</u>	<u>100.0</u>	<u>\$ 248,623</u>	<u>13.6</u>

* Denotes % of total revenue

** Denotes % change from 2012 to 2013

- **United States revenue** reflects increases of \$152.0 million in Converged Packet Optical sales, \$95.5 million in Packet Networking sales, and \$28.2 million in Software and Services revenue. These increases were partially offset by a

[Table of Contents](#)

\$30.9 million decrease in Optical Transport sales. Increased revenues reflect early adoption by network operators in the United States of converged network architectures that align well with our OPⁿ Architecture and solutions offering.

- **International revenue** reflects increases of \$84.0 million in Converged Packet Optical sales and \$10.3 million increase in Software and Services revenue. These increases were partially offset by decreases of \$88.9 million in Optical Transport sales and \$1.6 million in Packet Networking sales.

A sizable portion of our revenue continues to come from sales to a relatively small number of service providers. As a result, our financial results are significantly affected by and can fluctuate depending upon spending levels and the business opportunities and challenges encountered by our service provider customers. Some of our customers have indicated a procurement strategy to reduce the number of vendors from which they purchase equipment, which could further affect our concentration of revenue where we participate in these efforts. Sales to AT&T were \$248.1 million, or 13.5% of total revenue, in fiscal 2012 and \$373.6 million, or 17.9% of total revenue, in fiscal 2013. We did not have any other customers accounting for greater than 10% of our revenue in fiscal 2012 or fiscal 2013.

Cost of Goods Sold and Gross Profit

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

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

Our gross profit as a percentage of revenue, or "gross margin," is susceptible to fluctuations due to a number of factors. In any given period, gross margin can vary significantly depending upon the mix and concentration of revenue by segment, product line within a particular segment, geography, and customers. Gross margin can also be affected by our concentration of lower margin "common" equipment sales and higher margin channel cards, the mix of lower margin installation services within our service revenue, our introduction of new products, and changes in expense for excess and obsolete inventory and warranty obligations. We expect that gross margins will be subject to fluctuation based on our level of success in driving product cost reductions, rationalizing our supply chain and consolidating third party contract manufacturers and distribution sites as part of our effort to optimize our operations. Gross margin can also be adversely affected by the level of pricing pressure and competition that we encounter in the market. In an effort to retain or secure customers, enter new markets or capture market share, we may agree to pricing or other unfavorable commercial terms that result in lower or negative gross margins on a particular order or group of orders. These market dynamics and factors may adversely affect our gross margin and results of operations in certain periods.

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

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

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
Total revenue	\$ 1,833,923	100.0	\$ 2,082,546	100.0	\$ 248,623	13.6
Total cost of goods sold	1,109,699	60.5	1,217,371	58.5	107,672	9.7
Gross profit	\$ 724,224	39.5	\$ 865,175	41.5	\$ 140,951	19.5

* Denotes % of total revenue

** Denotes % change from 2012 to 2013

[Table of Contents](#)

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
Product revenue	\$ 1,454,991	100.0	\$ 1,680,125	100.0	\$ 225,134	15.5
Product cost of goods sold	868,805	59.7	967,510	57.6	98,705	11.4
Product gross profit	<u>\$ 586,186</u>	<u>40.3</u>	<u>\$ 712,615</u>	<u>42.4</u>	<u>\$ 126,429</u>	<u>21.6</u>

* Denotes % of product revenue

** Denotes % change from 2012 to 2013

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
Service revenue	\$ 378,932	100.0	\$ 402,421	100.0	\$ 23,489	6.2
Service cost of goods sold	240,894	63.6	249,861	62.1	8,967	3.7
Service gross profit	<u>\$ 138,038</u>	<u>36.4</u>	<u>\$ 152,560</u>	<u>37.9</u>	<u>\$ 14,522</u>	<u>10.5</u>

* Denotes % of service revenue

** Denotes % change from 2012 to 2013

- **Gross profit as a percentage of revenue** increased as a result of the factors described below.
- **Gross profit on products as a percentage of product revenue** increased primarily due to improved mix of higher-margin packet platforms with software content, including within our Packet Networking and Converged Packet Optical segments, higher sales of integrated network service management software, lower warranty costs, and greater leverage from efforts to streamline and optimize our supply chain activities.
- **Gross profit on services as a percentage of services revenue** increased primarily due to improved margins on installation and deployment services due to improved operational efficiencies, and increased consulting service revenue from our Network Transformation Solutions offering.

Operating Expense

We expect operating expense to increase in fiscal 2014 from the level reported for fiscal 2013 to support the growth of our business and fund our research and development initiatives. Operating expense consists of the component elements described below.

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

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

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

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

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

[Table of Contents](#)

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

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
Research and development	\$ 364,179	19.9	\$ 383,408	18.4	\$ 19,229	5.3
Selling and marketing	266,338	14.5	304,170	14.6	37,832	14.2
General and administrative	114,002	6.2	122,432	5.9	8,430	7.4
Amortization of intangible assets	51,697	2.8	49,771	2.4	(1,926)	(3.7)
Restructuring costs	7,854	0.4	7,169	0.3	(685)	(8.7)
Total operating expenses	\$ 804,070	43.8	\$ 866,950	41.6	\$ 62,880	7.8

* Denotes % of total revenue

** Denotes % change from 2012 to 2013

- **Research and development expense** benefited from \$4.0 million as a result of foreign exchange rates, primarily due to the strengthening of the U.S. dollar in relation to the Canadian dollar and the Indian Rupee. The \$19.2 million increase primarily reflects increases of \$15.9 million in employee compensation and related costs, \$7.5 million in prototype expense, \$5.2 million in facilities and information systems expense and \$2.1 million in technology-related purchases. The increase in employee compensation is primarily related to incentive-based compensation. These increases were partially offset by a \$12.5 million decrease in professional services.
- **Selling and marketing expense** increased by \$37.8 million, primarily reflecting increases of \$26.5 million in employee compensation and related costs, \$6.8 million in facilities and information systems expense, \$4.5 million of travel and related costs, \$2.0 million in trade show and related expense and \$1.1 million in professional services. A significant portion of our increased employee compensation and related costs reflect commissions-based compensation associated with strong order flows achieved during fiscal 2013. These increases were partially offset by decreases of \$1.9 million of freight and logistic costs and \$1.3 million for customer demonstration equipment.
- **General and administrative expense** increased by \$8.4 million primarily reflecting an increase of \$10.8 million in employee compensation and related costs, partially offset by a \$2.7 million decrease in facilities and information systems expense. The increase in employee compensation is primarily related to incentive-based compensation.
- **Amortization of intangible assets** decreased due to certain intangible assets having reached the end of their economic lives.
- **Restructuring costs** for fiscal 2012 and 2013 primarily reflect certain severance and related expense associated with headcount reductions and restructuring activities to align our workforce and resources with market opportunities and research and development initiatives. In addition, restructuring costs for fiscal 2012 and 2013 include the consolidation of certain facilities located within Maryland associated with the transition of our headquarters facility.

Other items

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

	Fiscal Year				Increase (decrease)	%**
	2012	%*	2013	%*		
Interest and other income (loss), net	\$ (15,200)	(0.8)	\$ (5,744)	(0.3)	\$ 9,456	62.2
Interest expense	\$ 39,653	2.2	\$ 44,042	2.1	\$ 4,389	11.1
Loss on debt extinguishment	\$ —	—	\$ (28,630)	(1.4)	\$ (28,630)	(100.0)
Provision for income taxes	\$ 9,322	0.5	\$ 5,240	0.3	\$ (4,082)	(43.8)

[Table of Contents](#)

* Denotes % of total revenue

** Denotes % change from 2012 to 2013

- **Interest and other income (loss), net** in fiscal 2013, reflects a \$3.0 million non-cash gain related to the change in fair value of the embedded redemption feature associated with our 2015 Notes. In fiscal 2012, interest and other income (loss), net reflected a \$6.6 million non-cash loss related to the change in fair value of the embedded redemption feature.
- **Interest expense** increased, reflecting increases of \$3.0 million relating to our convertible note exchange transactions during the first quarter of fiscal 2013 as described in "Overview" above, and \$2.1 million in expense relating to our asset-backed loan facility entered into during fiscal 2012. These increases were partially offset by a decrease of interest expense in fiscal 2013 of \$0.6 million, principally due to the repayment of our 0.25% convertible senior notes at maturity in the second quarter of fiscal 2013.
- **Loss on extinguishment of debt** reflects a non-cash loss of \$28.6 million relating to the exchange transactions during the first quarter of fiscal 2013 as described in "Overview" above. Upon issuance, the 2020 Notes were recorded at a fair value of \$213.6 million. The exchange transactions resulted in the retirement of outstanding 2015 Notes with a carrying value of \$187.9 million and the write-off of unamortized debt issuance costs of \$2.3 million and \$0.6 million relating to the redemption feature on the 2015 Notes accounted for as a separate embedded derivative.
- **Provision for income taxes** for fiscal 2012 and fiscal 2013 are primarily related to foreign tax expense. The decrease in fiscal 2013 is largely attributable to the recognition of prior uncertain tax benefits.

Fiscal 2011 compared to Fiscal 2012

Revenue

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

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
Revenue:						
Converged Packet Optical	\$ 734,326	42.1	\$ 951,245	51.9	\$ 216,919	29.5
Packet Networking	126,981	7.3	128,982	7.0	2,001	1.6
Optical Transport	535,877	30.8	353,620	19.3	(182,257)	(34.0)
Software and Services	344,786	19.8	400,076	21.8	55,290	16.0
Consolidated revenue	<u>\$ 1,741,970</u>	<u>100.0</u>	<u>\$ 1,833,923</u>	<u>100.0</u>	<u>\$ 91,953</u>	<u>5.3</u>

* Denotes % of total revenue

** Denotes % change from 2011 to 2012

- **Converged Packet Optical revenue** increased, reflecting a \$232.5 million increase in sales of our 6500 Packet-Optical Platform, largely driven by service provider demand for high-capacity, optical transport for coherent 40G and 100G network infrastructures. In addition, sales of our 5430 reconfigurable switching system and the OTN configuration for the 5410 Reconfigurable Switching System increased by \$23.4 million and \$11.1 million respectively. These increases were partially offset by a \$50.1 million decrease in sales of our CoreDirector® Multiservice Optical Switches.
- **Packet Networking revenue** increased slightly, reflecting increases of \$10.7 million in sales of our 3000 and 5000 families of service delivery and aggregation switches and a \$5.9 million increase in sales of our 5410 Service Aggregation Switch to support wireless backhaul, Ethernet business services and residential broadband applications. Segment revenue benefited from the expansion of Ethernet business services by our North American service provider customers and sales of service delivery and aggregation products in support of their related network initiatives. These increases were partially offset by a \$14.6 million reduction in sales of our older stand-alone broadband products.
- **Optical Transport revenue** decreased, reflecting sales decreases of \$82.1 million in our 4200 Advanced Services Platform, \$60.5 million in other stand-alone transport products and \$39.7 million of our 5100/5200 Advanced Services

[Table of Contents](#)

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

- **Software and Services revenue** increased, reflecting increases of \$15.2 million in network transformation consulting services, \$15.0 million in installation and deployment, \$13.3 million in maintenance and support services revenue and \$11.8 million in software sales.

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

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
United States	\$ 930,880	53.4	\$ 972,576	53.0	\$ 41,696	4.5
International	811,090	46.6	861,347	47.0	50,257	6.2
Total	\$ 1,741,970	100.0	\$ 1,833,923	100.0	\$ 91,953	5.3

* Denotes % of total revenue

** Denotes % change from 2011 to 2012

- **United States revenue** increased, primarily due to a \$100.6 million increase in Converged Packet Optical sales, a \$32.6 million increase in Software and Services revenue and a \$4.4 million increase in Packet Networking sales. These increases were partially offset by a \$95.9 million decrease in Optical Transport sales.
- **International revenue** increased, primarily due to a \$116.3 million increase in Converged Packet Optical sales and a \$22.7 million increase in Software and Services revenue. These increases were partially offset by a \$86.3 million decrease in Optical Transport sales and a \$2.4 million decrease in Packet Networking sales.

Cost of Goods Sold and Gross Profit

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

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
Total revenue	\$ 1,741,970	100.0	\$ 1,833,923	100.0	\$ 91,953	5.3
Total cost of goods sold	1,032,824	59.3	1,109,699	60.5	76,875	7.4
Gross profit	\$ 709,146	40.7	\$ 724,224	39.5	\$ 15,078	2.1

* Denotes % of total revenue

** Denotes % change from 2011 to 2012

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
Product revenue	\$ 1,406,532	100.0	\$ 1,454,991	100.0	\$ 48,459	3.4
Product cost of goods sold	825,969	58.7	868,805	59.7	42,836	5.2
Product gross profit	\$ 580,563	41.3	\$ 586,186	40.3	\$ 5,623	1.0

[Table of Contents](#)

* Denotes % of product revenue

** Denotes % change from 2011 to 2012

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
Service revenue	\$ 335,438	100.0	\$ 378,932	100.0	\$ 43,494	13.0
Service cost of goods sold	206,855	61.7	240,894	63.6	34,039	16.5
Service gross profit	<u>\$ 128,583</u>	<u>38.3</u>	<u>\$ 138,038</u>	<u>36.4</u>	<u>\$ 9,455</u>	<u>7.4</u>

* Denotes % of service revenue

** Denotes % change from 2011 to 2012

- **Gross profit as a percentage of revenue** decreased as a result of the factors described below.
- **Gross profit on products as a percentage of product revenue** decreased primarily due to a higher concentration of lower margin product revenue within our Optical Transport segment, increased warranty expense and provisions for inventory excess and obsolescence, partially offset by higher margin on our Converged Packet Optical products.
- **Gross profit on services as a percentage of services revenue** decreased due to a higher concentration of lower margin installation and deployment services for international solutions-based projects.

Operating expense

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

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
Research and development	\$ 379,862	21.8	\$ 364,179	19.9	\$ (15,683)	(4.1)
Selling and marketing	251,990	14.5	266,338	14.5	14,348	5.7
General and administrative	126,242	7.2	114,002	6.2	(12,240)	(9.7)
Acquisition and integration costs	42,088	2.4	—	—	(42,088)	(100.0)
Amortization of intangible assets	69,665	4.0	51,697	2.8	(17,968)	(25.8)
Restructuring costs	5,781	0.3	7,854	0.4	2,073	35.9
Change in fair value of contingent consideration	(3,289)	(0.2)	—	—	3,289	100.0
Total operating expenses	<u>\$ 872,339</u>	<u>50.0</u>	<u>\$ 804,070</u>	<u>43.8</u>	<u>\$ (68,269)</u>	<u>(7.8)</u>

* Denotes % of total revenue

** Denotes % change from 2011 to 2012

- **Research and development expense** benefited from \$6.8 million as a result of foreign exchange rates, primarily due to the strengthening of the U.S. dollar in relation to the Canadian dollar and the Indian Rupee. The \$15.7 million decrease primarily reflects decreases of \$11.0 million in employee compensation and related costs, \$4.2 million in depreciation expense and \$2.8 million in prototype expense. This was partially offset by an increase of \$3.2 million for facilities and information systems expense.
- **Selling and marketing expense** benefited from \$4.5 million due to foreign exchange rates, primarily due to the strengthening of the U.S. dollar in relation to the Euro and the Canadian dollar. The \$14.3 million increase primarily reflects increases of \$9.9 million in employee compensation, \$4.2 million in facilities and information systems expense and \$2.1 million of travel and related costs. This increase was partially offset by decreases of \$1.0 million each in trade show and advertising expense.

[Table of Contents](#)

- **General and administrative expense** decreased by \$12.2 million primarily related to decreases of \$4.9 million in professional services, \$4.4 million in employee compensation and related costs largely related to reduced share-based compensation expense, and \$2.3 million in facilities and information systems expense.
- **Acquisition and integration costs** principally consist of transaction, consulting and third party service fees related to the acquisition and integration of the MEN Business into the combined operations. This integration activity was substantially completed in the first half of fiscal 2011.
- **Amortization of intangible assets** decreased due to certain intangible assets having reached the end of their economic lives during fiscal 2011.
- **Restructuring costs** for fiscal 2011 and 2012 primarily reflect certain severance and related expense associated with headcount reductions and restructuring activities to align our workforce and resources with market opportunities and research and development initiatives. In addition, restructuring costs for fiscal 2012 include the consolidation of certain facilities located within Maryland associated with the transfer of our headquarters facility.
- **Change in fair value of contingent consideration** relates to the contingent refund right we received as part of the acquisition of the MEN Business associated with the early termination of the Carling lease. During the first quarter of fiscal 2011, Ciena received from Nortel notice of early termination, shortening the Carling lease from ten years to five years, and, as a result, reported a \$3.3 million gain. See Item 2 of Part I of this annual report for more information on this transaction.

Other items

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

	Fiscal Year				Increase (decrease)	%**
	2011	%*	2012	%*		
Interest and other income (loss), net	\$ 6,022	0.3	\$ (15,200)	(0.8)	\$ (21,222)	(352.4)
Interest expense	\$ 37,926	2.2	\$ 39,653	2.2	\$ 1,727	4.6
Gain on cost method investments	\$ 7,249	0.4	\$ —	—	\$ (7,249)	100.0
Provision for income taxes	\$ 7,673	0.4	\$ 9,322	0.5	\$ 1,649	21.5

* Denotes % of total revenue

** Denotes % change from 2011 to 2012

- **Interest and other income (loss), net** decreased, due to a \$7.7 million non-cash loss in fiscal 2012 related to the foreign exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency as compared to a \$4.3 million non-cash gain in fiscal 2011. Interest and other income (loss), net was also affected by a \$6.6 million non-cash loss in fiscal 2012 related to the change in fair value of the embedded redemption feature associated with our 4.0% convertible senior notes due March 15, 2015, as compared to a \$2.8 million non-cash gain in fiscal 2011.
- **Interest expense** increased, due to an additional week of interest expense from our convertible notes payable in fiscal 2012 and the expense associated with our asset backed loan entered into during fiscal 2012.
- **Gain on cost method investments** for fiscal 2011 was the result of the sale of a privately held technology company in which we held a minority equity investment.
- **Provision for income taxes** increased primarily due to increased foreign taxes related to additional foreign activity.

Segment Profit

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

	Fiscal Year			%*
	2012	2013	Increase (decrease)	
Segment profit:				
Converged Packet Optical	\$ 148,244	\$ 242,335	\$ 94,091	63.5
Packet Networking	\$ 1,713	\$ 22,740	\$ 21,027	1,227.5
Optical Transport	\$ 116,736	\$ 89,754	\$ (26,982)	(23.1)
Software and Services	\$ 93,352	\$ 126,938	\$ 33,586	36.0

* Denotes % change from 2012 to 2013

- **Converged Packet Optical segment profit** increased primarily due to increased sales volume and improved gross margin, partially offset by increased research and development expense. The increased sales volume is largely driven by service provider demand for high-capacity, optical transport for coherent 40G and 100G network infrastructures and improved gross margin due to a greater mix of higher-margin packet platforms with software content within the segment.
- **Packet Networking segment profit** increased primarily due to increased sales volume and improved gross margin, partially offset by increased research and development expense. Packet Networking revenue benefited from the expansion of Ethernet business services by our North American service provider customers and sales of service delivery and aggregation products in support of their related network initiatives. Gross margin improved due to a greater mix of higher-margin packet platforms with software content within the segment.
- **Optical Transport segment profit** decreased primarily due to reduced sales volume, partially offset by improved gross margin and lower research and development expense. Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced meaningful declines in annual revenue in recent years, reflecting network operators' transition toward next-generation network architectures as described above.
- **Software and Services segment profit** increased primarily due to increased sales volume and improved gross margin. The increased sales volume is primarily due to higher sales for our software products and installation services. The improved margins are primarily installation and deployment services margins due to improved operational efficiencies.

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

	Fiscal Year			%*
	2011	2012	Increase (decrease)	
Segment profit:				
Converged Packet Optical	\$ 51,514	\$ 148,244	\$ 96,730	187.8
Packet Networking	\$ 17,714	\$ 1,713	\$ (16,001)	(90.3)
Optical Transport	\$ 189,497	\$ 116,736	\$ (72,761)	(38.4)
Software and Services	\$ 70,559	\$ 93,352	\$ 22,793	32.3

* Denotes % change from 2011 to 2012

- **Converged Packet Optical segment profit** increased primarily due to higher sales volume and improved gross margin, partially offset by increased research and development expense. The higher sales volume is largely driven by service provider demand for high-capacity, optical transport for coherent 40G and 100G network infrastructures.
- **Packet Networking segment profit** decreased due to increased research and development expense and lower gross margin, partially offset by higher sales volume. Packet Networking revenue benefited from the expansion of Ethernet business services by our North American service provider customers and sales of service delivery and aggregation products in support of their related network initiatives.

- **Optical Transport segment profit** decreased due to lower sales volume and lower gross margin, partially offset by decreased research and development expense. Revenue for our Optical Transport segment, which currently consists principally of stand-alone WDM and SONET/SDH-based transport platforms, has experienced meaningful declines in annual revenue in recent years, reflecting network operators' transition toward next-generation network architectures as described above.
- **Software and Services segment profit** increased primarily due to increased sales volume and decreased research and development expense, partially offset by a higher concentration of revenue from lower margin installation and deployment services for international solutions-based projects.

Liquidity and Capital Resources

At October 31, 2013, our principal sources of liquidity were cash and cash equivalents and short-term investments and long-term investments in marketable debt securities, representing U.S. treasuries and commercial paper. The following table sets forth changes in our cash and cash equivalents and investments in marketable debt securities (in thousands):

	October 31,		Increase (decrease)
	2012	2013	
Cash and cash equivalents	\$ 642,444	\$ 346,487	\$ (295,957)
Short-term investments in marketable debt securities	50,057	124,979	74,922
Long-term investments in marketable debt securities	—	15,031	15,031
Total cash and cash equivalents and investments in marketable debt securities	\$ 692,501	\$ 486,497	\$ (206,004)

The change in total cash and cash equivalents and investments in marketable debt securities during fiscal 2013 was primarily related to the following:

- \$216.2 million used to pay our 0.25% convertible senior notes at maturity;
- \$44.7 million cash generated by operations, consisting of \$161.4 million from net losses adjusted for non-cash charges and \$116.7 million for changes in working capital;
- \$43.8 million for purchases of equipment, furniture, fixtures and intellectual property, partially offset by \$2.3 million transferred from restricted cash as a result of reductions in cash collateral required to support our standby letters of credit;
- \$3.7 million used for transaction costs for the private exchange offers relating to our 2015 Notes completed during the first quarter of fiscal 2013 as described in "Overview" above;
- \$3.3 million used relating to payment of capital lease obligations; and
- \$15.9 million from proceeds of stock issuances under our employee stock purchase plan and the exercise of stock options.

As described above, on December 27, 2012, we issued \$187.5 million in aggregate principal amount of new 2020 Notes in separate, private transactions with holders in exchange for the retirement of \$187.5 million in aggregate principal amount of our outstanding 2015 Notes. For a summary of the exchange transactions and the material terms of the 2020 Notes see "Overview" above and Note 12 to our Consolidated Financial Statements in Item 8 of Part II of this annual report. Following these private exchange offer transactions, \$187.5 million in aggregate principal amount of the 2015 Notes remained outstanding with terms unchanged.

In fiscal 2012, we entered into a \$150.0 million senior secured asset-based revolving credit facility (the "Credit Facility"). See Note 13 to our Consolidated Financial Statements included in Item 8 of Part II of this annual report for a summary of the material terms and conditions of this Credit Facility. We principally use the 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 October 31, 2013, letters of credit totaling \$43.6 million were collateralized by the Credit Facility. There were no borrowings outstanding under the Credit Facility as of October 31, 2013.

We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our operating plans and may consider capital raising and other market opportunities that may be available to us. Based on past performance and current expectations, we believe that our cash, cash equivalents and investments will satisfy our working capital needs, capital expenditures and other liquidity requirements associated with our operations through at least the next 12 months.

[Table of Contents](#)

The following sections set forth the components of our \$44.7 million of cash generated by operating activities for fiscal 2013 :

Net loss adjusted for non-cash charges

The following tables set forth (in thousands) our net loss adjusted for non-cash charges during the period:

	Year ended October 31, 2013
Net loss	\$ (85,431)
Adjustments for non-cash charges:	
Loss on extinguishment of debt	28,630
Depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements	55,699
Share-based compensation costs	37,720
Amortization of intangible assets	71,308
Provision for inventory excess and obsolescence	19,938
Provision for warranty	24,558
Other	9,023
Net losses adjusted for non-cash charges	<u>\$ 161,445</u>

Working Capital

Accounts Receivable, Net

Cash used by increases in accounts receivable during fiscal 2013 , net of \$2.3 million in provision for doubtful accounts, was \$145.4 million . Our days sales outstanding (DSOs) increased from 69 days for fiscal 2012 to 84 days for fiscal 2013 . This increase was primarily due to a high volume of sales towards the end of the fourth quarter of fiscal 2013.

The following table sets forth (in thousands) changes to our accounts receivable, net of allowance for doubtful accounts, from the end of fiscal 2012 through the end of fiscal 2013 :

	October 31,		Increase (decrease)
	2012	2013	
Accounts receivable, net	<u>\$ 345,496</u>	<u>\$ 488,578</u>	<u>\$ 143,082</u>

Inventory

Cash used by increases in inventory during fiscal 2013 was \$8.9 million . Our inventory turns increased from 3.3 turns during fiscal 2012 to 3.9 turns during fiscal 2013 . During fiscal 2013 , changes in inventory reflect a \$19.9 million non-cash provision for excess and obsolescence. The following table sets forth changes (in thousands) to the components of our inventory from the end of fiscal 2012 through the end fiscal 2013 :

	October 31,		Increase (decrease)
	2012	2013	
Raw materials	\$ 39,678	\$ 53,274	\$ 13,596
Work-in-process	10,736	7,773	(2,963)
Finished goods	178,210	153,855	(24,355)
Deferred cost of goods sold	71,484	75,764	4,280
Gross inventory	<u>300,108</u>	<u>290,666</u>	<u>(9,442)</u>
Provision for inventory excess and obsolescence	(40,010)	(41,563)	(1,553)
Inventory	<u>\$ 260,098</u>	<u>\$ 249,103</u>	<u>\$ (10,995)</u>

Prepaid expenses and other

Cash used by prepaid expense and other during fiscal 2013 was \$82.8 million and primarily related to increases in prepaid value added tax, maintenance spares and deferred deployment expense.

Accounts payable, accruals and other obligations

Cash generated by a lower utilization of cash resources for accounts payable, accruals and other obligations during fiscal 2013 was \$115.3 million . Changes in accrued liabilities reflect a \$24.6 million non-cash provision related to warranties.

The following table sets forth (in thousands) changes in our accounts payable, accruals and other obligations from the end of fiscal 2012 through the end of fiscal 2013 :

	October 31,		Increase (decrease)
	2012	2013	
Accounts payable	\$ 179,704	\$ 254,849	\$ 75,145
Accrued liabilities	209,540	271,656	62,116
Other long-term obligations	31,779	34,753	2,974
Accounts payable, accruals and other obligations	<u>\$ 421,023</u>	<u>\$ 561,258</u>	<u>\$ 140,235</u>

Interest Paid on Convertible Notes and Credit Facility

The final interest due on our 0.25% convertible senior notes was paid on May 1, 2013. We paid \$0.3 million in interest on these convertible notes during fiscal 2013 . The remaining principal amount outstanding on these notes was paid at maturity during the second quarter of fiscal 2013 and the notes are no longer outstanding.

Interest on our outstanding 4.0% convertible senior notes, due March 15, 2015, is payable on March 15 and September 15 of each year. We paid \$7.5 million in interest on these convertible notes during fiscal 2013 . Upon completion of the debt exchange described above, we paid \$2.1 million in accrued interest on these notes with respect to the portion exchanged.

Interest on our outstanding 0.875% convertible senior notes, due June 15, 2017, is payable on June 15 and December 15 of each year. We paid \$4.4 million in interest on these convertible notes during fiscal 2013 .

Interest on our outstanding 3.75% convertible senior notes, due October 15, 2018, is payable on April 15 and October 15 of each year. We paid \$13.1 million in interest on these convertible notes during fiscal 2013 .

Interest on our outstanding 4.0% convertible senior notes, due December 15, 2020, is payable on June 15 and December 15 of each year. We paid \$3.5 million in interest on these convertible notes during fiscal 2013 .

During fiscal 2013, Ciena utilized the Credit Facility to collateralize certain standby letters of credit. We paid \$1.5 million in commitment fees, interest expense and other administrative charges relating to the Credit Facility during fiscal 2013 .

For additional information about our convertible notes and the private exchange transactions related to the 2015 and 2020 Notes, see Note 12 to our Consolidated Financial Statements included in Item 8 of Part II of this annual report. For additional information about the Credit Facility, see Note 13 to our Consolidated Financial Statements included in Item 8 of Part II of this report.

Deferred revenue

Deferred revenue increased by \$5.1 million during fiscal 2013 . Product deferred revenue represents either payments received in advance of shipment or payments received in advance of revenue recognition. Services deferred revenue is related to payment for service contracts that will be recognized over the contract term. The following table reflects (in thousands) the balance of deferred revenue and the change in this balance from the end of fiscal 2012 through the end of fiscal 2013 :

	October 31,		Increase (decrease)
	2012	2013	
Products	\$ 29,279	\$ 36,671	\$ 7,392
Services	77,797	75,499	(2,298)
Total deferred revenue	\$ 107,076	\$ 112,170	\$ 5,094

Contractual Obligations

During the first quarter of fiscal 2013, we completed the debt exchange transactions described above and issued new 4.0% convertible senior notes, due December 15, 2020. During the fourth quarter of fiscal 2013, we entered into an extension of the term of Ciena's lease of the "Lab 10" building on the former Nortel Carling Campus in Ottawa, Canada. The following is a summary of our future minimum payments under contractual obligations as of October 31, 2013 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Principal due at maturity on convertible notes (1)	1,254,627	—	187,500	850,000	217,127
Interest due on convertible notes	150,625	32,500	53,750	45,625	18,750
Operating leases (2)	159,621	30,939	51,485	27,039	50,158
Purchase obligations (3)	134,551	134,551	—	—	—
Capital lease	5,393	3,315	1,900	178	—
Other obligations	5,766	2,421	3,334	11	—
Total (4)	\$ 1,710,583	\$ 203,726	\$ 297,969	\$ 922,853	\$ 286,035

- (1) Includes the accretion of the principal amount on the 2020 Notes payable at maturity at a rate of 1.85% per year compounded semi-annually, commencing December 27, 2012.
- (2) 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.
- (3) 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.
- (4) As of October 31, 2013, we also had approximately \$9.1 million of other long-term obligations in our Consolidated Balance Sheet for unrecognized tax positions that are not included in this table because the timing or amount of any cash settlement with the respective tax authority cannot be reasonably estimated.

Some of our commercial commitments, including some of the future minimum payments in operating leases set forth above and certain commitments to customers, are secured by standby letters of credit collateralized under our 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 October 31, 2013 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Standby letters of credit	\$ 45,598	\$ 19,293	\$ 12,365	\$ 4,183	\$ 9,757

Off-Balance Sheet Arrangements

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

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expense, and related disclosure of contingent assets and liabilities. By their

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

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

Revenue Recognition

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

We apply the percentage-of-completion method to long-term arrangements where it is required to undertake significant production, customizations or modification engineering, and reasonable and reliable estimates of revenue and cost are available. Utilizing the percentage-of-completion method, we recognize revenue based on the ratio of actual costs incurred to date to total estimated costs expected to be incurred. In instances that do not meet the percentage-of-completion method criteria, recognition of revenue is deferred until there are no uncertainties regarding customer acceptance. Unbilled percentage-of-completion revenues recognized are accumulated in the contracts in progress account included in accounts receivable, net. Billings in excess of revenues recognized to date on these contracts are recorded within deferred revenue.

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 is 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.

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 \$29.3 million and \$36.7 million as of October 31, 2012 and October 31, 2013, 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 \$77.8 million and \$75.5 million as of October 31, 2012 and October 31, 2013, respectively.

Share-Based Compensation

We estimate the fair value of our restricted stock unit awards based on the fair value of our common stock on the date of grant. Our outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. We recognize the estimated fair value of service-based awards, net of estimated forfeitures, as share-based expense ratably over the vesting period on a straight-line basis. Awards with performance-based vesting conditions require the achievement of certain financial or other performance criteria or targets as a condition to the vesting, or acceleration of vesting. We recognize the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon our determination of whether it is probable that the performance targets will be achieved. At each reporting period, we reassess the probability of achieving the performance targets and the performance period required to meet those targets. 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 17 to our Consolidated Financial Statements in Item 8 of Part II 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 October 31, 2013, total unrecognized compensation expense was \$55.9 million, which relates to unvested restricted stock units and is expected to be recognized over a weighted-average period of 1.4 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 tax law "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.

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 \$23.4 million and \$19.9 million in fiscal 2012 and 2013, respectively. The charges in fiscal 2012 and fiscal 2013 primarily related to engineering design changes and the discontinuance of certain parts and components used in the manufacture of our Optical Transport and Converged Packet Optical products. Our inventory net of allowance for excess and obsolescence was \$260.1 million and \$249.1 million as of October 31, 2012 and October 31, 2013, 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

[Table of Contents](#)

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 \$345.5 million and \$488.6 million as of October 31, 2012 and October 31, 2013, respectively. Our allowance for doubtful accounts was \$1.5 million and \$2.0 million as of October 31, 2012 and October 31, 2013, respectively.

Long-lived Assets

Our long-lived assets include: equipment, furniture and fixtures, finite-lived intangible assets and maintenance spares. As of October 31, 2012 and October 31, 2013 these assets totaled \$438.3 million and \$366.9 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.

Deferred Tax Valuation Allowance

As of October 31, 2013, we have recorded a valuation allowance offsetting nearly all our net deferred tax assets of \$1.5 billion. When measuring the need for a valuation allowance, we assess both positive and negative evidence regarding the realizability of these deferred tax assets. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. In determining net deferred tax assets and valuation allowances, management is required to make judgments and estimates related to projections of profitability, the timing and extent of the utilization of net operating loss carryforwards, applicable tax rates, transfer pricing methodologies and tax planning strategies. The valuation allowance is reviewed quarterly and is maintained until sufficient positive evidence exists to support a reversal. Because evidence such as our operating results during the most recent three-year period is afforded more weight than forecasted results for future periods, our cumulative loss during this three-year period represents sufficient negative evidence regarding the need for nearly a full valuation allowance. We will release this valuation allowance when management determines that it is more likely than not that our deferred tax assets will be realized. Any future release of valuation allowance may be recorded as a tax benefit increasing net income or as an adjustment to paid-in capital, based on tax ordering requirements.

Warranty

Our liability for product warranties, included in other accrued liabilities, was \$55.1 million and \$56.3 million as of October 31, 2012 and October 31, 2013, 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 \$33.4 million and \$24.6 million for fiscal 2012 and 2013, respectively. See Note 10 to the Consolidated Financial Statements included in Item 8 of Part II 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.

Effects of Recent Accounting Pronouncements

See Note 1 to our Consolidated Financial Statements in Item 8 of Part II of this report for information relating to our discussion of the effects of recent accounting pronouncements.

Unaudited Quarterly Results of Operations

The tables below (in thousands, except per share data) set forth the operating results in our consolidated statements of operations for each of the eight quarters in the period ended October 31, 2013. This information is unaudited, but in our opinion reflects all adjustments (consisting only of normal recurring adjustments) that we consider necessary for a fair statement of such information in accordance with generally accepted accounting principles. The results for any quarter are not necessarily indicative of results for any future period.

[Table of Contents](#)

	Jan. 31, 2012	Apr. 30, 2012	Jul. 31, 2012	Oct. 31, 2012	Jan. 31, 2013	Apr. 30, 2013	Jul. 31, 2013	Oct. 31, 2013
Revenue:								
Products	\$ 333,673	\$ 384,726	\$ 373,418	\$ 363,174	\$ 353,057	\$ 413,217	\$ 437,442	\$ 476,409
Services	83,012	92,891	100,672	102,357	100,036	94,495	100,914	106,976
Total Revenue	416,685	477,617	474,090	465,531	453,093	507,712	538,356	583,385
Cost of goods sold:								
Products	197,752	234,372	225,238	211,443	196,521	239,441	247,768	283,780
Services	51,177	60,304	67,531	61,882	60,777	58,758	62,367	67,959
Total costs of goods sold	248,929	294,676	292,769	273,325	257,298	298,199	310,135	351,739
Gross profit	167,756	182,941	181,321	192,206	195,795	209,513	228,221	231,646
Operating expenses:								
Research and development	89,664	90,399	88,315	95,801	89,125	100,787	93,069	100,427
Selling and marketing	64,411	62,517	65,397	74,013	66,588	74,475	75,613	87,494
General and administrative	29,664	26,670	27,876	29,792	28,208	30,883	32,066	31,275
Amortization of intangible assets	13,471	12,967	12,714	12,545	12,453	12,439	12,440	12,439
Restructuring costs	1,722	1,851	2,291	1,990	5,030	1,509	202	428
Total operating expenses	198,932	194,404	196,593	214,141	201,404	220,093	213,390	232,063
Income (loss) from operations	(31,176)	(11,463)	(15,272)	(21,935)	(5,609)	(10,580)	14,831	(417)
Interest and other income (loss), net	(4,887)	(4,387)	(2,458)	(3,468)	(137)	(2,716)	(3,167)	276
Interest expense	(9,570)	(9,646)	(9,597)	(10,840)	(10,732)	(11,392)	(10,972)	(10,946)
Loss on extinguishment of debt	—	—	—	—	(28,630)	—	—	—
Income (loss) before income taxes	(45,633)	(25,496)	(27,327)	(36,243)	(45,108)	(24,688)	692	(11,087)
Provision (benefit from) for income tax	2,020	2,284	2,490	2,528	2,216	2,391	1,923	(1,290)
Net loss	\$ (47,653)	\$ (27,780)	\$ (29,817)	\$ (38,771)	\$ (47,324)	\$ (27,079)	\$ (1,231)	\$ (9,797)
Basic net loss per common share	\$ (0.49)	\$ (0.28)	\$ (0.30)	\$ (0.39)	\$ (0.47)	\$ (0.27)	\$ (0.01)	\$ (0.09)
Diluted net loss per potential common share	\$ (0.49)	\$ (0.28)	\$ (0.30)	\$ (0.39)	\$ (0.47)	\$ (0.27)	\$ (0.01)	\$ (0.09)
Weighted average basic common shares outstanding	98,066	98,981	99,530	100,506	101,204	101,913	102,713	103,523
Weighted average dilutive potential common shares outstanding	98,066	98,981	99,530	100,506	101,204	101,913	102,713	103,523

Item 7A. 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 with varying maturities. See Notes 3 and 4 to our Consolidated Financial Statements included in Item 8 of Part II 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 \$0.6 million decline in value.

Foreign Currency Exchange Risk. As a global concern, our business and results of operations are exposed to movements in foreign currency exchange rates. Due to our global presence, some of our revenue is non-U.S. dollar denominated with Canadian Dollars and Euros being our most significant foreign currency revenue streams. If the U.S. dollar strengthens against these currencies, our revenues 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 cost to our customers of our products in markets outside the United States, which could impact our competitive position.

With regard to operating expense, our primary exposure to foreign currency exchange risk relates to operating expense incurred in Canadian Dollars, British Pounds, Euros and Indian Rupees. During fiscal 2013, approximately 47.2% of our operating expense was non-U.S. dollar denominated. If these currencies strengthen, costs reported in U.S. dollars will increase. During fiscal 2013, research and development expense benefited from approximately \$4.0 million, net of hedging, due to the strengthening of the U.S. dollar in relation to the Indian Rupee and the Canadian Dollar in comparison to fiscal 2012.

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 and are designated as cash flow hedges. At the inception of the cash flow hedge, and on an ongoing basis, Ciena assesses whether the forward contract has been effective in offsetting changes in cash flows attributable to the hedged risk during the hedging period. The effective portion of the derivative's net gain or loss is initially reported as a component of accumulated other comprehensive income (loss) and, upon the occurrence of the forecasted transaction, is subsequently reclassified to the line item in the 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.

From time to time, Ciena also uses foreign currency forwards to hedge certain 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, net. See Note 1 and Note 11 to our Consolidated Financial Statements included in Item 8 of Part II 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 and decrease as the market price of the stock falls. Interest rate and market value changes affect the fair market value of the notes and may affect the prices at which we would be able to repurchase such notes were we to do so. These changes do not impact our financial position, cash flows or results of operations. For additional information on the fair value of our outstanding notes, see Note 12 to our Consolidated Financial Statements included in Item 8 of Part II of this report.

[Table of Contents](#)

Item 8. Financial Statements and Supplementary Data

The following is an index to the consolidated financial statements:

	Page Number
Report of Independent Registered Public Accounting Firm	57
Consolidated Balance Sheets	58
Consolidated Statements of Operations	59
Consolidated Statements of Comprehensive Income (Loss)	60
Consolidated Statements of Changes in Stockholders' Equity (Deficit)	61
Consolidated Statements of Cash Flows	62
Notes to Consolidated Financial Statements	63

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Ciena Corporation

In our opinion, the accompanying consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Ciena Corporation and its subsidiaries (the "Company") at October 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2013 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2013, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Baltimore, Maryland
December 20, 2013

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

	October 31,	
	2012	2013
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 642,444	\$ 346,487
Short-term investments	50,057	124,979
Accounts receivable, net	345,496	488,578
Inventories	260,098	249,103
Prepaid expenses and other	117,595	186,655
Total current assets	1,415,690	1,395,802
Long-term investments	—	15,031
Equipment, furniture and fixtures, net	123,580	119,729
Other intangible assets, net	257,137	185,828
Other long-term assets	84,736	86,380
Total assets	<u>\$ 1,881,143</u>	<u>\$ 1,802,770</u>
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	\$ 179,704	\$ 254,849
Accrued liabilities	209,540	271,656
Deferred revenue	79,516	88,550
Convertible notes payable	216,210	—
Total current liabilities	684,970	615,055
Long-term deferred revenue	27,560	23,620
Other long-term obligations	31,779	34,753
Long-term convertible notes payable	1,225,806	1,212,019
Total liabilities	1,970,115	1,885,447
Commitments and contingencies		
Stockholders' equity (deficit):		
Preferred stock — par value \$0.01; 20,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock — par value \$0.01; 290,000,000 shares authorized; 100,601,792 and 103,705,709 shares issued and outstanding	1,006	1,037
Additional paid-in capital	5,797,765	5,893,880
Accumulated other comprehensive loss	(3,354)	(7,774)
Accumulated deficit	(5,884,389)	(5,969,820)
Total stockholders' equity (deficit)	(88,972)	(82,677)
Total liabilities and stockholders' equity (deficit)	<u>\$ 1,881,143</u>	<u>\$ 1,802,770</u>

The accompanying notes are an integral part of these consolidated financial statements.

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

	Year Ended October 31,		
	2011	2012	2013
Revenue:			
Products	\$ 1,406,532	\$ 1,454,991	\$ 1,680,125
Services	335,438	378,932	402,421
Total revenue	1,741,970	1,833,923	2,082,546
Cost of goods sold:			
Products	825,969	868,805	967,510
Services	206,855	240,894	249,861
Total cost of goods sold	1,032,824	1,109,699	1,217,371
Gross profit	709,146	724,224	865,175
Operating expenses:			
Research and development	379,862	364,179	383,408
Selling and marketing	251,990	266,338	304,170
General and administrative	126,242	114,002	122,432
Acquisition and integration costs	42,088	—	—
Amortization of intangible assets	69,665	51,697	49,771
Restructuring costs	5,781	7,854	7,169
Change in fair value of contingent consideration	(3,289)	—	—
Total operating expenses	872,339	804,070	866,950
Loss from operations	(163,193)	(79,846)	(1,775)
Interest and other income (loss), net	6,022	(15,200)	(5,744)
Interest expense	(37,926)	(39,653)	(44,042)
Gain on cost method investments	7,249	—	—
Loss on extinguishment of debt	—	—	(28,630)
Loss before income taxes	(187,848)	(134,699)	(80,191)
Provision for income taxes	7,673	9,322	5,240
Net loss	\$ (195,521)	\$ (144,021)	\$ (85,431)
Basic net loss per common share	\$ (2.04)	\$ (1.45)	\$ (0.83)
Diluted net loss per potential common share	\$ (2.04)	\$ (1.45)	\$ (0.83)
Weighted average basic common shares outstanding	95,854	99,341	102,350
Weighted average dilutive potential common shares outstanding	95,854	99,341	102,350

The accompanying notes are an integral part of these consolidated financial statements.

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

	Year ended October 31,		
	2011	2012	2013
Net loss	\$ (195,521)	\$ (144,021)	\$ (85,431)
Change in unrealized gain (loss) on available-for-sale securities, net of tax	393	(166)	(14)
Change in unrealized gain (loss) on foreign currency forward contracts, net of tax	—	49	(310)
Change in accumulated translation adjustments	(1,424)	(3,268)	(4,096)
Total comprehensive loss	<u>\$ (196,552)</u>	<u>\$ (147,406)</u>	<u>\$ (89,851)</u>

The accompanying notes are an integral part of these consolidated financial statements.

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

	Common Stock Shares	Par Value	Additional Paid-in- Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balance at October 31, 2010	94,060,300	\$ 941	\$5,702,137	\$ 1,062	\$(5,544,847)	\$ 159,293
Net loss	—	—	—	—	(195,521)	(195,521)
Comprehensive loss	—	—	—	(1,031)	—	(1,031)
Issuance of shares from employee equity plans	3,380,136	33	13,169	—	—	13,202
Share-based compensation expense	—	—	37,930	—	—	37,930
Balance at October 31, 2011	97,440,436	974	5,753,236	31	(5,740,368)	13,873
Net loss	—	—	—	—	(144,021)	(144,021)
Comprehensive loss	—	—	—	(3,385)	—	(3,385)
Issuance of shares from employee equity plans	3,161,356	32	12,135	—	—	12,167
Share-based compensation expense	—	—	32,394	—	—	32,394
Balance at October 31, 2012	100,601,792	1,006	5,797,765	(3,354)	(5,884,389)	(88,972)
Net loss	—	—	—	—	(85,431)	(85,431)
Comprehensive loss	—	—	—	(4,420)	—	(4,420)
Equity component of convertible notes payable issued	—	—	43,131	—	—	43,131
Equity component of deferred debt issuance costs	—	—	(603)	—	—	(603)
Issuance of shares from employee equity plans	3,103,917	31	15,867	—	—	15,898
Share-based compensation expense	—	—	37,720	—	—	37,720
Balance at October 31, 2013	<u>103,705,709</u>	<u>\$ 1,037</u>	<u>\$5,893,880</u>	<u>\$ (7,774)</u>	<u>\$(5,969,820)</u>	<u>\$ (82,677)</u>

The accompanying notes are an integral part of these consolidated financial statements.

CIENA CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended October 31,		
	2011	2012	2013
Cash flows from operating activities:			
Net loss	\$ (195,521)	\$ (144,021)	\$ (85,431)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Loss on extinguishment of debt	—	—	28,630
Gain on cost method investments	(7,249)	—	—
Depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements	60,154	59,099	55,699
Share-based compensation costs	37,930	32,394	37,720
Amortization of intangible assets	95,927	74,497	71,308
Provision for inventory excess and obsolescence	17,334	23,438	19,938
Provision for warranty	18,451	33,418	24,558
Other	2,741	13,722	9,023
Changes in assets and liabilities:			
Accounts receivable	(75,623)	70,366	(145,421)
Inventories	14,209	(53,460)	(8,943)
Prepaid expenses and other	(18,302)	1,748	(82,809)
Accounts payable, accruals and other obligations	(59,285)	12,610	115,312
Deferred revenue	18,749	(16,722)	5,094
Net cash provided by (used in) operating activities	<u>(90,485)</u>	<u>107,089</u>	<u>44,678</u>
Cash flows used in investing activities:			
Payments for equipment, furniture, fixtures and intellectual property	(52,367)	(48,098)	(43,814)
Restricted cash	10,751	35,597	2,338
Purchase of available for sale securities	(49,892)	—	(184,864)
Proceeds from maturities of available for sale securities	—	—	95,479
Proceeds from sale of cost method investment	6,544	524	—
Receipt of contingent consideration related to business acquisition	16,394	—	—
Net cash used in investing activities	<u>(68,570)</u>	<u>(11,977)</u>	<u>(130,861)</u>
Cash flows from financing activities:			
Payment of capital lease obligations	—	(1,895)	(3,335)
Payment of long term debt	—	—	(216,210)
Payment of debt and equity issuance costs	—	(2,332)	(3,692)
Proceeds from issuance of common stock	13,202	12,167	15,898
Net cash provided by (used in) financing activities	<u>13,202</u>	<u>7,940</u>	<u>(207,339)</u>
Effect of exchange rate changes on cash and cash equivalents	(938)	(2,504)	(2,435)
Net increase (decrease) in cash and cash equivalents	(146,791)	100,548	(295,957)
Cash and cash equivalents at beginning of period	688,687	541,896	642,444
Cash and cash equivalents at end of period	<u>\$ 541,896</u>	<u>\$ 642,444</u>	<u>\$ 346,487</u>
Supplemental disclosure of cash flow information			
Cash paid during the period for interest	\$ 32,931	\$ 33,511	\$ 32,397
Cash paid during the period for income taxes, net	\$ 3,204	\$ 9,603	\$ 10,679
Non-cash investing and financing activities			
Purchase of equipment in accounts payable	\$ 6,431	\$ 5,202	\$ 6,191
Debt issuance costs in accrued liabilities	\$ —	\$ 319	\$ —
Fixed assets acquired under capital leases	\$ 1,106	\$ 6,736	\$ 2,538

The accompanying notes are an integral part of these consolidated financial statements.

CIENA CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) CIENA CORPORATION AND SIGNIFICANT ACCOUNTING POLICIES AND ESTIMATES

Description of Business

Ciena Corporation (“Ciena” or the “Company”) is a provider of communications networking equipment, software and services that support the transport, switching, aggregation and management of voice, video and data traffic. Ciena’s Converged Packet Optical, Packet Networking and Optical Transport products are used, individually or as part of an integrated solution, in networks operated by communications service providers, cable operators, governments and enterprises around the globe. Ciena is a network specialist targeting the transition of disparate, legacy communications networks to converged, next-generation architectures, better able to handle increased traffic and to deliver more efficiently a broader mix of high-bandwidth communications services. Ciena’s products, along with its embedded network element software and unified service and transport management, enable service providers to deliver critical enterprise and consumer-oriented communication services efficiently and cost-effectively. Ciena’s principal executive offices are located at 7035 Ridge Road, Hanover, Maryland 21076.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Ciena and its wholly owned subsidiaries. All material inter-company accounts and transactions have been eliminated in consolidation.

Fiscal Year

Ciena has a 52 or 53 week fiscal year, which ends on the Saturday nearest to the last day of October in each year (October 29, 2011, November 3, 2012, and November 2, 2013 for the periods reported). Fiscal 2011 and fiscal 2013 each consisted of a 52-week fiscal year and fiscal 2012 consisted of a 53-week fiscal year. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31.

Use of Estimates

The preparation of the financial statements and related disclosures in conformity with accounting principles generally accepted in the United States requires management to make estimates and judgments that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are used for selling prices for multiple element arrangements, shared-based compensation, convertible notes payable valuations, bad debts, valuation of inventories and investments, recoverability of intangible assets, other long-lived assets, income taxes, warranty obligations, restructuring liabilities, derivatives, 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. 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 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 its 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. All others are considered long-term 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. During the first quarter of fiscal 2013, Ciena reorganized its internal organizational structure and the management of its business into the following operating segments: (i) Converged Packet Optical, (ii) Packet Networking, (iii) Optical Transport, and (iv) Software and Services. See Note 18 below.

Long-lived Assets

Long-lived assets include: equipment, 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 which represent the lowest level for which cash flows can be identified.

Equipment, Furniture and Fixtures and Internal Use Software

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

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

Intangible Assets

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

Maintenance Spares

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

Concentrations

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

Historically, a significant percentage of Ciena's revenue has been concentrated among sales to a small number of large communications service providers. Consolidation among Ciena's customers has increased this concentration. Consequently, Ciena's accounts receivable are concentrated among these customers. See Note 18 below.

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

Revenue Recognition

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

[Table of Contents](#)

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 generally deferred and recognized ratably over the period during which the services are performed. Shipping and handling fees billed to customers are included in revenue, with the associated expenses included in product cost of goods sold.

Ciena applies the percentage-of-completion method to long-term arrangements where it is required to undertake significant production, customizations or modification engineering, and reasonable and reliable estimates of revenue and cost are available. Utilizing the percentage-of-completion method, Ciena recognizes revenue based on the ratio of actual costs incurred to date to total estimated costs expected to be incurred. In instances that do not meet the percentage-of-completion method criteria, recognition of revenue is deferred until there are no uncertainties regarding customer acceptance. Unbilled percentage- of-completion revenues recognized are accumulated in the contracts in progress account included in accounts receivable, net. Billings in excess of revenues recognized to date on these contracts are recorded within deferred revenue.

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 is 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.

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 its customers. 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, which would negatively affect its results of operations.

Research and Development

[Table of Contents](#)

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

Government Grants

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

Advertising Costs

Ciena expenses all advertising costs as incurred.

Legal Costs

Ciena expenses legal costs associated with litigation defense as incurred.

Share-Based Compensation Expense

Ciena measures and recognizes compensation expense for share-based awards based on estimated fair values on the date of grant. Ciena estimates the fair value of each option-based award on the date of grant using the Black-Scholes option-pricing model. This model is affected by Ciena's stock price as well as estimates regarding a number of variables, including expected stock price volatility over the expected term of the award and projected employee stock option exercise behaviors. Ciena estimates the fair value of each restricted stock unit based on the fair value of the underlying common stock on the date of grant. In each case, Ciena only recognizes expense to its Consolidated Statement of Operations for those options or shares 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 its determination of whether it is probable that the performance targets will be achieved. At each reporting period, Ciena reassesses the probability of achieving the performance targets and the performance period required to meet those targets. Ciena uses the straight-line method to record expense for grants with only service-based vesting. See Note 17 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 2007 through 2011 and in Canada for 2010 and 2011. 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 (2010), United Kingdom (2012), Canada (2009) and India (2007). However, 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. All of the uncertain tax positions, if recognized, would decrease the effective income tax rate.

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 will be used to fund foreign operations, capital expenditures and any expansion requirements.

[Table of Contents](#)

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 tax law "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, see Note 12 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. Generally accepted accounting principles ("GAAP") require that a liability for the cost associated with an exit or disposal activity be recognized in the period in which the liability is incurred, except for one-time employee termination benefits related to a service period of more than 60 days, which are accrued over the service period. See Note 2 below.

Foreign Currency

Some of Ciena's foreign branch offices and subsidiaries use the U.S. dollar as their functional currency because Ciena, as the U.S. parent entity, exclusively funds the operations of these branch offices and subsidiaries. For those subsidiaries using the

[Table of Contents](#)

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 Consolidated Statement of Operations.

Derivatives

Ciena's 4.0% convertible senior notes due March 15, 2015 (the "2015 Notes") include a redemption feature that is accounted for as a separate embedded derivative. The embedded redemption feature is recorded at fair value on a recurring basis, and these changes are included in interest and other income (loss), net on the Consolidated Statement of Operations.

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 and are designated as cash flow hedges. At the inception of the cash flow hedge, and on an ongoing basis, Ciena assesses whether the forward contract has been effective in offsetting changes in cash flows attributable to the hedged risk during the hedging period. The effective portion of the derivative's net gain or loss is initially reported as a component of accumulated other comprehensive income (loss), and upon the occurrence of the forecasted transaction, is subsequently reclassified to the line item in the 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.

From time to time, Ciena uses foreign currency forwards to hedge certain 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 Consolidated Statement of Operations. See Note 11 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 14 below.

Software Development Costs

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

Newly Issued Accounting Standards

In May 2011, the Financial Accounting Standards Board ("FASB") issued an accounting standards update that amends current fair value measurement and disclosure guidance to converge with International Financial Reporting Standards ("IFRS"). This update provides improved comparability of fair value measurements presented and disclosed in financial statements prepared in accordance with GAAP and IFRS. This guidance is effective for fiscal years and interim periods beginning after December 15, 2011. Ciena adopted this guidance in the first quarter of fiscal 2013.

In June 2011, FASB issued an accounting standards update that requires an entity to present total comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements and eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity. This guidance is effective for fiscal years and interim periods beginning after December 15, 2011. Ciena adopted this guidance in the first quarter of fiscal 2013.

In February 2013, FASB issued an accounting standards update to require reclassification adjustments from other comprehensive income to be presented either in the financial statements or in the notes to the financial statements. This

[Table of Contents](#)

accounting standard update will be effective for Ciena beginning in the first quarter of fiscal 2014, at which time Ciena will include the required disclosures.

(2) 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 displays the activity and balances of the historical restructuring liability accounts for the fiscal years indicated (in thousands):

	Workforce reduction	Consolidation of excess facilities	Total
Balance at October 31, 2010	\$ 1,576	\$ 6,392	\$ 7,968
Additional liability recorded	6,627 (a)	—	6,627
Adjustment to previous estimates	—	(846) (a)	(846)
Cash payments	(8,043)	(2,253)	(10,296)
Balance at October 31, 2011	160	3,293	3,453
Additional liability recorded	5,484 (b)	2,370 (b)	7,854
Cash payments	(4,195)	(2,063)	(6,258)
Balance at October 31, 2012	1,449	3,600	5,049
Additional liability recorded	5,041 (c)	2,128 (c)	7,169
Non-cash disposal	—	(747)	(747)
Cash payments	(6,410)	(3,045)	(9,455)
Balance at October 31, 2013	\$ 80	\$ 1,936	\$ 2,016
Current restructuring liabilities	\$ 80	\$ 594	\$ 674
Non-current restructuring liabilities	\$ —	\$ 1,342	\$ 1,342

- (a) During fiscal 2011, Ciena recorded a charge of \$6.6 million of severance and other employee-related costs associated with a workforce reduction of approximately 150 employees. Ciena also recorded an adjustment of \$0.8 million related to its previously restructured Acton, Massachusetts facility.
- (b) During fiscal 2012, Ciena recorded a charge of \$5.5 million of severance and other employee-related costs associated with a workforce reduction of approximately 135 employees. Ciena also recorded charges of \$2.4 million related to its consolidation of several facilities in the Linthicum, Maryland area.
- (c) During fiscal 2013, Ciena recorded a charge of \$5.0 million of severance and other employee-related costs associated with a workforce reduction of approximately 100 employees. Ciena also recorded charges of \$2.1 million related to its consolidation of several facilities primarily in the Linthicum, Maryland area.

(3) SHORT-TERM AND LONG-TERM INVESTMENTS

As of October 31, 2012, short-term investments were comprised of the following (in thousands):

	October 31, 2012			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations				
Included in short-term investments	49,987	70	—	50,057
	\$ 49,987	\$ 70	\$ —	\$ 50,057

As of October 31, 2013, short-term and long-term investments are comprised of the following (in thousands):

[Table of Contents](#)

	October 31, 2013			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations				
Included in short-term investments	\$ 99,974	\$ 11	\$ —	\$ 99,985
Included in long-term investments	14,996	35	—	15,031
	<u>\$ 114,970</u>	<u>\$ 46</u>	<u>\$ —</u>	<u>\$ 115,016</u>
Commercial paper				
Included in short-term investments	\$ 24,994	\$ —	\$ —	\$ 24,994
	<u>\$ 24,994</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 24,994</u>

The following table summarizes the legal maturities of debt investments at October 31, 2013 :

	October 31, 2013	
	Amortized Cost	Estimated Fair Value
Less than one year	\$ 124,968	\$ 124,979
Due in 1-2 years	14,996	15,031
	<u>\$ 139,964</u>	<u>\$ 140,010</u>

(4) FAIR VALUE MEASUREMENTS

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

	October 31, 2012			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	404,288	\$ —	\$ —	\$ 404,288
U.S. government obligations	—	50,057	—	50,057
Commercial paper	—	14,998	—	14,998
Foreign currency forward contracts	—	79	—	79
Embedded redemption feature	—	—	420	420
Total assets measured at fair value	<u>\$ 404,288</u>	<u>\$ 65,134</u>	<u>\$ 420</u>	<u>\$ 469,842</u>

[Table of Contents](#)

	October 31, 2013			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	\$ 254,330	\$ —	\$ —	\$ 254,330
U.S. government obligations	—	115,016	—	115,016
Commercial paper	—	44,991	—	44,991
Embedded redemption feature	—	—	2,740	2,740
Total assets measured at fair value	\$ 254,330	\$ 160,007	\$ 2,740	\$ 417,077
Liabilities				
Foreign currency forward contracts	\$ —	\$ 442	\$ —	\$ 442
Total liabilities measured at fair value	\$ —	\$ 442	\$ —	\$ 442

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

	October 31, 2012			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 400,415	\$ 14,998	\$ —	\$ 415,413
Short-term investments	—	50,057	—	50,057
Prepaid expenses and other	2,030	79	—	2,109
Other long-term assets	1,843	—	420	2,263
Total assets measured at fair value	\$ 404,288	\$ 65,134	\$ 420	\$ 469,842

	October 31, 2013			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 252,241	\$ 19,997	\$ —	\$ 272,238
Short-term investments	—	124,979	—	124,979
Prepaid expenses and other	52	—	—	52
Long-term investments	—	15,031	—	15,031
Other long-term assets	2,037	—	2,740	4,777
Total assets measured at fair value	\$ 254,330	\$ 160,007	\$ 2,740	\$ 417,077
Liabilities				
Accrued liabilities	\$ —	\$ 442	\$ —	\$ 442
Total liabilities measured at fair value	\$ —	\$ 442	\$ —	\$ 442

Ciena's Level 3 assets included in other long-term assets reflect an embedded redemption feature contained within Ciena's 4.0% convertible senior notes. See Note 12 below. The embedded redemption feature is bifurcated from Ciena's 4.0% convertible senior notes using the "with-and-without" approach. As such, the total value of the embedded redemption feature is calculated as the difference between the value of the 4.0% convertible senior notes (the "Hybrid Instrument") and the value of an identical instrument without the embedded redemption feature (the "Host Instrument"). Both the Host Instrument and the Hybrid Instrument are valued using a modified binomial model. The modified binomial model utilizes a risk free interest rate, an implied volatility of Ciena's stock, the recovery rates of bonds and the implied default intensity of the 4.0% convertible senior notes.

As of the dates indicated, the following table sets forth, in thousands, the reconciliation of changes in Level 3 assets recorded at fair value:

	Level 3
Balance at October 31, 2012	\$ 420
Issuances	—
Settlements	(630)
Changes in unrealized gain	2,950
Transfers into Level 3	—
Transfers out of Level 3	—
Balance at October 31, 2013	<u>\$ 2,740</u>

(5) ACCOUNTS RECEIVABLE

As of October 31, 2012, no single customer accounted for greater than 10% of net accounts receivable. As of October 31, 2013, two customers accounted for greater than 10% of net accounts receivable, and in the aggregate accounted for 22.5% of net accounts receivable. Ciena has not historically experienced a significant amount of bad debt expense. The following table summarizes the activity in Ciena's allowance for doubtful accounts for the fiscal years indicated (in thousands):

Year ended October 31,	Balance at beginning of period	Provisions	Net Deductions	Balance at end of period
2011	\$ 117	\$ 1,696	\$ 1,112	\$ 701
2012	\$ 701	\$ 1,647	\$ 848	\$ 1,500
2013	\$ 1,500	\$ 2,339	\$ 1,884	\$ 1,955

(6) INVENTORIES

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

	October 31,	
	2012	2013
Raw materials	\$ 39,678	\$ 53,274
Work-in-process	10,736	7,773
Finished goods	178,210	153,855
Deferred cost of goods sold	71,484	75,764
	<u>300,108</u>	<u>290,666</u>
Provision for excess and obsolescence	(40,010)	(41,563)
	<u>\$ 260,098</u>	<u>\$ 249,103</u>

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 fiscal 2011, recorded provisions for inventory reserves were primarily related to changes in forecasted sales for certain products. During fiscal 2012 and fiscal 2013, recorded provisions for inventory reserves were primarily related to engineering design changes and the discontinuance of certain parts and components used in the manufacture of our Optical Transport and Converged Packet Optical products. Deductions from the provision for excess and obsolete inventory relate to disposal activities.

The following table summarizes the activity in Ciena's reserve for excess and obsolete inventory for the fiscal years indicated (in thousands):

Year ended October 31,	Balance at beginning of period	Provisions	Disposals	Balance at end of period
2011	\$ 30,767	\$ 17,334	\$ 16,330	\$ 31,771
2012	\$ 31,771	\$ 23,438	\$ 15,199	\$ 40,010
2013	\$ 40,010	\$ 19,938	\$ 18,385	\$ 41,563

(7) PREPAID EXPENSES AND OTHER

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

	October 31,	
	2012	2013
Prepaid VAT and other taxes	\$ 37,806	\$ 101,072
Deferred deployment expense	19,449	23,190
Product demonstration equipment, net	33,144	33,382
Prepaid expenses	16,477	16,963
Other non-trade receivables	8,689	11,996
Restricted cash	2,030	52
	<u>\$ 117,595</u>	<u>\$ 186,655</u>

Depreciation of product demonstration equipment was \$9.7 million , \$7.8 million and \$7.4 million for fiscal 2011 , 2012 and 2013 , respectively.

(8) EQUIPMENT, FURNITURE AND FIXTURES

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

	October 31,	
	2012	2013
Equipment, furniture and fixtures	\$ 422,118	\$ 364,574
Leasehold improvements	61,493	46,247
	483,611	410,821
Accumulated depreciation and amortization	(360,031)	(291,092)
	<u>\$ 123,580</u>	<u>\$ 119,729</u>

During fiscal 2011 , fiscal 2012 and fiscal 2013 , Ciena recorded depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements of \$50.5 million , \$51.3 million and \$48.3 million , respectively. During fiscal 2013, in connection with the restructuring activities described above, Ciena disposed of equipment, furniture and fixtures with an original cost of \$39.0 million and related accumulated depreciation of \$38.3 million .

(9) INTANGIBLE ASSETS

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

[Table of Contents](#)

	October 31,					
	2012			2013		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	\$ 417,833	\$ (279,195)	\$ 138,638	\$ 417,833	\$ (321,645)	\$ 96,188
Patents and licenses	46,538	(45,566)	972	46,538	(45,744)	794
Customer relationships, covenants not to compete, outstanding purchase orders and contracts	323,573	(206,046)	117,527	323,573	(234,727)	88,846
Total intangible assets	<u>\$ 787,944</u>	<u>\$ (530,807)</u>	<u>\$ 257,137</u>	<u>\$ 787,944</u>	<u>\$ (602,116)</u>	<u>\$ 185,828</u>

The aggregate amortization expense of intangible assets was \$95.9 million , \$74.5 million and \$71.3 million for fiscal 2011 , fiscal 2012 and fiscal 2013 , respectively. Expected future amortization of intangible assets for the fiscal years indicated is as follows (in thousands):

Year Ended October 31,	
2014	\$ 57,151
2015	52,879
2016	52,879
2017	22,783
2018	136
	<u>\$ 185,828</u>

(10) OTHER BALANCE SHEET DETAILS

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

	October 31,	
	2012	2013
Maintenance spares inventory, net	\$ 57,548	\$ 61,305
Deferred debt issuance costs, net	20,575	15,677
Embedded redemption feature	420	2,740
Restricted cash	2,413	2,053
Other	3,780	4,605
	<u>\$ 84,736</u>	<u>\$ 86,380</u>

Deferred debt issuance costs are amortized using the straight line method which approximates the effect of the effective interest rate method through the maturity of the related debt. Amortization of debt issuance costs related to our convertible notes payable and the Credit Facility, which is included in interest expense, was \$5.3 million , \$5.3 million and \$5.4 million for fiscal 2011 , fiscal 2012 and fiscal 2013 , respectively.

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

	October 31,	
	2012	2013
Warranty	\$ 55,132	\$ 56,303
Compensation, payroll related tax and benefits	48,885	98,770
Vacation	29,581	32,118
Current restructuring liabilities	3,516	674
Interest payable	4,404	6,186
Other	68,022	77,605
	<u>\$ 209,540</u>	<u>\$ 271,656</u>

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

Year ended October 31,	Beginning Balance	Provisions	Settlements	Balance at end of period
2011	\$ 54,372	\$ 18,451	\$ 25,541	\$ 47,282
2012	\$ 47,282	\$ 33,418	\$ 25,568	\$ 55,132
2013	\$ 55,132	\$ 24,558	\$ 23,387	\$ 56,303

As a result of acquisition and integration activities, Ciena consolidated certain support operations and processes during fiscal 2011, resulting in a reduction in costs to service future warranty obligations. As a result of the lower than expected costs, Ciena reduced its warranty liability by \$6.9 million, which had the effect of reducing the provisions in the table above. The increase in fiscal 2012 warranty provision was driven primarily by sales that included longer-term support obligations and technical support requirements from additional geographies. The decrease in fiscal 2013 warranty provision was primarily due to lower failure rates.

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

	October 31,	
	2012	2013
Products	\$ 29,279	\$ 36,671
Services	77,797	75,499
	107,076	112,170
Less current portion	(79,516)	(88,550)
Long-term deferred revenue	\$ 27,560	\$ 23,620

(11) FOREIGN CURRENCY FORWARD CONTRACTS

As of October 31, 2013, Ciena had forward contracts to reduce the variability in its Canadian Dollar and Indian Rupee denominated expense, which expense principally relates to research and development activities. These derivative contracts have been designated as cash flow hedges. During fiscal 2013, in order to hedge certain balance sheet exposures, Ciena entered into forward contracts to sell Brazilian Real and buy an equivalent U.S. Dollar amount. These derivative contracts have not been designated as hedges. Ciena's foreign currency forward contracts are immaterial for separate financial statement presentation.

(12) CONVERTIBLE NOTES PAYABLE

Outstanding Convertible Notes Payable

Ciena has four issuances of convertible notes payable outstanding. The notes are senior unsecured obligations of Ciena and rank equally with all of Ciena's other existing and future senior unsecured debt. The indentures governing Ciena's notes provide for customary events of default which include (subject in certain cases to customary grace and cure periods), among others, the following: nonpayment of principal or interest; breach of covenants or other agreements in the indenture; defaults in or failure to pay certain other indebtedness; and certain events of bankruptcy or insolvency. Generally, if an event of default occurs and is continuing, the trustee or the holders of at least 25% in aggregate principal amount of the notes may declare the principal of, accrued interest on, and premium, if any, on all the notes immediately due and payable. Under the indentures, if Ciena undergoes a "fundamental change" (as that term is defined in the indenture governing the notes to include certain change in control transactions), holders of notes will have the right, subject to certain exemptions, to require Ciena to purchase for cash any or all of their notes at a price equal to the principal amount, plus accrued interest. If the holder elects to convert his or her notes in connection with a specified fundamental change Ciena will be required to, in certain circumstances, increase the applicable conversion rate, depending on the price paid per share for Ciena common stock and the effective date of the fundamental change transaction.

0.25% Convertible Senior Notes due May 1, 2013

The remaining \$216.2 million in principal amount outstanding on these notes was paid at maturity during the second quarter of fiscal 2013 and the notes are no longer outstanding.

4.0% Convertible Senior Notes, due March 15, 2015

[Table of Contents](#)

On March 15, 2010, Ciena completed a private placement of 4.0% convertible senior notes due March 15, 2015, in aggregate principal amount of \$375.0 million . Interest is payable on the notes on March 15 and September 15 of each year, beginning on September 15, 2010.

On December 27, 2012, Ciena issued \$187.5 million in aggregate principal amount of 4.0% Convertible Senior Notes due 2020 (the “2020 Notes”) in separate private offerings in exchange for \$187.5 million in aggregate principal amount of the then outstanding 2015 Notes (the “Exchange Transactions”). The Exchange Transactions resulted in the retirement of outstanding 2015 Notes with a carrying value of \$187.9 million , the write-off of unamortized debt issuance costs of \$2.3 million , and settlement of \$0.6 million relating to the redemption feature on the 2015 Notes accounted for as a separate embedded derivative. The 2020 Notes offered in the Exchange Transactions had a fair value of \$213.6 million , which resulted in a loss on extinguishment of debt of \$28.6 million in the first quarter of fiscal 2013. Ciena does not expect the Exchange Transactions to affect its taxes from continuing operations, as the company continues to provide a valuation allowance against its deferred tax assets.

At the election of the holder, the notes may be converted prior to maturity into shares of Ciena common stock at the initial conversion rate of 49.0557 shares per \$1,000 in principal amount, which is equivalent to an initial conversion price of approximately \$20.38 per share. The notes may be redeemed by Ciena on or after March 15, 2013 if the closing sale price of Ciena’s common stock for at least 20 trading days in any 30 consecutive trading day period ending on the date one day prior to the date of the notice of redemption exceeds 150% of the conversion price. Ciena may redeem the notes in whole or in part, at a redemption price in cash equal to the principal amount to be redeemed, plus accrued and unpaid interest, including any additional interest to, but excluding, the redemption date, plus a make-whole premium payment. The “make whole premium” payment will be made in cash and equal the present value of the remaining interest payments, to maturity, computed using a discount rate equal to 2.75% . The make-whole premium is paid to holders whether or not they convert the notes following Ciena’s issuance of a redemption notice. For accounting purposes, this redemption feature is an embedded derivative that is not clearly and closely related to the notes. Consequently, it was initially bifurcated from the indenture and separately recorded at its fair value as an asset with subsequent changes in fair value recorded through earnings. As of October 31, 2013 , the fair value of the embedded redemption feature was \$2.7 million and is included in other long-term assets on the Consolidated Balance Sheet. Changes in fair value of the embedded redemption feature in the amount of \$3.0 million are reflected as interest and other income (loss), net in the Consolidated Statement of Operations during fiscal 2013 .

The net proceeds from the original offering of the notes were \$364.3 million after deducting the placement agents’ fees and other fees and expenses. Ciena used \$243.8 million of this amount to fund its payment election to replace its contractual obligation to issue convertible notes to Nortel as part of the aggregate purchase price for the acquisition of the MEN Business. The remaining proceeds were used to reduce the cash on hand required to fund the aggregate purchase price of the MEN Business.

0.875% Convertible Senior Notes due June 15, 2017

On June 11, 2007, Ciena completed a public offering of 0.875% convertible senior notes due June 15, 2017, in aggregate principal amount of \$500.0 million . Interest is payable on June 15 and December 15 of each year, beginning on December 15, 2007.

At the election of the holder, the notes may be converted prior to maturity into shares of Ciena common stock at the initial conversion rate of 26.2154 shares per \$1,000 in principal amount, which is equivalent to an initial conversion price of approximately \$38.15 per share. The notes are not redeemable by Ciena prior to maturity.

Ciena used approximately \$42.5 million of the net proceeds of this offering to purchase a call spread option on its common stock that is intended to limit exposure to potential dilution from conversion of the notes. See Note 15 below for a description of this call spread option.

3.75% Convertible Senior Notes, due October 15, 2018

On October 18, 2010, Ciena completed a private placement of 3.75% convertible senior notes due October 15, 2018, in aggregate principal amount of \$350.0 million . Interest is payable on the notes on April 15 and October 15 of each year, beginning on April 15, 2011.

At the election of the holder, the notes may be converted prior to maturity into shares of Ciena common stock at the initial conversion rate of 49.5872 shares per \$1,000 in principal amount, which is equivalent to an initial conversion price of approximately \$20.17 per share.

The net proceeds from the offering were approximately \$340.4 million after deducting the placement agents’ fees and other fees and expenses. Ciena used \$76.1 million of the net proceeds to effect the repurchase of its 0.25% convertible senior notes due 2013, which matured during fiscal 2013.

4.0% Convertible Senior Notes due December 15, 2020

[Table of Contents](#)

As described above, on December 27, 2012, Ciena issued \$187.5 million in aggregate principal amount of 4.0% Convertible Senior Notes due 2020 (the “2020 Notes”) in separate private offerings in exchange for \$187.5 million in aggregate principal amount of 2015 Notes above.

The 2020 Notes are senior unsecured obligations and rank equally with all of Ciena's other existing and future senior unsecured debt. The 2020 Notes pay interest from the date of issuance at a rate of 4.0% per year. The interest is payable semi-annually on June 15 and December 15, commencing on June 15, 2013. The principal amount of the 2020 Notes will also accrete at a rate of 1.85% per year commencing December 27, 2012, compounding on a semi-annual basis. The accreted portion of the principal payable at maturity does not bear interest and is not convertible into shares of Ciena's common stock. The 2020 Notes will mature on December 15, 2020. Consequently, in the event the 2020 Notes are converted, the accreted liability will extinguish without payment.

The 2020 Notes may be converted prior to maturity, at the option of the holder, into shares of Ciena's common stock at an initial conversion rate of 49.0557 shares of common stock per \$1,000 in original principal amount, which is equal to an initial conversion price of \$20.39 per share. In addition, Ciena may elect to convert the 2020 Notes in whole or in part at any time on or prior to December 15, 2020, if the daily volume weighted average price of the common stock equals or exceeds 130% of the conversion price then in effect for at least 20 trading days in any 30 consecutive trading day period. If Ciena elects to convert the 2020 Notes on or before maturity, the conversion rate will be adjusted to include an amount of additional shares, determined by reference to a make-whole table, payable in Ciena common stock, or its cash equivalent, at Ciena's election. An aggregate of 9,197,944 shares of Ciena common stock issuable upon conversion of the 2020 Notes has been reserved for issuance.

Upon certain fundamental changes, holders of the 2020 Notes have the option to require Ciena to purchase the 2020 Notes at a price equal to the accreted principal amount of the notes delivered for repurchase plus any accrued and unpaid interest on the original principal amount. Upon a holder's election to convert the 2020 Notes in connection with certain fundamental changes, the conversion rate will be adjusted to include an amount of additional shares, determined by reference to a make-whole table, payable in Ciena common stock, or its cash equivalent, at Ciena's election.

Accounting guidance issued by the FASB requires the issuer of convertible debt instruments with cash settlement features, including partial cash settlement, to account separately for the liability and equity components of the instrument. Under this guidance, the debt is recognized at the present value of its cash flows discounted using the issuer's nonconvertible debt borrowing rate at the time of issuance and the equity component is recognized as the difference between the proceeds from the issuance of the note and the fair value of the liability. The reduced carrying value on the convertible debt results in a debt discount that is accreted back to the convertible debt's principal amount through the recognition of non-cash interest expense over the expected life of the debt, which results in recognizing the interest expense on these borrowings at effective rates approximating what Ciena would have incurred had nonconvertible debt with otherwise similar terms been issued.

Because the additional make-whole shares can be settled in cash or common stock at Ciena's option, the debt and equity components were accounted for separately. Ciena measured the fair value of the debt component of the 2020 Notes using an effective interest rate of 7.0%. As a result, Ciena attributed \$170.4 million of the fair value of the 2020 Notes to the debt component. The debt component was netted against the face value of the 2020 Notes to determine the debt discount. The debt discount will be accreted over the period from the date of issuance to the contractual maturity date, resulting in the recognition of non-cash interest expense. In addition, Ciena recorded \$43.1 million within additional paid-in capital representing the equity component of the 2020 Notes. There was no net tax expense recorded due to Ciena's full valuation allowance against its deferred tax assets.

The 2020 Notes were issued pursuant to an Indenture entered into as of December 27, 2012 (the “Indenture”) with The Bank of New York Mellon Trust Company, N.A., as trustee. The Indenture provides for customary events of default which include (subject in certain cases to customary grace and cure periods), among others, the following: nonpayment of principal (including accreted portion) or interest; breach of covenants or other agreements in the Indenture; defaults in failure to pay certain other indebtedness; and certain events of bankruptcy or insolvency. Generally, if an event of default occurs and is continuing under the Indenture, the trustee or the holders of at least 25% in aggregate original principal amount of the 2020 Notes then outstanding may declare the principal (including accreted portion), premium, if any, and accrued interest on all the 2020 Notes immediately due and payable.

The principal balance, unamortized discount and net carrying value of the liability and equity components of our 2020 notes were as follows as of October 31, 2013

	Liability Component			Equity Component
	Principal Balance	Unamortized Discount	Net Carrying Amount	Net Carrying Amount
4.0% Convertible Senior Notes due December 15, 2020	\$ 190,456	\$ 16,171	\$ (174,285)	\$ 43,131

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

Description	October 31, 2013	
	Carrying Value	Fair Value ⁽²⁾
4.0% Convertible Senior Notes, due March 15, 2015 ⁽¹⁾	187,734	243,867
0.875% Convertible Senior Notes due June 15, 2017	500,000	519,375
3.75% Convertible Senior Notes, due October 15, 2018	350,000	497,656
4.0% Convertible Senior Notes, due December 15, 2020 ⁽³⁾	174,285	271,500
	<u>\$ 1,212,019</u>	<u>\$ 1,532,398</u>

- (1) Includes unamortized bond premium related to embedded redemption feature.
- (2) The convertible notes were categorized as Level 2 in the fair value hierarchy. Ciena estimates the fair value of its outstanding convertible notes using a market approach based on observable inputs, such as current market transactions involving comparable securities.
- (3) Includes unamortized discount and accretion of principal.

(13) CREDIT FACILITY

During fiscal 2012, Ciena and certain of its subsidiaries, including Ciena Communications, Inc. and Ciena Canada, Inc. (with Ciena, collectively, the "Borrowers"), entered into asset-based lending (ABL) facility and executed an ABL Credit Agreement (the "Credit Agreement") with the lenders party thereto, including Deutsche Bank AG New York Branch, as administrative agent and collateral agent (the "Agent"), Bank of America, N.A., as Syndication Agent, and Morgan Stanley Senior Funding, Inc. and Wells Fargo Bank, National Association, as Co-Documentation Agents. The Credit Agreement provides for a senior secured asset-based revolving credit facility of up to \$150 million (the "Credit Facility"). Ciena has the option to increase the total commitment under the Credit Facility to \$200 million, subject to certain conditions, including obtaining commitments from one or more lenders. The Credit Agreement provides that the entire amount of the Credit Facility is available for issuances of letters of credit, and allows for both swingline loans, and Canadian dollar denominated loans to Ciena's Canadian subsidiary (the "Canadian Borrower") in an amount not to exceed \$20 million. The Credit Facility matures on August 13, 2015, provided that it will mature early on December 15, 2014, if any of Ciena's 4.0% senior convertible notes due March 15, 2015 are then outstanding. Ciena principally expects to use the 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 October 31, 2013, letters of credit totaling \$43.6 million were collateralized by the Credit Facility. There were no borrowings outstanding under the Credit Facility as of October 31, 2013.

Availability under the Credit Facility is based upon monthly (or weekly, in certain cases) borrowing base certifications valuing the Borrowers' eligible inventory and eligible accounts receivable, as reduced by certain reserves in effect from time to time. Outstanding borrowings under the Credit Facility accrue interest at floating rates plus an applicable margin ranging from 2.00% to 2.50% for LIBOR rate loans, and 1.00% to 1.50% for base rate loans. The commitment fee payable on the unused portion of the Credit Facility equals 0.50% or 0.375% based on utilization of the Credit Facility and Borrowers will pay customary letter of credit fees.

Ciena and Ciena Communications, Inc. also entered into a U.S. Guaranty in favor of the Agent, providing an unconditional guaranty of all amounts owing under the Credit Facility. Ciena Canada entered into a similar guaranty in favor of the Agent with respect to the Canadian Borrower's obligations. These agreements may require additional subsidiary guarantors in the future. In addition, Ciena, the other domestic Borrowers and the Agent entered into a Security Agreement and a Pledge Agreement in connection with the Credit Facility. Pursuant to the Security Agreement and Pledge Agreement, the obligations of Ciena and the other domestic Borrowers and the guarantees by the domestic guarantors are secured by first priority security interests (subject only to customary permitted liens and certain other permitted liens) in substantially all current assets of Ciena, the other domestic Borrowers and the domestic guarantors, such property consisting of accounts receivable, inventory, cash, deposit and securities accounts, chattel paper, promissory notes and payment intangibles and, to the extent evidencing or otherwise related to such property, all general intangibles, licenses, letter of credit rights, commercial tort claims, instruments, supporting obligations and documents. Pursuant to a Canadian Security Agreement entered into by and between Ciena Canada and the Agent, similar assets of the Canadian Borrower secure the obligations of the Canadian Borrower.

The Credit Agreement contains customary covenants that limit, absent lender approval, the ability of Ciena and certain of its affiliates to, among other things, pay cash dividends, incur debt, create liens and encumbrances, redeem or repurchase stock, enter into certain acquisition transactions or transactions with affiliates, merge, dissolve, repay certain indebtedness, change the nature of Ciena's business, make investments or dispose of assets. In some cases, these restrictions are subject to certain negotiated exceptions or permit Ciena to undertake otherwise restricted activities if it satisfies certain required conditions. In addition, Ciena will be required to maintain a minimum fixed charge coverage ratio of not less than 1.0 to 1.0 as of the end of any period of four fiscal quarters when excess availability under the Credit Facility is less than the greater of (i) 12.5% of availability or (ii) \$15,000,000. Ciena is also required to maintain at all times at least \$200 million in the aggregate of unrestricted cash and cash equivalents.

If (x) excess availability under the Credit Facility is less than the greater of (i) 12.5% of availability or (ii) \$15,000,000 or (y) there exists an event of default, amounts in any of the Borrowers' or subsidiary guarantors' designated core deposit accounts will be transferred daily into a blocked account held by the Agent and applied to reduce outstanding amounts under the Credit Facility.

The Credit Agreement contains customary events of default including, among other things, failure to pay obligations when due, initiation of bankruptcy or insolvency proceedings, defaults on certain other indebtedness, change of control, incurrence of certain material judgments that are not stayed, satisfied, bonded or discharged within 30 days, certain ERISA events, invalidity of the credit documents, and violation of affirmative and negative covenants or breach of representations and warranties set forth in the Credit Agreement. Upon an event of default, the lenders may, subject to various customary cure rights, require the immediate payment of all amounts outstanding and foreclose on collateral.

During fiscal 2013, Ciena's subsidiary, Ciena Government Solutions, Inc. executed a joinder agreement becoming a party to the Credit Agreement and the related agreements described above.

(14) EARNINGS (LOSS) PER SHARE CALCULATION

The following table (in thousands except per share amounts) is a reconciliation of the numerator and denominator of the basic net income (loss) per common share ("Basic EPS") and the diluted net income (loss) per potential common share ("Diluted EPS"). Since the numerator reflects net losses for the fiscal years indicated, both Basic EPS and Diluted EPS are computed using the weighted average number of common shares outstanding. If the numerator reflected net income, Diluted EPS would also include, to the extent the effect is not anti-dilutive, the following: (i) shares issuable upon vesting of restricted stock units, (ii) shares issuable under Ciena's employee stock purchase plan and upon exercise of outstanding stock options, using the treasury stock method; and (iii) shares underlying Ciena's outstanding convertible notes.

Numerator

	Year Ended October 31,		
	2011	2012	2013
Net loss	\$ (195,521)	\$ (144,021)	\$ (85,431)

Denominator

	Year Ended October 31,		
	2011	2012	2013
Basic weighted average shares outstanding	95,854	99,341	102,350
Dilutive weighted average shares outstanding	95,854	99,341	102,350

EPS

	Year Ended October 31,		
	2011	2012	2013
Basic EPS	\$ (2.04)	\$ (1.45)	\$ (0.83)
Diluted EPS	\$ (2.04)	\$ (1.45)	\$ (0.83)

[Table of Contents](#)

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 fiscal years indicated (in thousands):

	Year Ended October 31,		
	2011	2012	2013
Shares underlying stock options and restricted stock units	6,142	5,726	3,890
0.25% Convertible Senior Notes due May 1, 2013	5,470	5,470	2,682
4.0% Convertible Senior Notes due March 15, 2015	18,395	18,395	10,541
0.875% Convertible Senior Notes due June 15, 2017	13,108	13,108	13,108
3.75% Convertible Senior Notes due October 15, 2018	17,355	17,355	17,355
4.0% Convertible Senior Notes due December 15, 2020	—	—	7,855
Total excluded due to anti-dilutive effect	60,470	60,054	55,431

(15) STOCKHOLDERS' EQUITY

Call Spread Options

Ciena purchased a call spread option relating to the 0.875% convertible senior notes due June 15, 2017 for \$42.5 million during the third quarter of fiscal 2007. The call spread option is designed to mitigate exposure to potential dilution from the conversion of the notes. The call spread option was purchased at the time of the notes offering from an affiliate of the underwriter. The cost of the call spread option was recorded as a reduction in paid-in capital.

The call spread option is exercisable, upon maturity of the relevant issue of convertible note, for such number of shares of Ciena common stock issuable upon conversion of that series of notes in full. The call spread option has a “lower strike price” equal to the conversion price for the notes and a “higher strike price” that serves to cap the amount of dilution protection provided. At its election, Ciena can exercise the call spread option on a net cash basis or a net share basis. The value of the consideration of a net share settlement will be equal to the value upon a net cash settlement and can range from \$0, if the market price per share of Ciena common stock upon exercise is equal to or below the lower strike price, or approximately \$76.1 million, if the market price per share of Ciena common stock upon exercise is at or above the higher strike price. If the market price on the date of exercise is between the lower strike price and the higher strike price, in lieu of a net settlement, Ciena may elect to receive the full number of shares underlying the call spread option by paying the aggregate option exercise price, which is equal to the original principal outstanding on that series of notes. Should there be an early unwind of the call spread option, the amount of cash or shares to be received by Ciena will depend upon the existing overall market conditions, and on Ciena’s stock price, the volatility of Ciena’s stock and the remaining term of the call spread option. The number of shares subject to the call spread option, and the lower and higher strike prices, are subject to customary adjustments.

(16) INCOME TAXES

For the periods indicated, the provision for income taxes consists of the following (in thousands):

	October 31,		
	2011	2012	2013
Provision for income taxes:			
Current:			
Federal	\$ (194)	\$ —	\$ —
State	(518)	857	906
Foreign	8,202	8,465	4,334
Total current	7,490	9,322	5,240
Deferred:			
Federal	160	—	—
State	23	—	—
Foreign	—	—	—
Total deferred	183	—	—
Provision for income taxes	\$ 7,673	\$ 9,322	\$ 5,240

[Table of Contents](#)

For the periods indicated, income (loss) before provision for income taxes consists of the following (in thousands):

	October 31,		
	2011	2012	2013
United States	\$ (240,244)	\$ (151,958)	\$ (59,594)
Foreign	52,396	17,259	(20,597)
Total	<u>\$ (187,848)</u>	<u>\$ (134,699)</u>	<u>\$ (80,191)</u>

For the periods indicated, the tax provision reconciles to the amount computed by multiplying income or loss before income taxes by the U.S. federal statutory rate of 35% as follows:

	October 31,		
	2011	2012	2013
Provision at statutory rate	35.00 %	35.00 %	35.00 %
State taxes	0.27 %	(0.64)%	(1.13)%
Foreign taxes	2.32 %	(5.09)%	(12.70)%
Research and development credit	11.03 %	10.21 %	17.39 %
Non-deductible loss on debt extinguishment	— %	— %	(11.21)%
Non-deductible compensation and other	(3.96)%	(4.92)%	(8.78)%
Valuation allowance	(48.74)%	(41.48)%	(25.10)%
Effective income tax rate	<u>(4.08)%</u>	<u>(6.92)%</u>	<u>(6.53)%</u>

The significant components of deferred tax assets and liabilities are as follows (in thousands):

	October 31,	
	2012	2013
Deferred tax assets:		
Reserves and accrued liabilities	\$ 44,128	\$ 44,515
Depreciation and amortization	276,710	274,468
NOL and credit carry forward	1,142,647	1,159,494
Other	25,509	8,822
Gross deferred tax assets	1,488,994	1,487,299
Valuation allowance	(1,488,994)	(1,487,299)
Net deferred tax asset	<u>\$ —</u>	<u>\$ —</u>

A reconciliation of the beginning and ending amount of unrecognized tax benefits, excluding interest and penalties, is as follows (in thousands):

[Table of Contents](#)

Unrecognized tax benefits at October 31, 2010	\$	7,442
Decrease related to positions taken in prior period		(450)
Increase related to positions taken in current period		1,847
Reductions related to expiration of statute of limitations		(249)
Unrecognized tax benefits at October 31, 2011		8,590
Decrease related to positions taken in prior period		(12)
Increase related to positions taken in current period		2,866
Reductions related to expiration of statute of limitations		(392)
Unrecognized tax benefits at October 31, 2012		11,052
Decrease related to positions taken in prior period		(3,925)
Increase related to positions taken in current period		2,146
Reductions related to expiration of statute of limitations		(994)
Unrecognized tax benefits at October 31, 2013	\$	8,279

For both October 31, 2012 and 2013, Ciena had accrued \$1.4 million of interest and some minor penalties related to unrecognized tax benefits within other long-term liabilities in the Consolidated Balance Sheets. A benefit of \$0.3 million, a charge of \$0.3 million, and no charges or benefits were recorded to the provision for income taxes during fiscal 2011, fiscal 2012 and fiscal 2013 respectively. If recognized, the entire balance of unrecognized tax benefits would impact the effective tax rate. Over the next 12 months, Ciena does not estimate any material changes in unrecognized income tax benefits.

During fiscal 2002, Ciena established a valuation allowance against its deferred tax assets. Ciena intends to maintain a valuation allowance until sufficient positive evidence exists to support a reversal. Any future release of the 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 following table summarizes the activity in Ciena's valuation allowance against its gross deferred tax assets (in thousands):

Year ended October 31,	Balance at beginning of period	Additions	Deductions	Balance at end of period
2011	\$ 1,363,493	\$ 103,918	\$ —	\$ 1,467,411
2012	\$ 1,467,411	\$ 21,583	\$ —	\$ 1,488,994
2013	\$ 1,488,994	\$ —	\$ 1,695	\$ 1,487,299

As of October 31, 2013, Ciena had a \$2.8 billion net operating loss carry forward and a \$0.1 billion income tax credit carry forward which begin to expire in fiscal year 2018 and 2013, respectively. Ciena's ability to use net operating losses and credit carry forwards is subject to limitations pursuant to the ownership change rules of the Internal Revenue Code Section 382.

The income tax provision does not reflect the tax savings resulting from deductions associated with Ciena's equity compensation and the call spread option associated with Ciena's convertible debt. The cumulative tax benefit through October 31, 2013 of approximately \$79.0 million will be credited to additional paid-in capital when realized. For deductions associated with Ciena's equity compensation, credits to paid-in capital will be recorded when those tax benefits are used to reduce taxes payable.

(17) SHARE-BASED COMPENSATION EXPENSE

Ciena grants equity awards under its 2008 Omnibus Incentive Plan and the Amended and Restated Employee Stock Purchase Plan ("ESPP").

2008 Plan

The 2008 Omnibus Incentive Plan (the "2008 Plan") authorizes the issuance of awards including stock options, restricted stock units (RSUs), restricted stock, unrestricted stock, stock appreciation rights ("SARs") and other equity and/or cash performance incentive awards to employees, directors, and consultants of Ciena. Subject to certain restrictions, the Compensation Committee of the Board of Directors has broad discretion to establish the terms and conditions for awards under the 2008 Plan, including the number of shares, vesting conditions and the required service or performance criteria. Options and

[Table of Contents](#)

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 2008 Plan reserves 18.5 million shares of common stock for issuance, subject to increase from time to time by the number of shares: (i) subject to outstanding awards granted under Ciena's prior equity compensation plans that terminate without delivery of any stock (to the extent such shares would have been available for issuance under such prior plan), and (ii) subject to awards assumed or substituted in connection with the acquisition of another company. The 2008 Plan includes a fungible share feature that counts each share of common stock underlying full value awards, such as restricted stock units, as 1.31 shares for purposes of calculating the shares remaining available under the 2008 Plan. As of October 31, 2013 , approximately 4.9 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 restrictions and vest incrementally over a four - year period. The following table is a summary of Ciena's stock option activity for the periods indicated (shares in thousands):

	Shares Underlying Options Outstanding	Weighted Average Exercise Price
Balance as of October 31, 2010	5,002	\$ 40.96
Granted	—	—
Exercised	(411)	14.88
Canceled	(901)	97.64
Balance as of October 31, 2011	3,690	30.01
Granted	—	—
Exercised	(56)	6.72
Canceled	(427)	51.28
Balance as of October 31, 2012	3,207	27.58
Granted	—	—
Exercised	(246)	13.81
Canceled	(859)	31.83
Balance as of October 31, 2013	2,102	\$ 27.46

The total intrinsic value of options exercised during fiscal 2011 , fiscal 2012 and fiscal 2013 was \$3.4 million , \$0.5 million and \$2.0 million , respectively. There were no stock options granted by Ciena during fiscal 2011, fiscal 2012 or fiscal 2013 .

The following table summarizes information with respect to stock options outstanding at October 31, 2013 , based on Ciena's closing stock price on the last trading day of Ciena's fiscal 2013 (shares and intrinsic value in thousands):

				Options Outstanding at			Vested Options at				
				October 31, 2013			October 31, 2013				
Range of				Number	Weighted	Weighted		Number	Weighted	Weighted	Aggregate
Exercise				of	Average	Average	Aggregate	of	Average	Average	Intrinsic
Price				Underlying	Contractual	Exercise	Intrinsic	Underlying	Contractual	Exercise	Intrinsic
				Shares	Life	Price	Value	Shares	Life	Price	Value
				(Years)	(Years)			(Years)	(Years)		
\$ 0.94	—	\$ 16.31	197	4.11	\$ 8.62	\$ 2,893	196	4.09	\$ 8.60	\$ 2,879	
\$16.52	—	\$ 17.29	300	1.68	16.64	1,981	300	1.68	16.64	1,981	
\$17.43	—	\$ 24.50	403	1.46	20.60	1,085	403	1.46	20.60	1,085	
\$24.69	—	\$ 28.28	347	3.01	27.02	—	347	3.01	27.02	—	
\$28.61	—	\$ 31.43	157	2.70	29.53	—	157	2.70	29.53	—	
\$31.71	—	\$ 32.55	21	4.13	31.92	—	21	4.13	31.92	—	
\$33.00	—	\$ 37.10	288	3.55	35.17	—	288	3.55	35.17	—	
\$37.31	—	\$ 47.32	378	1.21	45.99	—	378	1.21	45.99	—	
\$47.53	—	\$ 55.79	11	0.10	49.64	—	11	0.10	49.64	—	
\$ 0.94	—	\$ 55.79	<u>2,102</u>	2.35	\$ 27.46	<u>\$ 5,959</u>	<u>2,101</u>	2.35	\$ 27.47	<u>\$ 5,945</u>	

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. Ciena did not grant any option-based awards during fiscal 2011, fiscal 2012, or fiscal 2013.

Restricted Stock Units

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

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

	Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value Per Share	Aggregate Fair Value
Balance as of October 31, 2010	5,191	\$ 13.81	\$ 71,681
Granted	2,064		
Vested	(2,466)		
Canceled or forfeited	(491)		
Balance as of October 31, 2011	4,298	16.28	59,399
Granted	2,433		
Vested	(1,912)		
Canceled or forfeited	(416)		
Balance as of October 31, 2012	4,403	14.16	56,267
Granted	2,508		
Vested	(1,920)		
Canceled or forfeited	(572)		
Balance as of October 31, 2013	<u>4,419</u>	\$ 15.33	\$ 102,745

The total fair value of restricted stock units that vested and were converted into common stock during fiscal 2011 , fiscal 2012 and fiscal 2013 was \$45.3 million , \$27.0 million and \$37.3 million , respectively. The weighted average fair value of each restricted stock unit granted by Ciena during fiscal 2011 , fiscal 2012 and fiscal 2013 was \$19.73 , \$11.28 and \$16.30 , 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 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 cost is reversed.

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

Amended and Restated Employee Stock Purchase Plan (ESPP)

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

During fiscal 2011 , fiscal 2012 and fiscal 2013 , Ciena issued 0.5 million , 1.2 million and 0.9 million shares under the ESPP, respectively. At October 31, 2013 , 7.2 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):

	Year Ended October 31,		
	2011	2012	2013
Product costs	\$ 2,269	\$ 2,156	\$ 2,522
Service costs	1,881	1,462	1,771
Share-based compensation expense included in cost of goods sold	4,150	3,618	4,293
Research and development	10,149	8,567	8,214
Sales and marketing	12,182	11,558	13,290
General and administrative	11,140	8,691	12,055
Acquisition and integration costs	308	7	—
Share-based compensation expense included in operating expense	33,779	28,823	33,559
Share-based compensation expense capitalized in inventory, net	1	(47)	(132)
Total share-based compensation	\$ 37,930	\$ 32,394	\$ 37,720

As of October 31, 2013, total unrecognized compensation expense was \$55.9 million, which relates to unvested stock units and is expected to be recognized over a weighted-average period of 1.4 years.

(18) SEGMENT AND ENTITY WIDE DISCLOSURES

Segment Reporting

During the first quarter of fiscal 2013, Ciena reorganized its internal organizational structure and the management of its business into the following new operating segments: (i) Converged Packet Optical; (ii) Packet Networking; (iii) Optical Transport; and (iv) Software and Services. 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's segment revenue and segment profit (loss) for fiscal 2011 and fiscal 2012 have been restated to reflect the new operating segments adopted in fiscal 2013. The following describes each of the newly reorganized operating segments:

- Converged Packet Optical* — includes networking solutions optimized for the convergence of coherent optical transport, OTN switching and packet switching. These platforms enable automated packet-optical infrastructures that create and efficiently allocate high-capacity bandwidth for the delivery of a wide variety of enterprise and consumer-oriented network services. Products in this segment include the 6500 Packet-Optical Platform featuring Ciena's WaveLogic coherent optical processors. Products also include Ciena's family of CoreDirector® Multiservice Optical Switches, its 5430 Reconfigurable Switching System and its OTN configuration for the 5410 Reconfigurable Switching System. These products include multiservice, multi-protocol switching systems that consolidate the functionality of an add/drop multiplexer, digital cross-connect and packet switch into a single, high-capacity intelligent switching system. These products address both the core and metro segments of communications networks and support key managed services, Ethernet/TDM Private Line, Triple Play and IP services. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.
- Packet Networking* — principally includes Ciena's 3000 family of service delivery switches and service aggregation switches, the 5000 series of service aggregation switches, and its Ethernet packet configuration for the 5410 Service Aggregation Switch. These products support the access and aggregation tiers of communications networks and have principally been deployed to support wireless backhaul infrastructures and business data services. Employing sophisticated, carrier-grade Ethernet switching technology, these products deliver quality of service capabilities, virtual local area networking and switching functions, and carrier-grade operations, administration, and maintenance features. This segment includes stand-alone broadband products that transition voice networks to support Internet-based (IP) telephony, video services and DSL. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.

[Table of Contents](#)

- *Optical Transport* — includes optical transport solutions that add capacity to core, regional and metro networks and enable cost-effective and efficient transport of voice, video and data traffic at high transmission speeds. Ciena's principal products in this segment include the 4200 Advanced Services Platform, Corestream® Agility Optical Transport System, 5100/5200 Advanced Services Platform, Common Photonic Layer (CPL), and 6100 Multiservice Optical Platform. This segment includes sales from SONET/SDH, transport and data networking products, as well as certain enterprise-oriented transport solutions that support storage and LAN extension, interconnection of data centers, and virtual private networks. This segment also includes operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.
- *Software and Services* — includes Ciena's network software suite, including the OneControl Unified Management System, an integrated network and service management software designed to automate and simplify network management, operation and service delivery. These software solutions can track individual services across multiple product suites, facilitating planned network maintenance, outage detection and identification of customers or services affected by network performance. This segment includes the ON-Center® Network & Service Management Suite, Ethernet Services Manager, Optical Suite Release and network level applications. This segment includes a broad range of consulting, network design and support services from Ciena's Network Transformation Solutions offering. This segment also includes installation and deployment, maintenance support and training activities. Except for revenue from the software portion of this segment, which is included in product revenue, revenue from this segment is included in services revenue on the Consolidated Statement of Operations.

Reportable segment asset information is not disclosed because it is not reviewed by the chief operating decision maker for purposes of evaluating performance and allocating resources.

The table below (in thousands, except percentage data) sets forth Ciena's segment revenue for the respective periods:

	Fiscal Year		
	2011	2012	2013
Revenues:			
Converged Packet Optical	\$ 734,326	\$ 951,245	\$ 1,187,231
Packet Networking	126,981	128,982	222,898
Optical Transport	535,877	353,620	233,821
Software and Services	344,786	400,076	438,596
Consolidated revenue	<u>\$ 1,741,970</u>	<u>\$ 1,833,923</u>	<u>\$ 2,082,546</u>

Segment Profit

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

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

[Table of Contents](#)

	Fiscal Year		
	2011	2012	2013
Segment profit:			
Converged Packet Optical	\$ 51,514	\$ 148,244	\$ 242,335
Packet Networking	17,714	1,713	22,740
Optical Transport	189,497	116,736	89,754
Software and Services	70,559	93,352	126,938
Total segment profit	329,284	360,045	481,767
Less: non-performance operating expenses			
Selling and marketing	251,990	266,338	304,170
General and administrative	126,242	114,002	122,432
Acquisition and integration costs	42,088	—	—
Amortization of intangible assets	69,665	51,697	49,771
Restructuring costs	5,781	7,854	7,169
Change in fair value of contingent consideration	(3,289)	—	—
Add: other non-performance financial items			
Interest expense and other income (loss), net	(31,904)	(54,853)	(49,786)
Gain on cost method investments	7,249	—	—
Loss on extinguishment of debt	—	—	(28,630)
Less: Provision for income taxes	7,673	9,322	5,240
Consolidated net loss	\$ (195,521)	\$ (144,021)	\$ (85,431)

Entity Wide Reporting

The following table reflects Ciena's geographic distribution of revenue based on the location of the purchaser, with any country accounting for at least 10% of total revenue in the period specifically identified. Revenue attributable to geographic regions outside of the United States is reflected as International revenue. For the periods below, Ciena's geographic distribution of revenue was as follows (in thousands, except percentage data):

	Fiscal Year		
	2011	2012	2013
United States	\$ 930,880	\$ 972,576	\$ 1,217,462
International	811,090	861,347	865,084
Total	\$ 1,741,970	\$ 1,833,923	\$ 2,082,546

The following table reflects Ciena's geographic distribution of equipment, furniture and fixtures, net, with any country accounting for at least 10% of total equipment, furniture and fixtures, net, in the period specifically identified. Equipment, 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, furniture and fixtures, net, was as follows (in thousands, except percentage data):

	October 31,		
	2011	2012	2013
United States	\$ 60,848	\$ 64,653	\$ 64,132
Canada	47,424	48,376	43,772
Other International	14,286	10,551	11,825
Total	\$ 122,558	\$ 123,580	\$ 119,729

[Table of Contents](#)

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

	Fiscal Year		
	2011	2012	2013
AT&T	\$ 269,858	\$ 248,123	\$ 373,617

(19) OTHER EMPLOYEE BENEFIT PLANS

Ciena has a Defined Contribution Pension Plan that covers a majority of its Canada-based employees. The plan covers all Canada-based employees who are not part of an excluded group. Total contributions (employee and employer) cannot exceed the lesser of 18% of participant earnings and an annual dollar limit (CAD \$24,270 for 2013). This plan includes a required employer contribution of 1% for all participants and a 50% matching of participant contributions up to a total annual maximum of CAD \$3,000 per employee. During fiscal 2011, 2012 and 2013, Ciena made matching contributions of approximately CAD \$4.3 million, CAD \$4.0 million and CAD \$3.9 million, respectively.

Ciena has a 401(k) defined contribution profit sharing plan. Participants may contribute up to 60% of pre-tax compensation, subject to certain limitations. The plan includes an employer matching contribution equal to 50% of the first 6% an employee contributes each pay period. Ciena may also make discretionary annual profit contributions up to the IRS regulated limit. Ciena has made no profit sharing contributions to date. During fiscal 2011, 2012 and 2013, Ciena made matching contributions of approximately \$3.9 million, \$4.1 million and \$4.0 million, respectively.

(20) COMMITMENTS AND CONTINGENCIES

Ontario Grant

Ciena was awarded a conditional grant from the Province of Ontario in June 2011. Under this strategic jobs investment fund grant, Ciena can receive up to an aggregate of CAD \$25.0 million in funding for eligible costs relating to certain next-generation, coherent optical transport development initiatives over the period from November 1, 2010 to October 31, 2015. Ciena has received, or expects to continue to receive, disbursements approximating CAD \$5.0 million per fiscal year over the period above. Amounts received under the grant are subject to recoupment in the event that Ciena fails to achieve certain minimum investment, employment and project milestones. Ciena recorded a CAD \$5.3 million, CAD \$5.6 million and CAD \$5.5 million benefit, as a reduction in research and development expenses, in fiscal 2011, fiscal 2012 and fiscal 2013, respectively. As of October 31, 2012 and October 31, 2013, amounts receivable from this grant were CAD \$2.5 million and CAD \$2.6 million, respectively.

Foreign Tax Contingencies

Ciena has previously received assessment notices from Mexican tax authorities asserting deficiencies in payments between 2001 and 2005, related primarily to income taxes and import taxes and duties. Ciena previously submitted judicial petitions appealing these assessments. As of October 31, 2012, Ciena had accrued liabilities of \$1.7 million related to these foreign tax contingencies. During the third quarter of fiscal year 2013, Ciena received a favorable resolution of these matters with the tax court issuing a final and non-appealable declaration determining such tax assessments to be null and void. As a result, Ciena reversed the accrued liability related to this foreign tax contingency.

In addition to the matters described above, 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

On July 26, 2013, Ciena and Cheetah Omni LLC entered into a settlement agreement relating to patent litigation pending in the United States District Court for the Eastern District of Texas. The proceeding arose on July 29, 2011, when Cheetah Omni filed a complaint against Ciena and several other defendants alleging that certain of the parties' products infringe upon multiple U.S. patents relating to reconfigurable optical add-drop multiplexer (ROADM) technologies. The complaint sought injunctive relief and damages. Under the terms of the settlement, Ciena agreed to make a one-time payment of \$1.5 million to Cheetah Omni in exchange for a fully paid-up license to all of the patents-in-suit, a release from all claims for damages and other relief relating to such patents, and a covenant not to sue Ciena at any time on any non-medical patents owned by or

[Table of Contents](#)

assigned to Cheetah Omni on the effective date of the settlement agreement and through July 26, 2017. On August 9, 2013, the district court granted the parties' joint stipulation of dismissal with prejudice.

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 and 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.

Operating Lease Commitments

Ciena has certain minimum obligations under non-cancelable operating leases expiring on various dates through 2027 for equipment and facilities. Future annual minimum operating lease commitments under non-cancelable operating leases at October 31, 2013 are as follows (in thousands):

	Year ended October 31,	
2014	\$	30,939
2015		27,287
2016		24,198
2017		18,384
2018		8,655
Thereafter		50,158
Total	\$	<u>159,621</u>

Rental expense for fiscal 2011, fiscal 2012 and fiscal 2013 was approximately \$25.5 million, \$21.7 million and \$26.0 million, respectively. In addition, Ciena paid approximately \$2.4 million, \$1.4 million and \$1.6 million during fiscal 2011, fiscal 2012 and fiscal 2013, respectively, related to rent costs for restructured facilities and unfavorable lease commitments, which were offset against Ciena's restructuring liabilities and unfavorable lease obligations. The amount for operating lease commitments above does not include variable expenses relating to insurance, taxes, maintenance and other costs required by the applicable operating lease. These costs are not expected to have a material impact on Ciena's financial condition, results of operations or cash flows.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. 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 Ciena's 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, Ciena's internal control over financial reporting.

Report of Management on Internal Control Over Financial Reporting

The management of Ciena Corporation is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934).

The internal control over financial reporting at Ciena Corporation was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of Ciena Corporation;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America;
- provide reasonable assurance that receipts and expenditures of Ciena Corporation are being made only in accordance with authorization of management and directors of Ciena Corporation; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

Management of Ciena Corporation assessed the effectiveness of the company's internal control over financial reporting as of October 31, 2013. Management based this assessment on criteria for effective internal control over financial reporting described in "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management determined that, as of October 31, 2013, Ciena Corporation maintained effective internal control over financial reporting. Management reviewed the results of its assessment with the Audit Committee of our Board of Directors.

PricewaterhouseCoopers LLP, independent registered public accounting firm, who audited and reported on the consolidated financial statements of Ciena Corporation included in this annual report, has also audited the effectiveness of Ciena Corporation's internal control over financial reporting as of October 31, 2013, as stated in its report appearing in Item 8 of Part II of this annual report.

/s/ Gary B. Smith

Gary B. Smith
President and Chief Executive Officer
December 20, 2013

/s/ James E. Moylan, Jr.

James E. Moylan, Jr.
Senior Vice President and Chief Financial Officer
December 20, 2013

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information relating to Ciena's directors and executive officers is set forth in Part I of this annual report under the caption "Item 1. Business—Directors and Executive Officers."

Additional information responsive to this item concerning our Audit Committee and regarding compliance with Section 16(a) of the Exchange Act is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2014 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

As part of our system of corporate governance, our board of directors has adopted a code of ethics that is specifically applicable to our chief executive officer and senior financial officers. This Code of Ethics for Senior Financial Officers, as well as our Code of Business Conduct and Ethics, applicable to all directors, officers and employees, are available on the "Corporate Governance" page of our website at <http://www.ciena.com>. We intend to satisfy any disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of the Code of Ethics for Senior Financial Officers, by posting such information on our website at the address above.

Item 11. Executive Compensation

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2014 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2014 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2014 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

Item 14. Principal Accountant Fees and Services

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2014 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

PART IV

Item 15. Exhibits and Financial Statement Schedules

- (a)
 - 1. The information required by this item is included in Item 8 of Part II of this annual report.
 - 2. The information required by this item is included in Item 8 of Part II of this annual report.
 - 3. Exhibits: See Index to Exhibits, which is incorporated by reference in this Item. The Exhibits listed in the accompanying Index to Exhibits are filed herewith or incorporated by reference as part of this annual report.
- (b) Exhibits. See Index to Exhibits, which is incorporated by reference in this Item. The Exhibits listed in the accompanying Index to Exhibits are filed herewith or incorporated by reference as part of this annual report.
- (c) Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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 on the 20th day of December 2013 .

Ciena Corporation

By: /s/ Gary B. Smith

Gary B. Smith

President, Chief Executive Officer and Director

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the date indicated.

Signatures	Title	Date
<u>/s/ Patrick H. Nettles, Ph.D.</u> Patrick H. Nettles, Ph.D.	Executive Chairman of the Board of Directors	December 20, 2013
<u>/s/ Gary B. Smith</u> Gary B. Smith (Principal Executive Officer)	President, Chief Executive Officer and Director	December 20, 2013
<u>/s/ James E. Moylan, Jr.</u> James E. Moylan, Jr. (Principal Financial Officer)	Sr. Vice President, Finance and Chief Financial Officer	December 20, 2013
<u>/s/ Andrew C. Petrik</u> Andrew C. Petrik (Principal Accounting Officer)	Vice President, Controller	December 20, 2013
<u>/s/ Harvey B. Cash</u> Harvey B. Cash	Director	December 20, 2013
<u>/s/ Bruce L. Claflin</u> Bruce L. Claflin	Director	December 20, 2013
<u>/s/ Lawton W. Fitt</u> Lawton W. Fitt	Director	December 20, 2013
<u>/s/ Patrick T. Gallagher</u> Patrick T. Gallagher	Director	December 20, 2013
<u>/s/ Judith M. O'Brien</u> Judith M. O'Brien	Director	December 20, 2013
<u>/s/ Michael J. Rowny</u> Michael J. Rowny	Director	December 20, 2013

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Here- with (X)
		Form and Registration or Commission No.	Exhibit	Filing Date	
2.1	Amended & Restated Asset Sale Agreement by and among Nortel Networks Corporation, Nortel Networks Limited, Nortel Networks, Inc. and certain other entities identified therein as sellers and Ciena Corporation, dated as of November 24, 2009 (“Nortel ASA”)+	10-K (000-21969)	2.1	12/22/2009	
2.2	Amendment No. 1 to Nortel ASA dated as of December 3, 2009+	10-K (000-21969)	2.2	12/22/2009	
2.3	Amendment No. 2 to Nortel ASA dated as of December 23, 2009+	10-Q (000-21969)	2.1	3/5/2010	
2.4	Amendment No. 3 to Nortel ASA dated as of March 15, 2010	10-Q (000-21969)	2.1	6/10/2010	
2.5	Amendment No. 4 to Nortel ASA dated as of March 15, 2010+	10-Q (000-21969)	2.2	6/10/2010	
2.6	Amendment No. 5 to Nortel ASA dated as of March 19, 2010+	10-Q (000-21969)	2.3	6/10/2010	
2.7	Asset Sale Agreement (relating to the sale and purchase of certain Nortel assets in Europe, the Middle East and Africa) by and among the Nortel affiliates, Joint Administrators and Joint Israeli Administrators named therein and Ciena Corporation, dated as of October 7, 2009 (“Nortel EMEA ASA”)+	10-K (000-21969)	2.3	12/22/2009	
2.8	Deed of Amendment, dated October 20, 2009, relating to the Nortel EMEA ASA+	10-K (000-21969)	2.4	12/22/2009	
2.9	Amending Agreement dated November 24, 2009 relating to the Nortel EMEA ASA+	10-K (000-21969)	2.5	12/22/2009	
2.10	Amending Agreement dated December 16, 2009 relating to the Nortel EMEA ASA+	10-K (000-21969)	2.6	12/22/2009	
2.11	Deed of Amendment (Amendment No. 4) dated January 13, 2010 relating to Nortel EMEA ASA+	10-Q (000-21969)	2.2	3/5/2010	
2.12	Deed of Amendment (Amendment No. 5) dated March 19, 2010 relating to Nortel EMEA ASA+	10-Q (000-21969)	2.4	6/10/2010	
3.1	Amended and Restated Certificate of Incorporation of Ciena Corporation	8-K (000-21969)	3.1	3/27/2008	
3.2	Amended and Restated Bylaws of Ciena Corporation	8-K (000-21969)	3.1	8/28/2008	
4.1	Specimen Stock Certificate	10-K (000-21969)	4.1	12/27/2007	
4.2	Indenture dated June 11, 2007 between Ciena Corporation and The Bank of New York, as trustee, for 0.875% Convertible Senior Notes due 2017, including the Form of Global Note attached as Exhibit A thereto	8-K (000-21969)	4.7	6/12/2007	

[Table of Contents](#)

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Here- with (X)
		Form and Registration or Commission No.	Exhibit	Filing Date	
4.3	Indenture dated March 15, 2010 between Ciena Corporation and The Bank of New York Mellon, as trustee, for 4.0% Convertible Senior Notes due 2015, including the Form of Global Note attached as Exhibit A thereto	8-K (000-21969)	4.1	3/19/2010	
4.4	Indenture dated October 18, 2010 between Ciena Corporation and The Bank of New York Mellon Trust Company, N.A., as trustee, for 3.75% Convertible Senior Notes due 2018, including the Form of Global Note attached as Exhibit A thereto	8-K (000-21969)	4.1	10/21/2010	
4.5	Indenture dated December 27, 2012 between Ciena Corporation and The Bank of New York Mellon Trust Company, N.A., as trustee, for 4.0% Convertible Senior Notes due 2020, including the Form of Global Note attached as Exhibit A thereto	8-K (000-21969)	4.1	12/31/2012	
10.1	1999 Non-Officer Stock Option Plan and Form of Stock Option Agreement*	10-K (000-21969)	10.22	12/10/1999	
10.2	Amendment No. 1 to 1999 Non-Officer Stock Option Plan*	10-K (000-21969)	10.25	12/13/2001	
10.3	Catena Networks, Inc. 1998 Equity Incentive Plan, as amended*	10-Q (000-21969)	10.38	5/20/2004	
10.4	Internet Photonics, Inc. Amended and Restated 2000 Corporate Stock Option Plan*	10-Q (000-21969)	10.39	5/20/2004	
10.5	Ciena Corporation 2000 Equity Incentive Plan (Amended and Restated ONI Systems Corp. 2000 Equity Incentive Plan)*	10-K (000-21969)	10.37	12/11/2003	
10.6	Form of Stock Option Award Agreement for executive officers under Ciena Corporation 2000 Equity Incentive Plan*	8-K (000-21969)	10.1	11/4/2005	
10.7	Form of Restricted Stock Unit Agreement for executive officers under Ciena Corporation 2000 Equity Incentive Plan*	8-K (000-21969)	10.2	11/4/2005	
10.8	Form of Performance Stock Unit Award Agreement for executive officers under Ciena Corporation 2000 Equity Incentive Plan*	8-K (000-21969)	10.3	11/4/2005	
10.9	Form of Stock Option Award Agreement for directors under Ciena Corporation 2000 Equity Incentive Plan*	8-K (000-21969)	10.4	11/4/2005	
10.10	Form of Restricted Stock Unit Award Agreement for directors under Ciena Corporation 2000 Equity Incentive Plan*	8-K (000-21969)	10.5	11/4/2005	
10.11	Amended and Restated 2003 Employee Stock Purchase Plan*	8-K (000-21969)	10.2	3/23/2012	
10.12	1996 Outside Directors Stock Option Plan*	S-1 (333-17729)	10.4	12/12/1996	
10.13	Forms of 1996 Outside Directors Stock Option Agreement*	S-1 (333-17729)	10.5	12/12/1996	

[Table of Contents](#)

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Here- with (X)
		Form and Registration or Commission No.	Exhibit	Filing Date	
10.14	Third Amended and Restated 1994 Stock Option Plan*	S-1 (333-17729)	10.2	12/12/1996	
10.15	Amended and Restated 1994 Stock Option Plan Forms of Employee Stock Option Agreement*	S-1 (333-17729)	10.3	12/12/1996	
10.16	2008 Omnibus Incentive Compensation Plan*	8-K (000-21969)	10.1	3/27/2008	
10.17	Amendment to Ciena Corporation 2008 Omnibus Incentive Plan*	8-K (000-21969)	10.1	4/15/2010	
10.18	Amendment to Ciena Corporation 2008 Omnibus Incentive Plan dated March 21, 2012	8-K (000-21969)	10.1	3/23/2012	
10.19	Form of 2008 Omnibus Incentive Plan Restricted Stock Unit Agreement (Employee)*	10-K (000-21969)	10.18	12/22/2011	
10.20	Form of 2008 Omnibus Incentive Plan Non-Qualified Stock Option Agreement (Employee)*	10-Q (000-21969)	10.2	6/4/2009	
10.21	Form of 2008 Omnibus Incentive Plan Restricted Stock Unit Agreement (Director)*	10-Q (000-21969)	10.3	6/4/2009	
10.22	World Wide Packets, Inc. 2000 Stock Incentive Plan, as amended*	S-8 (333-149520)	10.1	3/4/2008	
10.23	Form of Indemnification Agreement with Directors and Executive Officers*	10-Q (000-21969)	10.1	3/3/2006	
10.24	Amended and Restated Change in Control Severance Agreement dated November 1, 2013, between Ciena Corporation and Gary B. Smith*	8-K (000-21969)	10.1	11/01/2013	
10.25	Form of Amended and Restated Change in Control Severance Agreement between Ciena and Executive Officers*	8-K (000-21969)	10.2	11/01/2013	
10.26	Ciena Corporation Directors Restricted Stock Deferral Plan*	10-Q (000-21969)	10.1	8/31/2007	
10.27	Ciena Corporation Amended and Restated Incentive Bonus Plan, as amended December 15, 2011*	10-K (000-21969)	10.26	12/22/2011	
10.28	Ciena Corporation 2010 Inducement Equity Award Plan*	10-K (000-21969)	10.35	12/22/2009	
10.29	Form of 2010 Inducement Equity Award Plan Restricted Stock Unit Agreement*	8-K (000-21969)	10.2	3/25/2010	
10.30	U.S. Executive Severance Benefit Plan*	10-Q (000-21969)	10.1	6/9/2011	
10.31	Lease Agreement dated as of March 19, 2010 between Ciena Canada, Inc. and Nortel Networks Technology Corp.#	10-Q (000-21969)	10.1	6/10/2010	
10.32	Lab 10 Lease Amending Agreement dated February 13, 2012 between Ciena Canada, Inc. and Public Works and Government Services Canada	8-K (000-21969)	1.1	2/15/2012	
10.33	Intellectual Property License Agreement dated as of March 19, 2010 between Ciena Luxembourg S.a.r.l. and Nortel Networks Limited#	10-Q (000-21969)	10.3	6/10/2010	
10.34	Employee Stock Purchase Plan Enrollment Agreement*	10-K (000-21969)	10.33	12/22/2011	
10.35	Amended & Restated Employee Stock Purchase Plan dated March 21, 2012	8-K (000-21969)	10.2	3/23/2012	

[Table of Contents](#)

10.36	Lease Agreement dated November 3, 2011 between Ciena Corporation and W2007 RDG Realty, L.L.C.	10-K (000-21969)	10.34	12/22/2011	
10.37	ABL Credit Agreement, dated August 13, 2012, by and among Ciena Corporation, Ciena Communications, Inc. and Ciena Canada, Inc., as the borrowers, the lenders party thereto, Deutsche Bank AG New York Branch, as administrative agent and collateral agent, Bank of America, N.A., as syndication agent, and Morgan Stanley Senior Funding, Inc. and Wells Fargo Bank, National Association, as co-documentation agents +	10-Q (000-21969)	10.1	9/5/2012	
10.38	Amendment to Credit Agreement, dated August 24, 2012, by and among Ciena Corporation, Ciena Communications, Inc. and Ciena Canada, Inc., as the borrowers, and Deutsche Bank AG New York Branch, as administrative agent +	10-Q (000-21969)	10.2	9/5/2012	
10.39	Security Agreement, dated August 13, 2012, by and among Ciena Corporation and Ciena Communications, Inc., as assignors, and Deutsche Bank AG New York Branch, as collateral agent +	10-Q (000-21969)	10.3	9/5/2012	
10.40	Pledge Agreement, dated August 13, 2012, by and among Ciena Corporation and Ciena Communications, Inc., as pledgors, and Deutsche Bank AG New York Branch, as collateral agent and pledgee +	10-Q (000-21969)	10.4	9/5/2012	
10.41	U.S. Guaranty, dated August 13, 2012, by and among Ciena Corporation and Ciena Communications, Inc., as guarantors, and Deutsche Bank AG New York Branch, as administrative agent +	10-Q (000-21969)	10.5	9/5/2012	
10.42	Canadian Security Agreement, dated August 13, 2012, by and between Ciena Canada, Inc., as assignor, and Deutsche Bank AG New York Branch, as collateral agent +	10-Q (000-21969)	10.6	9/5/2012	
10.43	Canadian Guaranty, dated August 13, 2012, by and between Ciena Canada, Inc., as guarantor, and Deutsche Bank AG New York Branch, as administrative agent +	10-Q (000-21969)	10.7	9/5/2012	
10.44	Second Lease Amending Agreement dated August 29, 2013 by and between Her Majesty the Queen in Right of Canada, as Represented by the Minister of Public Works and Government Services, as landlord, and Ciena Canada, Inc., as tenant (a)	10-Q (000-21969)	10.1	9/11/2013	
10.45	Omnibus Second Amendment to Credit Agreement and First Amendment to U.S. Security Agreement, Canadian Security Agreement, U.S. Pledge Agreement, U.S. Guaranty and Canadian Guaranty, entered into as of March 5, 2013, by and among Ciena Corporation, Ciena Communications, Inc., Ciena Canada, Inc., and Deutsche Bank AG New York Branch (a)	10-Q (000-21969)	10.1	6/12/2013	
10.46	Joinder Agreement under Credit Agreement and Related Agreements as of March 15, 2013 by and between Ciena Government Solutions, Inc. and Deutsche Bank AG New York Branch, as Administrative Agent and as Collateral Agent, for the benefit of the Secured Creditors (a)	10-Q (000-21969)	10.2	6/12/2013	
10.47	Omnibus Second Amendment to Credit Agreement and First Amendment to U.S. Security Agreement, Canadian Security Agreement, U.S. Pledge Agreement, U.S. Guaranty and Canadian Guaranty, entered into as of March 5, 2013, by and among Ciena Corporation, Ciena Communications, Inc., Ciena Canada, Inc., and Deutsche Bank AG New York Branch (b)	10-Q (000-21969)	10.2	3/13/2013	
12.1	Computation of Earnings to Fixed Charges	—	—	—	X
21.1	Subsidiaries of registrant	—	—	—	X

23.1	Consent of Independent Registered Public Accounting Firm	—	—	—	X
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	—	—	—	X
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	—	—	—	X
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	—	—	—	X
t					
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	—	—	—	X
101.INS	XBRL Instance Document	—	—	—	X
101.SCH	XBRL Taxonomy Extension Schema Document	—	—	—	X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	—	—	—	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	—	—	—	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	X

- * Represents management contract or compensatory plan or arrangement
- + Pursuant to Item 601(b)(2) of Regulation S-K, certain schedules and exhibits referenced in the table of contents have been omitted. Ciena hereby agrees to furnish supplementally a copy of any omitted exhibit or schedule to the SEC upon request. In addition, representations and warranties included in these agreements, as amended, were made by the parties to one another in connection with a negotiated transaction. These representations and warranties were made as of specific dates, only for purposes of these agreements and for the benefit of the parties thereto. These representations and warranties were subject to important exceptions and limitations agreed upon by the parties, including being qualified by confidential disclosures, made for the purposes of allocating contractual risk between the parties rather than establishing these matters as facts. These agreements are filed with this report only to provide investors with information regarding its terms and conditions, and not to provide any other factual information regarding Ciena or any other party thereto. Accordingly, investors should not rely on the representations and warranties contained in these agreements or any description thereof as characterizations of the actual state of facts or condition of any party, its subsidiaries or affiliates. The information in these agreements should be considered together with Ciena’s public reports filed with the SEC.
- # Certain portions of these documents have been omitted based on a request for confidential treatment submitted to the SEC. The non-public information that has been omitted from these documents has been separately filed with the SEC. Each redacted portion of these documents is indicated by a “[*]” and is subject to the request for confidential treatment submitted to the SEC. The redacted information is confidential information of the Registrant.

Statement of Computation of Ratio of Earnings to Fixed Charges

	Year Ended October 31,		
	2011	2012	2013
Pre-tax income (loss) from continuing operations	\$ (187,848)	\$ (134,699)	\$ (80,191)
Fixed charges:			
Interest expense	37,926	39,653	44,042
Portion of rental expense representative of interest factor	8,421	7,149	7,664
Total fixed charges	46,347	46,802	51,706
Pre-tax income (loss) from continuing operations plus fixed charges	\$ (141,501)	\$ (87,897)	\$ (28,485)
Ratio of losses to fixed charges (1)	\$ —	\$ —	\$ —

(1) Pre-tax losses from continuing operations plus fixed charges were inadequate to cover total fixed charges.

<u>Subsidiary</u>	<u>Jurisdiction of Incorporation or Organization</u>
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Ciena Communications, Inc.	Delaware
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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-27131, 333-30900, 333-72474, 333-91294, 333-102462, 333-103328, 333-113872, 333-115287, 333-121110, 333-123509, 333-123510, 333-149520, 333-149929, 333-163927, 333-166125, 333-180332 and 333-180333) and on Form S-3 (No. 333-108476 and 333-149519) of Ciena Corporation of our report dated December 20, 2013 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Baltimore, Maryland
December 20, 2013

CIENA CORPORATION
CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Gary B. Smith, certify that:

1. I have reviewed this annual report of Ciena Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 20, 2013

/s/ Gary B. Smith

Gary B. Smith

President and Chief Executive Officer

**CIENA CORPORATION
CERTIFICATION OF CHIEF FINANCIAL OFFICER**

I, James E. Moylan Jr., certify that:

1. I have reviewed this annual report of Ciena Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 20, 2013

/s/ James E. Moylan Jr.

James E. Moylan Jr.

Senior Vice President and Chief Financial Officer

CIENA CORPORATION

**Written Statement of Chief Executive Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

The undersigned, the Chief Executive Officer of Ciena Corporation (the "Company"), hereby certifies that, to his knowledge, on the date hereof:

- (a) the Report on Form 10-K of the Company for the year ended October 31, 2013 filed on the date hereof with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (b) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Gary B. Smith

Gary B. Smith

President and Chief Executive Officer

December 20, 2013

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Ciena Corporation and will be retained by Ciena Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

CIENA CORPORATION

**Written Statement of Chief Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

The undersigned, the Chief Financial Officer of Ciena Corporation (the “Company”), hereby certifies that, to his knowledge, on the date hereof:

- (a) the Report on Form 10-K of the Company for the year ended October 31, 2013 filed on the date hereof with the Securities and Exchange Commission (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (b) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ James E. Moylan Jr.

Senior Vice President and Chief Financial Officer

December 20, 2013

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Ciena Corporation and will be retained by Ciena Corporation and furnished to the Securities and Exchange Commission or its staff upon request.