CIENA CORP
Form 10-K
December 19, 2014
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended October 31, 2014

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number 0-21969
Ciena Corporation
(Exact name of registrant as specified in its charter)

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

(410) 694-5700
(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.01 par value	New York Stock Exchange

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 þ NO o

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 o NO þ

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§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 þ NO o

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. o

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

Accelerated filer o Non-accelerated filer o

Large accelerated filer		Smaller reporting company
þ		o
	(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 o NO þ

The aggregate market value of the Registrant's Common Stock held by non-affiliates of the Registrant was approximately $2.0 billion based on the closing price of the Common Stock on the New York Stock Exchange on May 2, 2014.

The number of shares of Registrant's Common Stock outstanding as of December 12, 2014 was 106,985,271.

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 2015 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.

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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 communications networking solutions that enable converged, next-generation architectures, optimized to create and deliver the broad array of high-bandwidth services relied upon by business and consumer end users. We provide equipment, software and services that support the transport, switching, aggregation, service delivery and management of voice, video and data traffic on communications networks. These solutions enable network operators to adopt software-programmable network infrastructures that offer the on-demand experience required by end users of services and applications. At the same time, these solutions yield business and operational value for network operators.

Our Converged Packet Optical, Packet Networking, Optical Transport and Software products are used, individually or as part of an integrated solution, in networks operated by communications service providers, cable operators, Web-scale providers, governments, enterprises, research and education institutions and other network operators across the globe. Our products allow network operators to scale capacity, increase transmission speeds, allocate network traffic and adapt to changing end-user demands through rapid service creation and delivery. Our solutions also include network management and control software and network-level software applications that facilitate automation and efficient service delivery. To complement our hardware and software solutions, we offer a broad range of network transformation solutions and related support services that help our customers design, optimize, deploy, manage and maintain their networks.

The rapid proliferation of communications services and devices, together with increased mobility and growth in cloud-based services, have fundamentally affected the demands placed upon communications networks and how they are designed. Network operators also face a rapidly changing business environment that includes a shifting competitive landscape and challenges to existing business models. Our OP^n Architecture, and the increased network scalability, flexibility and programmability that it enables, is designed to meet these challenges. Our OP^n network approach allows for network-level software applications to control and configure the network dynamically, while flexible interfaces integrate computing, storage and network resources. This approach enables highly configurable infrastructures that can meet the "on-demand" requirements of end-users and the changing services they rely upon. By enhancing software programmability and control, enabling network functions virtually, and reducing required network elements, our OP^n approach optimizes network infrastructures to connect content data centers, and users to such content. At the same time, our approach creates business and operational value for our customers by increasing scale at reduced cost and facilitating rapid introduction of new, revenue-generating service offerings. Our OP^n 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 $2.3 billion in fiscal 2014, as compared to $2.1 billion in fiscal 2013. 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. We organize our operations into four separate operating

segments: “Converged Packet Optical,” “Packet Networking,” “Optical Transport,” and “Software and Services.” See Note 20 to the Consolidated Financial Statements found in Item 8 of Part II of this annual report.

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

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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.

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

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. Increasing network traffic is being driven by growing use of, and reliance upon, a broad range of bandwidth-intensive communications services by consumer and business end users. Mobile applications, including applications related to Internet, video and data services that have expanded along with the proliferation of smartphones, tablets and other wireless devices are further increasing network traffic. Business customers are increasingly dependent upon enterprise services and data center connectivity that facilitate global operations, employee mobility and access to critical business applications and data, including by way of cloud-hosted services. At the same time, network traffic growth is being driven by consumer-oriented applications and adoption of mobile and broadband technologies. These include peer-to-peer Internet applications, video services, multimedia downloads and cloud-based consumer services. We believe that this traffic growth will require network operators to adopt higher capacity networks with increased transmission speeds, particularly in metro service aggregation and switching applications.

Transition to Software-Defined Programmable Network Architectures

We expect that end-user reliance upon a broadening mix of data and video communications services, together with their expectation of an on-demand network experience, will require upgrades to existing wireline and wireless network infrastructures. These factors, together with network operators' increased focus on controlling the cost of the networks, are driving a transition from static, purpose-built networks to programmable network infrastructures controlled by software. By leveraging software programmability, network operators can adapt more quickly to changing end-user demands, provide network functions on demand through virtual platforms, and enable more efficient service delivery. This transition in how networks are designed and implemented can also enable network operators to improve the economics of their networks by accelerating service creation and delivery, reducing reliance upon function-specific hardware elements and addressing power and space considerations.

Changes Impacting our Network Operator Customers

We believe the following are illustrative of the shift toward on-demand networking requirements and the changes impacting the design and adoption of next-generation network infrastructures.

- "Cloud" Services. Cloud services are characterized by the sharing of remotely hosted computing, storage and network resources across a network to improve economics through higher utilization of networked elements. Prevalent cloud-based services include Platform as a Service (PaaS), Software as a Service (SaaS) and Infrastructure as a Service (IaaS). Through cloud-based arrangements, smaller enterprises and consumers can subscribe to an expanding range of services to replace local computing and storage requirements. Larger enterprises and data center operators can 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

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resources from the cloud to end users. As a result, network architectures must be capable of adapting in real time to changing capacity requirements and locations.

- Mobility. Smart mobile devices and tablets that deliver integrated voice, audio, photo, video, email and mobile Internet capabilities are rapidly changing the services and data traffic carried by wireless networks. 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. As a result, network architectures must be able to scale capacity cost effectively and to adapt to address a changing mix of end user services.

- Network Virtualization. Virtualization is the decoupling of physical IT or communications assets from the services or capabilities they can provide. These virtualization principles, previously applied to computing and storage resources, now are being applied to communications networks. Network operators are seeking to virtualize costly, single-function or dedicated network appliances, such as firewalls and wide area network (WAN) accelerators, by deploying their functionality virtually over centralized, generic servers. This is sometimes called "network function virtualization" or "NFV." We believe that virtualization of network elements can reduce cost, add network flexibility and put a greater emphasis on the value of network connectivity.

- Over-the-Top (OTT) Content. Over-the-Top (OTT) content refers to video, television and other services delivered directly from the content provider to the viewer or end user. These services are delivered and Internet connection provided by a network operator different from the content provider. OTT content is imposing significant demands upon the infrastructures of communications service providers and multi-service operators as bandwidth-intensive traffic associated with this content continues to grow. At the same time, providers of OTT content are challenging the business models of such network operators as some end-users perceive significant value in the OTT content or service, whereas in the past, such end users were more focused on the value of the connectivity.

- Machine-to-Machine (M2M) Applications. 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 seeing 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

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

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

Research and Development Investment to Expand the Role and Application of Our Solutions. Our product development initiatives are focused on opportunities that enable Ciena to expand its role in customer networks and to address a more diverse set of network applications. We are investing in our OP^{n} Architecture with current development efforts focused on expanding high-capacity service delivery capabilities in our Packet Networking and Converged Packet Optical products for metro networks, data center interconnectivity and wide area network applications. Our research and development efforts also seek to extend our existing technologies, including our WaveLogic coherent optical processor for 200G and 400G optical transport, and to introduce one Terabit and greater transmission speeds. In the packet area, we are increasing the scale, density and capability of our packet offerings, and improving power and space considerations, for applications in metro networks, user aggregation and data center connectivity. In the software area, we are focusing on Agility Matrix, our network function virtualization (NFV)

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solution, in order to provide virtual network functions in managed service applications. We are also focused on increasing programmability and software control of networks. These efforts include our joint initiative with Ericsson to develop an expanded software-defined networking (SDN) multilayer WAN controller that spans network layers, as well as Ciena's direct efforts to develop software-based networking control platforms and network-level software applications.

Go-to-Market Model to Expand Our Role and Reach. Our go-to-market model is focused on driving sales growth from the diversification of our business and further penetrating additional customer verticals and international markets. We are focused on further penetrating Internet content providers, data center operators and other emerging network operators that form the "Web-scale" marketplace, and who are changing the ways in which information and services are accessed and provided. To expand the geographic reach of our direct sales resources, we have pursued strategic channel opportunities that enable sales through third parties, including service providers, systems integrators and value-added resellers. Through the packet-optical resale element of our strategic relationship with Ericsson, we are seeking to expand our geographic reach, as well as the application of our products in customer networks. We also remain focused on expanding the application of our products by existing customers, including communications service provider customers and cable and multiservice operators. These sales efforts seek opportunities for our our solutions in applications including metro aggregation, data center interconnectivity, managed services offerings, cloud-based services, business Ethernet services and mobile backhaul.

Business optimization to yield operating leverage. We are actively pursuing initiatives to improve our gross margin, constrain operating expense and redesign certain business processes, systems, and resources. These initiatives include portfolio optimization and engineering efforts to drive improved efficiencies in the design and development of our solutions and procurement initiatives to consolidate vendors and ensure that our cost model remains ahead of market-based price erosion. We are also focused on transforming our supply chain, including efforts to reduce our material and overhead costs, reduce customer lead times and improve inventory management and logistics. Our initiatives also include significant investments in the re-engineering of company-wide enterprise resource planning platforms, improved automation of key business processes and systems, and the off-shoring of certain business functions. We seek to leverage these initiatives to promote the profitable growth of our business and to drive additional operating leverage.

Customers and Markets

We sell our product and service solutions, through direct and indirect sales channels, to 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. 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, 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. 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.

Web-scale Providers

Our customers include a diverse range of Internet content providers focused on applications such as search, social media, video, real-time communications and cloud-based offerings to consumers and enterprises. Customers within this segment also include data center operators and other emerging network operators that are often focused on virtualized infrastructure and Ethernet exchanges. These customers are sometimes collectively included in a customer segment referred to as "Web-scale" providers. These customers often require massive scale, low latency, reliability and performance to interconnect critical data centers and connect end users to network resources and content.

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Enterprise

Our enterprise customers include large, multi-site commercial organizations, including participants in the financial, health care, transportation, utilities and retail industries. 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.

Government, Research and Education (R&E)

Our government customers include federal and state agencies in the United States as well as international government entities. Our R&E customers include research and education institutions in the United States and abroad, as well as communities or consortia including leaders in research, academia, industry and government. Customers in this segment seek to take advantage of technology innovation, improve their information infrastructure and facilitate increased collaboration. Our solutions feature ultra-high capacity required to meet the requirements of supercomputing systems, as well as network assurance and security features required by customers in this segment.

Products and Services

Our product portfolio consists of our Converged Packet Optical, Packet Networking and Optical Transport products. Our product offering also includes a suite of software solutions that unify our product portfolio and provide automation, software-defined management and control features, and NFV to 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 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. We now have the third generation of our custom silicon chipset in the market. WaveLogic 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 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 deliver new, revenue-generating services to consumer and enterprise end users. 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 to deliver business data

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services. As a key element of our OP^n 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 enables network infrastructures to adapt to new service demands of end users.

During fiscal 2014, we introduced our 8700 Packetwave platform, a multi-terabit packet switching platform for high-density metro networks and inter-data center wide area networks. The 8700 combines high-capacity Ethernet switching and optical transport technologies from both data center networks and metro networks, to help network operators rapidly deliver cloud-based services, streaming video, and Internet content distribution, efficiently aggregate users, and provide express connections to data centers. By increasing the density of traffic carried, while reducing power and space requirements, the 8700 also enables network operators to reduce capital and operating expense associated with their networks and to simplify service management and enablement.

To date, revenue relating to our Packet Networking segment has been primarily related to our 3000 family of service delivery switches and service aggregation switches, and our 5000 family of service aggregation switches. Our 3000 and 5000 families support the access and aggregation tiers of communications networks and have principally been deployed to support business data services and wireless backhaul infrastructures. 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.

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

Agility Software Portfolio

During fiscal 2014, we launched our Agility software portfolio and established a team of dedicated resources focused on the development of network control platforms and network-level software application technologies that enable an on-demand user experience. This portfolio includes the recently introduced Agility Matrix, our network functions virtualization (NFV) solution for the acquisition and distribution of virtualized network functions (VNF) in managed service applications. This portfolio also includes an expanded SDN multilayer WAN controller, being jointly developed with Ericsson, that spans network layers, our Navigate multilayer path computation engine and network-level software applications that enable WAN services over an open network ecosystem. Our V-WAN application provides service providers the tools to offer enterprise, content provider, and cloud services to end users in a more automated and self-service oriented manner. Our other Agility network-level software applications, including Protect and Optimize, enable network operators to improve reliability, to allow for more rapid network restoration, and to better monetize cloud-based services. Certain solutions relating to this portfolio are in early stage development, or have only recently been announced, and therefore no revenue relating to this portfolio was recognized in fiscal 2014.

Network Management and Planning Software

Our integrated software offering includes network management and control solutions and planning tools. Our OneControl Unified Management System is an integrated network and service management offering 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 track individual services across multiple product suites and facilitate network maintenance and outage detection. This robust, service-aware framework improves network utilization and availability, while delivering enhanced performance monitoring and network reliability. Our 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.

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Ciena Specialist 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 services offerings enable us to work closely with our customers in the assessment, planning, deployment, and transformation of their networks. We believe that our 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 on an individualized basis.

Our services and support portfolio includes the following offerings:

- Network transformation solutions, including:
  Network analysis, planning and design; and
  Network optimization, migration, modernization, monetization 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;
- SDN and NFV-related services including network audit and solution integration and migration support;
- 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 Ciena resources and qualified third party service partners.

Product Development

Our industry is subject to rapid technological developments, emerging service delivery requirements and shifts in customer and end-user network demand. To remain competitive, we must continually enhance our product platforms and add new features and functionality to ensure alignment with these changing dynamics. Our research and development strategy has been to enable scalable, software-configurable network infrastructures that can dynamically enable service delivery and provide an on-demand end-user experience. Our OP^{n} 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. Our product development initiatives include design and development work intended to address growing opportunities for the application of our solutions, such as metropolitan networks, data center interconnectivity, enterprise networking, and packet-based infrastructure solutions for high-capacity cloud-based service delivery. To address these opportunities and promote our OP^{n} Architecture network vision, our current development efforts are focused upon:

- Developing products that increase software-based network control, including:

SDN multi-layer WAN controller;
network level applications that automate various network functions, support new service introduction and monetize network assets; and
platforms that enable virtualization of network features or functions traditionally supported by hardware elements.

- Enhancing and extending our Packet-Optical and Packet Networking solutions, including:
Extending our leadership in coherent transport platforms, at 40G, 100G, and 400G;
Continued development of our WaveLogic coherent optical processor to improve network capacity, transmission speed, spectral efficiency and reach; and
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;

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- Designing products 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.

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. 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.

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 $364.2 million, $383.4 million and $401.2 million, for fiscal 2012, 2013 and 2014, 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

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. Within each geographic area, we may maintain specific teams or personnel that focus on a particular region, country, customer or market vertical. These teams include sales management, account salespersons, and systems engineers, as well as services and commercial management personnel, who ensure we operate closely with and provide a high level of support to our customers.

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 include the packet-optical resale element of our strategic relationship with Ericsson. 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 see opportunities to leverage our strategic channel relationships to address additional customer segments, additional applications for our solutions and growth geographies. 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, tradeshows, 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, elements of our global products group team also address component 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 the manufacturing of our products. We also rely upon these contract manufacturers and other third parties to perform design and prototype development, component procurement, full production, final assembly, testing and customer order 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

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than we have forecast. As a result, we may incur carrying charges or obsolete material charges for components purchased by our manufacturers that are not ultimately used. 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.

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 also include process optimization and initiatives, such as vendor-managed inventory models, to drive improved efficiencies in our sourcing, logistics and fulfillment.

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 our 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 decreased from $1.0 billion as of October 31, 2013 to $824 million as of October 31, 2014. Reduced backlog levels as of the end of fiscal 2014 are not unexpected and reflect, in part, the continued diversification of our customer base to include Web-scale providers and other network operators requiring shorter lead times to support the on-demand requirements of their end users, and the impact of an increasing portion of quarterly revenue related to orders placed and converted to revenue during the same quarter. Backlog includes product and service orders from commercial and government customers combined. Backlog at October 31, 2014 includes approximately $180 million primarily related to orders for maintenance and support services, that are not expected to be filled within fiscal 2015. Backlog at October 31, 2013 included approximately $167 million primarily related to orders for maintenance and support services, that were not expected to be filled within fiscal 2014. 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 by 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 technologies, introduction of new networking solutions and intense selling efforts to displace incumbent vendors and to capture market share. Successfully competing in these markets is based on any one or a combination of the following factors:

- product functionality, speed, capacity, scalability and performance;
- price and total cost of ownership of our solutions;
- incumbency and existing business relationships;

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- ability to offer comprehensive networking solutions, consisting of equipment, software and network consulting services;
- product development plans and the ability to meet customers' immediate and future network requirements;
- flexibility and openness of platforms, including ease of integration, interoperability and integrated management;
- manufacturing and lead-time capability; and
- services and support capabilities.

In this intense and fragmented competitive environment, securing new opportunities often requires that we agree to unfavorable commercial terms or pricing 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, 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 and networks come under unified software management and control. As these changes occur, and requirements for software programmability and network function 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, ECI, Infinera, RAD 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 the intellectual property protections afforded by patents, copyrights, trademarks, and trade secret laws to establish, maintain and enforce rights in our proprietary technologies and product branding. We maintain an invention incentive program that seeks to reward innovation and an invention review board that selects appropriate protection mechanisms for our technology. 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, 2014, we had 1,466 issued U.S. patents, 209 pending U.S. patent applications and over 459 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 we cannot be certain that the steps that we are taking will detect or prevent all unauthorized use. The industry in which we compete is characterized by rapidly changing technology, a large number of patents, and frequent claims and related litigation regarding patent and other intellectual property rights. We have been subject to several claims related to patent infringement, including by competitors and by non-practicing entities or "patent trolls," and we 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, we may be required to redesign our products or we may be prohibited from selling any infringing technology in certain jurisdictions.

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Our operating system, element and network management and control software and other solutions incorporate software and components under licenses from third parties, including software subject to various open source software licenses. As network requirements for increased software programmability increase, and we continue to advance our OPn Architecture through the development and sale of network level applications, we may be required to incorporate open source software or 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 could require us to re-engineer our products or to obtain alternate technologies. Moreover, there is a risk that open source licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products.

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, 2014, we had a global workforce consisting of 5,161 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.

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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.	71	Executive Chairman of the Board of Directors
Gary B. Smith	54	President, Chief Executive Officer and Director
Stephen B. Alexander	55	Senior Vice President and Chief Technology Officer
James A. Frodsham	48	Senior Vice President and Chief Strategy Officer
François Locoh-Donou	43	Senior Vice President, Global Products Group
Philippe Morin	49	Senior Vice President, Global Field Organization
James E. Moylan, Jr.	63	Senior Vice President, Finance and Chief Financial Officer
Andrew C. Petrik	51	Vice President and Controller
David M. Rothenstein	46	Senior Vice President, General Counsel and Secretary
Harvey B. Cash (1)(3)	76	Director
Bruce L. Claflin (1)(2)	63	Director
Lawton W. Fitt (2)	61	Director
T. Michael Nevens (2)	64	Director
Judith M. O'Brien (1)(3)	64	Director
Michael J. Rowny (2)	64	Director
Patrick T. Gallagher (1)(3)	59	Director

(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: Messrs. Claflin, Nevens and Gallagher in 2015; Ms. Fitt, Dr. Nettles and Mr. Rowny in 2016; and Ms. O'Brien and Messrs. Cash and Smith in 2017; .

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 Apptrigger, 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 boards 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 & Data Networking.

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. Prior to that, Mr. Frodsham was employed for more than ten years in senior level positions with Nortel Networks in product

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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 boards 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 The Carlyle Group LP and The Progressive Corporation, and she has previously served on the boards of directors of Thomson Reuters, Overture Acquisition Corporation and Frontier Communications Company.

T. Michael Nevens has served as a Director of Ciena since February 2014. Since 2006, Mr. Nevens has served as senior adviser to Permira Advisers, LLC, an international private equity fund. From 1980 to 2002, Mr. Nevens held various leadership positions at McKinsey & Co., most recently as a director (senior partner) and as managing partner of the firm's Global Technology Practice. He also served on the board of the McKinsey Global Institute, which conducts research on economic and policy issues. Mr. Nevens is a member of the Advisory Council of the Mendoza College of Business at the University of Notre Dame, where he has been an adjunct professor of Corporate Governance and Strategy. Mr. Nevens also serves on the boards of directors of NetApp, Inc., Altera Corporation, and Active Video Networks, Inc., a privately held 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.

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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 is also Chairman of Intercloud SAS, a Paris-headquartered provider of global private cloud connectivity services. Mr. Gallagher also serves on the board of directors of Sollers JSC.

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Item 1A. Risk Factors

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

Our revenue and operating results can fluctuate significantly and unpredictably from quarter to quarter.
Our revenue and results of operations can fluctuate significantly and unpredictably from quarter to quarter. Our budgeted expense levels are based on our visibility into customer spending plans and our projections of future revenue and gross margin. Substantial reductions in our expense levels to react to deviations from our projections can take time to implement. Uncertain economic or market conditions, and changes in customer spending levels, can make it difficult to forecast future revenue and margins. Some of our large existing communications service provider customers have announced their intent to constrain capital spending, including in future periods. Other such customers are pursuing purchasing strategies or adopting procurement approaches intended to drive reductions in spending or to consolidate the number of their direct suppliers of networking technology. By way of example, the impact of these initiatives contributed to quarterly fluctuation in our results in the fourth quarter of fiscal 2014. 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 volume, cancellations and timing;
- backlog levels and the percentage of a given quarter's revenue generated from orders placed during that quarter;
- the level of competition and pricing pressure we encounter;
- the impact of commercial concessions or unfavorable commercial terms required to maintain incumbency or secure new opportunities with key customers;
- the level of start-up costs we incur to support initial deployments, gain new customers or enter new markets;
- the timing of revenue recognition on sales, particularly relating to large orders;
- the mix of revenue by product segment, geography and customer in any particular quarter;
- manufacturing capacity;
- installation service availability and readiness of customer sites;
- seasonal effects in our business; and
- our level of success in improving manufacturing efficiencies and achieving cost reductions in our supply chain.

In recent periods, the percentage of a given quarter's revenue that we generate from orders placed during that quarter has increased, which may make it more difficult to predict accurately our quarterly results of operations and may increase the likelihood of fluctuations in our results. The factors above could cause our level of operating expense or inventory to be high relative to revenue, which could harm our profitability and cash flow. Quarterly fluctuations from these and other factors may also 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.

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.

While our customer base has diversified in recent years to include a number of network operators and customer verticals, 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 18.5% of fiscal 2014 revenue, and our largest ten customers contributed 56.4% of fiscal 2014 revenue. Consequently, our financial results are closely correlated with the spending of a relatively small number of service provider customers and can be significantly affected by market,

industry or competitive dynamics affecting their businesses. Our reliance upon a relatively small number of service provider customers also increases our exposure to changes in their network priorities and purchasing strategies. Our service provider customers have previously undertaken, and may undertake in the future, procurement initiatives to support their network strategy, which initiatives may include reductions in capital expenditure, commercial concessions from suppliers and reductions in the number of direct suppliers of networking technology. By way of example, in September 2014, we announced that Ciena had been selected by AT&T as a participating vendor in its Domain 2.0 supplier program. The Domain 2.0 initiative is the next generation of AT&T's Supplier Domain Program, intended to enable AT&T to quickly transition to next-generation, cloud-based architectures that embrace NFV and SDN, and accelerate AT&T's time to market with new products and services. Our commercial arrangement relating to this opportunity adversely impacted our revenue and gross margin in the fourth quarter of fiscal 2014, and is expected to have a proportionately lesser impact on our results in first quarter of fiscal 2015 and future quarterly periods. Because the terms of our

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framework contracts, including with respect to our Domain 2.0 opportunity, do not obligate customers to purchase any minimum or guaranteed order quantities, spending by service provider customers can be unpredictable. A significant change in network priorities, a reduction in spending by our key customers, the loss of one or more of our large service provider customers, or market or industry factors adversely affecting service providers generally, could have a material adverse effect on our business, financial condition and results of operations.

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

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

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

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

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

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

Our business and operating results, which depend significantly on general economic conditions and demand for our products and services, could be materially adversely affected by unfavorable or uncertain macroeconomic, and market conditions, globally or with respect to a particular region where we operate. Broad macroeconomic weakness and

market volatility have previously resulted in sustained periods of decreased demand for our products and services that have adversely affected our operating results. Macroeconomic and market conditions could be adversely affected by a variety of political, economic or other factors in the United States and elsewhere that could adversely affect spending levels of our customers and their end users, and create volatility or deteriorating conditions in the markets in which we operate. Macroeconomic uncertainty or weakness could result in:

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

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- 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, results of operations and financial condition.

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

We maintain a global sourcing strategy and depend on third party suppliers for support in our product design and development, and in the sourcing of key product components and subsystems. Our products include optical and electronic components for which reliable, high-volume supply is often available only from sole or limited sources. Increases in market demand or scarcity of resources or manufacturing capability have previously resulted in shortages in availability of important components for our solutions, allocation challenges and increased lead times. We are exposed to risks relating to unfavorable economic conditions or other similar challenges affecting the businesses and results of operations of our component providers that can affect their liquidity levels, ability to continue investing in their businesses, and manufacturing capability. These and other challenges affecting our suppliers could expose our business to increased costs, loss or lack of supply, or discontinuation of components that can result in lost revenue, additional product costs, increased lead times and deployment delays that could harm our business and customer relationships. We do not have any guarantees of supply from these third parties, and in certain cases are relying upon temporary or transitional commercial arrangements. As a result, there is no assurance that we will be able to secure the components or subsystems that we require, in sufficient quantity and quality on reasonable terms. The loss of a source of supply, or lack of sufficient availability of key components, could require that we locate an alternate source or redesign our products, either of which could result in business interruption, increase 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 hardware and software solutions and to develop or acquire new technologies. There is often a lengthy period between commencing these development initiatives and bringing new or improved solutions to market. During this time, technology preferences, customer demand and the markets for our solutions, or those introduced by our competitors, may move in directions we had not anticipated. There is no guarantee that our new products or enhancements will achieve market acceptance or that the timing of market adoption will be as predicted. There is a significant possibility, therefore, that some of our development decisions, including significant expenditures on acquisitions, research and development costs, or investments in technologies, will not turn out as anticipated, and that our investment in some projects will be unprofitable. There is also a possibility that we may miss a market opportunity because we failed to invest, or invested too late, in a technology, product or enhancement sought by our customers. Changes in market demand or investment priorities may also cause us to discontinue existing or planned development for new products or features, which can have a disruptive effect on our relationships with customers. If we fail to make the right investments or fail to make them at the right time, our competitive position may suffer, and our revenue and

profitability could be harmed.

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

Our sales initiatives, particularly with communications service providers, Web-scale providers and other large customers, often involve lengthy sales cycles. These selling efforts often involve a significant commitment of time and resources by us and our customers that may include extensive product testing, laboratory or network certification, network or region-specific product certification and homologation requirements for deployment in networks. Even after a customer awards its business or decides to purchase our solutions, the length of deployment time can vary depending upon the customer's or site's readiness, the size of the network deployment, the degree of configuration required and other factors. Additionally, these sales also often involve

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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 other alternative purchase structures that extend the timing of payment and revenue recognition. To maintain incumbency with key customers for existing and future business opportunities, we may be required to offer discounted pricing or offer less favorable commercial terms as compared to our historical business arrangements with these customers. By way of example, our commercial arrangement with AT&T relating to its Domain 2.0 vendor program adversely impacted our revenue and gross margin in the fourth quarter of fiscal 2014, and is expected to have a proportionately lesser impact on our results in first quarter of fiscal 2015 and future quarterly periods. 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. Alternatively, customers may insist upon terms and conditions that we deem too onerous or not in our best interest, and we may be unable to reach a commercial agreement. As a result, we may incur substantial expense and devote time and resources to potential sales opportunities that never materialize or result in lower than anticipated sales.

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

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

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

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

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

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

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

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

In order to sell our products into new geographic markets, diversify our customer base beyond our traditional customers and broaden the application for our solutions in communications networks, we continue to promote sales initiatives and foster strategic channel sales relationships, including the packet-optical resale element of our strategic relationship with Ericsson. Specifically, we are targeting sales opportunities with Web-scale providers, cloud infrastructure providers, enterprises, wireless operators, cable operators, submarine network operators, research and education institutions, and federal, state and local governments. We also seek to expand our geographic reach and increase market share in international markets, including Brazil, the Middle East and India. To succeed in some of these geographic markets and customer segments we believe that we need to leverage strategic sales channels and distribution arrangements successfully, and we expect these relationships to be an important part of our business. There can be no assurance we will realize the expected benefits of these third party sales partners. In some cases we compete in certain business areas with our third party channel partners or may have divergent interests. Our efforts to manage and drive the intended benefits of such sales relationships may ultimately be unsuccessful, and difficulties selling through our third party channels could limit our growth and could harm our results of operations.

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

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

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

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

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

operations and financial results.

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

To avoid delays and meet customer demand for shorter delivery terms, we place orders with our contract manufacturers and component suppliers based on forecasts of customer demand. During fiscal 2014, we increased inventory levels for our 6500 Packet Optical Platform in order to reduce customer lead times and meet forecasted volumes. Our practice of buying inventory based on forecasted demand exposes us to the risk that our customers ultimately may not order the products we have forecast, or will purchase fewer products than forecast. As a result, we may purchase inventory in anticipation of sales that ultimately do not occur. Market uncertainty can also limit our visibility into customer spending plans and compound the difficulty of forecasting inventory at appropriate levels. Moreover, our customer purchase agreements generally do not include any minimum purchase

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commitment, and customers often have the right to modify, reduce or cancel purchase quantities. 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 certain products we have inventoried in favor of next-generation products with similar or increased functionality. We may also be exposed to the risk of inventory write offs as a result of certain supply chain initiatives, including consolidation and transfer of key manufacturing activities. If we are required to write off or write down a significant amount of inventory, our results of operations for the applicable period would be materially adversely affected.

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

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

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

We may incur significant costs in response to claims by others that we infringe their intellectual property rights.

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

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

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

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

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

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

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result in our inability to continue to use such license, which may result in significant costs, harm our market opportunities and require us to obtain or develop a substitute technology.

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

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

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

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

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

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

In the ordinary course of our business, we maintain on our network systems certain information that is confidential, proprietary or otherwise sensitive in nature. This information includes intellectual property, financial information and confidential business information relating to Ciena and our customers, suppliers and other business partners. We also produce networking equipment solutions and software used by network operators to ensure security and reliability in their management and transmission of data. Our customers, particularly those in regulated industries, are increasingly focused on the security features of our technology solutions, and maintaining the security of information sensitive to Ciena and our business partners is critical to our business and reputation. Companies in the technology industry have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access to networks or sensitive information. Our network systems and storage applications, and the technology solutions that we offer to end customers, may be subject to unauthorized access by hackers or breached due to

operator error, malfeasance or other system disruptions. In some cases, it is difficult to anticipate or to immediately detect such incidents and the damage caused thereby. If an actual or perceived breach of network security occurs in our network or in the network of a business partner, the market perception of our products could be harmed. While we continually work to safeguard our products and internal network systems to mitigate these potential risks, there is no assurance that such actions will be sufficient to prevent cyber attacks or security breaches. Security incidents involving access or improper use our systems, networks or products could compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. These security events could also negatively impact our reputation and our competitive position and could result in litigation with third parties, regulatory action, loss of business, potential liability and increased remediation costs, any of which could have a material adverse effect on our financial condition and results of operations.

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

- 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 could negatively affect our business and our results of operations.

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

In the course of our sales to customers and resale channel partners, we may have difficulty collecting receivables, and our business and results of operations could be exposed to risks associated with uncollectible accounts. Lack of

liquidity in the capital markets, macroeconomic weakness and market volatility may increase our exposure to these credit risks. Our attempts to monitor customer payment capability and to take appropriate measures to protect ourselves may not be sufficient, and it is possible that we may have to write down or write off accounts receivable. Such write-downs or write-offs could negatively affect our operating results for the period in which they occur, and, if large, could have a material adverse effect on our revenue and operating results.

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

We rely upon a number of internal business processes and information systems to support key business functions, and the efficient operation of these processes and systems is critical to managing our business. Our business processes and information

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

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

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

At October 31, 2014, indebtedness on our outstanding convertible notes totaled approximately $1.2 billion in aggregate principal, including the accretion of principal at maturity on our 4.0% convertible senior notes due in 2020 ("2020 Notes"). In the event that some or all of these notes are converted into common stock, the ownership interests of our existing stockholders will be diluted, and any sales of such shares in the public market following conversion may adversely affect the market price for our common stock. We are also a party to credit agreements relating to a $200 million senior secured asset-based revolving credit facility and a $250 million senior secured term loan. The agreements governing these credit facilities contain certain covenants that limit our ability to, among other things, incur additional debt, create liens and encumbrances, pay cash dividends, redeem or repurchase stock, enter into certain acquisition transactions or transactions with affiliates, repay certain indebtedness, make investments or dispose of assets. The agreements also include customary remedies, including the right of the lenders to take action with respect to the collateral securing the loans, that would apply should we default or otherwise be unable to satisfy our debt obligations.

Our indebtedness could have important negative consequences, including:

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

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

our cost of funds, liquidity and access to capital markets.

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

The operation of our business requires significant capital. We have accessed the capital markets in the past and has successfully raised funds, including through the issuance of equity, convertible notes and other indebtedness, to increase our cash position, support our operations and undertake strategic growth initiatives. We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our long-term operating plans and may consider it necessary or advisable to raise additional capital or incur additional indebtedness in the future. If we raise additional funds through further issuance of equity or securities convertible into equity, or undertake certain transactions intended to address our existing indebtedness, our existing stockholders could suffer dilution in their percentage ownership of our company and our leverage and outstanding indebtedness

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could increase. Global capital markets have undergone periods of significant volatility and uncertainty in recent years, and there can be no assurance that such financing alternatives would be available to us on favorable terms or at all, should we determine it necessary or advisable to seek additional cash resources.

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

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

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

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

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

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

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

As a global concern, we face exposure to adverse movements in foreign currency exchange rates. Due to our increased global presence, a larger percentage of our revenue, operating expense and assets and liabilities are non-U.S. dollar denominated and therefore subject to foreign currency fluctuation. We face exposure to currency exchange rates as a

result of the growth in our non-U.S. dollar denominated operating expense in Canada, Europe, Asia and Latin America. From time to time, we may hedge against currency exposure associated with anticipated foreign currency cash flows or assets and liabilities denominated in foreign currency. Such attempts to offset the impact of currency fluctuations are costly and no amount of hedging can be effective against all circumstances. Losses associated with these hedging instruments and the adverse effect of foreign currency exchange rate fluctuation may negatively affect our results of operations.

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

We may acquire or make investments in other technology companies, or enter into other strategic relationships, to expand the markets we address, diversify our customer base or acquire, or accelerate the development of, technology or products. To do

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so, we may use cash, issue equity that could dilute our current stockholders, or incur debt or assume indebtedness. These transactions involve numerous risks, including:

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

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

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

The Federal Communications Commission, or FCC, has jurisdiction over the U.S. communications industry, and similar agencies have jurisdiction over the communication industries in other countries. Many of our largest customers, including service providers and multiservice network operators, are subject to the rules and regulations of these agencies. The FCC is currently considering its "net neutrality" rulemaking and the application of its regulatory authority over broadband Internet services. These and other changes in regulatory requirements covering access to or carriage of traffic on the Internet in the United States or other countries could serve as a disincentive to certain wireline or wireless network operators, including certain of our customers, to invest in their network infrastructures or introduce new services. These changes could adversely affect the sale of our products and services. Similarly, changes in regulatory tariff requirements or other regulations relating to pricing or terms of carriage on communications networks could slow the development or expansion of network infrastructures and adversely affect our business, operating results, and financial condition.

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

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

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

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

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the Democratic Republic of Congo and adjoining countries (“DRC”) and procedures regarding a manufacturer's efforts to prevent the sourcing of such minerals from the DRC. Certain of these minerals are present in our products. SEC rules implementing these requirements may have the effect of reducing the pool of suppliers who can supply DRC “conflict free” components and parts, and we may not be able to obtain conflict free products or supplies in sufficient quantities for our operations. Because our supply chain is complex, we may face reputational challenges with our customers, stockholders and other stakeholders if we are unable to sufficiently verify the origins for the "conflict minerals” used in our products and cannot assert that our products are "conflict free". Environmental or similar social initiatives may also make it difficult to obtain supply of compliant components or may require us to write off non-compliant inventory, which could have an adverse effect on our business and operating results.

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

As of October 31, 2014, our balance sheet includes $309.4 million in long-lived assets, which includes $128.7 million of intangible assets. Valuation of our long-lived assets requires us to make assumptions about future sales prices and sales volumes for our products. These assumptions are used to forecast future, undiscounted cash flows upon which our estimates are based. Periods of significant uncertainty or instability of macroeconomic conditions can make forecasting future business difficult. If actual market conditions differ or our forecasts change, we may be required to reassess long-lived assets and could record an impairment charge. Any impairment charge relating to long-lived assets would have the effect of decreasing our earnings or increasing our losses in such period. If we are required to take a substantial impairment charge, our operating results would be materially adversely affected in such period.

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

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

Our stock price is volatile.

Our common stock price has experienced substantial volatility in the past and may remain volatile in the future. Volatility in our stock price can arise as a result of a number of the factors discussed in this “Risk Factors” section. During fiscal 2014, our closing stock price ranged from a high of $26.20 per share to a low of $14.16 per share. The stock market has experienced significant price and volume fluctuation that has affected the market price of many technology companies, with such volatility often unrelated to the operating performance of these companies. Divergence between our actual or anticipated financial results and published expectations of analysts, or the expectations of the market generally, can cause significant swings in our stock price. Our stock price can also be affected by market conditions in our industry as well as announcements that we, our competitors, vendors or our

customers may make. These may include announcements of financial results or changes in estimated financial results, technological innovations, the gain or loss of customers or key opportunities. Our common stock is also included in certain market indices, and any change in the composition of these indices to exclude our company would adversely affect our stock price. These and other factors affecting macroeconomic conditions or financial markets may materially adversely affect the market price of our common stock in the future.

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Item 1B. Unresolved Staff Comments
Not applicable.

Item 2. Properties

Overview. As of October 31, 2014, 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 and our planned future relocation from this 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 an agreement dated November 3, 2011, with W2007 RDG Realty, L.L.C. relating to a 15-year lease of office space for its corporate headquarters in Hanover, Maryland, consisting of an agreed-upon rentable area of approximately 154,100 square feet.

Ottawa Lease and Planned Relocation. 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. This facility consists of a rentable area of 265,000 square feet. This lease will terminate on December 31, 2017. In contemplation of the lease termination, on October 23, 2014, Ciena Canada, Inc. entered into a Lease Agreement (the “Lease”) with Innovation Blvd. II Limited (“Landlord”), to lease the office building located at 5050 Innovation Drive, Ottawa, Canada (the “Premises”), consisting of an agreed-upon rentable area of 170,582 square feet. The Premises is expected to be part of a future campus that will replace the “Lab 10” building as Ciena's Ottawa research and development center. The commencement date for the Lease will be the earlier of January 1, 2015, or such date on which Ciena occupies any material portion of the Premises and begins conducting business therein. Subject to any earlier termination under the terms and conditions of the Lease, the term of the Lease shall continue for a period of 18 years from the commencement date. Ciena has the option to renew the Lease for an additional ten-year period thereafter. Ciena also has the right to terminate the Lease at the end of the thirteenth year without penalty upon 18 months prior written notice. In addition to leasing the Premises, Ciena is currently in negotiations with the Landlord for the development and lease of two additional buildings that will be built adjacent to the Premises, which are expected to consist of an aggregate agreed-upon rentable area of approximately 250,000 square feet. The Lease also provides Ciena a right of first offer to lease additional space in the building adjacent to the Premises located at 4000 Innovation Drive, for so long as Landlord owns the building and subject to any existing rights of the current tenant. Our Lab 10 facility houses sophisticated research and development lab equipment and significant headcount including key engineering personnel. The development of our new facilities and the transition of our operations in Ottawa will require significant effort, time and cost in advance of the expiration of the Lab 10 lease.

For additional information regarding our lease obligations, see Note 22 to the Consolidated Financial Statements in Item 8 of Part II of this annual report.

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Item 3. Legal Proceedings

On May 29, 2008, Graywire, LLC filed a complaint in the United States District Court for the Northern District of Georgia against Ciena and four other defendants, alleging, among other things, that certain of the parties' products infringe U.S. Patent 6,542,673 (the "'673 Patent"), relating to an identifier system and components for optical assemblies. The complaint seeks injunctive relief and damages. In July 2009, upon request of Ciena and certain other defendants, the U.S. Patent and Trademark Office ("PTO") granted the defendants' inter partes application for reexamination with respect to certain claims of the '673 Patent, and the district court granted the defendants' motion to stay the case pending reexamination of all of the patents-in-suit. In December 2010, the PTO confirmed the validity of some claims and rejected the validity of other claims of the '673 Patent, to which Ciena and other defendants filed an appeal. On March 16, 2012, the PTO on appeal rejected multiple claims of the '673 Patent, including the two claims on which Ciena is alleged to infringe. Subsequently, the plaintiff requested a reopening of the prosecution of the '673 Patent, which request was denied by the PTO on April 29, 2013. Thereafter, on May 28, 2013, the plaintiff filed an amendment with the PTO in which it canceled the claims of the '673 Patent on which Ciena is alleged to infringe. The case currently remains stayed, and there can be no assurance as to whether or when the stay will be lifted.
In addition to the matter described above, we are subject to various legal proceedings and claims arising in the ordinary course of business, including claims against third parties that may involve contractual indemnification obligations on the part of Ciena. We do not expect that the ultimate costs to resolve these matters will have a material effect on our results of operations, financial position or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.
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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. On December 23, 2013, we transferred the listing of our common stock from the NASDAQ Global Select Market to the New York Stock Exchange. Ciena common stock trades 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 or the New York Stock Exchange, as applicable, for the fiscal periods indicated.

	High	Low
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
Fiscal Year 2014		
First Quarter ended January 31	$24.37	$20.93
Second Quarter ended April 30	$27.16	$18.88
Third Quarter ended July 31	$22.94	$18.00
Fourth Quarter ended October 31	$20.98	$13.77

As of December 12, 2014, there were approximately 760 holders of record of our common stock and 106,985,271 shares of common stock outstanding. We have never paid cash dividends on our capital stock. We currently 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 S&P Telecom Select Index and the S&P Global SmallCap Index from October 31, 2009 to October 31, 2014. The S&P Telecom Select Industry Index comprises stocks in the S&P Total Market Index that are classified in the Global Industry Classification Standard as alternative carriers, communications equipment, integrated telecom services, and wireless telecom services sub-industries. The S&P Global SmallCap Index comprises the stocks representing the lowest 15% of float-adjusted market cap in each developed and emerging country. 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 S&P Telecom Select Index and the S&P Global SmallCap Index, respectively, on October 31, 2009 with all dividends reinvested at month-end.

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(b) Not applicable.
(c) Not applicable.

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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 2010, 2011, 2013 and 2014 consisted of 52 weeks, and fiscal 2012 consisted of 53 weeks.

	Year Ended October 31, (in thousands)				
	2010	2011	2012	2013	2014
Cash and cash equivalents	$688,687	$541,896	$642,444	$346,487	$586,720
Short-term investments	$—	$—	$50,057	$124,979	$140,205
Long-term investments	$—	$50,264	$—	$15,031	$50,057
Total assets	$2,118,093	$1,951,418	$1,881,143	$1,802,770	$2,072,632
Short-term debt	$—	$—	$216,210	$—	$190,063
Long-term debt	$1,442,705	$1,442,364	$1,225,806	$1,212,019	$1,274,791
Total liabilities	$1,958,800	$1,937,545	$1,970,115	$1,885,447	$2,142,247
Stockholders’ equity (deficit)	$159,293	$13,873	$(88,972)	$(82,677)	$(69,615)

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Statement of Operations Data:

	Year Ended October 31, (in thousands, except per share data)				
	2010	2011	2012	2013	2014
Revenue	$1,236,636	$1,741,970	$1,833,923	$2,082,546	$2,288,289
Cost of goods sold	739,135	1,032,824	1,109,699	1,217,371	1,339,937
Gross profit	497,501	709,146	724,224	865,175	948,352
Operating expenses:					
Research and development	327,626	379,862	364,179	383,408	401,180
Selling and marketing	193,515	251,990	266,338	304,170	328,325
General and administrative	102,692	126,242	114,002	122,432	126,824
Acquisition and integration costs	101,379	42,088	—	—	—
Amortization of intangible assets	99,401	69,665	51,697	49,771	45,970
Restructuring costs	8,514	5,781	7,854	7,169	349
Change in fair value of contingent consideration	(13,807)	(3,289)	—	—	—
Total operating expenses	819,320	872,339	804,070	866,950	902,648
Gain (loss) from operations	(321,819)	(163,193)	(79,846)	(1,775)	45,704
Interest and other income (loss), net	3,917	6,022	(15,200)	(5,744)	(25,262)
Interest expense	(18,619)	(37,926)	(39,653)	(44,042)	(47,115)
Gain on cost method investments	—	7,249	—	—	—
Gain (loss) on extinguishment of debt	4,948	—	—	(28,630)	—
Loss before income taxes	(331,573)	(187,848)	(134,699)	(80,191)	(26,673)
Provision for income taxes	1,941	7,673	9,322	5,240	13,964
Net loss	$(333,514)	$(195,521)	$(144,021)	$(85,431)	$(40,637)
Basic net loss per common share	$(3.58)	$(2.04)	$(1.45)	$(0.83)	$(0.38)
Diluted net loss per potential common share	$(3.58)	$(2.04)	$(1.45)	$(0.83)	$(0.38)
Weighted average basic common shares outstanding	93,103	95,854	99,341	102,350	105,783
Weighted average dilutive potential common shares outstanding	93,103	95,854	99,341	102,350	105,783

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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 w 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 communications networking solutions that enable converged, next-generation architectures, optimized to create and deliver the broad array of high-bandwidth services relied upon by business and consumer end users. We provide equipment, software and services that support the transport, switching, aggregation, service delivery and management of voice, video and data traffic on communications networks. These solutions enable network operators to adopt software-programmable network infrastructures that offer the on-demand experience required by end users of services and applications. At the same time, these solutions yield business and operational value for network operators.

Our Converged Packet Optical, Packet Networking, Optical Transport and Software products are used, individually or as part of an integrated solution, in networks operated by communications service providers, cable operators, Web-scale providers, governments, enterprises, research and education institutions and other network operators across the globe. Our products allow network operators to scale capacity, increase transmission speeds, allocate network traffic and adapt to changing end-user demands through rapid service creation and delivery. Our solutions also include network management and control software and network-level software applications that facilitate automation and efficient service delivery. To complement our hardware and software solutions, we offer a broad range of network transformation solutions and related support services that help our customers design, optimize, deploy, manage and maintain their networks.

The rapid proliferation of communications services and devices, together with increased mobility and growth in cloud-based services, have fundamentally affected the demands placed upon communications networks and how they are designed. Network operators also face a rapidly changing business environment that includes a shifting competitive landscape and challenges to existing business models. Our OP^n Architecture, and the increased network scalability, flexibility and programmability that it enables, is designed to meet these challenges. Our OP^n network approach allows for network-level software applications to control and configure the network dynamically, while flexible interfaces integrate computing, storage and network resources. This approach enables highly configurable infrastructures that can meet the "on-demand" requirements of end-users and the changing services they rely upon. By enhancing software programmability and control, enabling network functions virtually, and reducing required network elements, our OP^n approach optimizes network infrastructures to connect content data centers, and users to such content. At the same time, our approach creates business and operational value for our customers by increasing scale at reduced cost and facilitating rapid introduction of new, revenue-generating service offerings. Our OP^n 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 in 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

The markets in which we sell our communications networking solutions have been subject to significant changes in recent years, including rapid growth in network traffic, technology convergence, increased mobility, and evolving cloud-based service

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

During fiscal 2014, we saw certain service provider customers increase efforts to constrain capital expenditure budgets, which adversely impacted certain segments of our market, including in the U.S. Notwithstanding these market dynamics, our strategy of focusing on certain higher growth segments of the network infrastructure market, combined with our efforts to diversify our customer base to include additional customer segments, such as Web-scale providers, and additional service providers in geographies including Brazil and India, enabled us to continue to grow revenue in fiscal 2014. 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.

Competitive Landscape

We continue to encounter a highly competitive and and fragmented marketplace. Our sales of Converged Packet Optical solutions face an intense competitive environment as we and our competitors introduce new, high-capacity, high-speed network solutions and seek adoption of these solutions and our network architectural approach. Our sales of Packet Networking solutions, including our 8700 Packetwave Platform, also face a highly competitive marketplace with additional competitors, including traditional IP router vendors. We expect the current competitive landscape to remain challenging and dynamic. As networking technologies become more software-driven, and network features and layers continue to converge, our competitive landscape continues to broaden beyond traditional competitors. As a result, we are competing with, and expect to compete increasingly with, additional vendors focused on IP routing, information technology and software.

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

Term Loan and Asset-Based Credit Facilities

During fiscal 2014, we entered into a credit agreement that provides for senior secured term loans in an aggregate principal amount of $250 million (the "Term Loan"). We expect to use the approximately $246 million in net proceeds to repay, in whole or part, the outstanding principal amount owing under our 4.00% senior convertible notes due March 15, 2015 ("2015 Notes") in the event the holders thereof do not elect to convert such notes into common stock prior to maturity. In the event the holders of such notes elect to convert their notes into common stock upon or prior to maturity, we may elect to repay the Term Loan, in whole or in part, or may utilize the net proceeds for other general corporate purposes, including the repayment or refinancing of other existing indebtedness. See Note 14 to our

Consolidated Financial Statements included in Item 8 of Part II of this report for a summary of the material terms and conditions of the Term Loan and the related security documents.

During fiscal 2014, we also amended the terms of our existing senior secured asset-based revolving credit facility to, among other things, increase the total commitment under our ABL Credit Facility from $150 million to $200 million and to extend the maturity date from August 13, 2015 to December 31, 2016. See Note 15 to our Consolidated Financial Statements included in Item 8 of Part II of this report for a summary of the material terms and conditions of the amendment to this credit facility and the related security documents.

Financial Results for Fourth Quarter of Fiscal 2014

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Revenue for the fourth quarter of fiscal 2014 was $591.0 million, representing a sequential decrease of 2.1% from $603.6 million in the third quarter of fiscal 2014. Revenue-related details reflecting sequential changes from the third quarter of fiscal 2014 include the following:

- Product revenue for the fourth quarter of fiscal 2014 decreased by $19.7 million, primarily reflecting decreases of $13.0 million in Packet Networking, $4.5 million in Optical Transport and $3.3 million in software in Software and Services. These decreases were partially offset by an increase of $1.2 million in Converged Packet Optical. Product revenue for Converged Packet Optical and Packet Networking were adversely impacted by a commercial arrangement with AT&T entered into in the fourth quarter of fiscal 2014 relating to our participation in AT&T's Domain 2.0 supplier program. The Domain 2.0 initiative is the next generation of AT&T's Supplier Domain Program, intended to enable AT&T to transition more quickly to next-generation, cloud-based architectures that embrace NFV and SDN, and accelerate their time to market with new products and services.
- Service revenue for the fourth quarter of fiscal 2014 increased by $7.1 million.
- Revenue from the United States for the fourth quarter of fiscal 2014 was $308.5 million, a decrease from $368.1 million in the third quarter of fiscal 2014.
- International revenue for the fourth quarter of fiscal 2014 was $282.5 million, an increase from $235.5 million in the third quarter of fiscal 2014.
- As a percentage of revenue, international revenue was 47.8% during the fourth quarter of fiscal 2014, an increase from 39.0% during the third quarter of fiscal 2014.
- For the fourth quarter of fiscal 2014, one customer accounted for 12.2% of total revenue. This compared to one customer that accounted for 21.6% of total revenue in the third quarter of fiscal 2014.

Gross margin for the fourth quarter of fiscal 2014 was 37.4%, a decrease from 43.7% in the third quarter of fiscal 2014. Gross margin for the fourth quarter of fiscal 2014 was adversely impacted by our commercial arrangement with AT&T, as described above, and revenue from multiple large international projects that are in the early stage of network deployment with higher related start-up costs that include a large concentration of lower margin "common" equipment and lower margin installation services.

Operating expense was $222.7 million for the fourth quarter of fiscal 2014, a decrease from $227.0 million in the third quarter of fiscal 2014. Fourth quarter operating expense reflects a decrease of $7.7 million in general and administrative expense. This decrease was partially offset by increases of $2.5 million in selling and marketing expense and $0.8 million in research and development expense.

Our lower revenue and gross margin resulted in a loss from operations of $1.8 million for the fourth quarter of fiscal 2014, as compared to $37.0 million of income from operations during the third quarter of fiscal 2014. Due primarily to the fluctuation in foreign currency exchange rates, net of hedging, we incurred losses in interest and other income, net of $10.7 million and $5.8 million during the fourth quarter of fiscal 2014 and the third quarter of fiscal 2014, respectively. Our net loss for the fourth quarter of fiscal 2014 was $30.7 million, or $0.29 per diluted common share. This compares to a net income of $16.2 million or $0.15 per diluted common share, for the third quarter of fiscal 2014.

We generated $73.8 million of cash from operations during the fourth quarter of fiscal 2014, consisting of $23.5 million provided by net losses adjusted for non-cash charges and $50.3 million provided by changes in working capital. This compares with $51.1 million in cash generated from operations during the third quarter of fiscal 2014, consisting of $80.9 million provided by net income adjusted for non-cash charges, offset by a $29.8 million use of cash related to changes in working capital.

As of October 31, 2014, we had $586.7 million in cash and cash equivalents, $140.2 million of short-term investments in U.S. treasury securities and commercial paper and $50.1 million of long-term investments in U.S. treasury

securities. This compares to $532.9 million in cash and cash equivalents, $120.3 million of short-term investments in U.S. treasury securities and commercial paper, and $65.0 million of long-term investments in U.S. treasury securities at July 31, 2014 and $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 at October 31, 2013.

As of October 31, 2014, we had 5,161 employees, an increase from 5,136 as of July 31, 2014 and an increase from 4,754 and 4,481 at October 31, 2013 and 2012, respectively.

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Consolidated Results of Operations

Operating Segments

Ciena’s internal organizational structure and the management of its business are grouped into the following operating segments each of which is more fully described in the "Products and Services" section of the description of our business in Item 1 of Part 1 of this annual report:

- Converged Packet Optical —includes the 6500 Packet-Optical Platform and the 5430 Reconfigurable Switching System, which feature Ciena's WaveLogic coherent optical processors. Products also include Ciena's family of CoreDirector® Multiservice Optical Switches and the OTN configuration for the 5410 Reconfigurable Switching System. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.

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

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

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

Fiscal 2013 compared to Fiscal 2014

Revenue

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

	Fiscal Year					
	2013	%*	2014	%*	Increase (decrease)	%**
Revenue:						
Converged Packet Optical	$1,187,231	57.0	$1,455,501	63.6	$268,270	22.6
Packet Networking	222,898	10.7	244,116	10.7	21,218	9.5
Optical Transport	233,821	11.2	127,215	5.6	(106,606)	(45.6)
Software and Services	438,596	21.1	461,457	20.1	22,861	5.2

Consolidated revenue	$2,082,546	100.0	$2,288,289	100.0	$205,743	9.9

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* Denotes % of total revenue
** Denotes % change from 2013 to 2014

Converged Packet Optical revenue increased significantly, reflecting a $258.2 million increase in sales of our 6500 Packet-Optical Platform, largely driven by service provider and Web-scale 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 $25.6 million and $6.0 million respectively. These increases were partially offset by a $21.5 million decrease in sales of our CoreDirector® Multiservice Optical Switches. The strong performance of this segment, particularly as compared to the expected 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 $30.4 million increase in sales of our 3000 and 5000 families of service delivery and aggregation switches. This increase was largely driven by the expansion of Ethernet business services by AT&T, our largest service provider customer. Segment revenue also benefited from $1.7 million in initial sales of our 8700 Packetwave Platform. These increases were partially offset by decreases of $5.3 million in sales of our 5410 Service Aggregation Switch and $5.1 million in sales of our older, stand-alone broadband products.
- Optical Transport revenue decreased, reflecting sales decreases of $46.6 million in other stand-alone transport products, $36.2 million of 5100/5200 Advanced Services Platform and $23.8 million in our 4200 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 converged network architectures as described above.
- Software and Services revenue increased, reflecting increases of $10.4 million in maintenance and support services revenue, $8.4 million in installation and deployment services revenue, $2.8 million in software sales and $1.2 million in networking transformation consulting revenue.

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					
	2013	%*	2014	%*	Increase (decrease)	%**
United States	$1,217,462	58.5	$1,317,981	57.6	$100,519	8.3
International	865,084	41.5	970,308	42.4	105,224	12.2
Total	$2,082,546	100.0	$2,288,289	100.0	$205,743	9.9

* Denotes % of total revenue
** Denotes % change from 2013 to 2014

- United States revenue reflects increases of $123.8 million in Converged Packet Optical sales, $20.3 million in Packet Networking sales and $20.7 million in Services and Software sales. In particular, during fiscal 2014, we benefited from the diversification of our customer base, including increased sales of our Converged Packet Optical products to Web-scale providers and data center operators, as these customers added capacity and adopted next-generation network architectures better able to handle multi-service traffic growth. We also increased sales of our Packet Networking and Converged Packet Optical products to AT&T in support of its Ethernet business services and increased demand for high-capacity, optical transport. These increases were partially offset by a $64.3 million decrease in Optical Transport sales as network operators' transition toward next-generation converged network architectures as described above.
- International revenue reflects increases of $144.5 million in Converged Packet Optical sales and $2.2 million in Software and Services revenue. We benefited from the diversification of our customer base including

increased sales of our Converged Packet Optical products to service provider customers, submarine consortia and cable and

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multiservice operators. These increases were partially offset by decreases of $42.3 million in Optical Transport sales as network operators' transition toward next-generation converged network architectures as described above.

While we have benefited from the diversification of our business and customer base, our largest ten customers contributed 59.4% of fiscal 2013 revenue and 56.4% of fiscal 2014 revenue. A sizable portion of our revenue continues to come from sales to service provider customers. As a result, our financial results are significantly affected by and can fluctuate depending upon spending levels of our service provider customers, their end-user demand and the business opportunities and challenges they encounter. Sales to AT&T were $373.6 million, or 17.9% of total revenue, in fiscal 2013 and $423.5 million, or 18.5% of total revenue, in fiscal 2014. We did not have any other customers accounting for greater than 10% of our revenue in fiscal 2013 or fiscal 2014.

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. Gross margin can also be adversely affected by the level of pricing pressure and competition that we encounter in the market. We expect that gross margins will be subject to fluctuation based on our level of success in driving product cost reductions relative to the market-based price erosion we encounter. In an effort to retain or secure customers, enter new markets or capture market share, we may agree to pricing or other unfavorable commercial terms that result in lower or negative gross margins on a particular order or group of orders. Gross margin can also be affected as a result of our degree of success in rationalizing our supply chain and consolidating third party contract manufacturers and distribution sites as part of our effort to optimize our operations. 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					
	2013	%*	2014	%*	Increase (decrease)	%**
Total revenue	$2,082,546	100.0	$2,288,289	100.0	$205,743	9.9
Total cost of goods sold	1,217,371	58.5	1,339,937	58.6	122,566	10.1
Gross profit	$865,175	41.5	$948,352	41.4	$83,177	9.6

* Denotes % of total revenue
** Denotes % change from 2013 to 2014

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	Fiscal Year 2013	%*	2014	%*	Increase (decrease)	%**
Product revenue	$1,680,125	100.0	$1,865,826	100.0	$185,701	11.1
Product cost of goods sold	967,510	57.6	1,083,022	58.0	115,512	11.9
Product gross profit	$712,615	42.4	$782,804	42.0	$70,189	9.8

* Denotes % of product revenue
** Denotes % change from 2013 to 2014

	Fiscal Year 2013	%*	2014	%*	Increase (decrease)	%**
Service revenue	$402,421	100.0	$422,463	100.0	$20,042	5.0
Service cost of goods sold	249,861	62.1	256,915	60.8	7,054	2.8
Service gross profit	$152,560	37.9	$165,548	39.2	$12,988	8.5

* Denotes % of service revenue
** Denotes % change from 2013 to 2014

- Gross profit as a percentage of revenue remained relatively unchanged.
- Gross profit on products as a percentage of product revenue decreased slightly, due to lower margins on Packet Networking and Optical Transport products. The decline was largely offset by improved mix of higher-margin packet platforms with software content within our Converged Packet Optical segment, 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 increased maintenance and consulting services revenues and increased margin due to improved efficiencies for managed spares projects.

Operating Expense

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

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

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

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

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

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

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

	Fiscal Year					
	2013	%*	2014	%*	Increase (decrease)	%**
Research and development	$383,408	18.4	$401,180	17.5	$17,772	4.6
Selling and marketing	304,170	14.6	328,325	14.3	24,155	7.9
General and administrative	122,432	5.9	126,824	5.5	4,392	3.6
Amortization of intangible assets	49,771	2.4	45,970	2.0	(3,801)	(7.6)
Restructuring costs	7,169	0.3	349	—	(6,820)	(95.1)
Total operating expenses	$866,950	41.6	$902,648	39.3	$35,698	4.1

* Denotes % of total revenue

** Denotes % change from 2013 to 2014

- Research and development expense benefited by $15.4 million as a result of foreign exchange rates, primarily due to strengthening of the U.S. dollar in relation to the Canadian Dollar. The $17.8 million increase primarily reflects increases of $8.1 million in professional services expense, $6.9 million in employee compensation and related costs, $5.3 million in prototype expense, partially offset by a decrease of $2.6 million in technology and related costs.
- Selling and marketing expense benefited by $1.9 million as a result of foreign exchange rates, primarily due to strengthening of the U.S. dollar in relation to the Canadian Dollar. The $24.2 million increase primarily reflects increases of $20.6 million in employee compensation and related costs, $3.3 million of travel and related costs and $1.2 million in facilities and information technology costs. These increases were partially offset by a decrease of $1.4 million in customer demonstration equipment.
- General and administrative expense increased by $4.4 million, primarily reflecting an increase in legal fees and settlements and consulting services.
- Amortization of intangible assets decreased due to certain intangible assets having reached the end of their economic lives.
- Restructuring costs primarily reflect certain severance and related expense associated with headcount reductions and restructuring activities to align our workforce and resources with market opportunities and research and development initiatives. Restructuring costs for fiscal 2013 also 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					
	2013	%*	2014	%*	Increase (decrease)	%**
Interest and other income (loss), net	$(5,744)	(0.3)	$(25,262)	(1.1)	$(19,518)	(339.8)
Interest expense	$44,042	2.1	$47,115	2.1	$3,073	7.0
Loss on debt extinguishment	$(28,630)	(1.4)	$—	—	$28,630	(100.0)
Provision for income taxes	$5,240	0.3	$13,964	0.6	$8,724	166.5

* Denotes % of total revenue

** Denotes % change from 2013 to 2014

- Interest and other income (loss), net reflects a $5.7 million non-cash loss related to the change in fair value of the embedded redemption feature associated with our 2015 Notes and a $13.5 million increase in losses related to foreign

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exchange rates on assets and liabilities denominated in a currency other than the relevant functional currency, net of hedging activity.

- Interest expense increased primarily due to the Term Loan that was entered into in fiscal 2014, as described in "Overview" above.
- Loss on extinguishment of debt for fiscal 2013 reflects a non-cash loss of $28.6 million relating to the exchange transactions during the first quarter of fiscal 2013. Upon issuance, the 4.0% convertible senior notes due December 15, 2020 (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, which was accounted for as a separate embedded derivative.
- Provision for income taxes increased primarily due to foreign and state tax expenses.

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:

	Fiscal Year					
	2012	%*	2013	%*	Increase (decrease)	%**
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	$1,833,923	100.0	$2,082,546	100.0	$248,623	13.6

* 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.

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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					
	2012	%*	2013	%*	Increase (decrease)	%**
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	$1,833,923	100.0	$2,082,546	100.0	$248,623	13.6

* 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 $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 OP^n 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.

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					
	2012	%*	2013	%*	Increase (decrease)	%**
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

	Fiscal Year					
	2012	%*	2013	%*	Increase (decrease)	%**
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	$586,186	40.3	$712,615	42.4	$126,429	21.6

* Denotes % of product revenue
** Denotes % change from 2012 to 2013

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	Fiscal Year					
	2012	%*	2013	%*	Increase (decrease)	%**
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	$138,038	36.4	$152,560	37.9	$14,522	10.5

* 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

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

	Fiscal Year					
	2012	%*	2013	%*	Increase (decrease)	%**
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.

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- 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					
	2012	%*	2013	%*	Increase (decrease)	%**
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 extinguishment of debt	$—	0.0	$(28,630)	(1.4)	$(28,630)	(100.0)
Provision for income taxes	$9,322	0.5	$5,240	0.3	$(4,082)	(43.8)

* 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, 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. 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.

Segment Profit

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

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	Fiscal Year			
	2013	2014	Increase (decrease)	%*
Segment profit:				
Converged Packet Optical	$242,335	$353,942	$111,607	46.1
Packet Networking	$22,740	$19,467	$(3,273)	(14.4)
Optical Transport	$89,754	$38,974	$(50,780)	(56.6)
Software and Services	$126,938	$134,789	$7,851	6.2

* Denotes % change from 2013 to 2014

- Converged Packet Optical segment profit increased primarily due to increased sales volume and improved gross margin. The increased sales volume is largely driven by service provider and Web-scale provider demand for high-capacity, coherent 40G and 100G network infrastructures with integrated OTN switching and control plane functionality. The improved gross margin is primarily due to sales reflecting a greater mix of higher-margin packet platforms with software content within the segment. These increases were partially offset by increased research and development expense.
- Packet Networking segment profit decreased due to lower margins on our 3000 and 5000 families of service delivery and aggregation switches, reflecting increased pricing pressure and competitive dynamics, and increased research and development expense. Decreased segment profit was partially offset by increased sales volume.
- Optical Transport segment profit decreased primarily due to reduced sales volume and lower gross margin, partially offset by lower research and development expense. The decrease in gross margin is primarily due to an increase in obsolete and excess inventory expense for the discontinuance of certain parts and components used in the manufacture of our Optical Transport products, including our Corestream® Agility Optical Transport 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 segment profit increased slightly due to higher sales for software and consulting services and improved efficiencies for managed spares projects. These increases were partially offset by higher software research and development expense.

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

	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

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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.

Liquidity and Capital Resources

At October 31, 2014, our principal sources of liquidity were cash and cash equivalents and investments in marketable debt securities, representing U.S. treasuries and commercial paper, and our ABL Credit Facility. The following table sets forth changes in our cash and cash equivalents and investments in marketable debt securities (in thousands):

	October 31, 2013	2014	Increase (decrease)
Cash and cash equivalents	$346,487	$586,720	$240,233
Short-term investments in marketable debt securities	124,979	140,205	15,226
Long-term investments in marketable debt securities	15,031	50,057	35,026
Total cash and cash equivalents and investments in marketable debt securities	$486,497	$776,982	$290,485

The change in total cash and cash equivalents and investments in marketable debt securities during fiscal 2014 was primarily related to the $246.0 million in net proceeds from our Term Loan as described in "Overview" above and the following:

- $89.8 million cash provided by operations, consisting of $195.2 million provided by net losses adjusted for non-cash charges offset by $105.4 million used in working capital;
- $48.2 million used for purchases of equipment, furniture, fixtures and intellectual property;
- $10.0 million used in settlement of foreign currency forward contracts, net;
- $3.0 million used to pay capital lease obligations; and
- $17.7 million from proceeds of stock issuances under our employee stock purchase plan and the exercise of stock options.

As of October 31, 2014, letters of credit totaling $71.4 million were collateralized by our ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of October 31, 2014. See "ABL Credit Facility" below for additional information.

We regularly evaluate our liquidity position, debt obligations, and anticipated cash needs to fund our operating plans and may consider capital raising and other market opportunities that may be available to us. Based on past performance and current expectations, we believe that our cash, cash equivalents, investments and other sources of liquidity, including our ABL Credit Facility, will satisfy our working capital needs, capital expenditures, the repayment of our outstanding 4.0% convertible senior notes due March 15, 2015 and other liquidity requirements associated with our operations through at least the next 12 months.

The following sections set forth the components of our $89.8 million of cash provided by operating activities for fiscal 2014:

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:

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	Year ended October 31, 2014
Net loss	$(40,637)
Adjustments for non-cash charges:	
Depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements	55,616
Share-based compensation costs	42,930
Amortization of intangible assets	57,151
Provision for inventory excess and obsolescence	32,332
Provision for warranty	22,129
Other	25,668
Net losses adjusted for non-cash charges	$195,189

Working Capital

Accounts Receivable, Net

Cash used in increases in accounts receivable during fiscal 2014, net of $2.8 million in provision for doubtful accounts, was $33.2 million. This reflects an increase in our revenue, partially offset by a decrease in days sales outstanding. Our days sales outstanding (DSOs) decreased from 84 days for fiscal 2013 to 82 days for fiscal 2014. The decrease in DSOs primarily reflects shorter customer payment terms.

The following table sets forth (in thousands) changes to our accounts receivable, net of allowance for doubtful accounts, from the end of fiscal 2013 through the end of fiscal 2014:

	October 31, 2013	2014	Increase (decrease)
Accounts receivable, net	$488,578	$518,981	$30,403

Inventory

Cash used in increases in inventory during fiscal 2014 was $37.9 million. The increase in inventory reflects our decision to carry more finished goods inventory for our Converged Packet Optical products to reduce our lead times for shipments to customers. Our inventory turns increased from 3.9 turns during fiscal 2013 to 4.3 turns during fiscal 2014. Our inventory balance, as reported on our Consolidated Balance Sheet, increased by $5.6 million during fiscal 2014. This change reflects our $37.9 million cash usage for inventory, partially offset by a $32.3 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 2013 through the end of fiscal 2014:

	October 31, 2013	2014	Increase (decrease)
Raw materials	$53,274	$64,853	$11,579
Work-in-process	7,773	8,371	598
Finished goods	153,855	165,799	11,944
Deferred cost of goods sold	75,764	75,763	(1)
Gross inventory	290,666	314,786	24,120
Provision for inventory excess and obsolescence	(41,563)	(60,126)	(18,563)
Inventory	$249,103	$254,660	$5,557

Prepaid expenses and other

Cash used in prepaid expense and other during fiscal 2014 was $7.9 million and primarily related to higher product demonstration equipment and deferred deployment expense.

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Accounts payable, accruals and other obligations

Utilization of cash resources for accounts payable, accruals and other obligations during fiscal 2014 was $59.8 million. This amount reflects a $29.5 million decrease in our accounts payable, accruals and other obligations plus additional liabilities recorded for the following items: $22.1 million relating to warranties; $7.3 million for financing activities relating to unpaid capital leases; and $2.1 million related to our interest rate swap derivative. These items were partially offset by a decrease of $1.2 million for investing activities related to equipment purchases.

The following table sets forth (in thousands) changes in our accounts payable, accruals and other obligations from the end of fiscal 2013 through the end of fiscal 2014:

	October 31, 2013	2014	Increase (decrease)
Accounts payable	$254,849	$209,777	$(45,072)
Accrued liabilities and other short-term obligations	271,656	276,608	4,952
Other long-term obligations	34,753	45,390	10,637
Accounts payable, accruals and other obligations	$561,258	$531,775	$(29,483)

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

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 2014.

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 2014.

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 2014.

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 $7.5 million in interest on these convertible notes during fiscal 2014.

Interest on our outstanding Term Loan, due July 15, 2019, is payable periodically based on the underlying market index rate selected for borrowing. We paid $2.6 million in interest on this term loan during fiscal 2014.

During fiscal 2014, we utilized the ABL Credit Facility to collateralize certain standby letters of credit. We paid $1.2 million in commitment fees, interest expense and other administrative charges relating to our ABL Credit Facility during fiscal 2014.

For additional information about our convertible notes and Term Loan, see Note 14 to our Consolidated Financial Statements included in in Item 8 of Part II of this report. For additional information about our ABL Credit Facility, see Note 15 to our Consolidated Financial Statements included in Item 8 of Part II of this report and "ABL Credit Facility" below.

Deferred revenue

Deferred revenue increased by $33.4 million during fiscal 2014. Product deferred revenue represents either payments received in advance of shipment or payments received after shipment but before revenue recognition. Services deferred revenue is related to payment for service contracts for which revenue will be recognized over the contract term. The following table reflects (in thousands) the balance of deferred revenue and the change in this balance from

the end of fiscal 2013 through the end of fiscal 2014:

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	October 31, 2013	2014	Increase (decrease)
Products	$36,671	$50,457	$13,786
Services	75,499	95,161	19,662
Total deferred revenue	$112,170	$145,618	$33,448

ABL Credit Facility

During fiscal 2014, we amended our ABL Credit Facility to, among other things:

- increase the total committed amount from $150 million to $200 million;
- extend the maturity date from August 13, 2015 to December 31, 2016 (and eliminate a December 15, 2014 maturity date acceleration feature);
- reduce from $200 million to $150 million the minimum aggregate amount of unrestricted cash and cash equivalents that we are required to maintain at all times;
- reduce the interest rate on borrowings from LIBOR plus an applicable margin ranging from 200 basis points to 250 basis points, to an applicable margin ranging from 150 basis points to 200 basis points, with the actual margin determined based on our utilization of the credit facility; and
- amend the borrowing base to include, among other items, up to $50 million in eligible cash.

We principally use the liquidity available under the ABL Credit Facility to support the issuance of letters of credit that arise in the ordinary course of our business and thereby to reduce our use of cash required to collateralize these instruments.

Contractual Obligations

During fiscal 2014, we entered into a Term Loan Credit Agreement that provides for senior secured term loans in an aggregate principal amount of $250 million as described in "Overview" above. During the fourth quarter of fiscal 2014, we entered into a lease relating to office space for its new research and development center in Ottawa, Canada, consisting of a rentable area of approximately 170,582 square feet.The future minimum rental commitments to be paid over the 18-year lease term are approximately $49.1 million. The following is a summary of our future minimum payments under contractual obligations as of October 31, 2014 (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	500,000	350,000	217,127
Principal due on term loan	249,375	2,500	5,000	241,875	—
Interest due on convertible notes	118,125	28,750	50,000	28,125	11,250
Interest due on term loan (2)	44,045	9,449	18,640	15,956	—
Operating leases (3)	204,898	33,527	59,837	28,343	83,191
Purchase obligations (4)	197,753	197,753			
Capital lease	13,020	8,312	4,708	—	—
Other obligations	7,002	3,814	3,188	—	—
Total (5)	$2,088,845	$471,605	$641,373	$664,299	$311,568

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

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

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

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

(5) As of October 31, 2014, we also had approximately $14.4 million of other long-term obligations on 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 ABL Credit Facility or restricted cash. Restricted cash balances are included in other current assets or other long-term assets depending upon the duration of the underlying letter of credit obligation. The following is a summary of our commercial commitments secured by standby letters of credit by commitment expiration date as of October 31, 2014 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Standby letters of credit	$71,449	$34,409	$21,883	$3,711	$11,446

Off-Balance Sheet Arrangements

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

Critical Accounting Policies and Estimates

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

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

Revenue Recognition

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

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

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

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recorded within deferred revenue. The percentage of revenue recognized using the percentage-of-completion method for the fiscal years ended October 31, 2012, October 31, 2013 and October 31, 2014 were 1.0%, 4.5% and 4.0%, respectively.

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

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

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

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

Our total deferred revenue for products was $36.7 million and $50.5 million as of October 31, 2013 and October 31, 2014, 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 $75.5 million and $95.2 million as of October 31, 2013 and October 31, 2014, respectively.

Share-Based Compensation

We estimate the fair value of our restricted stock unit awards based on the fair value of our common stock on the date of grant. Our outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. We recognize the estimated fair value of service-based awards, net of estimated forfeitures, as share-based expense ratably over the vesting period on a straight-line basis. Awards with performance-based vesting conditions require the achievement of certain financial or other performance criteria or targets as a condition to the vesting, or acceleration of vesting. We recognize the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon our determination of whether it is probable that the performance targets will be achieved. At each reporting period, we reassess the probability of achieving the performance targets and the performance period required to meet those targets and the expense is adjusted accordingly. Determining whether the performance targets will be achieved involves judgment, and the estimate of expense may be revised periodically based on changes in the probability of achieving the

performance targets. Revisions are reflected in the period in which the estimate is changed. If any performance goals are not met, no compensation cost is ultimately recognized against that goal and, to the extent previously recognized, compensation cost is reversed.

Because share-based compensation expense is based on awards that are ultimately expected to vest, the amount of expense takes into account estimated forfeitures. We estimate forfeitures at the time of grant and revise these estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Changes in these estimates and assumptions can materially affect the measurement of estimated fair value of our share-based compensation. See Note 19 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, 2014, total unrecognized compensation expense was $57.2 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

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recorded. When assessing whether a tax benefit relating to share-based compensation has been realized, we follow the "with-and-without" method. Under the with-and-without method, the windfall is considered realized and recognized for financial statement purposes only when an incremental benefit is provided after considering all other tax benefits including our net operating losses. The with-and-without method results in the windfall from share-based compensation awards always being effectively the last tax benefit to be considered. Consequently, the windfall attributable to share-based compensation will not be considered realized in instances where our net operating loss carryover (that is unrelated to windfalls) is sufficient to offset the current year's taxable income before considering the effects of current-year windfalls.

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 $19.9 million and $32.3 million in fiscal 2013 and 2014, respectively. The charges in fiscal 2013 and fiscal 2014 primarily related to engineering design changes and the discontinuance of certain parts and components used in the manufacture of our Optical Transport, including our Corestream® Agility Optical Transport platform, and Converged Packet Optical products. Our inventory net of allowance for excess and obsolescence was $249.1 million and $254.7 million as of October 31, 2013 and October 31, 2014, respectively.

Allowance for Doubtful Accounts Receivable

Our allowance for doubtful accounts receivable is based on management's assessment, on a specific identification basis, of the collectibility of customer accounts. We perform ongoing credit evaluations of our customers and generally have not required collateral or other forms of security from customers. In determining the appropriate balance for our allowance for doubtful accounts receivable, management considers each individual customer account receivable in order to determine collectibility. In doing so, we consider creditworthiness, payment history, account activity and communication with such customer. If a customer's financial condition changes, or if actual defaults are higher than our historical experience, we may be required to take a charge for an allowance for doubtful accounts receivable which could have an adverse impact on our results of operations. Our accounts receivable, net of allowance for doubtful accounts, was $488.6 million and $519.0 million as of October 31, 2013 and October 31, 2014, respectively. Our allowance for doubtful accounts was $2.0 million and $2.1 million as of October 31, 2013 and October 31, 2014, respectively.

Long-lived Assets

Our long-lived assets include: equipment, furniture and fixtures, finite-lived intangible assets and maintenance spares. As of October 31, 2013 and October 31, 2014 these assets totaled $366.9 million and $309.4 million, net, respectively. We test long-lived assets for impairment whenever events or changes in circumstances indicate that the assets' carrying amount is not recoverable from its undiscounted cash flows. Our long-lived assets are assigned to asset

groups which represent the lowest level for which we identify cash flows.We measure impairment loss as the amount by which the carrying amount of the asset or asset group exceeds its fair value.

Deferred Tax Valuation Allowance

As of October 31, 2014, we have recorded a valuation allowance offsetting 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,

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our cumulative loss during this three-year period represents sufficient negative evidence regarding the need for nearly a full valuation allowance. We will release this valuation allowance when management determines that it is more likely than not that our deferred tax assets will be realized. Any future release of valuation allowance may be recorded as a tax benefit increasing net income or as an adjustment to paid-in capital, based on tax ordering requirements.

Warranty

Our liability for product warranties, included in other accrued liabilities, was $56.3 million and $56.0 million as of October 31, 2013 and October 31, 2014, 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 $24.6 million and $22.1 million for fiscal 2013 and 2014, respectively. See Note 11 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, 2014. 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.

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	Jan. 31, 2013	Apr. 30, 2013	Jul. 31, 2013	Oct. 31, 2013	Jan. 31, 2014	Apr. 30, 2014	Jul. 31, 2014	Oct. 31, 2014
Revenue:								
Products	$353,057	$413,217	$437,442	$476,409	$432,941	$460,821	$495,889	$476,175
Services	100,036	94,495	100,914	106,976	100,762	99,240	107,673	114,788
Total Revenue	453,093	507,712	538,356	583,385	533,703	560,061	603,562	590,963
Cost of goods sold:								
Products	196,521	239,441	247,768	283,780	245,216	257,632	275,003	305,171
Services	60,777	58,758	62,367	67,959	62,636	64,738	64,586	64,955
Total costs of goods sold	257,298	298,199	310,135	351,739	307,852	322,370	339,589	370,126
Gross profit	195,795	209,513	228,221	231,646	225,851	237,691	263,973	220,837
Operating expenses:								
Research and development	89,125	100,787	93,069	100,427	101,497	103,492	97,685	98,506
Selling and marketing	66,588	74,475	75,613	87,494	78,348	83,662	81,919	84,396
General and administrative	28,208	30,883	32,066	31,275	30,097	31,882	36,285	28,560
Amortization of intangible assets	12,453	12,439	12,440	12,439	12,439	11,493	11,019	11,019
Restructuring costs	5,030	1,509	202	428	115	—	63	171
Total operating expenses	201,404	220,093	213,390	232,063	222,496	230,529	226,971	222,652
Income (loss) from operations	(5,609)	(10,580)	14,831	(417)	3,355	7,162	37,002	(1,815)
Interest and other income (loss), net	(137)	(2,716)	(3,167)	276	(5,998)	(1,905)	(6,328)	(11,031)
Interest expense	(10,732)	(11,392)	(10,972)	(10,946)	(11,028)	(11,020)	(11,508)	(13,559)
Loss on extinguishment of debt	(28,630)	—	—	—	—	—	—	—
Income (loss) before income taxes	(45,108)	(24,688)	692	(11,087)	(13,671)	(5,763)	19,166	(26,405)
Provision (benefit from) for income tax	2,216	2,391	1,923	(1,290)	2,265	4,395	3,006	4,298
Net income (loss)	$(47,324)	$(27,079)	$(1,231)	$(9,797)	$(15,936)	$(10,158)	$16,160	$(30,703)
Basic net income (loss) per common share	$(0.47)	$(0.27)	$(0.01)	$(0.09)	$(0.15)	$(0.10)	$0.15	$(0.29)
Diluted net income (loss) per potential common share	$(0.47)	$(0.27)	$(0.01)	$(0.09)	$(0.15)	$(0.10)	$0.15	$(0.29)
Weighted average basic common shares outstanding	101,204	101,913	102,713	103,523	104,501	105,451	106,236	106,931
Weighted average dilutive potential common shares outstanding	101,204	101,913	102,713	103,523	104,501	105,451	120,809	106,931

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Item 7A. Quantitative and Qualitative Disclosures About Market Risk

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

Interest Rate Sensitivity. We currently hold investments in U.S. Government obligations and commercial paper with varying maturities. See Notes 4 and 5 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 $1.2 million decline in value.

Our earnings and cash flows from operations may be exposed to changes in interest rates because of the floating rate of interest in our Term Loan. See Note 14 to our Consolidated Financial Statements for information relating to the Term Loan. The Term Loan bears interest at LIBOR plus a spread of 300 basis points subject to a minimum LIBOR rate of 0.75%. As of October 31, 2014, the interest rate in effect on our Term Loan was 3.75%. During fiscal 2014, Ciena entered into interest rate cap arrangements to limit the interest rate under the Term Loan to a maximum LIBOR rate of 0.75% plus a spread of 300 basis points through July 2015. Also in fiscal 2014, Ciena entered into interest rate swap arrangements ("interest rate swap") that fix the total interest rate under the Term Loan at 5.004%, for the period commencing on July 20, 2015 through July 19, 2018. As such, a 100 basis point increase in the LIBOR rate as of our most recent LIBOR rate setting would have an immaterial impact in annualized interest expense on our Term Loan as recognized in our Consolidated Financial Statements.

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 2014, approximately 48.1% of our operating expense was non-U.S. dollar denominated. If these currencies strengthen, costs reported in U.S. dollars will increase. During fiscal 2014, research and development expense benefited by approximately $15.4 million, net of hedging losses of $1.4 million, primarily due to the strengthening of the U.S. dollar in relation to the Canadian Dollar in comparison to fiscal 2013. Also in fiscal 2014, sales and marketing expense benefited by approximately $1.9 million due to the strengthening of the U.S. dollar in relation to the Canadian Dollar in comparison to fiscal 2013.

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.

Ciena Corporation, as the U.S. parent entity, uses the U.S. dollar as its functional currency, however some of Ciena's foreign branch offices and subsidiaries use the local currency as their functional currency. During fiscal 2014, Ciena

recorded $15.7 million in foreign currency exchange losses, as a result of monetary assets and liabilities that were transacted in a currency other than the entity's functional currency, and the re-measurement adjustments were recorded in interest and other income (loss), net on the Consolidated Statement of Operations. From time to time, Ciena uses foreign currency forwards to hedge these balance sheet exposures. These forwards are not designated as hedges for accounting purposes and any net gain or loss associated with these derivatives is reported in interest and other income (loss), net. See Note 1, Note 3 and Note 12 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

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may also increase as the market price of our stock rises and decrease as the market price of our 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 14 to our Consolidated Financial Statements included in Item 8 of Part II of this report.

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Item 8. Financial Statements and Supplementary Data

The following is an index to the consolidated financial statements:

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Consolidated Balance Sheets	61
Consolidated Statements of Operations	62
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Consolidated Statements of Changes in Stockholders' Equity (Deficit)	64
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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, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2014 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, 2014, based on criteria established in Internal Control - Integrated Framework (1992) 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, included in the accompanying Report of Management on 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 19, 2014

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

	October 31, 2013	2014
ASSETS		
Current assets:		
Cash and cash equivalents	$346,487	$586,720
Short-term investments	124,979	140,205
Accounts receivable, net	488,578	518,981
Inventories	249,103	254,660
Prepaid expenses and other	186,655	192,624
Total current assets	1,395,802	1,693,190
Long-term investments	15,031	50,057
Equipment, furniture and fixtures, net	119,729	126,632
Other intangible assets, net	185,828	128,677
Other long-term assets	86,380	74,076
Total assets	$1,802,770	$2,072,632
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	$254,849	$209,777
Accrued liabilities and other short-term obligations	271,656	276,608
Deferred revenue	88,550	104,688
Current portion of long-term debt	—	190,063
Total current liabilities	615,055	781,136
Long-term deferred revenue	23,620	40,930
Other long-term obligations	34,753	45,390
Long-term debt, net	1,212,019	1,274,791
Total liabilities	1,885,447	2,142,247
Commitments and contingencies (Note 22)		
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; 103,705,709 and 106,979,960 shares issued and outstanding	1,037	1,070
Additional paid-in capital	5,893,880	5,954,440
Accumulated other comprehensive loss	(7,774)	(14,668)
Accumulated deficit	(5,969,820)	(6,010,457)
Total stockholders' equity (deficit)	(82,677)	(69,615)
Total liabilities and stockholders' equity (deficit)	$1,802,770	$2,072,632

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

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

	Year Ended October 31,		
	2012	2013	2014
Revenue:			
Products	$1,454,991	$1,680,125	$1,865,826
Services	378,932	402,421	422,463
Total revenue	1,833,923	2,082,546	2,288,289
Cost of goods sold:			
Products	868,805	967,510	1,083,022
Services	240,894	249,861	256,915
Total cost of goods sold	1,109,699	1,217,371	1,339,937
Gross profit	724,224	865,175	948,352
Operating expenses:			
Research and development	364,179	383,408	401,180
Selling and marketing	266,338	304,170	328,325
General and administrative	114,002	122,432	126,824
Amortization of intangible assets	51,697	49,771	45,970
Restructuring costs	7,854	7,169	349
Total operating expenses	804,070	866,950	902,648
Income (loss) from operations	(79,846)	(1,775)	45,704
Interest and other income (loss), net	(15,200)	(5,744)	(25,262)
Interest expense	(39,653)	(44,042)	(47,115)
Loss on extinguishment of debt	—	(28,630)	—
Loss before income taxes	(134,699)	(80,191)	(26,673)
Provision for income taxes	9,322	5,240	13,964
Net loss	$(144,021)	$(85,431)	$(40,637)
Basic net loss per common share	$(1.45)	$(0.83)	$(0.38)
Diluted net loss per potential common share	$(1.45)	$(0.83)	$(0.38)
Weighted average basic common shares outstanding	99,341	102,350	105,783
Weighted average dilutive potential common shares outstanding	99,341	102,350	105,783

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

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

	Year ended October 31,		
	2012	2013	2014
Net loss	$(144,021)	$(85,431)	$(40,637)
Change in unrealized gain (loss) on available-for-sale securities, net of tax	(166)	(14)	41
Change in unrealized gain (loss) on foreign currency forward contracts, net of tax	49	(310)	114
Change in unrealized gain (loss) on interest rate hedging contracts, net of tax	—	—	(2,109)
Change in accumulated translation adjustments	(3,268)	(4,096)	(4,940)
Other comprehensive loss	(3,385)	(4,420)	(6,894)
Total comprehensive loss	$(147,406)	$(89,851)	$(47,531)

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

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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, 2011	97,440,436	$974	$ 5,753,236	$ 31	$(5,740,368)	$ 13,873
Net loss	—	—	—	—	(144,021)	(144,021)
Other 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)
Other 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	103,705,709	1,037	5,893,880	(7,774)	(5,969,820)	(82,677)
Net loss	—	—	—	—	(40,637)	(40,637)
Other comprehensive loss	—	—	—	(6,894)	—	(6,894)
Issuance of shares from employee equity plans	3,274,251	33	17,630	—	—	17,663
Share-based compensation expense	—	—	42,930	—	—	42,930
Balance at October 31, 2014	106,979,960	$1,070	$ 5,954,440	$ (14,668)	$(6,010,457)	$ (69,615)

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

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CIENA CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended October 31,		
	2012	2013	2014
Cash flows from operating activities:			
Net loss	$(144,021)	$(85,431)	$(40,637)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Loss on extinguishment of debt	—	28,630	—
Depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements	59,099	55,699	55,616
Share-based compensation costs	32,394	37,720	42,930
Amortization of intangible assets	74,497	71,308	57,151
Provision for inventory excess and obsolescence	23,438	19,938	32,332
Provision for warranty	33,418	24,558	22,129
Other	13,722	9,023	25,668
Changes in assets and liabilities:			
Accounts receivable	70,366	(145,421)	(33,164)
Inventories	(53,460)	(8,943)	(37,889)
Prepaid expenses and other	1,748	(82,809)	(7,931)
Accounts payable, accruals and other obligations	12,610	115,312	(59,837)
Deferred revenue	(16,722)	5,094	33,448
Net cash provided by operating activities	107,089	44,678	89,816
Cash flows used in investing activities:			
Payments for equipment, furniture, fixtures and intellectual property	(48,098)	(43,814)	(48,216)
Restricted cash	35,597	2,338	2,060
Purchase of available for sale securities	—	(184,864)	(245,196)
Proceeds from maturities of available for sale securities	—	95,000	195,000
Proceeds from sale of cost method investment	524	—	—
Settlement of foreign currency forward contracts, net	—	479	(10,041)
Net cash used in investing activities	(11,977)	(130,861)	(106,393)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt, net	—	—	248,750
Payment of long-term debt	—	(216,210)	(625)
Payment of debt and equity issuance costs	(2,332)	(3,692)	(4,227)
Payment of capital lease obligations	(1,895)	(3,335)	(3,034)
Proceeds from issuance of common stock	12,167	15,898	17,663
Net cash provided by (used in) financing activities	7,940	(207,339)	258,527
Effect of exchange rate changes on cash and cash equivalents	(2,504)	(2,435)	(1,717)
Net increase (decrease) in cash and cash equivalents	100,548	(295,957)	240,233
Cash and cash equivalents at beginning of fiscal year	541,896	642,444	346,487
Cash and cash equivalents at end of fiscal year	$642,444	$346,487	$586,720
Supplemental disclosure of cash flow information			
Cash paid during the fiscal year for interest	$33,511	$32,397	$36,276
Cash paid during the fiscal year for income taxes, net	$9,603	$10,679	$11,396
Non-cash investing and financing activities			
Purchase of equipment in accounts payable	$5,202	$6,191	$4,961
Fixed assets acquired under capital leases	$6,736	$2,538	$10,424

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

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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 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. Ciena provides equipment, software and services that support the transport, switching, aggregation, service delivery and management of voice, video and data traffic on communications networks.

Ciena’s 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, Web-scale providers, governments, enterprises, research and education institutions, and other network operators across the globe. Ciena's products allow network operators to scale capacity, increase transmission speeds, allocate network traffic and deliver services to end users. Ciena's solutions also include network management and control software and network-level software applications that facilitate automation, software-defined programmability and efficient service delivery. To complement its hardware and software solutions, Ciena offers a broad range of network transformation solutions and related support services that help customers design, optimize, deploy, manage and maintain their network. 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 intercompany 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 (November 3, 2012, November 2, 2013 and November 1, 2014 for the periods reported). Fiscal 2013 and fiscal 2014 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. Any restricted cash collateralizing letters of credit is included in other current assets and other long-term assets depending upon the duration of the restriction.

Investments

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

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Inventories

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

Segment Reporting

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

Additionally, Ciena's access to certain materials or components is dependent upon sole or limited source suppliers. The inability of any of these suppliers to fulfill Ciena's supply requirements, or significant changes in supply cost, could affect future results. Ciena relies on a small number of contract manufacturers to perform the majority of the manufacturing for its

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products. If Ciena cannot effectively manage these manufacturers and forecast future demand, or if these manufacturers fail to deliver products or components on time, Ciena's business and results of operations may suffer.

Revenue Recognition

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

Ciena applies the percentage-of-completion method to long-term arrangements where it is required to undertake significant production, customization or modification engineering, and reasonable and reliable estimates of revenue and cost are available. Utilizing the percentage-of-completion method, Ciena recognizes revenue based on the ratio of actual costs incurred to date to total estimated costs expected to be incurred. In instances that do not meet the percentage-of-completion method criteria, recognition of revenue is deferred until there are no uncertainties regarding customer acceptance. Unbilled percentage- of-completion revenues recognized are included in accounts receivable, net. Billings in excess of revenues recognized on these contracts are recorded within deferred revenue. The percentage of revenue recognized using the percentage-of-completion method for the fiscal years ended October 31, 2012, October 31, 2013 and October 31, 2014 were 1.0%, 4.5% and 4.0%, respectively.

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

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

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

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

including the type of product or service, gross margin objectives, competitive and market conditions, and the go-to-market strategy, all of which can affect pricing practices.

Warranty Accruals

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

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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 for that customer, which could negatively affect its results of operations.

Research and Development

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

Government Grants

Ciena accounts for proceeds from government grants as a reduction of operating expense when there is reasonable assurance that Ciena has complied with the conditions attached to the grant and that the grant proceeds will be received. Grant benefits are recorded to the line item in the Consolidated Statement of Operations to which the grant activity relates. See Note 22 below.

Advertising Costs

Ciena expenses all advertising costs as incurred.

Legal Costs

Ciena expenses legal costs associated with litigation defense as incurred.

Share-Based Compensation Expense

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

Income Taxes

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

In the ordinary course of business, transactions occur for which the ultimate outcome may be uncertain. In addition, tax authorities periodically audit Ciena's income tax returns. These audits examine significant tax filing positions, including the timing and amounts of deductions and the allocation of income tax expenses among tax jurisdictions. Ciena is currently under audit in India for 2008 through 2013 and in Canada for 2010 through 2012. Management does not expect the outcome of these

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audits to have a material adverse effect on Ciena's consolidated financial position, results of operations or cash flows. Ciena's major tax jurisdictions and the earliest open tax years are as follows: United States (2011), United Kingdom (2012), Canada (2009) and India (2008). Limited adjustments can be made to Federal U.S. tax returns in earlier years in order to reduce net operating loss carryforwards. Ciena classifies interest and penalties related to uncertain tax positions as a component of income tax expense.

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

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

Loss Contingencies

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

Fair Value of Financial Instruments

The carrying value of Ciena's cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximates fair market value due to the relatively short period of time to maturity. For information related to the fair value of Ciena's convertible notes and term loan, see Note 14 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

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From time to time, Ciena takes actions to better align its workforce, facilities and operating costs with perceived market opportunities, business strategies and changes in market and business conditions. Ciena recognizes a liability for the cost associated with an exit or disposal activity in the period in which the liability is incurred, except for one-time employee termination benefits related to a service period of more than 60 days, which are accrued over the service period. See Note 2 below.

Foreign Currency

Certain 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 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. See Note 3 below.

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. See Note 3 below.

From time to time, Ciena uses foreign currency forward contracts to reduce variability in certain forecasted non-U.S. dollar denominated cash flows. Generally, these derivatives have maturities of 12 months or less. During fiscal 2014, Ciena also entered into interest rate hedge arrangements to reduce variability in certain forecasted interest expense associated with its Term Loan. All of these derivatives are designated as cash flow hedges. At the inception of the cash flow hedge, and on an ongoing basis, Ciena assesses whether the derivative has been effective in offsetting changes in cash flows attributable to the hedged risk during the hedging period. The effective portion of the derivative's net gain or loss is initially reported as a component of accumulated other comprehensive income (loss), and upon occurrence of the forecasted transaction, is subsequently reclassified to the line item in the Consolidated Statement of Operations to which the hedged transaction relates. Any net gain or loss associated with the ineffectiveness of the hedging instrument is reported in interest and other income (loss), net. To date, no ineffectiveness has occurred.

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

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

See Notes 5 and 12 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 16 below.

Software Development Costs

Ciena develops software for sale to its customers. GAAP requires the capitalization of certain software development costs that are incurred subsequent to the date technological feasibility is established and prior to the date the product is generally available for sale. The capitalized cost is then amortized straight-line over the estimated life of the product. Ciena defines technological feasibility as being attained at the time a working model is completed. To date, the period between Ciena

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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 -Effective

In February 2013, the Financial Accounting Standards Board ("FASB") issued an accounting standard 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 accounting standard update was effective for Ciena beginning in the first quarter of fiscal 2014. As a result of the application of this accounting standard update, Ciena has provided additional disclosures in Note 13 below.

Newly Issued Accounting Standards - Not Yet Effective

In May 2014, FASB issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (Topic 606), which provides guidance for revenue recognition. This ASU affects any entity that either enters into contracts with customers to transfer goods or services or enters into contracts for the transfer of non-financial assets. This ASU will supersede the revenue recognition requirements in Topic 605, Revenue Recognition, and most industry-specific guidance. This ASU also supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition-Construction-Type and Production-Type Contracts. The standard will be effective for Ciena beginning in the first quarter of fiscal 2018. Ciena is currently evaluating the impact of the adoption of this accounting standard update on its Consolidated Financial Statements.

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

	Workforce reduction		Consolidation of excess facilities		Total	
Balance at October 31, 2011	$160		$3,293		$3,453	
Additional liability recorded	5,484	(a)	2,370	(a)	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	(b)	2,128	(b)	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	
Additional liability recorded	685	(c)	9		694	
Adjustment to previous estimates	—		(345)		(345)	

Cash payments	(584)	(466)	(1,050)
Balance at October 31, 2014	$181	$1,134	$1,315
Current restructuring liabilities	$181	$498	$679
Non-current restructuring liabilities	$—	$636	$636

(a) 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.

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(b) 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.

(c) During fiscal 2014, Ciena recorded a charge of $0.7 million of severance and other employee-related costs associated with a workforce reduction of approximately 25 employees.

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

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

	October 31,		
	2012	2013	2014
Interest income	776	550	407
Change in fair value of embedded derivative	(6,600)	2,950	(2,740)
Gain (loss) on non-hedge designated foreign currency forward contracts	—	296	(5,757)
Foreign currency exchange losses	(7,758)	(8,168)	(15,663)
Other	(1,618)	(1,372)	(1,509)
Interest and other income (loss), net	(15,200)	(5,744)	(25,262)

Ciena Corporation, as the U.S. parent entity, uses the U.S. dollar as its functional currency; however, some of its foreign branch offices and subsidiaries use the local currency as their functional currency. During fiscal 2012, fiscal 2013 and fiscal 2014, Ciena recorded $7.8 million, $8.2 million and $15.7 million in foreign currency exchange losses, respectively, as a result of monetary assets and liabilities that were transacted in a currency other than the entity's functional currency, and the re-measurement adjustments were recorded in interest and other income (loss), net on the Consolidated Statement of Operations. From time to time, Ciena uses foreign currency forwards to hedge these balance sheet exposures. These forwards are not designated as hedges for accounting purposes and any net gain or loss associated with these derivatives is reported in interest and other income (loss), net. During fiscal 2014, Ciena recorded losses of $5.8 million from non-hedge designated foreign currency forward contracts.

(4) SHORT-TERM AND LONG-TERM INVESTMENTS

As of October 31, 2013, investments are comprised of the following (in thousands):

	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
	$114,970	$46	$—	$115,016
Commercial paper:				
Included in short-term investments	$24,994	$—	$—	$24,994
	$24,994	$—	$—	$24,994

As of October 31, 2014, investments are comprised of the following (in thousands):

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	October 31, 2014			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. government obligations:				
Included in short-term investments	$110,182	$29	$—	$110,211
Included in long-term investments	50,016	41	—	50,057
	$160,198	$70	$—	$160,268
Commercial paper:				
Included in short-term investments	$29,994	$—	$—	$29,994
	$29,994	$—	$—	$29,994

The following table summarizes the legal maturities of debt investments at October 31, 2014:

	October 31, 2014	
	Amortized Cost	Estimated Fair Value
Less than one year	$140,176	$140,205
Due in 1-2 years	50,016	50,057
	$190,192	$190,262

(5) FAIR VALUE MEASUREMENTS

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

	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

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

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

	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

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

Ciena's Level 3 assets that were included in other long-term assets reflect an embedded redemption feature contained within the 2015 Notes. The embedded redemption feature is bifurcated from the 2015 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

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2015 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 2015 Notes. The value of this feature was immaterial at October 31, 2014.

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, 2013	$2,740
Issuances	—
Settlements	—
Changes in unrealized loss	(2,740)
Transfers into Level 3	—
Transfers out of Level 3	—
Balance at October 31, 2014	$—

(6) ACCOUNTS RECEIVABLE

As of October 31, 2013, two customers each accounted for greater than 10% of net accounts receivable, and in the aggregate accounted for 22.5% of net accounts receivable. As of October 31, 2014, there were no customers that accounted for greater than 10% 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 fiscal year	Provisions	Net Deductions	Balance at end of fiscal year
2012	$701	$1,647	$848	$1,500
2013	$1,500	$2,339	$1,884	$1,955
2014	$1,955	$2,761	$2,633	$2,083

(7) INVENTORIES

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

	October 31, 2013	2014
Raw materials	$53,274	$64,853
Work-in-process	7,773	8,371
Finished goods	153,855	165,799
Deferred cost of goods sold	75,764	75,763
	290,666	314,786
Provision for excess and obsolescence	(41,563)	(60,126)
	$249,103	$254,660

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 2013 and fiscal 2014, 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

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products, including our Corestream® Agility Optical Transport platform, 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 fiscal year	Provisions	Disposals	Balance at end of fiscal year
2012	$31,771	$23,438	$15,199	$40,010
2013	$40,010	$19,938	$18,385	$41,563
2014	$41,563	$32,332	$13,769	$60,126

(8) PREPAID EXPENSES AND OTHER

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

	October 31, 2013	2014
Prepaid VAT and other taxes	$101,072	$86,464
Deferred deployment expense	23,190	27,991
Product demonstration equipment, net	33,382	42,385
Prepaid expenses	16,963	23,539
Other non-trade receivables	12,048	10,683
Derivative assets	—	1,562
	$186,655	$192,624

Depreciation of product demonstration equipment was $7.8 million, $7.4 million and $9.0 million for fiscal 2012, 2013 and 2014, respectively.

(9) EQUIPMENT, FURNITURE AND FIXTURES

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

	October 31, 2013	2014
Equipment, furniture and fixtures	$364,574	$383,059
Leasehold improvements	46,247	46,354
	410,821	429,413
Accumulated depreciation and amortization	(291,092)	(302,781)
	$119,729	$126,632

During fiscal 2012, fiscal 2013 and fiscal 2014, Ciena recorded depreciation of equipment, furniture and fixtures, and amortization of leasehold improvements of $51.3 million, $48.3 million and $46.6 million, respectively.

(10) INTANGIBLE ASSETS

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

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	October 31, 2013			2014		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	$417,833	$(321,645)	$96,188	$417,833	$(351,929)	$65,904
Patents and licenses	46,538	(45,744)	794	46,538	(45,908)	630
Customer relationships, covenants not to compete, outstanding purchase orders and contracts	323,573	(234,727)	88,846	323,573	(261,430)	62,143
Total intangible assets	$787,944	$(602,116)	$185,828	$787,944	$(659,267)	$128,677

The aggregate amortization expense of intangible assets was $74.5 million, $71.3 million and $57.2 million for fiscal 2012, fiscal 2013 and fiscal 2014, respectively. Expected future amortization of intangible assets for the fiscal years indicated is as follows (in thousands):

Year Ended October 31,	
2015	$52,879
2016	52,879
2017	22,783
2018	136
2019	—
	$128,677

(11) OTHER BALANCE SHEET DETAILS

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

	October 31,	
	2013	2014
Maintenance spares inventory, net	$61,305	$54,101
Deferred debt issuance costs, net	15,677	15,160
Restricted cash	2,053	45
Embedded redemption feature	2,740	—
Other	4,605	4,770
	$86,380	$74,076

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, term loan (described in Note 14 below) and our ABL Credit Facility (described in Note 15 below), which is included in interest expense, was $5.3 million, $5.4 million and $4.8 million for fiscal 2012, fiscal 2013 and fiscal 2014, respectively.

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

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	October 31, 2013	2014
Compensation, payroll related tax and benefits	98,770	82,207
Warranty	56,303	55,997
Vacation	32,118	35,126
Capital lease obligations	3,079	7,788
Interest payable	6,186	6,409
Other	75,200	89,081
	$271,656	$276,608

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	Ending Balance
2012	$47,282	$33,418	$25,568	$55,132
2013	$55,132	$24,558	$23,387	$56,303
2014	$56,303	$22,129	$22,435	$55,997

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 decreases in both fiscal 2013 and fiscal 2014 warranty provisions were primarily due to lower failure rates and reduced costs due to efficiencies.

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

	October 31, 2013	2014
Products	$36,671	$50,457
Services	75,499	95,161
	112,170	145,618
Less current portion	(88,550)	(104,688)
Long-term deferred revenue	$23,620	$40,930

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

	October 31, 2013	2014
Income tax liability	$9,083	$14,342
Deferred tenant allowance	11,775	10,839
Straight-line rent	4,127	5,174
Capital lease obligations	1,983	4,589
Interest rate swap derivative	—	2,083
Other	7,785	8,363
	$34,753	$45,390

(12) DERIVATIVE INSTRUMENTS

Foreign Currency Derivatives

As of October 31, 2014 and 2013, Ciena had forward contracts to reduce the variability in its Canadian Dollar and Indian Rupee denominated expense, which principally relates to research and development activities. The notional amount of these contracts was approximately $51.5 million and $22.4 million as of October 31, 2014 and October 31, 2013, respectively. These foreign exchange contracts have maturities of 12 months or less. These derivative contracts have been designated as cash flow hedges.

During fiscal 2014 and 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. During fiscal 2014, in order to hedge certain balance sheet exposures, Ciena entered into forward contracts to sell U.S. Dollars and buy an equivalent amount of Canadian Dollars. The notional principal of these contracts was approximately $194.5 million and $29.5 million as of October 31, 2014 and October 31, 2013. These foreign exchange contracts have maturities of 12 months or less. These derivative contracts have not been designated as hedges.

Interest Rate Derivatives

During fiscal 2014, Ciena entered into interest rate cap arrangements to limit interest paid under the Term Loan to a maximum of 0.75% plus a spread of 300 basis points through July 2015. The total notional amount of interest rate caps currently outstanding as of October 31, 2014 is $249.4 million.

Also in fiscal 2014, Ciena entered into floating interest rate to fixed interest rate swap arrangements ("interest rate swap") that fix the interest rate under the Term Loan at 5.004%, for the period commencing on July 20, 2015 through July 19, 2018. The total notional amount of these derivatives as of October 31, 2014 is $247.5 million.

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

Other information regarding Ciena's derivatives is immaterial for separate financial statement presentation. See Note 3 and Note 5 above.

(13) ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated balances of other comprehensive income (loss):

	Unrealized Gain/(Loss) on Marketable Securities	Unrealized Gain/(Loss) on Derivative Instruments	Cumulative Foreign Currency Translation Adjustment	Total
Balance at October 31, 2011	210	—	(179)	31
Other comprehensive income(loss) before reclassifications	(166)	812	(3,268)	(2,622)
Amounts reclassified from AOCI	—	(763)	—	(763)
Balance at October 31, 2012	44	49	(3,447)	(3,354)
Other comprehensive income(loss) before reclassifications	(14)	(1,431)	(4,096)	(5,541)
Amounts reclassified from AOCI	—	1,121	—	1,121
Balance at October 31, 2013	30	(261)	(7,543)	(7,774)
Other comprehensive income(loss) before reclassifications	41	(3,348)	(4,940)	(8,247)
Amounts reclassified from AOCI	—	1,353	—	1,353
Balance at October 31, 2014	71	(2,256)	(12,483)	(14,668)

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

development" on the Consolidated Statements of Operations.

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(14) SHORT-TERM AND LONG-TERM DEBT

Term Loan

On July 15, 2014, Ciena entered into a Credit Agreement (the “Term Loan Credit Agreement”) which provides for senior secured term loans in an aggregate principal amount of $250 million (the “Term Loan”). Ciena received proceeds from the Term Loan, net of original issue discount and debt issuance costs, of approximately $246 million.

The Term Loan bears interest at a rate equal to LIBOR (subject to a floor of 0.75%) plus an applicable margin of 3.00% and matures on July 15, 2019. The Term Loan Credit Agreement requires Ciena to make quarterly installment payments in aggregate amounts equal to 0.25% of the original principal amount of the Term Loan, with the balance of the Term Loan payable at maturity. The Term Loan Credit Agreement requires mandatory prepayments on the occurrence of certain customary events and, when the total secured net leverage ratio (as defined in the Term Loan Credit Agreement) is in excess of 2.50 to 1.00, the Term Loan Credit Agreement requires a mandatory prepayment of 50% of excess annual cash flow (as defined in the Term Loan Credit Agreement).

The Term Loan Credit Agreement contains customary covenants that limit, absent lender approval, the ability of Ciena to, among other things, incur additional debt, create liens and encumbrances, pay cash dividends, 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.

The Term Loan 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, violation of affirmative and negative covenants, and breaches of representations and warranties set forth in the Term Loan Credit Agreement. Upon an event of default, the administrative agent may, subject to various customary cure rights, require the immediate payment of all amounts outstanding and foreclose on collateral.

In connection with Ciena entering into the Term Loan Credit Agreement, Ciena and certain of its subsidiaries entered into a guaranty, a security agreement and a pledge agreement, each on customary terms. The Term Loan is secured by (i) second-priority security interests in the ABL Priority Collateral (as defined in Note 15 below), and (ii) first-priority security interests in substantially all other tangible and intangible assets including equipment, intercompany notes, intellectual property and material owned real property (the "Term Loan Priority Collateral").

The principal balance, unamortized discount and net carrying amount of the Term Loan was as follows as of October 31, 2014:

	Principal Balance	Unamortized Discount	Net Carrying Amount
Term Loan Payable due July 15, 2019	$249,375	$(1,173)	$248,202
	$249,375	$(1,173)	$248,202

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

	October 31, 2014	
	Carrying Value	Fair Value[2]
Term Loan Payable due July 15, 2019[1]	$248,202	$247,193
	$248,202	$247,193

(1) Includes unamortized bond discount.

(2) The term loan was categorized as Level 2 in the fair value hierarchy. Ciena estimated the fair value of its term loan using a market approach based upon observable inputs, such as current market transactions involving this security.

Outstanding Convertible Notes Payable

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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, in certain circumstances, to 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.

4.0% Convertible Senior Notes, due March 15, 2015

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 Ciena 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, 2014, the fair value of the embedded redemption feature was $0.0 million. A reduction in the fair value of the embedded redemption feature in the amount of $2.7 million is reflected as interest and other income (loss), net in the Consolidated Statement of Operations during fiscal 2014.

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.

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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 17 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

As described above, on December 27, 2012, Ciena issued $187.5 million in aggregate principal amount of 4.0% Convertible Senior Notes due December 15, 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.

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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, 2014

	Liability Component			Equity Component
	Principal Balance	Unamortized Discount	Net Carrying Amount	Net Carrying Amount
4.0% Convertible Senior Notes due December 15, 2020	$193,987	$(14,898)	$179,089	$43,131

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

	October 31, 2014	
Description	Carrying Value	Fair Value[2]
4.0% Convertible Senior Notes, due March 15, 2015 [1]	187,562	193,359
0.875% Convertible Senior Notes due June 15, 2017	500,000	487,500
3.75% Convertible Senior Notes, due October 15, 2018	350,000	403,813
4.0% Convertible Senior Notes, due December 15, 2020[3]	179,089	223,828
	$1,216,651	$1,308,500

(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.

(15) ABL CREDIT FACILITY

During fiscal 2012, Ciena and certain of its subsidiaries entered into a senior secured asset-based revolving credit facility (the "ABL Credit Facility"). On July 15, 2014, Ciena amended the ABL Credit Facility to, among other things:

- increase the total committed amount from $150 million to $200 million;
- extend the maturity date from August 13, 2015 to December 31, 2016, and eliminate the maturity date acceleration to December 15, 2014 in the event that any of Ciena's 4.00% senior convertible notes due March 15, 2015 are then outstanding;
- reduce the minimum aggregate amount of unrestricted cash and cash equivalents that Ciena is required to maintain at all times from $200 million to $150 million;
- reduce the interest rate on borrowings from LIBOR plus an applicable margin ranging from 200 basis points to 250 basis points, to an applicable margin ranging from 150 basis points to 200 basis points, with the actual margin based upon Ciena's utilization of the ABL Credit Facility; and
- amend the borrowing base to include, among other items, up to $50 million in eligible cash.

Ciena also amended the terms of the existing security and pledge agreements to provide the lenders with second-priority security interests in the Term Loan Priority Collateral, in addition to its existing first-priority security interests in current assets, consisting principally of accounts receivable, inventory, cash, and deposit and securities accounts (the "ABL Priority

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Collateral"). Except as amended, the remaining terms of the ABL Credit Facility, and related security and pledge agreements, remain in full force and effect.

Ciena principally uses the ABL Credit Facility to support the issuance of letters of credit that arise in the ordinary course of its business and thereby to reduce its use of cash required to collateralize these instruments. As of October 31, 2014, letters of credit totaling $71.4 million were collateralized by the ABL Credit Facility. There were no borrowings outstanding under the ABL Credit Facility as of October 31, 2014.

(16) 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,		
	2012	2013	2014
Net loss	$(144,021)	$(85,431)	$(40,637)

Denominator

	Year Ended October 31,		
	2012	2013	2014
Basic weighted average shares outstanding	99,341	102,350	105,783
Dilutive weighted average shares outstanding	99,341	102,350	105,783

EPS

	Year Ended October 31,		
	2012	2013	2014
Basic EPS	$(1.45)	$(0.83)	$(0.38)
Diluted EPS	$(1.45)	$(0.83)	$(0.38)

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,		
	2012	2013	2014
Shares underlying stock options and restricted stock units	5,726	3,890	3,176
0.25% Convertible Senior Notes due May 1, 2013	5,470	2,682	—
4.0% Convertible Senior Notes due March 15, 2015	18,395	10,541	9,198
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	9,198
Total excluded due to anti-dilutive effect	60,054	55,431	52,035

(17) STOCKHOLDERS’ EQUITY

Call Spread Options

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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.

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

	October 31,		
	2012	2013	2014
Provision for income taxes:			
Current:			
Federal	$—	$—	$—
State	857	906	1,831
Foreign	8,465	4,334	12,133
Total current	9,322	5,240	13,964
Deferred:			
Federal	—	—	—
State	—	—	—
Foreign	—	—	—
Total deferred	—	—	—
Provision for income taxes	$9,322	$5,240	$13,964

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

	October 31,		
	2012	2013	2014
United States	$(151,958)	$(59,594)	$(42,742)
Foreign	17,259	(20,597)	16,069
Total	$(134,699)	$(80,191)	$(26,673)

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:

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	October 31,					
	2012		2013		2014	
Provision at statutory rate	35.00	%	35.00	%	35.00	%
State taxes	(0.64	)%	(1.13	)%	(6.87	)%
Foreign taxes	(5.09	)%	(12.70	)%	(70.25	)%
Research and development credit	10.21	%	17.39	%	32.07	%
Non-deductible loss on debt extinguishment	—	%	(11.21	)%	—	%
Non-deductible compensation and other	(4.92	)%	(8.78	)%	(29.59	)%
Valuation allowance	(41.48	)%	(25.10	)%	(12.71	)%
Effective income tax rate	(6.92	)%	(6.53	)%	(52.35	)%

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

	October 31,		
	2013		2014
Deferred tax assets:			
Reserves and accrued liabilities	$44,515		$59,707
Depreciation and amortization	274,468		268,783
NOL and credit carry forward	1,159,494		1,155,389
Other	8,822		12,956
Gross deferred tax assets	1,487,299		1,496,835
Valuation allowance	(1,487,299	)	(1,496,835	)
Net deferred tax asset	$—		$—

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

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	
Increase related to positions taken in prior period	2,479	
Increase related to positions taken in current period	5,241	
Reductions related to expiration of statute of limitations	(899	)
Unrecognized tax benefits at October 31, 2014	$15,100	

As of October 31, 2013 and 2014, Ciena had accrued $1.4 million and $3.4 million of interest and penalties, respectively, related to unrecognized tax benefits within other long-term liabilities in the Consolidated Balance Sheets. Interest and penalties of $0.3 million and $2.0 million were recorded to the provision for income taxes during fiscal 2012 and fiscal 2014 respectively, and no such charges or benefits were recorded for fiscal 2013. 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.

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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 fiscal year	Additions	Deductions	Balance at end of fiscal year
2012	$1,467,411	$21,583	$—	$1,488,994
2013	$1,488,994	$—	$1,695	$1,487,299
2014	$1,487,299	$9,536	$—	$1,496,835

As of October 31, 2014, 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 2019, 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, 2014 of approximately $81.0 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.

(19) 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 Plan authorizes the issuance of awards including stock options, restricted stock units (RSUs), restricted stock, unrestricted stock, stock appreciation rights (SARs) and other equity and/or cash performance incentive awards to employees, directors and consultants of Ciena. Subject to certain restrictions, the Compensation Committee of the Board of Directors has broad discretion to establish the terms and conditions for awards under the 2008 Plan, including the number of shares, vesting conditions, and the required service or performance criteria. Options and SARs have a maximum term of ten years, and their exercise price may not be less than 100% of fair market value on the date of grant. Repricing of stock options and SARs is prohibited without stockholder approval. Certain change in control transactions may cause awards granted under the 2008 Plan to vest, unless the awards are continued or substituted for in connection with the transaction. Pursuant to Board and stockholder approval, effective April 10, 2014, Ciena amended its 2008 Plan to increase the number of shares available for issuance by 6.6 million shares. As of October 31, 2014, the total number of shares authorized for issuance under the 2008 Plan is 25.1 million and approximately 9.3 million shares remained available for issuance thereunder.

Stock Options

Outstanding stock option awards to employees are generally subject to service-based vesting restrictions and vest incrementally over a four-year period. As of October 31, 2014, all outstanding options have completed their service-based vesting conditions and are fully vested. The following table is a summary of Ciena's stock option activity for the periods indicated (shares in thousands):

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	Shares Underlying Options Outstanding	Weighted Average Exercise Price
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
Granted	—	—
Exercised	(162)	16.99
Canceled	(652)	34.08
Balance as of October 31, 2014	1,288	$25.43

The total intrinsic value of options exercised during fiscal 2012, fiscal 2013 and fiscal 2014 was $0.5 million, $2.0 million and $1.0 million, respectively. There were no stock options granted by Ciena during fiscal 2012, fiscal 2013 or fiscal 2014.

The following table summarizes information with respect to stock options outstanding at October 31, 2014, based on Ciena's closing stock price on the last trading day of Ciena's fiscal 2014 (shares and intrinsic value in thousands):

			Vested Options at October 31, 2014			
Range of Exercise Price			Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
$0.94	—	$16.31	154	3.28	$8.03	$1,347
$16.52	—	$17.29	184	0.95	16.55	42
$17.43	—	$24.50	195	1.19	18.71	—
$24.69	—	$28.28	284	2.34	27.31	—
$28.61	—	$32.55	109	2.68	29.96	—
$33.00	—	$37.10	248	3.05	35.24	—
$37.31	—	$47.32	114	2.78	44.33	—
$0.94	—	$47.32	1,288	2.29	$25.43	$1,389

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 2012, fiscal 2013, or fiscal 2014.

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

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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, 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	4,419	15.33	102,745
Granted	1,912		
Vested	(2,165)		
Canceled or forfeited	(154)		
Balance as of October 31, 2014	4,012	$18.02	$67,241

The total fair value of restricted stock units that vested and were converted into common stock during fiscal 2012, fiscal 2013 and fiscal 2014 was $27.0 million, $37.3 million and $48.1 million, respectively. The weighted average fair value of each restricted stock unit granted by Ciena during fiscal 2012, fiscal 2013 and fiscal 2014 was $11.28, $16.30 and $21.82, 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 expense is reversed.

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

information.

Amended and Restated Employee Stock Purchase Plan (ESPP)

Under the ESPP, eligible employees may enroll in a twelve-month offer period that begins in December and June of each year. Each offer period includes two six-month purchase periods. Employees may purchase a limited number of shares of Ciena

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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 2012, fiscal 2013 and fiscal 2014, Ciena issued 1.2 million, 0.9 million and 0.9 million shares under the ESPP, respectively. At October 31, 2014, 6.8 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,		
	2012	2013	2014
Product costs	$2,156	$2,522	$2,531
Service costs	1,462	1,771	2,216
Share-based compensation expense included in cost of goods sold	3,618	4,293	4,747
Research and development	8,567	8,214	9,682
Sales and marketing	11,558	13,290	14,958
General and administrative	8,698	12,055	13,568
Share-based compensation expense included in operating expense	28,823	33,559	38,208
Share-based compensation expense capitalized in inventory, net	(47)	(132)	(25)
Total share-based compensation	$32,394	$37,720	$42,930

As of October 31, 2014, total unrecognized compensation expense was $57.2 million, which relates to unvested restricted stock units and is expected to be recognized over a weighted-average period of 1.4 years.

(20) SEGMENT AND ENTITY WIDE DISCLOSURES

Segment Reporting

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

- Converged Packet Optical —includes the 6500 Packet-Optical Platform and the 5430 Reconfigurable Switching System, which feature Ciena's WaveLogic coherent optical processors. Products also include Ciena's family of CoreDirector® Multiservice Optical Switches and the OTN configuration for the 5410 Reconfigurable Switching System. This segment also includes sales of operating system software and enhanced software features embedded in each of these products. Revenue from this segment is included in product revenue on the Consolidated Statement of Operations.

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

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

Statement of Operations.

- Software and Services — includes Ciena's Agility software portfolio, which includes a SDN multilayer WAN controller, NFV platform, and network level software applications for enabling on-demand, high-bandwidth WAN

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services delivered in an open network ecosystem. This segment also includes the OneControl Unified Management System, ON-Center® Network & Service Management Suite, Ethernet Services Manager and Optical Suite Release. This segment includes a broad range of services for consulting and network design, installation and deployment, maintenance support and training activities. Except for revenue from the software portion of this segment, which is included in product revenue, revenue from this segment is included in services revenue on the Consolidated Statement of Operations.

Ciena's long-lived assets, including equipment, furniture and fixtures, finite-lived intangible assets and maintenance spares, are not reviewed by the chief operating decision maker for purposes of evaluating performance and allocating resources. As of October 31, 2014, equipment, furniture and fixtures totaling $126.6 million primarily supports asset groups within Ciena's Converged Packet Optical segment, Packet Networking segment, Software and Services segment and Ciena's unallocated selling and general and administrative activities. As of October 31, 2014, all of Ciena's finite-lived intangible assets totaling $128.7 million were assigned to asset groups within Ciena's Converged Packet Optical segment. As of October 31, 2014, all of the maintenance spares totaling $54.1 million were assigned to asset groups within Ciena's Software and Services segment.

Segment Revenue

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

	Fiscal Year		
	2012	2013	2014
Revenue:			
Converged Packet Optical	$951,245	$1,187,231	$1,455,501
Packet Networking	128,982	222,898	244,116
Optical Transport	353,620	233,821	127,215
Software and Services	400,076	438,596	461,457
Consolidated revenue	$1,833,923	$2,082,546	$2,288,289

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; amortization of intangible assets; restructuring costs; interest and other income (loss), net; interest expense; 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:

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	Fiscal Year		
	2012	2013	2014
Segment profit:			
Converged Packet Optical	$148,244	$242,335	$353,942
Packet Networking	1,713	22,740	19,467
Optical Transport	116,736	89,754	38,974
Software and Services	93,352	126,938	134,789
Total segment profit	360,045	481,767	547,172
Less: non-performance operating expenses			
Selling and marketing	266,338	304,170	328,325
General and administrative	114,002	122,432	126,824
Amortization of intangible assets	51,697	49,771	45,970
Restructuring costs	7,854	7,169	349
Add: other non-performance financial items			
Interest expense and other income (loss), net	(54,853)	(49,786)	(72,377)
Loss on extinguishment of debt	—	(28,630)	—
Less: Provision for income taxes	9,322	5,240	13,964
Consolidated net loss	$(144,021)	$(85,431)	$(40,637)

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):

	Fiscal Year		
	2012	2013	2014
United States	$972,576	$1,217,462	$1,317,981
International	861,347	865,084	970,308
Total	$1,833,923	$2,082,546	$2,288,289

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, 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):

	October 31,		
	2012	2013	2014
United States	$64,653	$64,132	$73,420
Canada	48,376	43,772	42,015
Other International	10,551	11,825	11,197
Total	$123,580	$119,729	$126,632

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

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	Fiscal Year		
	2012	2013	2014
AT&T	$248,123	$373,617	$423,498

The customer identified above purchased products and services from each of Ciena's operating segments.

(21) 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$24,930 for 2014). 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 2012, 2013 and 2014, Ciena made matching contributions of approximately CAD$4.0 million, CAD$3.9 million and CAD$4.1 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 2012, 2013 and 2014, Ciena made matching contributions of approximately $4.1 million, $4.0 million and $4.5 million, respectively.

(22) COMMITMENTS AND CONTINGENCIES

Ontario Grant

Ciena was awarded a conditional grant from the Province of Ontario in June 2011. Under this strategic jobs investment fund grant, Ciena can receive up to an aggregate of CAD$25.0 million in funding for eligible costs relating to certain next-generation, coherent optical transport development initiatives over the period from November 1, 2010 to October 31, 2015. Amounts received under the grant are subject to recoupment in the event that Ciena fails to achieve certain minimum investment, employment and project milestones. As of October 31, 2014, Ciena has recorded a CAD$23.1 million benefit to date, as a reduction in research and development expenses. As of October 31, 2014, the amount receivable from this grant was CAD$3.1 million.

Foreign Tax Contingencies

As of October 31, 2013 and October 31, 2014, Ciena had accrued liabilities of $0.4 million and $0.5 million, respectively, related to a preliminary assessment notice from the India tax authorities asserting deficiencies in payments for the tax year 2009 related to income taxes. This contingency has been reported as a component of other long-term liabilities. During February 2014, Ciena received a final audit assessment notice from the India tax authorities with respect to this matter. Ciena has filed an appeal citing deficiencies in this assessment. Although Ciena estimates that it could be exposed to possible losses of up to $1.5 million, it has not accrued a liability of such amount as of October 31, 2014. Ciena has not accrued the additional income tax liability because it does not believe that such a loss is more likely than not. Ciena continues to evaluate the likelihood of a probable and reasonably possible loss, if any, related to this assessment. As a result, future increases or decreases to accrued liabilities may be necessary and will be recorded in the period when such amounts are estimable and more likely than not to occur.

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

Litigation

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.

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In December 2010, the PTO confirmed the validity of some claims and rejected the validity of other claims of the '673 Patent, to which Ciena and other defendants filed an appeal. On March 16, 2012, the PTO on appeal rejected multiple claims of the '673 Patent, including the two claims on which Ciena is alleged to infringe. Subsequently, the plaintiff requested a reopening of the prosecution of the '673 Patent, which request was denied by the PTO on April 29, 2013. Thereafter, on May 28, 2013, the plaintiff filed an amendment with the PTO in which it canceled the claims of the '673 Patent on which Ciena is alleged to infringe. The case currently remains stayed, and there can be no assurance as to whether or when the stay will be lifted.

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

Operating Lease Commitments

Ciena has certain minimum obligations under non-cancelable operating leases expiring on various dates through 2032 for equipment and facilities. During the fourth quarter of fiscal 2014, the Company entered into a lease relating to office space for its new research and development center in Ottawa, Canada, consisting of a rentable area of approximately 170,582 square feet. The future minimum rental commitments to be paid over the 18-year lease term are approximately $49.1 million. Future annual minimum operating lease commitments under non-cancelable operating leases at October 31, 2014 are as follows (in thousands):

Year ended October 31,	
2015	$33,527
2016	31,605
2017	28,232
2018	15,675
2019	12,668
Thereafter	83,191
Total	$204,898

Rental expense for fiscal 2012, fiscal 2013 and fiscal 2014 was approximately $21.7 million, $26.0 million and $22.9 million, respectively. In addition, Ciena paid approximately $1.4 million, $1.6 million and $0.5 million during fiscal 2012, fiscal 2013 and fiscal 2014, 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.

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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, 2014. 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, 2014, 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, 2014, as stated in its report appearing in Item 8 of Part II of this annual report.

/s/ Gary B. Smith	/s/ James E. Moylan, Jr.
Gary B. Smith	James E. Moylan, Jr.
President and Chief Executive Officer	Senior Vice President and Chief Financial Officer
December 19, 2014	December 19, 2014

Item 9B. Other Information

None.

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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 from Ciena's definitive proxy statement with respect to our 2015 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 from Ciena's definitive proxy statement with respect to our 2015 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 from Ciena's definitive proxy statement with respect to our 2015 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 from Ciena's definitive proxy statement with respect to our 2015 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 from Ciena's definitive proxy statement with respect to our 2015 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.

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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.

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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 19th day of December 2014.

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
/s/ Patrick H. Nettles, Ph.D. Patrick H. Nettles, Ph.D.	Executive Chairman of the Board of Directors	December 19, 2014
/s/ Gary B. Smith Gary B. Smith (Principal Executive Officer)	President, Chief Executive Officer and Director	December 19, 2014
/s/ James E. Moylan, Jr. James E. Moylan, Jr. (Principal Financial Officer)	Sr. Vice President, Finance and Chief Financial Officer	December 19, 2014
/s/ Andrew C. Petrik Andrew C. Petrik (Principal Accounting Officer)	Vice President, Controller	December 19, 2014
/s/ Harvey B. Cash Harvey B. Cash	Director	December 19, 2014
/s/ Bruce L. Claflin Bruce L. Claflin	Director	December 19, 2014
/s/ Lawton W. Fitt Lawton W. Fitt	Director	December 19, 2014
/s/ Patrick T. Gallagher	Director	December 19, 2014

Patrick T. Gallagher		
/s/ T. Michael Nevens T. Michael Nevens	Director	December 19, 2014
/s/ Judith M. O'Brien Judith M. O'Brien	Director	December 19, 2014
/s/ Michael J. Rowny Michael J. Rowny	Director	December 19, 2014

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INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference Form and Registration or Commission No.	Exhibit	Filing Date	Filed Here-with (X)
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 (Amendment No. 1) dated October 20, 2009, relating to the Nortel EMEA ASA+	10-K (000-21969)	2.4	12/22/2009	
2.9	Amendment Agreement (Amendment No. 2) dated November 24, 2009 relating to the Nortel EMEA ASA+	10-K (000-21969)	2.5	12/22/2009	
2.10	Deed of Amendment (Amendment No. 3) dated December 16, 2009 relating to the Nortel EMEA ASA+	10-K (000-21969)	2.6	12/22/2009	
2.11	Amendment Agreement (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	

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Exhibit Number	Exhibit Description	Incorporated by Reference Form and Registration or Commission No.	Exhibit	Filing Date	Filed Here-with (X)
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	Employee Stock Purchase Plan Enrollment Agreement*		10.33	12/22/2011	

		10-K (000-21969)		
10.13	1996 Outside Directors Stock Option Plan*	S-1 (333-17729)	10.4	12/12/1996
10.14	Forms of 1996 Outside Directors Stock Option Agreement*	S-1 (333-17729)	10.5	12/12/1996

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Exhibit Number	Exhibit Description	Incorporated by Reference Form and Registration or Commission No.	Exhibit	Filing Date	Filed Here-with (X)
10.15	Third Amended and Restated 1994 Stock Option Plan*	S-1 (333-17729)	10.2	12/12/1996	
10.16	Amended and Restated 1994 Stock Option Plan Forms of Employee Stock Option Agreement*	S-1 (333-17729)	10.3	12/12/1996	
10.17	2008 Omnibus Incentive Plan*	8-K (000-21969)	10.1	3/27/2008	
10.18	Amendment (No. 1) to Ciena Corporation 2008 Omnibus Incentive Plan dated April 14, 2010*	8-K (000-21969)	10.1	4/15/2010	
10.19	Amendment (No. 2) to Ciena Corporation 2008 Omnibus Incentive Plan dated March 21, 2012*	8-K (000-21969)	10.1	3/23/2012	
10.20	Amendment (No. 3) to Ciena Corporation 2008 Omnibus Incentive Plan dated April 10, 2014*	10-Q (001-36250)	10.1	6/11/2014	
10.21	Form of 2008 Omnibus Incentive Plan Restricted Stock Unit Agreement (Employee)*	10-K (000-21969)	10.18	12/22/2011	
10.22	Form of 2008 Omnibus Incentive Plan Non-Qualified Stock Option Agreement (Employee)*	10-Q (000-21969)	10.2	6/4/2009	
10.23	Form of 2008 Omnibus Incentive Plan Restricted Stock Unit Agreement (Director)*	10-Q (000-21969)	10.3	6/4/2009	
10.24	Form of Indemnification Agreement with Directors and Executive Officers*	10-Q (000-21969)	10.1	3/3/2006	
10.25	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	
10.26	Form of Amended and Restated Change in Control Severance Agreement between Ciena Corporation and Executive Officers*	8-K (000-21969)	10.2	11/01/2013	
10.27	Ciena Corporation Directors Restricted Stock Deferral Plan*	10-Q (000-21969)	10.1	8/31/2007	
10.28	Ciena Corporation Amended and Restated Incentive Bonus Plan, as amended December 15, 2011*	10-K (000-21969)	10.26	12/22/2011	
10.29	Ciena Corporation 2010 Inducement Equity Award Plan*	10-K (000-21969)	10.35	12/22/2009	
10.30	Form of 2010 Inducement Equity Award Plan Restricted Stock Unit Agreement*	8-K (000-21969)	10.2	3/25/2010	
10.31	U.S. Executive Severance Benefit Plan*	10-Q (000-21969)	10.1	6/9/2011	
10.32	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	
10.33	Lab 10 Lease Amending Agreement dated February 13, 2012 between Her Majesty the Queen in Right of Canada, as Represented by the Minister of Public Works and	8-K (000-21969)	1.1	2/15/2012	

	Government Services, and Ciena Canada, Inc.			
10.34	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	8-K (000-21969)	10.1	8/3/2013
10.35	Third Lease Amending Agreement dated July 11, 2014 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	8-K (001-36250)	10.1	7/11/2014

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10.36	Lease Agreement by and between Ciena Canada, Inc. and Innovation Blvd. II Limited dated as of October 23, 2014+	—	—	—	X
10.37	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	
10.38	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	
10.39	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	
10.40	Amendment to ABL 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	
10.41	Omnibus Second Amendment to ABL 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	10-Q (000-21969)	10.2	3/13/2013	
10.42	Third Amendment to ABL Credit Agreement dated July 15, 2014 by and among Ciena Corporation, Ciena Communications, Inc., Ciena Government Solutions, Inc. Ciena Canada, Inc., Deutsche Bank AG New York Branch, as administrative agent and collateral agent, and the lenders party thereto.	10-Q (001-36250)	10.1	9/9/2014	
10.43	Joinder Agreement under ABL 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++	10-Q (000-21969)	10.2	6/12/2013	
10.44	Amended and Restated Security Agreement, dated August 13, 2012, amended and restated as of July 15, 2014, by and among Ciena Corporation, Ciena Communications, Inc., Ciena Government Solutions, Inc., and Deutsche Bank AG New York Branch, as Collateral Agent++	10-Q (001-36250)	10.2	9/9/2014	
10.45			10.3	9/9/2014	

	Amended and Restated Pledge Agreement, dated August 13, 2012, amended and restated as of July 15, 2014, by and among Ciena Corporation, Ciena Communications, Inc., Ciena Government Solutions, Inc., and Deutsche Bank AG New York Branch, as Pledgee++	10-Q (001-36250)		
10.46	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
10.47	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

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10.48	Amended and Restated Canadian Security Agreement, dated August 13, 2012, amended and restated as of July 15, 2014, by and among Ciena Canada, Inc., each other assignor from time to time party thereto, and Deutsche Bank AG New York Branch, as Collateral Agent.++	10-Q (001-36250)	10.4	9/9/2014	
10.49	Credit Agreement, dated July 15, 2014, by and among Ciena Corporation, the lenders party thereto, and Bank of America, N.A., as Administrative Agent++	10-Q (001-36250)	10.5	9/9/2014	
10.50	Guaranty, dated July 15, 2014, by and among Ciena Communications, Inc., Ciena Government Solutions, Inc. and Bank of America, N.A., as Administrative Agent.	10-Q (001-36250)	10.6	9/9/2014	
10.51	Term Loan Security Agreement, dated July 15, 2014, by and among Ciena Corporation, Ciena Communications, Inc., Ciena Government Solutions, Inc., and Bank of America, N.A., as Collateral Agent.	10-Q (001-36250)	10.7	9/9/2014	
10.52	Term Loan Pledge Agreement, dated July 15, 2014, by and among Ciena Corporation, Ciena Communications, Inc., Ciena Government Solutions, Inc., and Bank of America, N.A., as Pledgee.	10-Q (001-36250)	10.8	9/9/2014	
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
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		—	—	—	X

	XBRL Taxonomy Extension Calculation Linkbase Document				
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
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* 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.

++ 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.