CIENA CORP
Form 10-K
December 22, 2009

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
ANNUAL REPORT
PURSUANT TO SECTIONS 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

(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, 2009

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.)
1201 Winterson Road, Linthicum, MD	**21090-2205**
(Address of principal executive offices)	(Zip Code)

(410) 865-8500
(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	**The NASDAQ Stock Market**

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES 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 o 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, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o	Smaller reporting company 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 $929.3 million based on the closing price of the Common Stock on the NASDAQ Global Select Market on May 2, 2009.
The number of shares of Registrant s Common Stock outstanding as of December 11, 2009 was 92,038,629.

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 2010 Annual Meeting of Stockholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this report.

CIENA CORPORATION
ANNUAL REPORT ON FORM 10-K
FOR FISCAL YEAR ENDED OCTOBER 31, 2009
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PART I

The information in this annual report contains certain forward-looking statements, including statements related to our business prospects, the markets for our products and services, and trends in our business 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 Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations, Business and elsewhere in this annual report.

Item 1. Business

Overview

We are a provider of communications networking equipment, software and services that support the transport, switching, aggregation and management of voice, video and data traffic. Our optical service delivery and carrier Ethernet service delivery products are used individually, or as part of an integrated solution, in communications networks operated by service providers, cable operators, governments and enterprises around the globe.

We are a network specialist targeting the transition of disparate, legacy communications networks to converged, next-generation architectures, better able to handle increased traffic and deliver more efficiently a broader mix of high-bandwidth communications services. Our products, with their embedded, network element software and our unified service and transport management, enable service providers to efficiently and cost-effectively deliver critical enterprise and consumer-oriented communication services. Together with our professional support and consulting services, our product offerings seek to offer solutions that address the business challenges and network needs of our customers. Our customers face an increasingly challenging and rapidly changing environment that requires them to quickly adapt their business strategies and deliver new, revenue-creating services. By improving network productivity, reducing operating costs and providing the flexibility to enable new and integrated service offerings, our offerings create business and operational value for our customers.

Pending Acquisition of Optical and Carrier Ethernet Assets of Nortel Metro Ethernet Networks (MEN) Business

Following our emergence as the winning bidder in the bankruptcy auction, we agreed to acquire substantially all of the optical networking and carrier Ethernet assets of Nortel s Metro Ethernet Networks (MEN) business for $530 million in cash and $239 million in aggregate principal amount of 6% senior convertible notes due June 2017. The terms of the notes to be issued upon closing are set forth in Note 22 of the Consolidated Financial Statements found under Item 8 of Part II of this annual report. Nortel s product and technology assets to be acquired include:

- long-haul optical transport portfolio;
- metro optical Ethernet switching and transport solutions;
- Ethernet transport, aggregation and switching technology;
- multiservice SONET/SDH product families; and
- network management software products.

In addition to these products, the acquired operations also include network implementation and support services. The assets to be acquired generated approximately $1.36 billion in revenue for Nortel in fiscal 2008 and approximately $556 million (unaudited) in the first six months of Nortel s fiscal 2009.

The pending acquisition encompasses a business that is a leading provider of next-generation, 40G and 100G optical transport technology with a significant, global installed base. The acquired transport technology allows network operators to upgrade their existing 10G networks to 40G capability, quadrupling capacity without the need for new fiber deployments or complex network re-engineering. In addition to transport capability, the optical platforms acquired include traffic switching and aggregation capability for traditional protocols such as SONET/SDH as well as newer packet protocols such as Ethernet. A suite of software products used to manage networks built from these technologies is also part of the transaction.

We believe that the transaction provides an opportunity to significantly transform Ciena and strengthen our position as a leader in next-generation, automated optical Ethernet networking. We believe that the additional resources, expanded geographic reach, new and broader customer relationships, and deeper portfolio of complementary network solutions derived from the transaction will augment Ciena s growth. We also expect that the transaction will add scale, enable operating model synergies and provide an opportunity to optimize our research and development investment. We expect these benefits of the transaction will help Ciena to better compete with traditional, larger network vendors.

We expect to make employment offers to at least 2,000 Nortel employees to become part of Ciena s global team of network specialists. The transaction will significantly enhance our existing Canadian-based development resources, making Ottawa our largest product and development center.

Given the structure of the transaction as an asset carve-out from Nortel, we expect that the transaction will result in a costly and complex integration with a number of operational risks. We expect to incur integration-related costs of approximately $180 million, with the majority of these costs to be incurred in the first 12 months following the completion of the transaction. We also expect to incur significant transition services expense, and we will rely upon an affiliate of Nortel to perform certain operational functions during an interim period following closing not to exceed two years.

We expect this pending transaction to close in the first calendar quarter of 2010. If the closing does not take place on or before April 30, 2010, the applicable asset sale agreements may be terminated by either party. Ciena has been granted early termination of the antitrust waiting periods under the Hart-Scott-Rodino Act and the Canadian Competition Act. On December 2, 2009, the bankruptcy courts in the U.S. and Canada approved the asset sale agreement relating to Ciena s acquisition of substantially all of the North American, Caribbean and Latin American and Asian optical networking and carrier Ethernet assets of Nortel s MEN business. Completion of the transaction remains subject to information and consultation with employee representatives and employees in certain international jurisdictions, an additional regional regulatory clearance and customary closing conditions.

Financial Overview Fiscal 2009 and Effect of Market Conditions

Our results of operations for fiscal 2009 reflect the weakness, volatility and uncertainty presented by the global market conditions that we encountered during the year. Our results reflect cautious spending among our largest customers during fiscal 2009, as they sought to conserve capital, reduce debt or address uncertainties or changes in their own business models brought on by broader market challenges. As a result, we experienced lower demand across our customer base in all geographies, as well as lengthening sales cycles, customer delays in network build-outs and slowing deployments. We generated revenue of $652.6 million in fiscal 2009, representing a 27.7% decrease from fiscal 2008 revenue of $902.4 million. Net income decreased from $38.9 million, or $0.42 per diluted share, in fiscal 2008, to a loss of $581.2 million, or $6.37 per diluted share, in fiscal 2009, reflecting a goodwill impairment charge of $455.7 million in the second quarter of fiscal 2009. We generated $7.4 million in cash from operations during fiscal 2009 compared to $117.6 million in cash from operations during fiscal 2008. For more information regarding our results of operations and market conditions, see Management s Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of Part II of this annual report.

Business Segment Data and Certain Financial Information

We manage our business in one operating segment. The matters discussed in this Business section should be read in conjunction with the Consolidated Financial Statements found under Item 8 of Part II of this annual report, which includes additional financial information about our total assets, revenue, measures of profits 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 1201 Winterson Road, Linthicum, Maryland 21090. Our telephone number is (410) 865-8500, and our web site address is www.ciena.com. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, available free of charge on the Investor Relations page of our web site as soon as reasonably practicable after we file these reports with the Securities and Exchange Commission (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 web site is not a part of this annual report.

Industry Background

The markets in which we sell our equipment and services have been subject to dynamic changes in recent years, including increased competition, growth in traffic, expanded service offerings, and evolving market opportunities and challenges.

Increased Network Capacity Requirements and Multiservice Traffic Driving Increased Transmission Speeds and Flexible Infrastructures

Today s networks are experiencing strong traffic growth and new service demands, especially in the access and metro portions of wireline networks and the backhaul portions of wireless networks. Increasing use of and reliance upon communications services by consumer and enterprise end users for a wide range of personal and business tasks, and the expansion of high-bandwidth, wireline and wireless service offerings, are driving increased network capacity requirements. Business customers seeking to improve automation, efficiency and productivity have become increasingly dependent upon enterprise-oriented communications and data services. As their workforces are becoming more mobile, enterprises are driving demand for seamless access to these business applications. In addition, enterprise technology trends such as IT virtualization and cloud computing are also placing new capacity and service requirements on networks. At the same time, with consumer adoption of broadband technologies, including peer-to-peer Internet applications, video services, online gaming, music downloads and mobile web and data services, an increasing portion of network traffic is consumer-driven. This shift presents a challenge to service providers because, historically, consumers pay a lower price for their bandwidth usage than enterprises, yet they are becoming a bigger portion of overall traffic demand. All of these factors are requiring networks to be more flexible, scalable and cost effective.

This traffic growth is driving networks to achieve increased transmission speeds, including the emergence of 40G and 100G optical transport technology. The growing mix of high-bandwidth traffic, and an increasing focus on controlling network costs, is also driving a transition from multiple, disparate networks based on SONET/SDH to more efficient, converged, multi-purpose Ethernet/IP-based network architectures. As a global standard that is widely deployed, we believe that Ethernet is an ideal technology for reducing cost and consolidating multiple services on a single network. The industry has seen network technology transitions like this in the past. These large investment cycles tend to happen over multi-year periods. For instance, from the mid 1980s to the mid 1990s, service providers focused network upgrades on the transition required to digitize voice traffic. From the mid 1990s to the mid 2000s, service providers focused network upgrades on the transition to SONET/SDH networks designed to reliably handle substantially more network traffic. We believe that the industry is currently in the early stages of network transition to multi-purpose Ethernet/IP-based network architectures that more efficiently handle the growing mix of multiservice traffic. We see opportunities in providing a portfolio of carrier class solutions that facilitate this transition to automated optical Ethernet networks.

Wireless Networks

Several years ago, data surpassed voice as the dominant traffic on wireline networks. This transition drove substantial investment as service providers upgraded their wireline infrastructure to accommodate higher bandwidth requirements and new usage patterns associated with new applications and service offerings. A similar shift is now occurring in wireless networks. The emergence of smart mobile devices that deliver integrated voice, audio, photo, video, email and mobile web capabilities, like Apple s iPhone , are rapidly changing the kind of traffic carried by wireless networks. Like the wireline networks before them, wireless networks initially were constructed principally to handle voice traffic, not the higher bandwidth, multiservice traffic that has grown in recent years. As a result, wireless networks are undergoing significant change as they evolve from today s second and third generation (2G and 3G) networks to include 4th generation (4G) technologies, such as WiMax and LTE, intended to support data rates in the hundreds of megabits per second. This evolution, together with growing mobility and expanding wireless applications, will require upgrades to existing wireless infrastructure, including wireline backhaul of mobile traffic.

Increased Competition Among Communications Service Providers and Effect on Network Investment

Competition continues to be fierce among communications services providers, particularly as traditional telecommunications companies and cable operators look to offer a broader mix of revenue-generating services. Service providers face new competitors, new technologies and intense price competition while traditional sources of revenue from voice and enterprise data services are under pressure. These dynamics place increased scrutiny and prioritization of network spending and heightened focus on the return on investment of enhancing existing infrastructures or building new communications networks. Service providers need to create and rapidly deliver new, robust service offerings and dedicated communications at increasing speeds to differentiate from competitors and grow their business. At the same time, they are increasingly seeking ways to reduce their network operating and capital costs and create new service offerings profitably. By utilizing scalable networks that are less complex, less expensive to operate and more adaptable, service providers can derive increased value from their network investments through the profitable and efficient delivery of new services.

Changes in Sourcing and Procurement Strategies

Challenging market conditions and the effects of the competitive landscape described above have only increased efforts among service providers to control network infrastructure costs. These conditions have resulted in the emergence of new sourcing and procurement strategies among service providers. Some of our customers have recently undertaken efforts to outsource entirely the building, operation and maintenance of their networks to suppliers or integrators. Others have indicated a procurement strategy to reduce the number of vendors from which they purchase equipment. We have also experienced customer efforts to seek vendor financing or other purchasing mechanisms intended to minimize or defer capital expenditures, or address business needs related to inventory levels, lead times and operating costs. We believe that changes in procurement strategies, particularly among our largest customers, will present opportunities, as well as significant challenges, for equipment providers like us. In particular, we see our consultative approach and expanded professional services offering as a key differentiator to help strengthen the strategic role we play in our customer s networks.

Carrier-Managed Services and Private Networks

Enterprises are increasingly requiring additional bandwidth capacity to support data interconnection, facilitate global expansion of operations, enable employee mobility and utilize video services. As information technology and communications services have taken on a strategic role in operations, enterprises and government agencies have become more concerned about network reliability and security, business continuity and disaster recovery. Many enterprises have also had to address industry-specific compliance and regulatory requirements. These changing requirements have driven service providers to ensure that their network infrastructures and service offerings can meet the changing needs of their largest customers. As a result, service providers offer a wide range of enterprise-oriented, carrier-managed services. In addition to this expansion of carrier-managed services, a number of large enterprises, government agencies and research and education institutions have decided to forego carrier-managed communications services in favor of building their own, secure private networks, some on a global scale.

Shift in Value from Networks to Applications

In the past, enterprises and consumers perceived value in network connectivity. These end users of networks now place a higher value on the services or applications accessed and delivered over the network. As a result, service providers need to create, market and sell profitable services as opposed to simply selling connectivity. Some examples of applications causing this shift in value include:

Virtualization. Virtualization moves a physical resource from a user s desktop into the network, thereby making more efficient use of information technology resources. Virtualization has many appealing attributes such as lowering barriers of entry into new markets, and even adding flexibility to scale certain aspects of a business faster and with less expense.

Software as a Service. Software as a service involves the sale of an application hosted as a service provided to end users, replacing standardized applications for virtualized services and, in some cases, replacing aspects of the traditional IT infrastructure. By way of example, traditional customer relationship management applications can be replaced with services such as Salesforce.com .

Mobility. The increase in availability and improved ease of use of web-based applications from mobile devices expands the reach of virtualized services beyond a wireline connection. For instance, consumer-driven video and gaming are being virtualized, allowing broad access to these applications, regardless of the device or the network used.

We believe these shifts will require communications network infrastructures to be able to be more automated, robust and flexible.

Strategy

Our strategy has evolved to enable our customers to deal with the challenges and industry trends discussed above. We started in the 1990s as a provider of intelligent optical transport solutions. Our focus was on making the transport network scalable, flexible and resilient through software-enabled automation. We enabled a new generation of mesh networking that allowed for new, tiered services and reduced network operating expenditures. We then combined the economics of Ethernet with our heritage of resilient optics, creating connection-oriented Ethernet products and features with carrier-grade performance. We are entering a new stage of our strategic evolution with a focus on enabling service delivery. For service providers, new services drive revenue growth. For enterprises, new services support strategic business needs and improve operational efficiency.

Our vision is to enable a service-driven network that is automated and programmable remotely via software. Programmable networks allow our customers to adapt and scale as their business models, services mix and market demands change. Through our current product portfolio and ongoing research and development efforts, we seek to provide networking solutions, including hardware, embedded software and management software, that allow our customers to rapidly and efficiently introduce and provision new revenue-generating services while enabling operational cost savings. We believe our innovation will allow tomorrow s service-driven network to adapt and scale, manage unpredictability, and eliminate barriers to new services. In providing these solutions, we aim to change fundamentally the way our customers compete.

Our vision of a service-driven network is based on three key building blocks of our FlexSelect Architecture:

- Programmable network elements capable of being rapidly reconfigured by software applications;
- Embedded and management software that increases automation; and
- True Carrier Ethernet (TCE) technology to provide reliable, feature-rich and cost-effective Ethernet to support a wider variety of services.

Through these technology elements, we seek to offer customers the means to automate delivery and management of a broad mix of services and enable a software-defined, service-agnostic network that offers enhanced flexibility and is more cost-effective to deploy, scale and manage.

Incorporating this approach to service-driven networks into our strategy, we are pursuing the following initiatives:

- Maintain and extend technology leadership in the transition from legacy network infrastructures to automated optical Ethernet networking;
- Build upon our consultative approach and expand our professional services offerings to enhance the strategic value we bring to customer relationships in their design, deployment and delivery of new services; and
- Grow and diversify our customer base by expanding our geographic reach, addressing new network applications and penetrating new market and customer segments.

Customers and Markets

Our customer base and the markets into which we sell our equipment, software and services have expanded in recent years as new market opportunities have emerged and our product portfolio has grown to include additional products in the metro and access portions of communications networks. The networking equipment needs of our customers vary, depending upon their size, location, the nature of their end users and the applications or services that they deliver and support. We sell our products and services through our direct sales force and third party channel partners in the following markets:

Communications Service Providers

Our communications service provider customers include regional, national and international, wireline and wireless carriers. These customers include AT&T, BT, Cable & Wireless, CenturyLink, Clearwire, France Telecom, Korea Telecom, Qwest, Sprint, Tata Communications, Telmex, Verizon and XO Communications. Traditional telecommunications service providers are our historical customer base and continue to represent the largest contributor to our revenue. We provide service providers with products from the network core to the edge to enable access. Our products enable service providers to rapidly provision new services and reduce network costs by aggregating multiservice traffic, or additional capacity, over a converged network. Our network offering enables service providers to support consumer demand for video delivery, broadband data and wireless broadband services, while continuing to support legacy voice services. Our products also enable service providers to support private networks and applications for enterprise users, including carrier-managed services, wide area network consolidation, inter-site connectivity, storage and Ethernet services.

Cable Operators

Our customers include leading cable and multiservice operators in the U.S. and internationally. Our cable and multiservice operator customers rely upon us for carrier-grade, optical Ethernet transport and switching equipment to support enterprise-oriented services. Our platforms allow cable operators to integrate voice, video and data applications over a converged infrastructure. Our products support key cable applications including broadcast and digital video, voice over IP, video on demand and broadband data services.

Enterprise

Our enterprise customers include large, multi-site commercial organizations, including participants in the financial, healthcare, transportation and retail industries. Our solutions can enable enterprises to achieve operational improvements, increased automation and information technology cost reductions. We offer equipment, software and services that facilitate wide area network consolidation, and storage extension for business continuity and disaster recovery. 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 data, voice, video, Ethernet services, online collaboration, conferencing and other business services. 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

Our government customers include federal and state agencies in the U.S. as well as government entities outside of the U.S. Our customers also include domestic and international research and education institutions seeking to take advantage of technology innovation and facilitate increased collaboration. Our products, software and services enable these customers to improve network performance, capacity, security, reliability and flexibility. Our products also enable government agencies and research and education institutions to build their own secure, private networks.

Products and Services

We offer a portfolio of communications networking equipment and management software that form the building blocks of a service-driven network. Our product portfolio consists of our optical service delivery products and our carrier Ethernet service delivery products. Together with our professional services, these offerings provide solutions to address the business needs of our customers and the tools necessary to face the market and technological challenges described above.

We have focused our product and service offerings on the following critical portions of the network: core networking, full-service metro, managed services and enterprise, and mobile backhaul. In the network s core, we deliver transport and switching equipment that creates an automated, dynamic optical infrastructure supporting a wide variety of network services. In the metro portion of the network, we deliver a comprehensive, converged transport and switching solution that manages circuits, wavelengths and packets. In managed services applications and enterprise networks, we enable services including storage, data connectivity, video and Ethernet services. In wireless and backhaul networks, we provide wireline and wireless carriers with the tools to migrate their networks to support mobile data applications and enable Ethernet-based backhaul.

Underpinning our product offerings are some common technology elements, including the key building blocks of our FlexSelect Architecture described above. These elements appear across our product portfolio and allow us to create differentiated solutions by combining various products from the core to the edge of customers networks.

Optical Service Delivery

Our optical service delivery portfolio includes transport and switching platforms that act as automated optical infrastructures for the delivery of a wide variety of enterprise and consumer-oriented network services. These products address both the core and metro segments of communications networks, as well as key managed service and enterprise applications.

Our principal core switching product is our CoreDirector® Multiservice Optical Switch. CoreDirector is a multiservice, multi-protocol switching system that consolidates the functionality of an add/drop multiplexer, digital cross-connect and packet aggregator, into a single, high-capacity intelligent switching system. CoreDirector s mesh capability creates more efficient, more reliable networks. In addition to its application in core networks, CoreDirector may also be used in metro networks for aggregation and forwarding of multiple services, including Ethernet/TDM Private Line, Triple Play and IP services. In 2009, we introduced our CoreDirector-FS, an expansion of our CoreDirector offering incorporating our FlexSelect technology elements. We also introduced our 5400 family of reconfigurable switching systems. These multi-terabit Ethernet, OTN and TDM switching systems with integrated transport functionality can be flexibly configured to implement a broad range of network elements including a scalable optical cross-connect, feature-rich Carrier Ethernet switch, or a fully converged packet-optical transport and switching system. These new platforms provide the capabilities and reliability of CoreDirector, while providing service providers the ability to scale to higher capacities and transition to packet-based networks.

In nationwide networks, our switching elements are connected by a reliable long-haul transport infrastructure. Our principal long-haul, core transport product is our CoreStream® Agility Optical Transport System. CoreStream Agility is a flexible, scalable wavelength division multiplexing (WDM) solution that enables cost-effective and efficient transport of voice, video and data related to a variety of services for core networks as well as regional and metro networks.

Our optical service delivery solution in metro and regional networks is our CN 4200® FlexSelect Advanced Services Platform family. Our CN 4200 family of products provides optical transport, wavelength switching, TDM switching and packet switching, and includes a reconfigurable optical add-drop multiplexer (ROADM), several chassis sizes and a comprehensive set of line cards. Our CN 4200 platform is scalable and can be utilized from the customer premises, where space and power are critical, to the metropolitan/regional core, where the need for high capacity and carrier-class performance are essential.

Our optical service delivery products also include enterprise-oriented transport and switching products designed for storage and LAN extension, interconnection of data centers over distance, which, when used together with CN 4200, enable virtual private networks. These products address key enterprise applications while reducing bandwidth usage through hardware compression and efficient bandwidth utilization.

Carrier Ethernet Service Delivery

Our carrier Ethernet service delivery offering primarily consists of service delivery switching products and service aggregation platforms. This offering also includes our legacy broadband access products for residential services. These products allow customers to utilize the automation and capacity created by our optical service delivery products in core and metro networks and to deliver new, revenue-generating services to consumers and enterprises. Our carrier Ethernet service delivery products have applications from the edge of the metro/core network to the customer premises.

Our service delivery and aggregation switches provide True Carrier Ethernet, a more reliable and feature rich type of Ethernet that can support a wider variety of services. These products support the access and aggregation tiers of communications networks, and are typically deployed in metro and access networks. Service delivery products are often used at customer premises locations while aggregation platforms are used to combine service to improve network resource utilization. Employing sophisticated carrier 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. In 2009, we introduced several additions to our service delivery and aggregation offering intended to increase capacity for higher bandwidth user connections and a broader set of aggregation and switching capabilities, such as enterprise locations, backhaul from wireless cell sites, multi-tenant unit buildings and outside plant cabinets. Initial deployment of these products have principally been in support of wireless backhaul deployments, including, in large part, 4G WiMax, and business data services.

Our principal products for consumer broadband are our CNX-5 Broadband DSL System and CNX-5Plus Modular Broadband Loop Carrier. These broadband access platforms allow service providers to transition legacy voice networks to support next-generation services such as Internet-based (IP) telephony, video services and DSL, and enable cost-effective migration to higher bandwidth Ethernet network infrastructures.

Unified Software and Service Management Tools

Our optical service delivery and carrier Ethernet service delivery products include a shared suite of embedded operating system software and network management software tools that serve to unify our product portfolio and provide the underlying automation and management features. Our embedded operating system is a robust, service aware operating system that improves network utilization and availability, while delivering enhanced performance monitoring and reliability. ON-Center® Network & Service Management Suite, our integrated network and service management software, is designed to simplify network management and operation across our portfolio. ON-Center can track individual services across multiple product suites, facilitating planned network maintenance, outage detection and identification of customers or services affected by network troubles. By increasing network automation, minimizing network downtime and monitoring network performance and service metrics, our embedded operating system software and network management software tools enable customers to improve cost effectiveness, while increasing the performance and functionality of their network operations.

Consulting and Support Services

To complement our product portfolio, we offer a broad range of consulting and support services that help our customers design, deploy and operationalize their services. We provide these professional services through our internal services resources as well as through service partners. Our services portfolio includes:

- Network analysis, planning and design;
- Network optimization and tuning;
- Project management, including staging, site preparation and installation activities;
- Deployment services, including turnkey installation and turn-up and test services; and
- Maintenance and support services, including helpdesk and technical assistance and training, spares and logistics management, software updates, engineering dispatch, advanced technical support and hardware and software warranty extensions.

Product Development

Our industry is subject to rapid technological developments, evolving standards and protocols, and shifts in customer demand. To remain competitive, we must continually enhance existing product platforms by adding new features and functionality and introduce new product platforms that address next-generation technologies and facilitate the transition to automated optical Ethernet networking. Our current development investments are focused upon:

- Data-optimized switching solutions and evolution of our CoreDirector family and 5400 family of reconfigurable switching solutions;
- Extending and increasing capacity of our converged optical transport service delivery portfolio, including 100G transport technologies and capabilities;
- Expanding our carrier Ethernet service delivery portfolio, including larger Ethernet aggregation switches; and
- Extending the value of our network management software platform across our product portfolio.

Our product development investments are driven by market demand and technological innovation, involving close collaboration among our product development, sales and marketing organizations and input from customers. In some cases, we work with third parties pursuant to technology licenses, OEM arrangements and other strategic technology relationships or investments, to develop new components or products, modify existing platforms or offer complementary technology to our customers. In addition, we participate in industry and standards organizations, where appropriate, and incorporate information from these affiliations throughout the product development process.

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

Our research and development expense was $127.3 million, $175.0 million and $190.3 million for fiscal 2007, 2008 and 2009, respectively. For more information regarding our research and development expense, see Management s Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of Part II of this report.

Sales and Marketing

We sell our communications networking equipment, software and services through our direct sales resources as well as through channel relationships. In addition to securing new customers, our sales strategy has focused on building long-term relationships with existing customers that allow us to leverage our incumbency by extending existing platforms and selling additional products to support new applications or facilitate new service offerings throughout our customers network.

We maintain a direct sales presence through which we sell our product and service offerings into customer markets in the following geographic locations: North America, Central and Latin America, Europe, Middle East and Africa, and Asia-Pacific. Within each geographic area, we maintain regional and customer-specific teams, including sales professionals, systems engineers and marketing, service and commercial management personnel, who ensure we operate closely with and provide a high level of support to our customers.

We also maintain a channel program that works with resellers, systems integrators and service providers to market and sell our products and services. Our third party channel sales and other distribution arrangements enable us to leverage our direct sales resources and reach additional geographic regions and customer segments. Our use of channel partners has been a key component in our sales to government, research and education and enterprise customers. Some of our service provider customers also serve as channel partners through which we sell products and services as part of their managed service offerings. We believe our channel strategy affords us expanded market opportunities and reduces the financial risk of entering new markets and pursuing new customer segments.

In support of our sales efforts, we engage in marketing activities intended to position and promote both our brand and our product, software and service offerings. Our marketing team supports sales efforts through direct customer interaction, industry events, public relations, general business publications, tradeshows, our website and other marketing channels for our customers and channel partners.

Manufacturing and Operations

Our manufacturing and operations personnel manage our relationships with our contract manufacturers, our supply chain, our product testing and quality, and logistics relating to our sales and distribution efforts. We utilize a global sourcing strategy that focuses on sourcing of materials in lower cost regions such as Asia. We also rely on contract manufacturers, with facilities principally in China and Thailand, to perform the majority of the manufacturing for our products. We believe that this 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. We utilize a direct order fulfillment model for certain products. This allows us to rely on our contract manufacturers to perform final system integration and test, prior to direct shipment of products from their facilities to our customers. For certain product lines, we continue to perform a portion of the module assembly, final system integration and testing.

Our contract manufacturers procure components necessary for assembly and manufacture of our products based on our specifications, approved vendor lists, bill of materials and testing and quality standards. Our contract manufacturers activity is based on rolling forecasts that we provide to them to estimate demand for our products. This build-to-forecast purchase model exposes us to the risk that our customers will not order those products for which we have forecast sales, or will purchase less than we have forecast. As a result, we may incur carrying charges or obsolete material charges for components purchased by our contract manufacturers. We work closely with our contract 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.

Shortages in components that we rely upon have occurred and are possible. Our products include some components that are proprietary in nature and only available from one or a small number of suppliers. Significant time would be required to establish relationships with alternate suppliers or providers of proprietary components. We do not have long-term contracts with any supplier or contract manufacturer that guarantees supply of components or manufacturing services. If component supplies become limited, production at a contract manufacturer is disrupted, or if we experience difficulty in our relationship with a key supplier or contract manufacturer, we may encounter manufacturing delays that could adversely affect our business.

Backlog

Generally, we make sales pursuant to purchase orders issued under framework agreements that govern the general commercial terms and conditions of the sale of our products and services. These agreements do not obligate customers to purchase any minimum or guaranteed order quantities. At any given time, we have orders for products that have not been shipped and for services that have not yet been performed. We also have products that have been delivered and services that have been performed that are awaiting customer acceptance. Generally, our customers may cancel or change their orders with limited advance notice, or they may decide not to accept these products and services. As a result, backlogged orders should not be viewed as an accurate indicator of future revenue in any particular period. As of October 31, 2008 and 2009, our backlog was approximately $301 million and $291 million, respectively. Backlog includes product and service orders from commercial and government customers combined. Backlog at October 31, 2009 includes approximately $54 million primarily related to orders for maintenance and support services that we do not reasonably expect to be filled within the next fiscal year. 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 have experienced reductions in customer order volume toward the end of calendar year and again early in the calendar year as annual capital budgets are finalized. We have also experienced reductions in order volume, particularly in Europe, during the late summer months. As a result of these seasonal effects, we have experienced decreases in orders during our fiscal first quarter, which ends on January 31 of each year, and our fiscal third quarter, which ends on July 31 of each 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 providers of communications networking equipment, software and services is intense. The markets for our products and services are characterized by rapidly advancing and converging technologies. Competition in these markets is based on any one or a combination of the following factors:

- product functionality and performance;
- price;

incumbency and existing business relationships;
development plans and the ability of products and services to meet customers immediate and future network requirements;
flexibility and scalability of products;
manufacturing and lead-time capability; and
installation and support capability.

Competition for sales of communications networking equipment is dominated by a small number of very large, multinational companies. Our competitors have included Alcatel-Lucent, Cisco, Ericsson, Fujitsu, Huawei, Nokia Siemens Networks, Nortel and Tellabs. These competitors have substantially greater financial, operational and marketing resources than us. Many of our competitors also have well-established relationships with large service providers. In recent years, mergers among some of our larger competitors have intensified these advantages. Our industry has also experienced increased competition from low-cost producers in Asia, which can contribute to pricing pressure.

We also 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 we address. These competitors include ADVA and Infinera. 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

We rely upon patents, copyrights, trademarks, and trade secret laws to establish and maintain proprietary rights in our technology. We regularly file applications for patents and trademarks and have a significant number of patents and trademarks in the United States and other countries where we do business. As of December 1, 2009, we had received 563 U.S. patents and had pending 189 U.S. patent applications. Of the patents that have been issued, the earliest any will expire is March 19, 2010. 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 consultants to execute non-disclosure and proprietary rights agreements upon commencement of employment or consulting arrangements with us. These agreements acknowledge our exclusive ownership of intellectual property developed by the individual during the course of his or her work with us. The agreements also require that these persons maintain the confidentiality of all proprietary information disclosed to them.

Enforcing proprietary rights, especially patents, can be costly and uncertain. Moreover, monitoring unauthorized use of our technology is difficult, and we cannot be certain that the steps that we are taking will detect or prevent unauthorized use, particularly as we expand our operations, product development and the manufacturing of our products internationally, into countries that may not provide the same level of intellectual property protection as the United States. In recent years, we have filed suit to enforce our intellectual property rights and have been subject to several claims related to patent infringement. In some cases, resolution of these claims has resulted in our payment of substantial sums. We believe that the frequency of patent infringement claims is increasing as patent holders, including entities that are not in our industry and who purchase patents as an investment or to monetize such rights by obtaining royalties, use such claims as a competitive tactic and source of additional revenue. Third party infringement assertions, even those without merit, could cause us to incur substantial costs. If we are not successful in defending these claims, we could be required to enter into a license agreement requiring ongoing royalty payments, we may be required to redesign our products, or we may be prohibited from selling any infringing technology.

Our operating system, network and service management software and other products incorporate software and components under licenses from third parties. We may be required to license additional technology from third parties in order to develop new products or product enhancements. There can be no assurance that these licenses will be available or continue to be available on acceptable commercial terms. Failure to obtain or maintain such licenses or other rights could affect our development efforts, require us to re-engineer our products or obtain alternate technologies, which could harm our business, financial condition and operating results.

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 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 adverse effect on our business, results of operations or financial condition.

Employees

As of October 31, 2009, we had 2,163 employees. None of our employees is represented by labor unions or covered by a collective bargaining agreement. We have not experienced any work stoppages and we consider the relationships with our employees to be good. We believe that our future success depends in critical part on our continued ability to recruit, motivate and retain qualified personnel.

Directors and Executive Officers

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

Name	Age	Position
Patrick H. Nettles, Ph.D.	66	Executive Chairman of the Board of Directors
Gary B. Smith	49	President, Chief Executive Officer and Director
Stephen B. Alexander	50	Senior Vice President, Chief Technology Officer
Michael G. Aquino	53	Senior Vice President, Global Field Operations
James E. Moylan, Jr.	58	Senior Vice President, Finance and Chief Financial Officer
Andrew C. Petrik	46	Vice President and Controller
David M. Rothenstein	41	Senior Vice President, General Counsel and Secretary
Arthur D. Smith, Ph.D.	43	Senior Vice President, Chief Integration Officer
Stephen P. Bradley, Ph.D. (2)(3)	68	Director
Harvey B. Cash (1)(3)	71	Director
Bruce L. Claflin (1)(2)	58	Director
Lawton W. Fitt (2)	56	Director
Judith M. O Brien (1)(3)	59	Director
Michael J. Rowny (2)	59	Director
Patrick T. Gallagher (2)	54	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: Ms. Fitt, Dr. Nettles and Mr. Rowny in 2010; Ms. O Brien and Messrs. Cash and Smith in 2011; and Messrs. Bradley, Claflin and Gallagher in 2012. In accordance with Ciena s bylaws, Mr. Gallagher will stand for election by shareholders at the 2010 annual meeting to serve the remainder of the term above.

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 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 also serves on the board of directors of Apptrigger, Inc., 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. Mr. Smith also serves on the board of directors for CommVault Systems, Inc. Mr. Smith also serves as a member of the Global Information Infrastructure Commission.

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

Michael G. Aquino joined Ciena in June 2002 and has served as Ciena s Senior Vice President, Global Field Operations since October 2008. Mr. Aquino served as Senior Vice President of Worldwide Sales from April 2006 to October 2008. Mr. Aquino previously held positions as Ciena s Vice President of Americas, with responsibility for sales activities in the region, and Vice President of Government Solutions, where he focused on supporting Ciena s relationships with the U.S. and Canadian government.

James E. Moylan, Jr. has served as Senior Vice President, Finance and Chief Financial Officer since December 2007. From June 2006 to December 2007, Mr. Moylan served as Executive Vice President and Chief Financial Officer of Swett & Crawford, a wholesale insurance broker. From March 2004 to February 2006, Mr. Moylan served as Executive Vice President and Chief Financial Officer of PRG-Shultz International, Inc., a publicly held recovery audit and business services firm. From June 2002 to April 2003, Mr. Moylan served as Executive Vice President in charge of Composite Panels Distribution and Administration for Georgia-Pacific Corporation s building products business. From November 1999 to May 2002, Mr. Moylan served as Senior Vice President and Chief Financial Officer of SCI Systems, Inc., an electronics contract manufacturing company.

Andrew C. Petrik joined Ciena in 1996 and has served as Vice President, Controller since August 1997.

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.

Arthur D. Smith, Ph.D. joined Ciena in May 1997 and has served as Chief Integration Officer since December 2009. Dr. Smith assumed this new role in support of the substantial integration effort associated with our acquisition of substantially all of the optical networking and carrier Ethernet assets of Nortel s Metro Ethernet Networks (MEN) business. Dr. Smith previously served as Ciena s Chief Operating Officer from October 2005 to December 2009. Dr. Smith served as Senior Vice President, Global Operations from September 2003 to October 2005. Previously, Dr. Smith served as Senior Vice President, Worldwide Customer Services and Support from June 2002 to September 2003.

Stephen P. Bradley, Ph.D. has served as a Director of Ciena since April 1998. Professor Bradley is the William Ziegler Professor of Business Administration at the Harvard Business School. A member of the Harvard faculty since 1968, Professor Bradley is also Chairman of Harvard s Executive Program in Competition and Strategy: Building and Sustaining Competitive Advantage. Professor Bradley serves on the board of directors of i2 Technologies, Inc. and the Risk Management Foundation of the Harvard Medical Institutions.

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, that he joined in 1985. Mr. Cash serves on the board of directors of First Acceptance Corp., Silicon Laboratories, Inc. and Argonaut Group, 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.

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. Ms. Fitt serves on the board of directors of Thomson Reuters Corporation, Frontier Communications Corporation, The Progressive Corporation and Overture Acquisition Corp.

Judith M. O Brien has served as a Director of Ciena since July 2000. Since November 2006, Ms. O Brien has served as Executive Vice President and General Counsel of Obopay, Inc., a provider of mobile payment services. From February 2001 until October 2006, Ms. O Brien served as a Managing Director at Incubic Venture Fund, a venture capital firm. From February 1984 until February 2001, Ms. O Brien was a partner with Wilson Sonsini

Goodrich & Rosati, where she specialized in corporate finance, mergers and acquisitions and general corporate matters.

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

Item 1A. Risk Factors

Risks relating to our pending acquisition of certain Nortel Metro Ethernet Networks (MEN) Assets

Business combinations involve a high degree of risk. In addition to the other information contained in this report, you should consider the following risk factors related to our pending acquisition of certain Nortel MEN assets before investing in our securities.

The pending transaction may not be completed, may be delayed or may result in the imposition of conditions that could have a material adverse effect on Ciena s operation of the business following completion.

In addition to customary closing conditions, completion of the pending transaction is conditioned upon the receipt of certain governmental clearances or approvals that have not yet been obtained, including, without limitation, the Investment Canada Act and regional bankruptcy approvals in France and Israel. Completion of the transaction is also subject to information and consultation with employee representatives and/or employees in certain international jurisdictions. Ciena has previously been granted early termination of the antitrust waiting period under the Hart-Scott-Rodino Act and the Canadian Competition Act. There can be no assurance that these clearances and approvals will be obtained and that previous clearances will be maintained. Third parties could petition to have governmental entities reconsider previously granted clearances. In addition, the governmental entities from which clearances and approvals are required may impose conditions on the completion of the transaction, require changes to the terms of the transaction or impose restrictions on the operation of the business following completion of the transaction. If the transaction is not completed, completion is delayed or Ciena becomes subject to any material conditions in order to obtain any clearances or approvals required to complete the transaction, its business and results of operations may be adversely affected and its stock price may suffer.

We may fail to realize the anticipated benefits and operating synergies expected from the transaction, which could adversely affect our operating results and the market price of our common stock.

The success of the transaction will depend, in significant part, on our ability to successfully integrate the acquired business and realize the anticipated benefits and operating synergies to be derived from the combination of the two businesses. We believe that the additional resources, expanded geographic reach, new and broader customer relationships, and deeper portfolio of complementary network solutions derived from the pending transaction will accelerate the execution of our corporate and product development strategy and provide opportunities to optimize our product development investment. Actual cost, operating, strategic and sales synergies, if achieved at all, may be lower than we expect and may take longer to achieve than anticipated. If we are not able to adequately address the integration challenges above, we may be unable to realize the anticipated benefits of the transaction. The anticipated benefits of the transaction may not be realized fully or at all or may take longer to realize than expected. If we are not able to achieve these objectives, the value of Ciena s common stock may be adversely affected.

Our pending acquisition will result in significant integration costs and any material delays or unanticipated additional expense may harm our business and results of operations.

We expect the magnitude of the integration effort will be significant and that it will require material capital and operating expense by Ciena. We currently expect that integration expense associated with equipment and information technology costs, transaction expense, and consulting and third party service fees associated with integration, will be approximately $180 million over a two-year period, with a significant portion of such costs anticipated to be incurred in the first year after completion of the transaction. This amount does not give effect to any expense related to, among other things, facilities restructuring or inventory obsolescence charges. This amount also does not give effect to higher operating expense associated with transition services described below. As a result, the integration expense we incur and recognize for financial statement purposes could be significantly higher. Any material delays or unanticipated additional expense may harm our business and results of operations.

The integration of the acquired assets will be extremely complex and involve a number of risks. Failure to successfully integrate our respective operations, including the underlying information systems, could significantly harm our business and results of operations.

Because of the structure of the transaction, as an asset carve out from Nortel, upon completion of the transaction we will not be integrating an entire enterprise, with the back-office systems and processes that make the business run, when we complete this transaction. We must build the infrastructure and organizations, and retain third party services, to ensure business continuity and to support and scale our business. Integrating our operations will be extremely complex and there is no assurance that we will not encounter material delays or unanticipated costs that would adversely affect our business and results of operations. Successful integration involves numerous risks, including:

- assimilating product offerings and sales and marketing operations;
- coordinating research and development efforts;
- retaining and attracting customers following a period of significant uncertainty associated with the acquired business;
- diversion of management attention from business and operational matters;
- identifying and retaining key personnel;
- maintaining and transitioning relationships with key vendors, including component providers, manufacturers and service providers;
- integrating accounting, information technology, enterprise management and administrative systems which may be difficult or costly;
- making significant cash expenditures that may be required to retain personnel or eliminate unnecessary resources;
- managing tax costs or liabilities;
- coordinating a broader and more geographically dispersed organization;
- maintaining uniform standards, procedures and policies to ensure efficient and compliant administration of the organizaton; and
- making any necessary modifications to internal control to comply with the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder.

Delays encountered in the integration process, significant cost overruns and unanticipated expense could have a material adverse effect on our operating results and financial condition.

Following completion of the transaction we will rely upon an affiliate of Nortel to perform certain critical transition services during a transition period and there can be no assurance that such services will be performed timely and effectively.

Following the completion of the transaction, we will rely upon an affiliate of Nortel for certain transition services related to the operation and continuity of the business following completion of the transaction. These services include, among others, critical functions relating to accounting, information technology, maintenance services and facilities. We anticipate that transition service-related expense will be significant and the administration and oversight of these services will be complex. The transition service provider will be performing services on behalf of Ciena as well as certain other purchasers of those businesses that Nortel has divested in the course of its bankruptcy proceedings. Relying upon this transition services provider to perform critical operations and services raises a number of significant business and operational risks, including its ability to become an effective support partner for all of the Nortel purchasers, segregation of such services, and its ability to retain experienced and knowledgeable personnel. There can be no assurance such services will be performed timely and effectively. Significant disruption in these transition services or unanticipated costs related to such services could adversely affect our business and results of operations.

Upon the closing of the transaction, we will take on substantial additional indebtedness and materially reduce our cash balance.

In accordance with the applicable asset purchase agreements, upon completion of the transaction, we will pay the sellers $530 million in cash and issue them $239 million in aggregate principal of senior convertible notes due in fiscal 2017. This cash expenditure will significantly reduce our cash balance. In addition, the terms of the notes to be issued provide for an adjustment of the interest rate up to a maximum of 8% per annum, depending upon the market price of our common stock

upon the completion of the transaction. The lower cash balance and increased indebtedness resulting from this transaction could adversely affect our business. In particular, it could increase our vulnerability to sustained, adverse macroeconomic weakness, limit our ability to obtain further financing and limit our ability to pursue certain operational and strategic opportunities. Our indebtedness and lower cash balance may also put us in a competitive disadvantage to other vendors with greater resources.

The transaction may expose us to significant unanticipated liabilities that could adversely affect our business and results of operations.

Our purchase of the acquired business in connection with Nortel s bankruptcy proceedings may expose us to significant unanticipated liabilities. We may incur unforeseen liabilities relating to the operation of the business including employment related obligations under applicable law or benefits arrangements, legal claims, warranty or similar liabilities to customers, and claims by or amounts owed to vendors, including as a result of any contracts assigned to Ciena in the transaction. We may also incur liabilities or claims associated with our acquisition or licensing of Nortel s technology and intellectual property including claims of infringement. Our acquisition of Nortel s assets, particularly in international jurisdictions, could also expose us to tax liabilities and other amounts owed by Nortel. The incurrence of such unforeseen or unanticipated liabilities, should they be significant, could have a material adverse affect on our business, results of operations and financial condition.

The transaction may not be accretive and may cause dilution to our earnings per share, which may harm the market price of our common stock.

We currently anticipate that the transaction will be accretive to earnings per share for fiscal 2011. This expectation is based on preliminary estimates which may materially change after the completion of the transaction. We have previously incurred operating expense, on a stand alone basis, higher than we anticipated for periods during fiscal 2009. The magnitude of the integration relating to our pending transaction, together with the increased scale of our operations resulting from the transaction, will make forecasting, managing and constraining our operating expense even more difficult. We could also encounter additional transaction and integration-related costs or fail to realize all of the benefits of the transaction that underlie our financial model and expectations as to profitability. All of these factors could cause dilution to our earnings per share or decrease or delay the expected accretive effect of the transaction and cause a decrease in the price of our common stock.

The complexity of the integration and transition associated with our pending transaction, together with the increased scale of our operations, may challenge our internal control over financial reporting and our ability to effectively and timely report our financial results.

Following the completion of the pending transaction, we will rely upon a combination of Ciena information systems and critical transition services that are necessary for us to accurately and effectively compile and report our financial results. We will also have to train new employees and third party providers, and assume operations in jurisdictions where we have not previously had operations. The scale of these operations, together with the complexity of the integration effort, including changes to or implementation of critical information technology systems, may adversely affect our ability to report our financial results on a timely basis. We expect that the transaction may necessitate significant modifications to our internal control systems, processes and information systems. We cannot be certain that changes to our design for internal control over financial reporting will be sufficient to enable management or our independent registered public accounting firm to determine that our internal controls are effective for any period, or on an ongoing basis. If we are unable to accurately and timely report our financial results, or are unable to assert that our internal controls over financial reporting are effective, our business and market perception of our financial condition may be harmed and the trading price of our stock may be adversely affected.

Following our acquisition of the Nortel assets, the combined company must continue to retain, motivate and recruit key executives and employees, which may be difficult in light of uncertainty regarding the pending transaction and the significant integration efforts following closing.

For the pending transaction to be successful, during the period before the transaction is completed, both Ciena and Nortel must continue to retain, motivate and recruit executives and other key employees. Moreover, following the completion of the transaction, Ciena must be successful at retaining and motivating key employees. Experienced employees, particularly with experience in optical engineering, are in high demand and competition for their talents can be intense. Employees of both companies may experience uncertainty, real or perceived, about their future role with the combined company until, or even after, Ciena s post-closing strategies are announced or executed. These potential distractions may adversely affect the ability to retain, motivate and recruit executives and other key employees and keep them focused on corporate strategies and objectives. The failure to attract, retain and motivate executives and other key employees before and following completion of the transaction could have a negative impact on Ciena s business.

Risks related to our current business and operations

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 business and operating results could be adversely affected by unfavorable macroeconomic and market conditions and reductions in the level of capital expenditure by our largest customers in response to these conditions.

Starting in the second half of fiscal 2008, our business began to experience the effects of worsening macroeconomic conditions and significant disruptions in the financial and credit markets globally. In the face of these conditions, many companies, including some of our largest communications service provider customers, significantly reduced their network infrastructure expenditures as they sought to conserve capital, reduce debt or address uncertainties or changes in their own business models brought on by broader market challenges. Our business experienced lengthening sales cycles, customer delays in network buildouts and slowing deployments, resulting in lower demand across our customer base in all geographies. Our results of operations for fiscal 2009 were materially adversely affected by the weakness, volatility and uncertainty presented by the global market conditions that we encountered during the year.

Broad macroeconomic weakness, customer financial difficulties, changes in customer business models and constrained spending on communications networks have previously resulted in sustained periods of decreased demand for our products and services that have adversely affected our operating results. Challenging economic and market conditions may also result in:

- difficulty forecasting, budgeting and planning due to limited visibility into the spending plans of current or prospective customers;
- increased competition for fewer network projects and sales opportunities;
- pricing pressure that may adversely affect revenue and gross margin;
- higher overhead costs as a percentage of revenue;
- increased risk of charges relating to excess and obsolete inventories and the write off of other intangible assets; and
- customer financial difficulty and increased risk of doubtful accounts receivable.

Our business and financial results are closely tied to the prospects, performance, and financial condition of our largest communications service provider customers and are significantly affected by market or industry-wide changes that affect their businesses and their level of infrastructure-related spending. These factors include the level of enterprise and consumer spending on communications services, adoption of new communications services or applications and consumption of available network capacity. We are uncertain as to how long current unfavorable macroeconomic and industry conditions will persist and the magnitude of their effects on our business and results of operations.

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

A significant portion of our revenue is concentrated among a relatively small number of communications service providers. Eight customers accounted for greater than 60% of our revenue in fiscal 2009. Consequently, our financial results are closely correlated with the spending of a relatively small number of communications service providers. The terms of our frame contracts generally do not obligate these customers to purchase any minimum or specific amounts of equipment or services. Because their spending may be unpredictable and sporadic, our revenue and operating results can fluctuate on a quarterly basis. Reliance upon a relatively small number of customers increases our exposure to changes in their network and purchasing strategies. Some of our customers are pursuing efforts to outsource the management and operation of their networks, or have indicated a procurement strategy to reduce or rationalize the number of vendors from which they purchase equipment. These strategies may present challenges to our business and could benefit our larger competitors. Our concentration in revenue has increased in recent years, in part, as a result of consolidations among a number of our largest customers. Consolidations may increase the likelihood of temporary or indefinite reductions in customer spending or changes in network strategy that could harm our business and operating results. The loss of one or more large service provider customers, or a significant reduction in their spending, as a result of the factors above or otherwise, would have a material adverse effect on our business, financial condition and results of operations.

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

Our revenue and results of operations can fluctuate unpredictably from quarter to quarter. Our budgeted expense levels depend in part on our expectations of long-term future revenue and gross margin, and substantial reductions in expense are difficult and can take time to implement. Uncertainty or lack of visibility into customer spending, and changes in economic or market conditions, can make it difficult to prepare reliable estimates of future revenue and corresponding expense levels. Consequently, our level of operating expense or inventory may be high relative to our revenue, which could harm our ability to achieve or maintain profitability. Given market conditions and the effect of cautious spending in recent quarters, lower levels of backlog orders and an increase in the percentage of quarterly revenue relating to orders placed in that quarter could result in more variability and less predictability in our quarterly results.

Additional factors that contribute to fluctuations in our revenue and operating results include:

- broader economic and market conditions affecting us and our customers;
- changes in capital spending by large communications service providers;
- the timing and size of orders, including our ability to recognize revenue under customer contracts;
- variations in the mix between higher and lower margin products and services; and
- the level of pricing pressure we encounter.

Many factors affecting our results of operations are beyond our control, particularly in the case of large service provider orders and multi-vendor or multi-technology network infrastructure builds where the achievement of certain thresholds for acceptance is subject to the readiness and performance of the customer or other providers, and changes in customer requirements or installation plans. As a consequence, our results for a particular quarter may be difficult to predict, and our prior results are not necessarily indicative of results likely in future periods. The factors above may cause our revenue and operating results to fluctuate unpredictably from quarter to quarter. These fluctuations may cause our operating results to be below the expectations of securities analysts or investors, which may cause our stock price to decline.

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

The markets in which we compete for sales of networking equipment, software and services are extremely competitive, particularly the market for sales to large communications service providers. The level of competition and pricing pressure that we face increases substantially during periods of macroeconomic weakness, constrained spending or fewer network projects. As a result of current market conditions, we have experienced significant competition and increased pricing pressure, particularly for our optical transport products. We face particularly intense competition in our efforts to attract additional large carrier customers in new geographies and secure new market opportunities with existing carrier customers. In an effort to secure attractive long-term customers or new customers, we may agree to pricing or other terms that that result in negative gross margins on a particular order or group of orders.

Competition in our markets, generally, is based on any one or a combination of the following factors: price, product features, functionality and performance, introduction of innovative network solutions, manufacturing capability and lead-times, incumbency and existing business relationships, scalability and the flexibility of products to meet the immediate and future network requirements of customers. A small number of very large companies have historically dominated our industry. These competitors have substantially greater financial, technical and marketing resources, greater manufacturing capacity, broader product offerings and more established relationships with service providers and other potential customers than we do. Because of their scale and resources, they may be perceived to be better positioned to offer network operating or management service for large carrier customers. Consolidation activity among large networking equipment providers has caused some of our competitors to grow even larger, which may increase their strategic advantages and adversely affect our competitive position.

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.

Increased competition in our markets has resulted in aggressive business tactics, including:

- significant price competition, particularly from competitors in Asia;
- customer financing assistance;

early announcements of competing products and extensive marketing efforts;
competitors offering equity ownership positions to customers;
competitors offering to repurchase our equipment from existing customers;

marketing and advertising assistance; and

intellectual property assertions and disputes.

The tactics described above can be particularly effective in an increasingly concentrated base of potential customers such as communications service providers. If competitive pressures increase or we fail to compete successfully in our markets, our sales and profitability would suffer.

Our reliance upon third party manufacturers exposes us to risks that could negatively affect our business and operations.

We rely upon third party contract manufacturers to perform the majority of the manufacturing of our products and components. In recent years we have transitioned a significant portion of our product manufacturing to overseas suppliers in Asia, with much of the manufacturing taking place in China and Thailand. Some of our contract manufacturers ship products directly to our customers on behalf of Ciena. Our reliance upon these manufacturers could expose us to increased risks related to lead times, continued supply, on-time delivery, quality assurance and compliance with environmental standards and other regulations. Reliance upon third parties for manufacture of our products significantly exposes us to risks related to their business, financial position and continued viability, which may be adversely affected by broader negative macroeconomic conditions and difficulties in the credit markets. These conditions may disrupt their operations, result in discontinuation of services, or result in pricing increases that affect our manufacturing requirements. Disruptions to our business could also arise as a result of ineffective business continuity and disaster recovery plans by our manufacturers. We do not have contracts in place with some of our manufacturers and do not have guaranteed supply of components or manufacturing capacity. We could also experience difficulties as a result of geopolitical events, military actions or health pandemics in the countries where our products or components thereof are manufactured. During the first quarter of fiscal 2009, protests resulted in a blockade of Thailand s main international airport, which delayed product shipments from one of our key contract manufacturers. Significant disruptions or difficulties with our contract manufacturers could negatively affect our business and results of operations.

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

The market for communications networking equipment is characterized by rapidly evolving technologies and changes in market demand. We continually invest in research and development to sustain or enhance our existing products and develop or acquire new products technologies. Our current development efforts are focused upon the evolution of our CoreDirector Multiservice Optical Switch family, the expansion of our carrier Ethernet service delivery and aggregation products, and the extension of our CN 4200 converged optical service delivery portfolio, including 100G technologies and capabilities. There is often a lengthy period between commencing these development initiatives and bringing a new or revised product to market. During this time, technology preferences, customer demand and the market for our products may move in directions we had not anticipated. There is no guarantee that 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 our acquisitions 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. 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.

Product performance problems could damage our business reputation and negatively affect our results of operations.

The development and production of highly technical and complex communications network equipment is complicated. Some of our products can be fully tested only when deployed in communications networks or when carrying traffic with other equipment. As a result, product performance problems are often more acute for initial deployments of new products and product enhancements. Our products have contained and may contain undetected hardware or software errors or defects. These defects have resulted in warranty claims and additional costs to remediate. Unanticipated problems can relate to the design, manufacturing, installation or integration of our products. Performance problems and product malfunctions can also relate to defects in components, software or manufacturing services supplied by third parties. Product performance, reliability and quality problems can negatively affect our business, including:

- increased costs to remediate software or hardware defects or replace products;
- payment of liquidated damages or similar claims for performance failures or delays;

increased inventory obsolescence;

increased warranty expense or estimates resulting from higher failure rates, additional field service obligations or other rework costs related to defects;

delays in recognizing revenue or collecting accounts receivable; and

declining sales to existing customers and order cancellations.

Product performance problems could also damage our business reputation and harm our prospects with potential customers. These consequences of product defects or quality problems could negatively affect our business and results of operations.

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

Our future success will depend in large part on our ability to maintain and expand our sales to large communications service providers. These sales typically involve lengthy sales cycles, protracted and sometimes difficult contract negotiations, and extensive product testing and network certification. We are sometimes required to agree to contract terms or conditions that negatively affect pricing, payment terms and the timing of revenue recognition in order to consummate a sale. As a result of current market conditions, these customers may request extended payment terms, vendor or third-party financing and other alternative purchase structures. These terms may, in turn, negatively affect our revenue and results of operations and increase our susceptibility to quarterly fluctuations in our results. Service providers may ultimately insist upon terms and conditions that we deem too onerous or not in our best interest. Moreover, our purchase agreements generally do not require that a customer guarantee any minimum purchase level and customers often have the right to modify, delay, reduce or cancel previous orders. As a result, we may incur substantial expense and devote time and resources to potential relationships that never materialize or result in lower than anticipated sales.

Difficulties with third party component suppliers, including sole and limited source suppliers, could increase our costs and harm our business and customer relationships.

We depend on third party suppliers for our product components and subsystems, as well as for equipment used to manufacture and test our products. Our products include key optical and electronic components for which reliable, high-volume supply is often available from sole or limited sources. We have previously encountered shortages in availability for important components that have affected our ability to deliver products in a timely manner. Our business would be negatively affected if one or more of our suppliers were to experience any significant disruption in their operations affecting the price, quality, availability or timely delivery of components. Current unfavorable economic conditions, including a lack of liquidity, may adversely affect the business of our suppliers or the terms on which we purchase components. We have seen an increased incidence of component discontinuation as suppliers alter their businesses to adjust to market conditions. As a result of our reliance on third parties, we may be unable 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 us to redesign products that use those components, which would increase our costs and negatively affect our product gross margin and results of operations. Difficulties with suppliers could also result in lost revenue, additional product costs and deployment delays that could harm our business and customer relationships.

We may not be successful in selling our products into new markets and developing and managing new sales channels.

We continue to take steps to sell our products into new geographic markets outside of our traditional markets and to a broader customer base, including other large communications service providers, enterprises, cable operators, wireless operators and federal, state and local governments. We have less experience in these markets and, in order to succeed in these markets, we believe we must develop and manage new sales channels and distribution arrangements. We expect these relationships to be an increasingly important part of our business. This strategy may not succeed and we may be exposed to increased expense and legal, business and financial risks associated with entering new markets and pursuing new customer segments through channel partners.

Part of our strategy is to pursue sales to federal, state and local governments. These sales require compliance with complex procurement regulations with which we have limited experience. We may be unable to increase our sales to government contractors if we determine that we cannot comply with applicable regulations. Our failure to comply with regulations for existing contracts could result in civil, criminal or administrative proceedings involving fines and suspension, or exclusion, from participation in federal government contracts. Failure to manage additional sales channels effectively would limit our ability to succeed in these new markets and could adversely affect our ability to expand our customer base and grow our business.

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, manufacturing or deploying them. Each step in the development life cycle of our products presents serious risks of failure, rework or delay, any one of which could affect the cost-effective and timely development of our products. Intellectual property disputes, failure of critical design elements, and other execution risks may delay or even prevent the release of these products. Delays in product development may affect our reputation with customers and the timing and level of demand for our products. If we do not develop and successfully introduce products in a timely manner, our competitive position may suffer and our business, financial condition and results of operations would be harmed.

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

To avoid delays and meet customer demand for shorter delivery terms, we place orders with our contract manufacturers and suppliers to manufacture components and complete assemblies based on forecasts of customer demand. As a result, our inventory purchases expose us to the risk that our customers either will not order the products we have forecasted or will purchase fewer products than forecasted. Unfavorable market or industry conditions can limit visibility into customer spending plans and compound the difficulty of forecasting inventory at appropriate levels. Moreover, our customer purchase agreements generally do not guarantee any minimum purchase level, and customers often have the right to modify, reduce or cancel purchase quantities. As a result, we may purchase inventory in anticipation of sales that do not occur. Historically, our inventory write-offs have resulted from the circumstances above. As features and functionalities converge across our product lines, and we introduce new products, however, we face an additional risk that customers may forego purchases of one product we have inventoried in favor of another product with similar functionality. If we are required to write off or write down a significant amount of inventory, our results of operations for the period would be materially adversely affected.

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 and to better match our resources with market opportunities. We may take similar steps in the future. These changes could be disruptive to our business and may result in the recording of accounting charges, including inventory and technology-related write-offs, workforce reduction costs and charges relating to consolidation of excess facilities. Substantial charges resulting from any future restructuring activities could adversely affect our results of operations in the period in which we take such a charge.

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 maintenance and support functions, as well as the installation of our equipment in some large network builds. In order to ensure the proper installation and maintenance of our products, we must identify, train and certify qualified service partners. Certification can be costly and time-consuming, and our partners often provide similar services for other companies, including our competitors. We may not be able to manage effectively our relationships with our service partners and cannot be certain that they will be able to deliver services in the manner or time required. If our service partners are unsuccessful in delivering services:

- we may suffer delays in recognizing revenue;
- our services revenue and gross margin may be adversely affected; and
- our relationship with customers could suffer.

Difficulties with service partners could cause us to transition a larger share of deployment and other services from third parties to internal resources, thereby increasing our services overhead costs and negatively affecting our services gross margin and results of operations.

We may incur significant costs as a result of our efforts to protect and enforce our intellectual property rights or respond to claims of infringement from others.

Our business is dependent upon the successful protection of our proprietary technology and intellectual property. We are subject to the risk that unauthorized parties may attempt to access, copy or otherwise obtain and use our proprietary technology, particularly as we expand our product development into India and increase our reliance upon contract manufacturers in Asia. These and other international operations could expose us to a lower level of intellectual property protection than in the United States. Monitoring unauthorized use of our technology is difficult, and we cannot be certain that the steps that we are taking will prevent or minimize the risks of unauthorized use. If competitors are able to use our technology, our ability to compete effectively could be harmed.

From time to time we have been subject to litigation and other third party intellectual property claims, primarily alleging patent infringement. We have also been subject to third party claims arising as a result of our indemnification obligations to customers or resellers that purchase our products or as a result of alleged infringement relating to third party components that we include in our products. The frequency of these assertions is increasing as patent holders, including entities that are not in our industry and that purchase patents as an investment, use infringement assertions as a competitive tactic or as a source of additional revenue. Intellectual property infringement claims can significantly divert the time and attention of our personnel and result in costly litigation. These claims can also require us to pay substantial damages or royalties, enter into costly license agreements or develop non-infringing technology. Accordingly, the costs associated with intellectual property infringement claims could adversely affect our business, results of operations and financial condition.

Our international operations could expose us to additional risks and result in increased operating expense.

We market, sell and service our products globally. We have established offices around the world, including in North America, Europe, the Middle East, Latin America and the Asia Pacific region. We have also established a major development center in India and are increasingly reliant upon overseas suppliers, particularly in Asia, for sourcing of important components and manufacturing of our products. Our increasingly global operations may result in increased risk to our business and could give rise to unanticipated expense, difficulties or other effects that could adversely affect our financial results.

International operations are subject to inherent risks, including:

- effects of changes in currency exchange rates;
- greater difficulty in collecting accounts receivable and longer collection periods;
- difficulties and costs of staffing and managing foreign operations;
- the impact of economic conditions in countries outside the United States;
- less protection for intellectual property rights in some countries;
- adverse tax and customs consequences, particularly as related to transfer-pricing issues;
- social, political and economic instability;
- higher incidence of corruption;
- trade protection measures, export compliance, qualification to transact business and additional regulatory requirements; and
- natural disasters, epidemics and acts of war or terrorism.

We expect that our international activities will be dynamic, and we may enter new markets and withdraw from or reduce operations in others. These changes to our international operations may require significant management attention and result in additional expense. In some countries, our success will depend in part on our ability to form relationships with local partners. Our inability to identify appropriate partners or reach mutually satisfactory arrangements for international sales of our products could impact our ability to maintain or increase international market demand for our products.

Our use and reliance upon development resources in India may expose us to unanticipated costs or liabilities.

We have a significant development center in India and, in recent years, have increased headcount and development activity at this facility. There is no assurance that our reliance upon development resources in India will enable us to achieve meaningful cost reductions or greater resource efficiency. Further, our development efforts and other operations in India involve significant risks, including:

- difficulty hiring and retaining appropriate engineering resources due to intense competition for such resources and resulting wage inflation;
- the knowledge transfer related to our technology and resulting exposure to misappropriation of intellectual property or information that is proprietary to us, our customers and other third parties;
- heightened exposure to changes in the economic, security and political conditions of India; and
- fluctuations in currency exchange rates and tax compliance in India.

Difficulties resulting from the factors above and other risks related to our operations in India could expose us to increased expense, impair our development efforts, harm our competitive position and damage our reputation.

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 partners that permit us to distribute their products or technology. We rely upon these relationships to add complementary products or technologies or to fulfill an element of our product portfolio. As part of our strategy to diversify our product portfolio and customer base, we may enter into additional original equipment manufacturer (OEM) or resale agreements 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 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 greater than the commitments, if any, made to us by our technology partners. Some of our strategic 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 the risks above could harm our reputation with key customers and negatively affect our business and our results of operations.

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

In the course of our sales to customers, we may have difficulty collecting receivables and could be exposed to risks associated with uncollectible accounts. We may be exposed to similar risks relating to third party resellers and other sales channel partners. A continued lack of liquidity in the capital markets or a sustained period of unfavorable economic conditions may increase our exposure to credit risks. While we monitor these situations carefully and attempt to take appropriate measures to protect ourselves, it is possible that we may have to write down or write off doubtful accounts. 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.

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 and other personnel with experience in our industry is increasing in intensity, and our employees have been the subject of targeted hiring by our competitors. With respect to our engineering resources, we may find it particularly difficult to attract and retain sufficiently skilled personnel in areas including data networking, Ethernet service delivery and network management software engineering in certain geographic markets. 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. It may be difficult to replace members of our management team or other key personnel, and the loss of such individuals could be disruptive to our business. Because we generally do not have employment contracts with our employees, we must rely upon providing competitive compensation packages and a high-quality work environment in order to retain and motivate employees. If we are unable to attract and retain qualified personnel, we may be unable to manage our business effectively.

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

Because a significant portion of our sales is denominated in U.S. dollars, an increase in the value of the dollar could increase the real cost to our customers of our products in markets outside the United States. In addition, we face exposure to currency exchange rates as a result of our non-U.S. dollar denominated operating expense in Europe, Asia and Canada. In recent years, our international operations and our reliance upon international suppliers have grown considerably. A weakened dollar could increase the cost of local operating expenses and procurement of raw materials where we must purchase components in foreign currencies. As a result, we may be susceptible to negative effects of foreign exchange changes. We have previously hedged against currency exposure associated with anticipated foreign currency cash flows and may do so in the future. These hedging activities are intended to offset currency fluctuations on a portion of our non-U.S. dollar denominated operating expense. There can be no assurance that these hedging instruments will be effective in all circumstances and losses associated with these instruments may negatively affect our results of operations.

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

We integrate third-party software and other technology into our embedded operating system, network management system tools and other products. Licenses for this technology may not be available or continue to be available to us on commercially reasonable terms. Third party licensors may insist on unreasonable financial or other terms in connection with our use of such technology. Difficulties with third party technology licensors could result in termination of such licenses, which may result in significant costs and require us to obtain or develop a substitute technology. Difficulty obtaining and maintaining third-party technology licenses may disrupt development of our products and increase our costs, which could harm our business.

Our business is dependent upon the proper functioning of our internal business processes and information systems and modifications may disrupt our business, operating processes and internal controls.

The successful operation of various internal business processes and information systems is critical to the efficient operation of our business. If these systems fail or are interrupted, our operations may be adversely affected and operating results could be harmed. In recent years, we have experienced considerable growth in transaction volume, headcount and reliance upon international resources in our operations. Our business processes and information systems need to be sufficiently scalable to support the growth of our business. To improve the efficiency of our operations and achieve greater automation, we routinely upgrade business processes and information systems. Significant changes to our processes and systems expose us to a number of operational risks. These changes may be costly and disruptive, and could impose substantial demands on management time. These changes may also require the modification of a number of internal control procedures. Any material disruption, malfunction or similar problems with our business processes or information systems, or the transition to new processes and systems, could have a negative effect on the operation of our business and our results of operations.

Strategic acquisitions and investments may expose us to increased costs and unexpected liabilities.

We may acquire or make strategic investments in other companies to expand the markets we address, diversify our customer base or acquire or accelerate the development of technology or products. To do so, we may use cash, issue equity that would dilute our current stockholders ownership, incur debt or assume indebtedness. These transactions involve numerous risks, including:

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

As a result of these and other risks, our acquisitions or strategic investments 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 are subject to the rules and regulations of these agencies. Changes in regulatory requirements in the United States or other countries could inhibit service providers from investing in their communications network infrastructures or introducing new services. These changes could adversely affect the sale of our products and services. Changes in regulatory tariff requirements or other regulations relating to pricing or terms of carriage on communications networks could slow the development or expansion of network infrastructures and adversely affect our business, operating results, and financial condition.

Governmental regulations affecting the import or export of products, and environmental regulations relating to our products, could negatively affect our revenues.

The United States and various foreign governments have imposed controls, export license requirements and restrictions on the import or export of some technologies. Governmental regulation of imports or exports, or our failure to obtain required import or export approval for our products, could harm our international and domestic sales and adversely affect our revenues. Failure to comply with such regulations could result in penalties, costs and restrictions on export privileges. In addition, our operations 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 building and selling our products, make it difficult to obtain supply of compliant components or require us to write off non-compliant inventory, which could have a material adverse effect on our business and operating results.

We may be required to write down long-lived assets and a significant impairment charge would adversely affect our operating results.

At October 31, 2009, we had $154.7 million in long-lived assets, which includes $60.8 million of intangible assets on our balance sheet. Valuation of our long-lived assets requires us to make assumptions about future sales prices and sales volumes for our products. Our assumptions are used to forecast future, undiscounted cash flows. Given the current economic environment, uncertainties regarding the duration and severity of these conditions, forecasting future business is difficult and subject to modification. 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 could be materially adversely affected in such period.

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

Section 404 of the Sarbanes-Oxley Act of 2002 requires that we include in our annual report a report containing management s assessment of the effectiveness of our internal controls over financial reporting as of the end of our fiscal year and a statement as to whether or not such internal controls are effective. Compliance with these requirements has resulted in, and is likely to continue to result in, significant costs and the commitment of time and operational resources. Changes in our business will necessitate ongoing modifications to our internal control systems, processes and information systems. Increases in our global operations or expansion into new regions could pose additional challenges to our internal control systems as these operations become more significant. We cannot be certain that our current design for internal control over financial reporting will be sufficient to enable management or our independent registered public accounting firm to determine that our internal controls are effective for any period, or on an ongoing basis. If we or our independent registered public accounting firms are unable to assert that our internal controls over financial reporting are effective, our business may be harmed. 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.

Obligations associated with our outstanding indebtedness on our convertible notes may adversely affect our business.

At October 31, 2009, indebtedness on our outstanding convertible notes totaled $798.0 million in aggregate principal. Our indebtedness and repayment obligations could have important negative consequences, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing, particularly in light of unfavorable conditions in the credit markets;
- reducing the availability of cash resources for other purposes, including capital expenditures;
- limiting our flexibility in planning for, or reacting to, changes in our business and the markets in which we compete; and
- placing us at a possible competitive disadvantage to competitors that have better access to capital resources.

We may also add additional indebtedness such as equipment loans, working capital lines of credit and other long-term debt.

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 2009, our stock price ranged from a high of $16.64 per share to a low of $4.98 per share. The stock market has experienced extreme price and volume fluctuations that have affected the market price of many technology companies, with such volatility often unrelated to the operating performance of these companies. Divergence between our actual or anticipated financial results and published expectations of analysts can cause significant swings in our stock price. Our stock price can also be affected by announcements that we, our competitors, or our customers may make, particularly announcements related to acquisitions or other significant transactions. Our common stock is included in a number of market indices and any change in the composition of these indices to exclude our company would adversely affect our stock price. On December 18, 2009, we were removed from the S&P 500, a widely-followed index. These factors, as well as conditions affecting the general economy or financial markets, may materially adversely affect the market price of our common stock in the future.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

As of October 31, 2009, all of our properties are leased. Our principal executive offices are located in Linthicum, Maryland. We lease thirty-eight facilities related to our ongoing operations. These include five buildings located at various sites near Linthicum, Maryland, including an engineering facility, two supply chain and logistics facilities, and two administrative and sales facilities. We have engineering and/or service facilities located in San Jose, California; Alpharetta, Georgia; Spokane, Washington; Kanata, Canada; and Gurgaon, India. We also maintain a sales and service facility in London, England. In addition, we lease various small offices in the United States, Mexico, South America, Europe and Asia to support our sales and services operations. We believe the facilities we are now using are adequate and suitable for our business requirements.

We lease a number of properties that we no longer occupy. As part of our restructuring costs, we provide for the estimated cost of the future net lease expense for these facilities. The cost is based on the fair value of future minimum lease payments under contractual obligations offset by the fair value of the estimated future sublease payments that we may receive. As of October 31, 2009, our accrued restructuring liability related to these properties was $9.4 million. If actual market conditions relating to the use of these facilities are less favorable than those projected by management, additional restructuring costs associated with these facilities may be required. For additional information regarding our lease obligations, see Note 20 to the Consolidated Financial Statements in Item 8 of Part II of this annual report.

Item 3. Legal Proceedings

On 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, which seeks injunctive relief and damages, was served upon Ciena on January 20, 2009. Ciena filed an answer to the complaint and counterclaims against Graywire on March 26, 2009, and an amended answer and counterclaims on April 17, 2009. On April 27, 2009, Ciena and certain other defendants filed an application for *inter partes* reexamination of the 673 Patent with the U.S. Patent and Trademark Office (the PTO). On the same date, Ciena and the other defendants filed a motion to stay the case pending reexamination of all of the patents-in-suit. On July 17, 2009, the district court granted the defendants motion to stay the case. On July 23, 2009, the PTO granted the defendants application for reexamination with respect to certain claims of the 673 Patent. We believe that we have valid defenses to the lawsuit and intend to defend it vigorously in the event the stay of the case is lifted.

As a result of our June 2002 merger with ONI Systems Corp., we became a defendant in a securities class action lawsuit filed in the United States District Court for the Southern District of New York in August 2001. The complaint named ONI, certain former ONI officers, and certain underwriters of ONI s initial public offering (IPO) as defendants, and alleges, among other things, that the underwriter defendants violated the securities laws by failing to disclose alleged compensation arrangements (such as undisclosed commissions or stock stabilization practices) in ONI s registration statement and by engaging in manipulative practices to artificially inflate ONI s stock price after the IPO. The complaint also alleges that ONI and the named former officers violated the securities laws by failing to disclose the underwriters alleged compensation arrangements and manipulative practices. No specific amount of damages has been claimed. Similar complaints have been filed against more than 300 other issuers that have had initial public offerings since 1998, and all of these actions have been included in a single coordinated proceeding. The former ONI officers have been dismissed from the action without prejudice. In July 2004, following mediated settlement negotiations, the plaintiffs, the issuer defendants (including Ciena), and their insurers entered into a settlement agreement. The settlement agreement did not require Ciena to pay any amount toward the settlement or to make any other payments. While the partial settlement was pending approval, the plaintiffs continued to litigate their cases against the underwriter defendants. In October 2004, the district court certified a class with respect to the Section 10(b) claims in six focus cases selected out of all of the consolidated cases, which cases did not include Ciena, and which decision was appealed by the underwriter defendants to the U.S. Court of Appeals for the Second Circuit. On February 15, 2005, the district court granted the motion for preliminary approval of the settlement agreement, subject to certain modifications, and on August 31, 2005, the district court issued a preliminary order approving the revised stipulated settlement agreement. On December 5, 2006, the U.S. Court of Appeals for the Second Circuit vacated the district court s grant of class certification in the six focus cases. On April 6, 2007, the Second Circuit denied plaintiffs petition for rehearing. In light of the Second Circuit s decision, the parties agreed that the settlement could not be approved. On June 25, 2007, the district court approved a stipulation filed by the plaintiffs and the issuer defendants terminating the proposed settlement. On August 14, 2007, the plaintiffs filed second amended complaints against the defendants in the six focus cases. On September 27, 2007, the plaintiffs filed a motion for class certification based on their amended complaints and allegations. On March 26, 2008, the district court denied motions to dismiss the second amended complaints filed by the defendants in the six focus cases, except as to Section 11 claims raised by those plaintiffs who sold their securities for a price in excess of the initial offering price and those who purchased outside the previously certified class period. Briefing on the plaintiffs motion for class certification in the focus cases was completed in May 2008. That motion was withdrawn without prejudice on October 10, 2008. On April 2, 2009, a stipulation and agreement of settlement between the plaintiffs, issuer defendants and underwriter defendants was submitted to the Court for preliminary approval. The Court granted the plaintiffs motion for preliminary approval and preliminarily certified the settlement classes on June 10, 2009. The settlement fairness hearing was held on September 10, 2009. On October 6, 2009, the Court entered an opinion granting final approval to the settlement and directing that the Clerk of the Court close these actions. Notices of appeal of the opinion granting final approval have been filed. Due to the inherent uncertainties of litigation and because the settlement remains subject to appeal, the ultimate outcome of the matter is uncertain.

In addition to the matters described above, we are subject to various legal proceedings, claims and litigation arising in the ordinary course of business. 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. Submission of Matters to a Vote of Security Holders

No matters were submitted to a vote of security holders in the fourth quarter of fiscal 2009.

PART II

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

(a) Our common stock is traded on the NASDAQ Global Select Market under the symbol CIEN. The following table sets forth the high and low sales prices of our common stock, as reported on the NASDAQ Global Select Market, for the fiscal periods indicated.

	Price Range of Common Stock	
	High	Low
Fiscal Year 2008		
First Quarter ended January 31	$48.82	$21.40
Second Quarter ended April 30	$35.82	$24.00
Third Quarter ended July 31	$35.14	$19.30
Fourth Quarter ended October 31	$20.10	$ 6.60
Fiscal Year 2009		
First Quarter ended January 31	$ 9.79	$ 5.07
Second Quarter ended April 30	$12.28	$ 4.98
Third Quarter ended July 31	$12.51	$ 8.45
Fourth Quarter ended October 31	$16.64	$11.08

As of December 11, 2009, there were approximately 949 holders of record of our common stock and 92,038,629 shares of common stock outstanding. We have never paid cash dividends on our capital stock. We intend to retain earnings for use in our business and we do not anticipate paying any cash dividends in the foreseeable future.

The following graph shows a comparison of cumulative total returns for an investment in our common stock, the NASDAQ Telecommunications Index and the S&P 500 Index from October 31, 2004 to October 31, 2009. The NASDAQ Telecommunications Index contains securities of NASDAQ-listed companies classified according to the Industry Classification Benchmark as Telecommunications and Telecommunications Equipment. They include providers of fixed-line and mobile telephone services, and makers and distributors of high-technology communication products. This graph is not deemed to be filed with the SEC or subject to the liabilities of Section 18 of the Securities

Exchange Act of 1934, 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 or the Exchange Act.

Assumes $100 invested in Ciena Corporation, the NASDAQ Telecommunications Index and the S&P 500 Index on October 31, 2004 with all dividends reinvested at month-end.

(b) Not applicable.

(c) Not applicable.

Item 6. Selected Consolidated Financial Data

The following selected consolidated financial data should be read in conjunction with Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations and the Consolidated Financial Statements and the notes thereto included in Item 8, Financial Statements and Supplementary Data. We have a 52 or 53 week fiscal year, which ends on the Saturday nearest to the last day of October in each year. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 2005, 2006, 2008 and 2009 consisted of 52 weeks and fiscal 2007 consisted of 53 weeks.

Balance Sheet Data:

	Year Ended October 31, (in thousands)				
	2005	**2006**	**2007**	**2008**	**2009**
Cash and cash equivalents	$ 358,012	$ 220,164	$ 892,061	$ 550,669	$ 485,705
Short-term investments	$ 579,531	$ 628,393	$ 822,185	$ 366,336	$ 563,183
Long-term investments	$ 155,944	$ 351,407	$ 33,946	$ 156,171	$ 8,031
Total assets	$1,675,229	$1,839,713	$2,416,273	$2,024,594	$1,504,383
Short-term convertible notes payable	$	$	$ 542,262	$	$
Long-term convertible notes payable	$ 648,752	$ 842,262	$ 800,000	$ 798,000	$ 798,000
Total liabilities	$ 939,862	$1,086,087	$1,566,119	$1,025,645	$1,048,545
Stockholders equity	$ 735,367	$ 753,626	$ 850,154	$ 998,949	$ 455,838

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Statement of Operations Data:

	Year Ended October 31, (in thousands, except per share data)				
	2005	2006	2007	2008	2009
Revenue	$ 427,257	$ 564,056	$ 779,769	$ 902,448	$ 652,629
Cost of goods sold	291,067	306,275	417,500	451,521	367,799
Gross profit	136,190	257,781	362,269	450,927	284,830
Operating expenses:					
Research and development	137,245	111,069	127,296	175,023	190,319
Selling and marketing	115,022	104,434	118,015	152,018	134,527
General and administrative	36,317	44,445	50,248	68,639	47,509
Amortization of intangible assets	38,782	25,181	25,350	32,264	24,826
Restructuring (recoveries) costs	18,018	15,671	(2,435)	1,110	11,207
Goodwill impairment	176,600				455,673
Long-lived asset impairment	45,862				
Gain on lease settlement		(11,648)	(4,871)		
Total operating expenses	567,846	289,152	313,603	429,054	864,061
Income (loss) from operations	(431,656)	(31,371)	48,666	21,873	(579,231)
Interest and other income, net	31,294	50,245	76,483	36,762	9,487
Interest expense	(28,413)	(24,165)	(26,996)	(12,927)	(7,406)
Realized loss due to impairment of marketable debt investments			(13,013)	(5,101)	
Gain (loss) on cost method investments					(5,328)
Gain on extinguishment of debt	3,882	7,052		932	
Gain (loss) on equity investments, net	(9,486)	215	592		
Income (loss) before income taxes	(434,379)	1,976	85,732	41,539	(582,478)
Provision (benefit) for income taxes	1,320	1,381	2,944	2,645	(1,324)
Net income (loss)	$ (435,699)	$ 595	$ 82,788	$ 38,894	$ (581,154)
Basic net income (loss) per common share	$ (5.30)	$ 0.01	$ 0.97	$ 0.44	$ (6.37)
Diluted net income (loss) per potential common share	$ (5.30)	$ 0.01	$ 0.87	$ 0.42	$ (6.37)
Weighted average basic common shares outstanding	82,170	83,840	85,525	89,146	91,167
Weighted average dilutive potential common shares outstanding	82,170	85,011	99,604	110,605	91,167

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

This section 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, potential or continue or the negative of those words and other comparable words. You should be aware that these statements only reflect our current predictions and beliefs. These statements are subject to known and unknown risks, uncertainties and other factors, and actual events or results may differ materially. Important factors that could cause our actual results to be materially different from the forward-looking statements are disclosed throughout this report, particularly under the heading Risk Factors in Item 1A of Part I of this annual report. You should review these risk factors for a more complete understanding of the risks associated with an investment in our securities. We undertake no obligation to revise or update any forward-looking statements. The following discussion and analysis should be read in conjunction with our Selected Consolidated Financial Data and consolidated financial statements and notes thereto included elsewhere in this annual report.

Overview

We are a provider of communications networking equipment, software and services that support the transport, switching, aggregation and management of voice, video and data traffic. Our optical service delivery and carrier Ethernet service delivery products are used individually, or as part of an integrated solution, in communications networks operated by communications service providers, cable operators, governments and enterprises around the globe.

We are a network specialist targeting the transition of disparate, legacy communications networks to converged, next-generation architectures, better able to handle increased traffic and deliver more efficiently a broader mix of high-bandwidth communications services. Our products, along with their embedded, network element software and unified service and transport management, enable service providers to efficiently and cost-effectively deliver critical enterprise and consumer-oriented communication services. Together with our professional support and consulting services, our product offerings seek to offer solutions that address the business challenges and network needs of our customers. Our customers face an increasingly challenging and rapidly changing environment that requires them to quickly adapt their business strategies and deliver new, revenue-creating services. By improving network productivity, reducing operating costs and providing the flexibility to enable new and integrated service offerings, our offerings create business and operational value for our customers.

Effect of Decline in Market Conditions

Our results of operations for fiscal 2009 described in this Management s Discussion and Analysis of Financial Condition and Results of Operations section reflect the weakness, volatility and uncertainty presented by the global market conditions that we encountered during the year. Our fiscal 2009 results reflect cautious spending among our largest customers during fiscal 2009, as they sought to conserve capital, reduce debt or address uncertainties or changes in their own business models brought on by broader market challenges. As a result, we experienced lower demand across our customer base in all geographies. We also experienced lengthening sales cycles, customer delays in network build-outs, slowing deployments and deferral of new technology adoption. We have also experienced an increasingly competitive marketplace and a heightened customer focus on pricing and return on investment. While we have started to see some indications that conditions in North America may be improving, we remain uncertain as to how long unfavorable macroeconomic and industry conditions will persist and the magnitude of their effects on our business and results of operations.

Strategic Initiatives

Despite difficult market conditions, we continue to believe in our longer-term market opportunities and the potential represented by the underlying drivers of future demand for our hardware, software and services offerings in our target markets. We believe consumer and enterprise use of, and increased dependence upon, a growing variety of broadband applications and services will continue to consume bandwidth, requiring our customers to invest in next-generation network infrastructures that are more efficient and robust, and better able to handle higher capacity multiservice traffic and increased transmission rates. As a result, we continued to strategically invest in our business during fiscal 2009, prioritizing spending on key product and technology initiatives that we believe will strategically position us for longer-term growth when market conditions recover. In fact, research and development expense increased year over year despite the significant reduction in revenue during fiscal 2009 and the restructuring activities described below. We expect to continue to invest significantly in research and development. Specifically, our ongoing development is focused upon bringing several new platforms to market during fiscal 2010 and our broader development investments are focused upon:

- Data-optimized switching solutions and evolution of our CoreDirector family and 5400 family of reconfigurable switching solutions;
- Extending and increasing capacity of our converged optical transport service delivery portfolio, including 100G transport technologies and capabilities;
- Expanding our carrier Ethernet service delivery portfolio, including larger Ethernet aggregation switches; and
- Extending the value of our network management software platform across our product portfolio.

These broader development initiatives remain focused on delivering upon our vision of transforming customer networks to adapt and scale, manage unpredictability and eliminate barriers to new service offerings. This vision of simplified, highly-automated networks is based on the following technologies:

- Programmable network elements, including software-programmable hardware platforms and interfaces that use our FlexiPort technology, to enable on-demand and automated support for multiple services and applications;
- Common service-aware operating system and unified transport and service management software for an integrated solution ensuring all network elements work seamlessly together for rapid delivery of services and applications; and
- Optimized carrier Ethernet technology our True Carrier Ethernet for enhanced management, faster provisioning, higher reliability and support for a wider variety of services.

Through these capabilities, we seek to enable customers to automate delivery and management of a broad mix of services over networks that offer enhanced flexibility and are more cost-effective to deploy, scale and manage.

Pending Acquisition of Nortel Metro Ethernet Networks (MEN) Assets

We believe that our pending acquisition of substantially all of the optical networking and carrier Ethernet assets of Nortel s (MEN) business will accelerate the execution of our corporate and research and development strategy, and will create a leader in next-generation, automated optical Ethernet networks.

Following our emergence as the winning bidder in the bankruptcy auction, we agreed to acquire substantially all of the optical networking and carrier Ethernet assets of Nortel s MEN business for $530 million in cash and $239 million in aggregate principal amount of 6% senior convertible notes due June 2017. The terms of the notes to be issued upon closing are set forth in Note 22 of the Consolidated Financial Statements found under Item 8 of Part II of this annual report. Nortel s product and technology assets to be acquired include:

- long-haul optical transport portfolio;
- metro optical Ethernet switching and transport solutions;
- Ethernet transport, aggregation and switching technology;
- multiservice SONET/SDH product families; and
- network management software products.

In addition to these products, the acquired operations also include network implementation and support services. The assets to be acquired generated approximately $1.36 billion in revenue for Nortel in fiscal 2008 and approximately $556 million (unaudited) in the first six months of Nortel s fiscal 2009.

The pending acquisition encompasses a business that is a leading provider of next-generation, 40G and 100G optical transport technology with a significant, global installed base. The acquired transport technology allows network operators to upgrade their existing 10G networks to 40G capability, quadrupling capacity without the need for new fiber deployments or complex network re-engineering. In addition to transport capability, the optical platforms acquired include traffic switching and aggregation capability for traditional protocols such as SONET/SDH as well as newer packet protocols such as Ethernet. A suite of software products used to manage networks built from these technologies is also part of the transaction.

We believe that the transaction provides an opportunity to significantly transform Ciena and strengthen our position as a leader in next-generation, automated optical Ethernet networking. We believe that the additional resources, expanded geographic reach, new and broader customer relationships, and deeper portfolio of complementary network solutions derived from the transaction will augment Ciena s growth. We also expect that the transaction will add scale, enable operating model synergies and provide an opportunity to optimize our research and development investment. We expect these benefits of the transaction will help Ciena to better compete with traditional, larger network vendors.

We expect to make employment offers to at least 2,000 Nortel employees to become part of Ciena s global team of network specialists. The transaction will significantly enhance our existing Canadian-based development resources, making Ottawa our largest product and development center.

Given the structure of the transaction as an asset carve-out from Nortel, we expect that the transaction will result in a costly and complex integration with a number of operational risks. We expect to incur integration-related costs of approximately $180 million, with the majority of these costs to be incurred in the first 12 months following the completion of the transaction. This estimate principally reflects expense associated with equipment and information technology costs, transaction expense, and consulting and third party service fees associated with integration. This amount does not give effect to any expense related to, among other things, facilities restructuring or inventory obsolescence charges. As a result, the integration expense we incur and recognize for financial statement purposes could be significantly higher. Any material delays or unanticipated additional expense may harm our business and results of operations. In addition to these integration costs, we also expect to incur significant transition services expense, and we will rely upon an affiliate of Nortel to perform certain operational functions during an interim period following closing not to exceed two years.

We expect this pending transaction to close in the first calendar quarter of 2010. If the closing does not take place on or before April 30, 2010, the applicable asset sale agreements may be terminated by either party. Ciena has been granted early termination of the antitrust waiting periods under the Hart-Scott-Rodino Act and the Canadian Competition Act. On December 2, 2009, the bankruptcy courts in the U.S. and Canada approved the asset sale agreement relating to Ciena s acquisition of substantially all of the North American, Caribbean and Latin American and Asian optical networking and carrier Ethernet assets of Nortel s MEN business. Completion of the transaction remains subject to information and consultation with employee representatives and employees in certain international jurisdictions, an additional regional regulatory clearance and customary closing conditions.

As a result of the aggregate consideration to be paid as described above, we will incur significant additional indebtedness and will materially reduce our existing cash balance. Except where specifically indicated, the discussion in this Management s Discussion and Analysis of Financial Condition and Results of Operations does not give effect to the possible consummation of this pending transaction and the effect on our results of operations.

Goodwill Impairment

Based on a combination of factors, including the macroeconomic conditions described above and a sustained decline in our common stock price and market capitalization below our net book value, we conducted an interim impairment assessment of goodwill during the second quarter of fiscal 2009. The conclusion of this assessment was the write-off of all goodwill remaining on our balance sheet, resulting in an impairment charge of $455.7 million in the second quarter of fiscal 2009. This impairment charge significantly affected our operating expense and operating and net loss for fiscal 2009. It will not result in any current or future cash expenditures. See Critical Accounting Policies and Estimates below for more information regarding this assessment.

Restructuring Activities

During the second quarter of fiscal 2009, we took action to effect a headcount reduction of approximately 200 employees or 9% of our global workforce, with headcount reductions implemented across our organizations and geographies. As part of this action, we closed our Acton, Massachusetts research and development facility during the third quarter. We expect these steps will help better align our operating expense with market opportunities and the development strategy above. We incurred an $11.2 million charge in fiscal 2009, principally consisting of $4.1 million for employee-related restructuring, $3.4 million for Acton facilities-related restructuring, and $3.7 million related to the revision of previous estimates.

Financial Results

Revenue for the fourth quarter was $176.3 million, which represented a sequential increase of 7.0% from $164.8 million in the third quarter of fiscal 2009 and a 1.9% decrease from $179.7 million in the fourth quarter of fiscal 2008. The sequential quarterly increase in revenue reflects a $6.9 million increase in carrier Ethernet service delivery revenue, principally related to sales of carrier Ethernet switching and aggregation products in support of wireless backhaul deployments, including, in large part, 4G WiMax. Revenue for the fourth quarter of fiscal 2009 also benefited from a $2.3 million increase in optical service delivery revenue, primarily reflecting increased sales of

CN4200, and a $2.4 million increase in service revenue.

In spite of slight improvements in revenue in the second half of fiscal 2009, and improved sales of carrier Ethernet switching and aggregation products during fiscal 2009, the unfavorable market conditions and reductions in customer spending described above resulted in significant declines in annual revenue as compared to fiscal 2008. Total revenue decreased from $902.4 million in fiscal 2008 to $652.6 million in fiscal 2009.

- Fiscal 2009 revenue reflects a $258.9 million decrease in sales of our optical service delivery products;
- Revenue from the U.S. for fiscal 2009 was $419.4 million, a decrease from $590.9 million in fiscal 2008;
- International revenue for fiscal 2009 was $233.2 million, a decrease from $311.6 million in fiscal 2008;
- As a percentage of revenue, international revenue was 35.7% during the fiscal 2009, a slight increase from 34.5% in fiscal 2008; and
- For fiscal 2009, one customer AT&T representing 19.6% of revenue accounted for greater than 10% of revenue. This compares to 2008, when two customers AT&T representing 25.2%, and BT representing 12.6% of revenue accounted for greater than 10% of our revenue.

Gross margin for the fourth quarter of fiscal 2009 was 44.0%, down from 45.3% in the third quarter of fiscal 2009. Gross margin for fiscal 2009 was 43.6%, as compared to 50.0% in fiscal 2008. Product gross margin was 45.9% in fiscal 2009, a decrease from 53.1% in fiscal 2008. Gross margin decreases during fiscal 2009 reflect the effect of increased competition, including increased pricing pressure across our optical transport products, and less favorable product and geographic mix, including fewer sales of core switching products as a percentage of total revenue. Gross margin for fiscal 2009 was also negatively affected by increased charges related to losses on committed customer sales contracts and higher charges relating to warranty. These additional costs of goods sold were partially offset by product cost reductions.

Operating expense for fiscal 2009 was $864.1 million, which includes a goodwill impairment charge of $455.7 million, compared to $429.1 million in fiscal 2008. Annual operating expense related to research and development, sales and marketing and general and administrative decreased by $23.3 million in fiscal 2009. This decrease reflects our efforts to manage our workforce and constrain general and administrative and sales and marketing expenses in the face of weaker market conditions. Exclusive of the goodwill impairment, we expect operating expense to increase from fiscal 2009, particularly if market conditions improve and we seek to fund and support the growth of our business.

Our loss from operations for fiscal 2009 was $579.2 million. This compares to income from operations of $21.9 million in fiscal 2008. Our net loss for fiscal 2009 was $581.2 million, or $6.37 per share. This compares to net income of $38.9 million, or $0.42 per diluted share, in fiscal 2008. Net loss and operating loss reflect the effect of market conditions and lower customer spending during fiscal 2009 and a goodwill impairment charge during the second quarter of fiscal 2009, each as described above.

We generated $7.4 million in cash from operations during fiscal 2009 as compared to $117.6 million during fiscal 2008. Cash from operations during fiscal 2009 consisted of $3.8 million in cash from net income (adjusted for non-cash charges) and $3.6 million resulting from changes in working capital. Cash from operations during fiscal 2008 consisted of $168.7 million in cash from net income (adjusted for non-cash charges) and a $51.1 million net decrease in cash resulting from changes in working capital.

At October 31, 2009, we had $485.7 million in cash and cash equivalents and $571.2 million of short-term and long-term investments in marketable debt securities.

As of October 31, 2009, headcount was 2,163, a decrease from 2,203 at October 31, 2008 and an increase from 1,797 at October 31, 2007.

Results of Operations

Our results of operations for fiscal 2008 include the operations of World Wide Packets (WWP) only after the March 3, 2008 acquisition date.

Revenue

We derive revenue from sales of our products and services, which we discuss in the following three major groupings:

1. *Optical Service Delivery*. Included in product revenue, this revenue grouping reflects sales of our transport and switching products and legacy data networking products and related software. This revenue grouping

was previously referred to as our converged Ethernet infrastructure products.

2. *Carrier Ethernet Service Delivery*. Included in product revenue, this revenue grouping reflects sales of our service delivery and aggregation switches, broadband access products, and the related software.
3. *Global Network Services*. Included in services revenue are sales of installation, deployment, maintenance support, consulting and training activities.

A sizable portion of our revenue continues to come from sales to a small number of communications service providers. As a result, our revenues are closely tied to the prospects, performance, and financial condition of our largest customers and are significantly affected by market-wide changes, including reductions in enterprise and consumer spending, that affect the businesses and level of infrastructure-related spending by communications service providers. Our contracts do not have terms that obligate these customers to purchase any minimum or specific amounts of equipment or services. Because their spending may be unpredictable and sporadic, and their purchases may result in the recognition or deferral of significant amounts of revenue in a given quarter, our revenue can fluctuate on a quarterly basis. Our concentration of revenue increases the risk of quarterly fluctuations in revenue and operating results and can exacerbate our exposure to reductions in spending or changes in network strategy involving one or more of our significant customers. In particular, some of our customers are pursuing efforts to outsource the management and operation of their networks, or have indicated a procurement strategy to reduce the number of vendors from which they purchase equipment.

Given current market conditions and the effect of lower demand in fiscal 2009, as well as changes in the mix of our revenue toward products with shorter customer lead times, the percentage of our quarterly revenue relating to orders placed in that quarter has increased in comparison to prior periods. Lower levels of backlog orders and an increase in the percentage of quarterly revenue relating to orders placed in that quarter could result in more variability and less predictability in our quarterly results.

Cost of Goods Sold

Product cost of goods sold consists primarily of amounts paid to third-party contract manufacturers, component costs, direct compensation 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 personnel costs, associated with provision of services including installation, deployment, maintenance support, consulting and training activities, and, when applicable, estimated losses on committed customer contracts.

Gross Margin

Gross margin continues to be susceptible to quarterly fluctuation due to a number of factors. Product gross margin can vary significantly depending upon the mix of products and customers in a given fiscal quarter. Gross margin can also be affected by volume of orders, our ability to drive product cost reductions, geographic mix, the level of pricing pressure we encounter, our introduction of new products or entry into new markets, charges for excess and obsolete inventory and changes in warranty costs.

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.

Operating Expense

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

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

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

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

Fiscal 2008 compared to Fiscal 2009

Revenue, cost of goods sold and gross profit

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

	Fiscal Year				Increase	
	2008	%*	2009	%*	(decrease)	%**
Revenue:						
Products	$ 791,415	87.7	$ 547,522	83.9	$ (243,893)	(30.8)
Services	111,033	12.3	105,107	16.1	(5,926)	(5.3)
Total revenue	902,448	100.0	652,629	100.0	(249,819)	(27.7)
Costs:						
Products	371,238	41.1	296,170	45.4	(75,068)	(20.2)
Services	80,283	8.9	71,629	11.0	(8,654)	(10.8)
Total cost of goods sold	451,521	50.0	367,799	56.4	(83,722)	(18.5)
Gross profit	$ 450,927	50.0	$ 284,830	43.6	$ (166,097)	(36.8)

* Denotes % of total revenue

** Denotes % change from 2008 to 2009

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

	Fiscal Year				Increase	
	2008	%*	2009	%*	(decrease)	%**
Product revenue	$ 791,415	100.0	$ 547,522	100.0	$ (243,893)	(30.8)
Product cost of goods sold	371,238	46.9	296,170	54.1	(75,068)	(20.2)
Product gross profit	$ 420,177	53.1	$ 251,352	45.9	$ (168,825)	(40.2)

* Denotes % of product revenue

** Denotes % change from 2008 to 2009

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

	Fiscal Year				Increase	
	2008	%*	2009	%*	(decrease)	%**
Service revenue	$ 111,033	100.0	$ 105,107	100.0	$ (5,926)	(5.3)
Service cost of goods sold	80,283	72.3	71,629	68.1	(8,654)	(10.8)
Service gross profit	$ 30,750	27.7	$ 33,478	31.9	$ 2,728	8.9

* Denotes % of service revenue

** Denotes % change from 2008 to 2009

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

	Fiscal Year				Increase	
	2008	%*	2009	%*	(decrease)	%**
Optical service delivery	$ 731,260	81.0	$ 472,410	72.4	$ (258,850)	(35.4)
Carrier Ethernet service delivery	60,155	6.7	75,112	11.5	14,957	24.9
Global network services	111,033	12.3	105,107	16.1	(5,926)	(5.3)
Total	$ 902,448	100.0	$ 652,629	100.0	$ (249,819)	(27.7)

* Denotes % of total revenue

** Denotes % change from 2008 to 2009

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

	Fiscal Year				Increase	
	2008	%*	2009	%*	(decrease)	%**
United States	$ 590,868	65.5	$ 419,405	64.3	$ (171,463)	(29.0)
International	311,580	34.5	233,224	35.7	(78,356)	(25.1)
Total	$ 902,448	100.0	$ 652,629	100.0	$ (249,819)	(27.7)

* Denotes % of total revenue

** Denotes % change from 2008 to 2009

Certain customers each accounted for at least 10% of our revenue for the periods indicated (in thousands, except percentage data) as follows:

	Fiscal Year			
	2008	%*	2009	%*
AT&T	$ 227,737	25.2	$ 128,233	19.6
BT	113,981	12.6	n/a	
Total	$ 341,718	37.8	$ 128,233	19.6

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

* Denotes % of total revenue

Revenue

Product revenue decreased primarily due to a $258.9 million decrease in sales of our optical service delivery products. Lower optical service delivery revenue reflects decreases of $108.1 million in sales of core transport products, $104.8 million in sales of core switching products, and $46.5 million in sales of legacy data networking and metro transport products. This decline was partially offset by a $15.0 million increase in revenue from our carrier Ethernet service delivery products, reflecting a $34.7 million increase in sales of our switching and aggregation products and a $19.7 million decrease in sales of our broadband access products.

Services revenue decreased due to a $10.9 million decrease in deployment services due to lower sales volume and installation activity. This decrease was partially offset by a $5.0 million increase in maintenance and support services.

United States revenue decreased primarily due to a $180.8 million decrease in sales of our optical service delivery products. Lower optical service delivery revenue reflects decreases of $88.2 million in sales of core transport products, $87.0 million in sales of core switching products, and $25.2 million in sales of legacy data networking and metro transport products. These decreases were partially offset by a $19.7 million increase in sales of CN 4200. Revenue from carrier Ethernet service delivery products increased by $10.5 million, reflecting a $30.3 million increase in sales of our switching and aggregation products, partially offset by a $19.8 million decrease in sales of our broadband access products.

International revenue decreased primarily due to a $78.1 million decrease in sales of our optical service delivery products. This primarily reflects decreases of $21.3 million in sales of legacy data networking and metro transport products, $19.9 million in sales of core transport products, $19.2 million in sales of CN 4200, and $17.8 million in sales of core switching products. This decrease was partially offset by a $4.5 million increase in revenue from our carrier Ethernet service delivery products, primarily related to sales of our switching and aggregation products.

Gross profit

Gross profit as a percentage of revenue decreased due to less favorable product and geographic mix, including fewer sales of core switching products as a percentage of total revenue, increased charges related to losses on committed customer sales contracts and higher charges relating to warranty. Gross profit as a percentage of revenue for fiscal 2008 reflects a $5.3 million increase in product cost of goods sold related to the revaluation of the acquired WWP inventory due to purchase accounting rules.

Gross profit on products as a percentage of product revenue decreased due to less favorable product and geographic mix, including fewer sales of core switching products as a percentage of total revenue, increased charges related to losses on committed customer sales contracts and higher charges relating to warranty. Gross profit as a percentage of revenue for fiscal 2008 reflects a $5.3 million increase in product cost of goods sold related to the revaluation of the acquired WWP inventory due to purchase accounting rules.

Gross profit on services as a percentage of services revenue increased due to higher sales of maintenance contracts as a percentage of services revenue. Services gross margin remains heavily dependent upon the mix of services in a given period and may fluctuate from quarter to quarter.

Operating expense

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

	Fiscal Year				Increase	
	2008	*%	2009	%*	(decrease)	%**
Research and development	$ 175,023	19.4	$ 190,319	29.2	$ 15,296	8.7
Selling and marketing	152,018	16.8	134,527	20.6	(17,491)	(11.5)
General and administrative	68,639	7.6	47,509	7.3	(21,130)	(30.8)
Amortization of intangible assets	32,264	3.6	24,826	3.8	(7,438)	(23.1)
Restructuring costs	1,110	0.1	11,207	1.7	10,097	909.6
Goodwill impairment			455,673	69.8	455,673	100.0
Total operating expenses	$ 429,054	47.5	$ 864,061	132.4	$ 435,007	101.4

* Denotes % of total revenue

** Denotes % change from 2008 to 2009

Research and development expense benefited by $5.3 million in favorable foreign exchange rates primarily due to the comparative strength of the U.S. dollar in relation to the previous year. The resulting $15.3 million net increase principally reflects an increase in prototype expense of $15.4 million. Other increases include $5.4 million in facilities and information systems expense, $2.8 million in depreciation expense, and higher employee compensation cost of $0.6 million, including a $2.6 million increase in share-based compensation expense. These increases were partially offset by decreases of $4.8 million in consulting services expense, $2.7 million in technology related expenses and $0.8 million in travel expense.

Selling and marketing expense benefited by $2.8 million in favorable foreign exchange rates primarily due to the comparative strength of the U.S. dollar in relation to the previous year. The resulting $17.5 million net change reflects decreases of $7.8 million in employee compensation cost, $3.0 million in travel-related costs, $2.9 million in marketing program costs and $2.4 million in consulting services expense. These decreases were partially offset by a $1.2 million increase in facilities and information systems expense.

General and administrative expense benefited by $0.5 million in favorable foreign exchange rates primarily due to the comparative strength of the U.S. dollar in relation to the previous year. The resulting $21.1 million net change reflects decreases of $6.1 million in employee compensation cost, $4.1 million in consulting services expense, $1.7 million in facilities and information systems expense, and $0.7 million in technology-related expense. Expense for fiscal 2008 included $7.7 million associated with the settlement of patent litigation.

Amortization of intangible assets costs decreased due to certain intangible assets reaching the end of their useful life and becoming fully amortized during fiscal 2009.

Restructuring costs during fiscal 2009 was primarily related to a headcount reduction of approximately 200 employees, the closure of our Acton, Massachusetts research and development facility and revisions of estimates related to previously restructured facilities. Restructuring costs for fiscal 2008 principally reflects costs associated with a workforce reduction of 56 employees during the fourth quarter.

Goodwill impairment was based on a combination of factors, including the macroeconomic conditions described above and a sustained decline in our common stock price and market capitalization below our net book value. These factors required Ciena to conduct an interim impairment assessment of goodwill during the second quarter of fiscal 2009. The conclusion of this assessment was the write-off of all goodwill remaining on our balance sheet, resulting in an impairment charge of $455.7 million in the second quarter of fiscal 2009.

Other items

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

	Fiscal Year				Increase	
	2008	*%	2009	%*	(decrease)	%**
Interest and other income, net	$36,762	4.1	$ 9,487	1.5	$(27,275)	(74.2)
Interest expense	$12,927	1.4	$ 7,406	1.1	$ (5,521)	(42.7)
Realized loss due to impairment of marketable debt investments	$ 5,101	0.6	$	0.0	$ (5,101)	(100.0)
Loss on cost method investments	$	0.0	$ 5,328	0.8	$ 5,328	100.0
Gain on extinguishment of debt	$ 932	0.1	$	0.0	$ (932)	(100.0)
Provision (benefit) for income taxes	$ 2,645	0.3	$(1,324)	(0.2)	$ (3,969)	(150.1)

* Denotes % of total revenue