



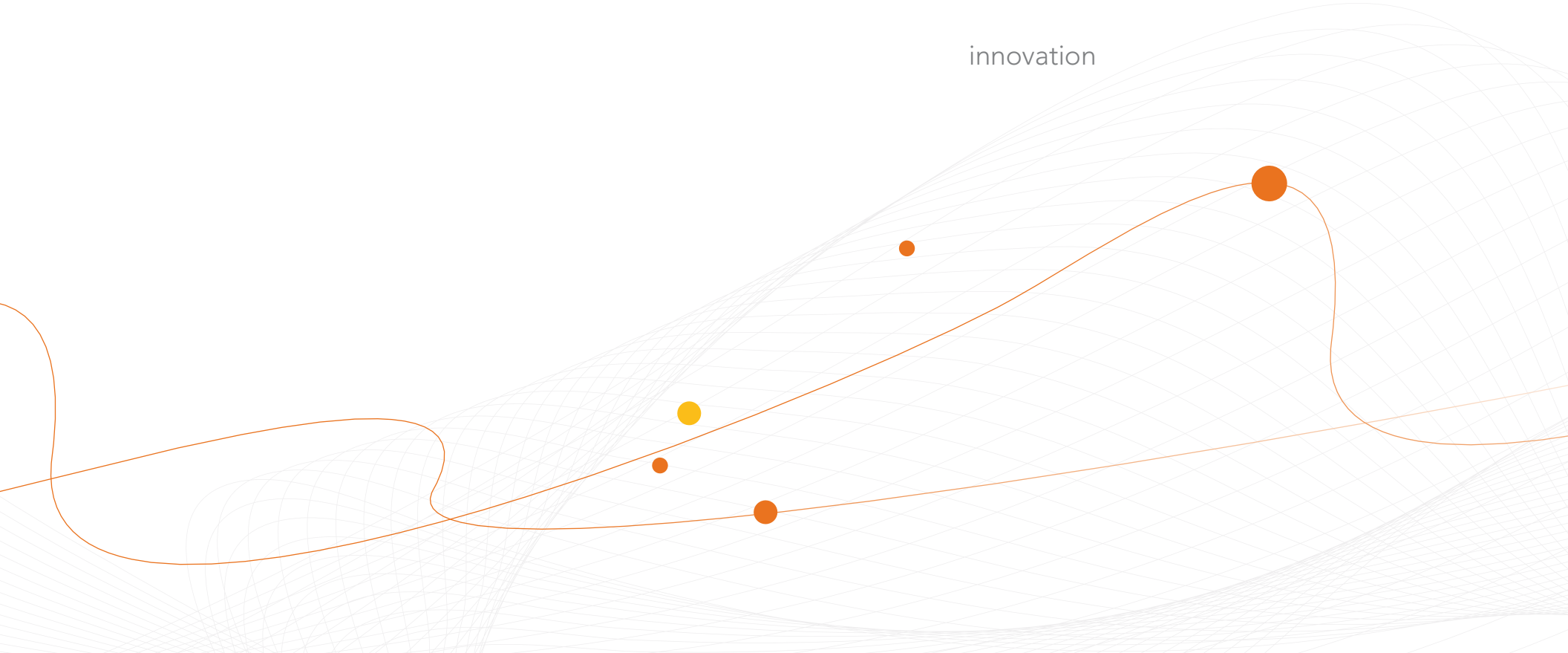
2008 Annual Report

vision

strength

execution

innovation





Gary B. Smith  
President and  
Chief Executive Officer

## **Fellow Shareholders,**

As we enter 2009 amidst global economic uncertainty and financial turmoil, we do so with the knowledge that the opportunities and challenges ahead of us are unlike those we have faced before. And yet, we believe that both the telecommunications industry in general, and Ciena specifically, are in a significantly better position than during the last industry downturn, when the “tech bubble” burst in 2001.

From an industry standpoint, the fundamental demand drivers of network traffic—higher bandwidth and new services and applications—remain intact. The industry is at the beginning of what is forecast to be a new spending cycle focused on the transition toward Ethernet-based multi-service networks. As a result of the continued and successful execution of our “network specialist” strategy, our differentiation

# vision

The opportunity before us is real and it is substantial. Whereas even a few years ago it was unclear what the next “wave” in network technology spending would be, it’s become apparent that Ethernet-related investment will be a key strategic focus for our customers. But several years ago, Ciena needed to make a calculated bet on what would come next. Our heritage of innovation showed itself, and the “all-in” commitment we made to develop Ethernet-centered network solutions has positioned us to capitalize on what is forecast to be a total network infrastructure investment cycle of \$70–\$90 billion that is expected to last for the next decade at least. We have a clear vision of the opportunity and are focused on building our leadership position by providing service-driven networks to help our customers change the way they compete.

in the market and our focus on meeting the technology and business needs of our customers, we believe we are well positioned as a key strategic partner.

We are prepared to manage through what will likely be a turbulent 2009. We are realistic and pragmatic. We continue to think and plan for the long term, while acknowledging the importance of shorter-term commitments and deliverables. And we expect

to emerge even better positioned to capitalize on the tremendous opportunities that lie ahead. To help you understand why we believe that, let's review our 2008 achievements, the industry environment and opportunity, and our strategy and vision for 2009 and beyond.

#### 2008 Achievements

To begin, let's review our significant achievements in fiscal 2008—because they matter a great deal.

We're at the beginning of what is expected to be another big wave of network technology spending. Over the next decade, total infrastructure investments are forecasted to be \$70–\$90 billion as service providers transition toward more efficient, Ethernet-based multi-service networks.

\$68B

service provider investment  
PDH  
digitizing voice

1986

Source: ITU historical report estimate.

\$81B

\$47B ('96–'00)  
\$34B ('01–'06)

service provider investment  
SONET/SDH  
scaling capacity

1996

Source: Dell'Oro SONET/SDH historical revenue reports.

\$70–\$90B

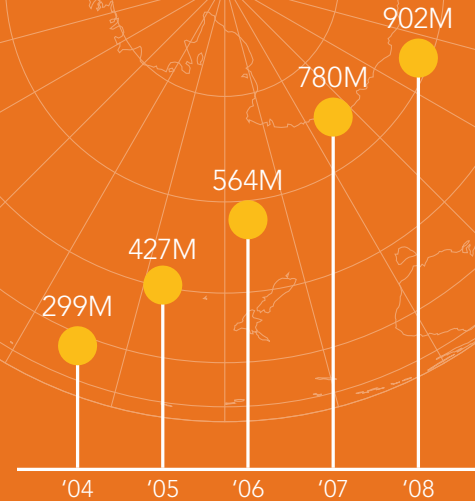
service provider investment  
ETHERNET  
service convergence

2006

Source: Infonetics CE switches, Ethernet over SONET/SDH, Ethernet over WDM, Ethernet access forecasts, Ciena Marketing.

2016

## growing revenue



Revenue in millions (USD\$)

- Revenue has grown by an average of 32% a year since '04
- Cash, cash equivalents and short- and long-term investments of \$1.1B (as of the end of Q4 '08)

Ciena's accomplishments during this year, and those of the past few years as well, have fortified the company so we can weather this storm from a position of considerable strength. Looking through the current environment, we have a clear vision of where our markets are headed longer term and how Ciena can best help our customers succeed.

### **Technology**

Our product portfolio is broader and deeper than ever. During 2008, we acquired World Wide Packets,

gaining industry-leading Carrier Ethernet access, aggregation, switching and software solutions. We continued to innovate, entering the emerging packet optical transport space with new modules for our premier CN 4200® platform. We also enhanced our service-aware operating system, bringing more intelligence to our customers' networks by providing best-in-breed automation and acceleration of service creation to more efficiently manage a dynamic mix of services and high-bandwidth traffic. Above and beyond that, we

**Ciena Corporation** is a global leader in communication network platforms, software and professional services. Our specialty is transitioning networks for maximum business value, operational value and end-user value. Integrating expertise in optical, access and data networking, Ciena enables the delivery of more services faster, transforms the network cost base, and improves the end-user experience. With industry-leading functionality and performance, Ciena's offerings form the foundation for many of the largest, most reliable and sophisticated telco, cable/MSO, enterprise and government networks across the globe.

demonstrated leadership in taking tomorrow's networks to new levels of capacity with a breakthrough in 100 Gigabit capabilities.

### **Customers**

In fiscal 2008, we also made significant advancements on the customer front as we continue our efforts to diversify our business. We expanded our relationships with existing customers and considerably broadened our customer base, including geographic expansion in South America and Eastern Europe,

further penetration of the research and education market, and additional successes in the healthcare and financial services markets.

### **Operations**

Ciena is truly a global company. We operate in 23 countries and employ approximately 2,200 people around the world. A primary operational focus in 2008 was to strategically expand our presence in key geographies, while also developing new relationships in key vertical markets. Our goal is

to position ourselves to capitalize on the tremendous opportunities available as networks are developed and expanded worldwide. We were successful in this effort, generating and supporting international sales that represented 35% of our total 2008 revenue.

### **Financial Performance**

Our financial results for fiscal 2008 were very solid. Revenue increased 16%, well ahead of the growth rate of the markets we target and significantly better than the overall market for telecommunications

# strength

Ciena has the financial strength and stability to execute its strategic vision—even in the face of what we expect will be a challenging environment. The strategy we employed during the last downturn—continuing to invest in our technology and our people rather than cost-cutting our way back to profitability—has served to build a solid financial foundation for our business. With over \$1 billion in cash, cash equivalents and short- and long-term investments, we believe we can fund our innovation with the goal of building market share.



James E. Moylan, Jr.  
Senior Vice President, Finance  
and Chief Financial Officer

equipment. Gross margins continued to improve, increasing from 48% in 2007 to 50% in 2008. I am very pleased that our strong performance earlier in the year offset the challenges of the second half, and allowed us to post adjusted (non-GAAP) income from operations consistent with 2007. Net income was \$38.9 million, or \$0.42 per diluted share, in 2008, compared to \$82.8 million, or \$0.87 per diluted share, in 2007.

Importantly, we generated \$118 million of cash during the year,

which helped bolster our balance sheet. Even after using \$210 million for the acquisition of World Wide Packets, and repaying \$542.3 million in principal outstanding on our 3.75% convertible notes at maturity in February 2008, we ended the year with \$1.1 billion in cash, cash equivalents and short- and long-term investments, giving us considerable flexibility to manage the challenges ahead and maintain a level of investment necessary to sustain our competitive advantage.

## execution

We continue to make very significant improvements in our operating model, ensuring that we have the optimal organization in place to perform efficiently and effectively as an agile global enterprise. We work seamlessly around the world, leveraging the strengths of each geography in which we operate. The recruitment, development and retention of our extraordinarily talented employee base continue to be a major focus. We are also working to increase the velocity with which we operate, and have already dramatically shortened lead times and provided more predictability in shipments, two areas that help to enhance overall customer satisfaction.

Arthur D. Smith, Ph.D.  
Senior Vice President and  
Chief Operating Officer

## Industry Environment and Opportunity

Our results for the fiscal fourth quarter illustrate the difficulty of the current operating environment. In recent months, we have been most frequently asked the question: "Is this 2001 all over again?" As an investor in the telecommunications industry, that is exactly the question you should be asking.

In our opinion, both the industry and Ciena are in profoundly different positions today. Let's talk about the industry first. In

the period leading up to 2001, demand was driven by speculation, driving excessive network builds and over-capacity, and a disregard for economic fundamentals. When the tech bubble burst, we faced a multi-year recovery.

Today, demand is real and driven by innovations in services and applications. We've seen a return to market fundamentals, and most top-tier service providers are financially healthy. For several years, service providers have been investing in adding capacity to



## a global presence

### Corporate headquarters

Linthicum, Maryland

### Partners

Worldwide

### R&D centers

Linthicum  
Acton, Massachusetts  
Alpharetta, Georgia  
Spokane Valley, Wash.  
San Jose, California  
Ottawa, Ontario  
Gurgaon, India

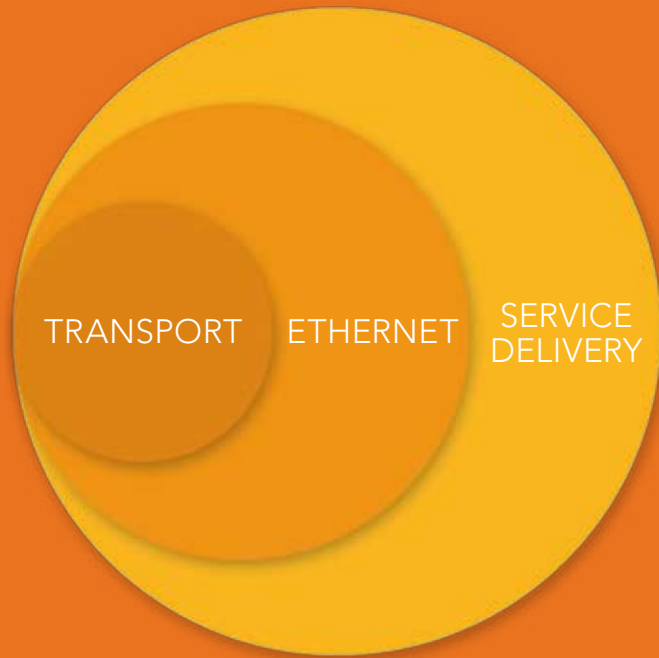
### Major field operations centers

Dallas/Ft Worth	Coventry, UK	Beijing
Denver	Frankfurt	Hong Kong
Kansas City	London	Mumbai
New York City	Madrid	Seoul
San Antonio	Milan	Shenzhen
Buenos Aires	Moscow	Singapore
Mexico City	Paris	Tokyo
	Warsaw	



# the evolution of Ciena innovation

With a heritage of innovation, Ciena has evolved over the years. Today, three elements working in harmony combine to create the service-driven network of tomorrow.



## First...

We made the transport network flexible, automated and resilient.

## Then...

We combined the economics of Ethernet with our heritage of resilient transport.

## Now...

We're adding the tools for service enablement, velocity and monetization.

their networks when and where they need it, and, therefore, there is no significant over-capacity for them to leverage. As a result, we believe we are facing a multi-quarter recovery.

Ciena is also a much different company today than it was in 2001. Consistent execution of our strategy has enabled us to develop a significantly broader customer base and to meaningfully expand our product portfolio, which in turn has enabled us to deepen our relationships with many

of the largest service providers in the world. As a result, we can approach this unprecedented macroeconomic and industry environment from a position of strength.

Notwithstanding recent industry reports about new pressures on technology budgets and the expectation of an extended period of volatility, network traffic and the demand for higher bandwidth and new applications remain the fundamental drivers in our business, and those demand



curves have not diminished dramatically. Indeed, continued capacity demands and our customers' need to transition to more efficient, service-driven networks are key drivers for a longer-term network investment cycle.

### **2009 Strategy and Vision**

So, how are we positioning Ciena in 2009 to capitalize on what we still believe is a big opportunity despite a very challenging near-term environment? We are refining our strategy to reflect the growing importance of how we help our

customers change the way they compete. Our relationships with our customers are becoming more solution-driven, rather than based solely on products.

While effectively addressing the demand for capacity is an ongoing challenge for all network operators, the underlying challenge for service providers is new. In the past, enterprises and consumers perceived value in their network access and connectivity. Now, these same users place a higher value on the services or applications



Stephen B. Alexander  
Senior Vice President,  
Products and Technology,  
Chief Technology Officer

# innovation

Innovation is our lifeblood. Without it, Ciena would lose its competitive edge and its reputation for industry-leading advancements in network solutions. Perhaps the best illustration of our dedication to innovation, showcased in 2008, was our demonstration of the industry's first true single wavelength payload transmission of a 100 Gigabit data stream. To give you a sense of just how much data can be transmitted with this capability, you would be able to download 15 high-definition movies in 10 seconds! It is this kind of customer-driven thought leadership that enables Ciena to develop differentiated solutions to address high-growth areas of the market.

that are delivered over the network. For instance, mobile Web users don't necessarily place value on the network they use to access the Internet; they see value in accessing the Web site that forecasts tomorrow's weather. Likewise, businesses don't assign value to being able to connect their workers remotely; they assume the connectivity will be there. They see value in their employees' ability to utilize the same systems and applications they would have if they were sitting at their desks.

This shift in the perceived value—from capacity and connectivity to services and applications—means

that in order to ensure their business models going forward, service providers need to move beyond selling simple connectivity. They need to be able to create, market and sell profitable services that end users, both consumers and enterprises, are willing to pay for.

That's why Ciena is focused on enabling service creation or, said differently, enabling our customers to not only handle increasing traffic demands but also drive successful business models. Our Ethernet-based architecture is increasingly reliant on software and is built around a family of highly efficient platforms. This approach is a natural progression

of our "network specialist" strategy, and one that we believe will position Ciena to continue to build market share in the years to come.

Indeed, over our relatively brief corporate history, Ciena has survived and succeeded through unprecedented industry turmoil. What has enabled us to do so is our commitment to investment and technology leadership. Understanding the technology and business needs of our customers—and continuing to develop new products and solutions to help them meet their needs—has earned us the right to call ourselves the Network Specialist.

My thanks to you, our shareholders, for your continued support and also to our customers and partners for the faith and trust they put in Ciena every day. My thanks, too, to the employees of Ciena. Ciena equipment may be the backbone of some of the largest communications networks in the world, but our people are our backbone; they represent our innovation and tenacity and are the driving force behind our past, present and future success.



**Gary B. Smith**  
President and  
Chief Executive Officer

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2008 10-K  
Ciena Corporation



# Form 10-K

Annual Report

Pursuant to Sections 13 or 15(d) of the Securities Exchange Act of 1934

(Mark One)

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the fiscal year ended October 31, 2008

OR

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 0-21969

## Ciena Corporation

(Exact name of registrant as specified in its charter)

**Delaware** (State or other jurisdiction of incorporation or organization)

**23-2725311** (I.R.S. Employer Identification No.)

**1201 Winterson Road, Linthicum, MD** (Address of principal executive offices)

**21090-2205** (Zip Code)

**(410) 865-8500** (Registrant's telephone number, including area code)

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

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

**The NASDAQ Stock Market** Name of Each Exchange on Which Registered

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

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

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

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

Indicate by check mark 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.

### 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 2009 Annual Meeting of Shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this report.

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  Accelerated filer  Non-accelerated filer

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

The aggregate market value of the Registrant's Common Stock held by non-affiliates of the Registrant was \$2,595,603,186 based on the closing price of the Common Stock on the NASDAQ Global Select Market on May 2, 2008.

The number of shares of Registrant's Common Stock outstanding as of December 12, 2008 was 90,533,370.



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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, along with our service-aware operating system 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 address holistically the business and network needs of our customers. Our customers face an increasingly challenging and rapidly changing environment that requires them to quickly adapt their networks. By improving network productivity, reducing operating costs and enabling new and integrated service offerings, we create business and operational value for our customers.

### Acquisition of World Wide Packets

On March 3, 2008, we completed our acquisition of World Wide Packets, Inc. ("WWP"), a provider of communications networking equipment that enables the cost-effective delivery of a variety of carrier Ethernet-based services, including business Ethernet services, Internet access, video conferencing and VoIP. WWP's service delivery and aggregation switches

support the access and aggregation tiers of communications networks and are typically deployed in metro and access networks. Through our acquisition of WWP, we expanded our Ethernet offering beyond infrastructure to include service delivery capability and enhanced our embedded and management software suites. We believe that this transaction will improve our time to market with carrier Ethernet products and allow us to reach new customers and market segments, while strengthening and diversifying our position within existing customer networks. We also believe that WWP's service delivery switching and aggregation technology will enable us to penetrate additional application segments, including Ethernet business services, mobile backhaul for 4G wireless networks, and Ethernet infrastructure for high-bandwidth services such as IPTV and triple play.

### Financial Overview—Fiscal 2008 and Effect of Recent Global Macroeconomic Conditions

Through the first three quarters of fiscal 2008, we had achieved eighteen quarters of sequential revenue growth and our financial performance continued to be strong. Revenue for the first nine months of fiscal 2008 was up 28.3% over the first nine months of fiscal 2007. Income from operations had increased from \$21.5 million in the first nine months of fiscal 2007 to \$52.3 million for the first nine months of fiscal 2008. Due to worsening macroeconomic conditions and customer-specific challenges in our industry, quarterly revenue declined from \$253.2 million in the third quarter of fiscal 2008 to \$179.7 million in the fourth quarter of fiscal 2008, and we suffered a \$30.5 million loss from operations during the fourth quarter. We attribute this decline to a cautious approach and increased scrutiny by our customers in their capital expenditures in the face of significant weakness, volatility and uncertainty of the global macroeconomic environment. As a result of these conditions, we have experienced order delays, lengthening sales cycles and slowing deployments. We are uncertain as to how long current economic conditions will persist and the magnitude of their effects on our business. While we expect the near-term market conditions to be challenging, we continue to believe in our longer term market opportunities. We believe that growth in consumer and enterprise use of high-bandwidth communications services and resulting capacity demands will require our customers to continue to invest in their networks and transition to more efficient, robust and economical network architectures.

In spite of recent macroeconomic conditions described above, we generated revenue of \$902.4 million in fiscal 2008, representing a 15.7% increase from fiscal 2007 revenue of \$779.8 million. Due to our lower fourth quarter

results, income from operations decreased from \$48.7 million in fiscal 2007 to \$21.9 million in fiscal 2008. Net income decreased from \$82.8 million, or \$0.87 per diluted share, in fiscal 2007, to \$38.9 million, or \$0.42 per diluted share, in fiscal 2008. We generated \$117.6 million in cash from operations during fiscal 2008 compared to \$108.7 million in cash from operations during fiscal 2007.

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.

### 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](http://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](http://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.

### Increased Network Capacity Requirements and Multiservice Traffic

Today's networks are experiencing strong traffic growth, especially in the access and metro portions of the network. Increasing usage and reliance upon communications services by consumer and enterprise end users, and the expansion of high-bandwidth applications and services, have driven increased network capacity requirements. Business customers have become increasingly dependent upon enterprise-oriented services and their workforces are becoming more mobile, driving demand

for seamless access to business applications. At the same time, with consumer adoption of broadband technologies, including peer-to-peer Internet applications, video services, online gaming, 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 far lower price per bit for bandwidth consumption than enterprises, yet they are becoming a bigger piece of overall traffic demand. All of these factors are requiring networks to be more agile and more cost effective.

A broader mix of high-bandwidth traffic is 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, Ethernet is an ideal technology for reducing cost and consolidating multiple services on a single network. The industry has seen 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.

### Wireless Networks

Several years ago, data overtook 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. 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, existing wireless infrastructure, particularly wireline backhaul of mobile traffic, will require significant upgrades to accommodate growing mobility and expanding wireless applications.

### 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 significant pressure on the cost of enhancing existing infrastructures or building new communications networks and increase scrutiny and prioritization of network spending. As a result, service providers are increasingly seeking ways to reduce their network operating and capital costs and create new, profitable service offerings. 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, rapid and efficient delivery of new services. The changing competitive landscape will present opportunities, as well as significant challenges, for service providers as well as equipment providers like us.

### Carrier-Managed Services and Private Networks

As competition among service providers has increased, the needs of some of their largest customers have changed. Enterprises require additional bandwidth capacity to support business interconnection, facilitate global expansion of operations, enable employee mobility and utilize video services. Enterprises and government agencies also have become more concerned about network reliability and security, business continuity and disaster recovery, while having to address industry-specific compliance and regulatory requirements. These changing requirements have driven service providers to offer a wider 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 their 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.

### 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 business needs and improve 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 that allow our customers to rapidly and efficiently

operationalize 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, including software programmable hardware platforms and interfaces that use our FlexiPort technology, to support multiple services;
- Common service-aware, embedded operating system and unified management and transport software for an integrated solution with a common set of software features, a common look-and-feel, and a common set of interfaces; and
- True Carrier Ethernet™ (TCE) technology to provide reliable and feature-rich Ethernet to support a wider variety of services.

These features of our FlexSelect Architecture 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 Ethernet-based infrastructures;
- Expand our professional services offerings to better cultivate partnerships with our customers and help them to design, deploy and operationalize new services; and
- Grow and diversify our customer base by expanding our geographic reach, increasing our addressable markets and penetrating new market 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. Our geographic markets have also expanded in recent years with our international business representing a higher portion of our revenue. Revenue from customers within the United States was 65.5% of total revenue in fiscal 2008, down from 71.0% in fiscal 2007 and 75.1% in fiscal 2006. Information regarding 10% customers over our last three fiscal years can be found in Note 19 to the Consolidated Financial Statements in Item 8 of Part II of this annual report. 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, France Telecom, Korea Telecom, Qwest, Sprint, Tata Communications, Telmex and Verizon. Traditional telecommunications service providers are our historical customer base and continue to represent the largest contributor to our revenue. We provide products that enable 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. 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, broadband data services and services for enterprises.

### Enterprise

Our enterprise customers include large, multi-site commercial organizations, including participants in the financial, healthcare, transportation and retail industries. 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, 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 hardware and 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 address the business needs of our customers and give them 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 nationwide networks, our CoreDirector switching elements are connected by a reliable long-haul transport infrastructure. Our principal 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 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 products include service delivery switching and aggregation platforms acquired from WWP, our broadband access products for residential services and our Ethernet access products for enterprise broadband 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. 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.

Our CN 3000 Ethernet Access Series platforms extend Ethernet services to customer sites, regardless of whether they are connected to the service provider's network by copper or fiber access lines. Our Ethernet access products also facilitate mobile backhaul for 2G to 3G network migration. 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, increasing performance and flexibility, and creating business and operational value for our customers' network investments. 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.

As the markets into which we sell our products and the technologies that support these products evolve, 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 approach to new portfolio investments from delivering point products to solutions consisting of hardware, software and services that holistically address the business needs of our customers. Our development efforts are focused on addressing customer needs in four target areas: core networking, full-service metro, managed services and enterprise, and mobile backhaul. With our acquisition of WWP during fiscal 2008, we have invested in and anticipate extending our portfolio of technologies that bolster our service delivery capability.

Our research and development expense was \$111.1 million, \$127.3 million and \$175.0 million for fiscal 2006, 2007 and 2008, 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, tradeshow, 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. In recent years we have utilized 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, efficiently adjust 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 our products based on our specifications, 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 and Seasonality**

Generally, we make sales pursuant to purchase orders issued under master purchase agreements that govern the terms and conditions of the sale of our products and services. These agreements typically do not provide for 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 and services 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, we do not consider these orders to be firm, and they are not necessarily an accurate indicator of future results of operations.

Some companies in our industry experience adverse quarterly fluctuations in customer spending patterns due to seasonal considerations, particularly during the summer months and early in the calendar year as annual capital budgets are finalized. At times, we have experienced similar seasonal effects affecting the level of order flow early in our fourth quarter

and during our first quarter. These seasonal effects do not apply consistently and 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, multi-national companies. Our competitors include 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, particularly those that are privately-held, often employ aggressive competitive and business tactics as they seek to gain entry with 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. 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 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. We seek to operate our business in compliance with such laws. We are currently subject to laws relating to the materials and content of our products and certain requirements relating to 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, 2008, we had 2,203 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.

## Directors and Executive Officers

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

<b>Name</b>	<b>Age</b>	<b>Position</b>
Patrick H. Nettles, Ph.D.	65	Executive Chairman of the Board of Directors
Gary B. Smith	48	President, Chief Executive Officer and Director
Stephen B. Alexander	49	Senior Vice President, Chief Technology Officer
Michael G. Aquino	52	Senior Vice President, Global Field Operations
James E. Moylan, Jr.	57	Senior Vice President, Finance and Chief Financial Officer
Andrew C. Petrik	45	Vice President and Controller
David M. Rothenstein	40	Senior Vice President, General Counsel and Secretary

Name	Age	Position
Arthur D. Smith, Ph.D.	42	Senior Vice President, Chief Operating Officer
Stephen P. Bradley, Ph.D. <sup>(2)(3)</sup>	67	Director
Harvey B. Cash <sup>(1)(3)</sup>	70	Director
Bruce L. Claffin <sup>(2)</sup>	57	Director
Lawton W. Fitt <sup>(2)</sup>	55	Director
Judith M. O'Brien <sup>(1)(3)</sup>	58	Director
Michael J. Rowny <sup>(2)</sup>	58	Director
Gerald H. Taylor <sup>(1)</sup>	67	Director

(1) Member of the Compensation Committee

(2) Member of the Audit Committee

(3) Member of the Governance and Nominations Committee

Our Directors hold staggered terms of office, expiring as follows: Messrs. Bradley, Claffin and Taylor in 2009; Ms. Fitt, Dr. Nettles and Mr. Rowny in 2010; and Ms. O'Brien and Messrs. Cash and Smith in 2011.

**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. and the American Electronics Association. 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. Mr. Alexander serves on the Federal Communications Commission Technology Advisory Council.

**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 Operating Officer since October 2005. 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. Clafin** has served as a Director of Ciena since August 2006. Mr. Clafin served as President and Chief Executive Officer of 3Com Corporation from January 2001 until his retirement in February 2006. Mr. Clafin joined 3Com as President and Chief Operating Officer in August 1998. Prior to 3Com, Mr. Clafin served as Senior Vice President and General Manager, Sales and Marketing, for Digital Equipment Corporation. Mr. Clafin 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. Clafin also serves on the board of directors of Advanced Micro Devices (AMD).

**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, Frontier Communications Corporation and Overture Acquisition Corporation.

**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.

**Gerald H. Taylor** has served as a Director of Ciena since January 2000. Mr. Taylor has informed Ciena's Board of Directors that he intends to retire from the board upon the completion of his current term and he will not stand for re-election at the 2009 Annual Meeting of Stockholders. Mr. Taylor has served as a Managing Member of mortongroup, LLC, a venture partnership specializing in telecommunications and information technology, since January 2000. From 1996 to 1998, Mr. Taylor was Chief Executive Officer of MCI Communications Corporation.

## ITEM 1A. RISK FACTORS

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

### **Our business and operating results could be adversely affected by unfavorable macroeconomic and industry conditions.**

We have achieved considerable annual revenue growth over the last few fiscal years, in part due to favorable conditions in our markets. During the second half of 2008, however, our business began to experience the effects of worsening macroeconomic conditions, further exacerbated by certain customer-specific challenges and significant disruptions in the financial and credit markets globally. We initially experienced order delays, lengthening sales cycles and slowing deployments, principally among our largest service provider customers in North America and Europe. As economic conditions worsened globally, these effects on our business spread across our industry into other customer segments and geographies. Significant uncertainty around macroeconomic and industry conditions persists, particularly the effect these conditions and any sustained lack of liquidity in the capital markets may have upon the capital spending of our largest customers. Moreover, we are uncertain of the impact that any change in enterprise and consumer spending and behavior, in response to these market conditions, may have on the spending or financial position of our customers. Continued weakness in our industry or the broader economy may cause our customers to delay or cancel network infrastructure projects. Economic weakness, customer financial difficulties 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 goodwill and other intangible assets; and
- customer financial difficulty and increased risk of doubtful accounts receivable.

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. If these conditions persist or further weaken, our business and results of operations could be materially adversely affected.

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

A significant portion of our revenue is concentrated among a relatively small number of communications service providers. Five customers accounted for greater than 60% of our revenue in each of fiscal 2007 and 2008. Consequently, our financial results are closely correlated with the spending of a relatively small number of communications service providers. 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 markets, capital expenditure budgets and network strategy. Our business and financial results are closely tied to the prospects, performance, and financial condition of our largest customers, and market-wide changes, including reductions in enterprise and consumer spending, affecting communications service providers. We have recently seen our customers, including our large service provider customers, take a more cautious approach to their capital spending. The loss of one or more large service providers as customers, or significant reductions or delays in their spending, would have a material adverse effect on our business, financial condition and results of operations. 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.

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

- 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; and
- 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 operating results to fall 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. This level of competition and pricing pressure that we face can be exacerbated during periods of macroeconomic weakness and constrained spending. Competition in our markets, generally, is based on any one or a combination of the following factors: price, product features and functionality, manufacturing capability and lead-times, incumbency and existing business relationships, scalability

and the ability 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. 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.

**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 enhance our existing products, create new products and develop or acquire new technologies. There is often a lengthy period between commencing these development initiatives

and bringing the new or revised product to market, and, during this time, technology or the market may move in directions we had not anticipated. Even if we are able to anticipate market conditions and develop and introduce new products or enhancements, there is no guarantee that these products will achieve market acceptance. There is a significant possibility, therefore, that some of our development decisions will not turn out as anticipated, and that our investment in some projects will be unprofitable. Moreover, we may encounter difficulties developing, integrating and selling technology acquired from World Wide Packets and may be unable to achieve the strategic benefits and return on investment anticipated from this transaction. There is also a possibility that we may miss a market opportunity because we fail to invest, or invest too late, in a technology, product or enhancement that could have been highly profitable. Changes in market demand or investment priorities may also cause us to discontinue existing or planned development for new products or features, which can have a disruptive effect on our relationships with customers. If we fail to make the right investments or fail to make them at the right time, our competitive position may suffer and our revenue and profitability could be harmed.

**We may 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. At October 31, 2008, we had \$93.5 million in inventory. 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.

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

As of October 31, 2008, we had \$455.7 million of goodwill on our balance sheet. This amount primarily represents the remaining excess of the total purchase price of our acquisitions over the fair value of the net assets acquired. At October 31, 2008, we also had \$182.3 million in long-lived assets, which includes \$92.2 million of other intangible assets on our balance sheet. Given the current economic environment, uncertainties regarding the duration of these conditions and their potential impact on our business, an interim impairment review may be triggered for goodwill and long-lived assets during fiscal 2009. Our stock price, which declined considerably during fiscal 2008, is a significant factor in assessing our fair value for purposes of the goodwill impairment assessment. At the time of our assessment for fiscal 2008, our market capitalization had fallen to \$886 million and our carrying value, including goodwill, had increased to \$995 million. But for the inclusion of a control premium greater than 12%, our carrying value as of the end of fiscal 2008 would have exceeded fair value, requiring a further analysis which may have resulted in an impairment of goodwill. If our recent stock price decline persists and our market capitalization remains below our carrying value for a sustained period, it is reasonably likely that a goodwill impairment assessment prior to the next annual review in the fourth quarter of fiscal 2009 would be necessary and an impairment of goodwill may be determined. Valuation of our long-lived assets requires us to make assumptions about future sales prices and sales volumes for our products. These and other assumptions are used to forecast future, undiscounted cash flows. If actual market conditions differ or our forecasts change, we may be required to assess long-lived assets and could record an impairment charge. If we are required to record an impairment charge relating to goodwill or long-lived assets, such charges 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.

**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. 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.

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

The development and production of equipment that addresses multi-service communications network traffic is complicated. Some of our products can be fully tested only when deployed in communications networks or with other equipment and therefore may contain undetected hardware or software errors at the time of release. As a result, product performance problems are often more acute for initial deployments of new products and product enhancements. Unanticipated problems can relate to the design, manufacturing, installation or integration of our products. If we experience significant performance, reliability or quality problems with our products, or our customers suffer significant repairs, network restoration, or delays relating to these problems, a number of negative effects on our business could result, including:

- increased costs to address or remediate software or hardware defects;
- payment of liquidated damages or claims for damages for performance failures or delays;
- increased inventory obsolescence and warranty expense;
- delays in collecting accounts receivable; and
- cancellation or reduction in orders from customers.

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

**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 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. We may not be successful in reaching additional customer segments or expanding into new geographic regions and may be exposed to increased expense and business and financial risks associated with entering new markets and pursuing new customer segments. We may expend time, money and other resources on channel relationships that are ultimately unsuccessful. In addition, sales to federal, state and local governments require compliance with complex procurement regulations with which we have little 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. Modification of research and development strategies and changes in allocation of resources could also be disruptive to our development efforts. 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.

**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 our products directly

to our customers. 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. Our business could be adversely affected by disruptions in the business and operations of these manufacturers. Significant disruptions could arise as a result of, among other things, geopolitical events 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. Disruptions could also arise as a result of difficulties in the financial position of our contract manufacturers and ineffective business continuity and disaster recovery plans. We do not have contracts in place with some of our manufacturers and do not have guaranteed supply of components or manufacturing capacity. From time to time, we may decide to transfer manufacturing to a new contract manufacturer or further consolidate our supplier base. These transitions may result in disruptions to our business and temporary increases in inventory volumes purchased in order to ensure continued supply. Difficulty managing our contract manufacturers, or transitions to new manufacturers, can negatively affect our business and operations and harm our customer relationships.

**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 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 our suppliers or the terms on which we purchase components. We may be unable to secure the components or subsystems that we require in sufficient quantities or 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.

**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. These projects often include complex customization, installation and testing. 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 service 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, 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;
- trade protection measures, export compliance, qualification to transact business and other regulatory requirements; and
- natural disasters, epidemics and acts of war or terrorism.

We expect that our international activities will be dynamic in the near term, 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.

**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.

**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.**

To date, we have not hedged against foreign currency fluctuations. Historically, our primary exposure to currency exchange rates has been related to non-U.S. dollar denominated operating expense in Europe, Asia and Canada. In recent years, our international operations have grown considerably. As we increase our international sales and utilization of international suppliers, we may transact additional business in currencies other than the U.S. dollar. A further increase in the value of the dollar could increase the real cost to our customers of our products in those markets outside the United States where we sell in dollars, and a weakened dollar could increase the cost of local operating expenses and procurement of raw materials to the extent that we must purchase components in foreign currencies. As a result, we may be subject to increased susceptibility to the effects of foreign exchange translation on our financial results and our business and result of operations could be adversely affected.

**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. 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 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:

- difficulty integrating the operations, technologies and products of the acquired companies;
- diversion of management's attention;
- difficulty completing projects of the acquired company and costs related to in-process projects;
- the loss of key employees of the acquired company;
- amortization expense related to intangible assets and charges associated with impairment of goodwill;
- ineffective internal controls over financial reporting;
- dependence on unfamiliar supply partners; and
- exposure to unanticipated liabilities, including intellectual property infringement claims.

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.

**The investment of our substantial cash balance and our investments in marketable debt securities are subject to risks which may cause losses and affect the liquidity of these investments.**

At October 31, 2008, we had \$550.7 million in cash and cash equivalents and \$522.5 million short-term and long-term investments in marketable debt securities. We have historically invested these amounts in corporate bonds, asset-backed obligations, commercial paper, securities issued by the United States, certificates of deposit and money market funds meeting certain criteria. These investments are subject to general credit, liquidity, market and interest rate risks, which may be exacerbated by recent significant disruptions in the financial and credit markets. These market risks associated with our investment portfolio may have a negative adverse effect on our results of operations, liquidity and financial condition.

**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, 2008, 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 general 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 2008, our stock price ranged from a high of \$48.82 per share to a low of \$6.60 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 widely followed market indices, including the S&P 500 Index, and any change in the composition of these indices to exclude our company would adversely affect our stock price. 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, 2008, all of our properties are leased. Our principal executive offices are located in Linthicum, Maryland. We lease thirty-one facilities related to our ongoing operations. These include five buildings located at various sites near Linthicum, Maryland, including an engineering facility, two manufacturing facilities, and two administrative and sales facilities. We have engineering and/or service facilities located in San Jose, California; Alpharetta, Georgia; Acton, Massachusetts; 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, 2008, our accrued restructuring liability related to these properties was \$3.2 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 18 to the Consolidated Financial Statements in Item 8 of Part II of this report.

### ITEM 3. LEGAL PROCEEDINGS

On November 7, 2008, JDS Uniphase Corp. filed a complaint with the United States International Trade Commission (ITC) against Ciena and several other respondents, alleging infringement of two patents (U.S. Patent Nos. 6,658,035 and 6,687,278) relating to tunable laser chip technology. The complaint, which names Ciena as a company whose products incorporate the accused technology manufactured by certain other respondents and which technology is imported into the United States, seeks a determination and relief under Section 337 of the Tariff Act of 1930. Specifically, the complaint seeks an order from the ITC blocking the importation of the accused technology, and products incorporating the accused technology, into the United States. We believe that we have valid defenses to the complaint and intend to defend it vigorously.

On May 29, 2008, Graywire, LLC filed a complaint in the United States District Court for the Northern District of Georgia against Ciena and four other defendants, alleging, among other things, that certain of the parties' products infringe U.S. Patent 6,542,673, relating to an identifier system and components for optical assemblies. The complaint, which has not yet been served upon Ciena, seeks injunctive relief and damages. We believe that we have valid defenses to the lawsuit and intend to defend it vigorously.

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, whereby the plaintiffs' cases against the issuers would be dismissed, the insurers would agree to guarantee a recovery by the plaintiffs from the underwriter

defendants of at least \$1 billion, and the issuer defendants would agree to assign or surrender to the plaintiffs certain claims the issuers may have against the underwriters. The settlement agreement did not require Ciena to pay any amount toward the settlement or to make any other payments. 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 filed by the plaintiffs and issuer defendants for preliminary approval of the settlement agreement, subject to certain modifications to the proposed bar order, 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, as well as a set of amended master allegations against the other issuer defendants, including changes to the definition of the purported class of investors. 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. Due to the inherent uncertainties of litigation, 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 2008.

## PART II

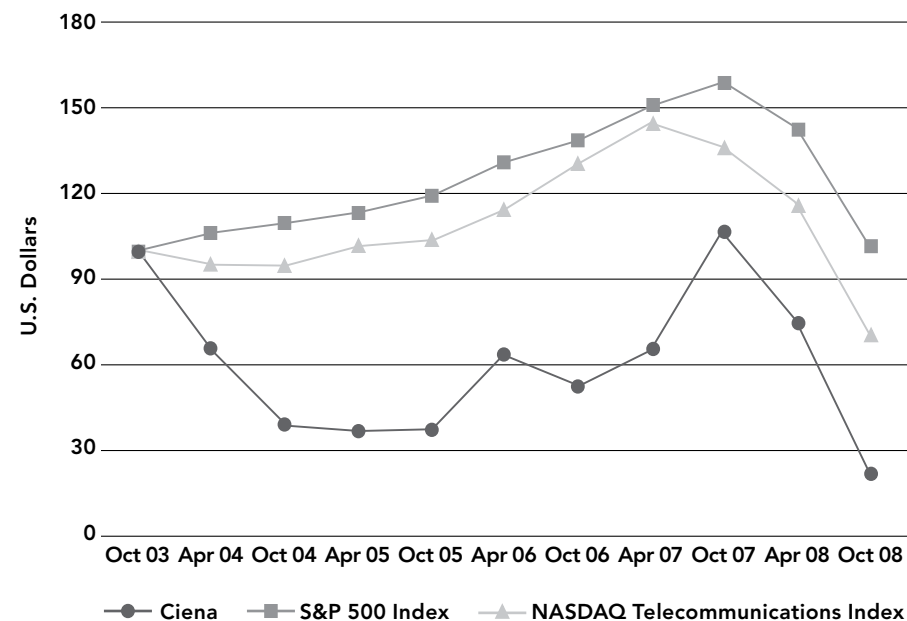
### ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

- (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 2007		
First Quarter ended January 31	\$30.56	\$24.39
Second Quarter ended April 30	\$32.80	\$24.75
Third Quarter ended July 31	\$41.13	\$28.22
Fourth Quarter ended October 31	\$49.55	\$32.75
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

As of December 12, 2008, there were approximately 960 holders of record of our common stock and 90,533,370 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, 2003 to October 31, 2008. 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, 2003 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." Fiscal 2008 results reflect the acquisition of World Wide Packets on March 3, 2008. See "Overview-Acquisition of World Wide Packets" in Item 7. 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 2004, 2005, 2006 and 2008 consisted of 52 weeks and fiscal 2007 consisted of 53 weeks.



## Balance Sheet Data:

<i>(in thousands, except per share data)</i>	Year Ended October 31,				
	2004	2005	2006	2007	2008
Cash and cash equivalents	\$ 185,868	\$ 358,012	\$ 220,164	\$ 892,061	\$ 550,669
Short-term investments	753,251	579,531	628,393	822,185	366,336
Long-term investments	329,704	155,944	351,407	33,946	156,171
Total assets	2,137,054	1,675,229	1,839,713	2,416,273	2,024,594
Short-term convertible notes payable	—	—	—	542,262	—
Long-term convertible notes payable	690,000	648,752	842,262	800,000	798,000
Total liabilities	982,632	939,862	1,086,087	1,566,119	1,025,645
Stockholders' equity	1,154,422	735,367	753,626	850,154	998,949

## Statement of Operations Data:

<i>(in thousands, except per share data)</i>	Year Ended October 31,				
	2004	2005	2006	2007	2008
Revenue	\$ 298,707	\$ 427,257	\$564,056	\$779,769	\$902,448
Cost of goods sold	226,954	291,067	306,275	417,500	451,521
Gross profit	71,753	136,190	257,781	362,269	450,927
Operating expenses:					
Research and development	205,364	137,245	111,069	127,296	175,023
Selling and marketing	112,310	115,022	104,434	118,015	152,018
General and administrative	25,798	36,317	44,445	50,248	68,639
Amortization of intangible assets	30,839	38,782	25,181	25,350	32,264
In-process research and development	30,200	—	—	—	—
Restructuring (recoveries) costs	57,107	18,018	15,671	(2,435)	1,110
Goodwill impairment	371,712	176,600	—	—	—
Long-lived asset impairment	15,926	45,862	—	—	—
Gain on lease settlement	—	—	(11,648)	(4,871)	—
Recovery of sale, export, use tax liabilities and payments	(5,388)	—	—	—	—
Total operating expenses	843,868	567,846	289,152	313,603	429,054
Income (loss) from operations	(772,115)	(431,656)	(31,371)	48,666	21,873
Interest and other income, net	25,936	31,294	50,245	76,483	36,762
Interest expense	(29,841)	(28,413)	(24,165)	(26,996)	(12,927)
Gain (loss) on equity investments, net	(4,107)	(9,486)	215	592	—
Realized loss on marketable debt investments, net	—	—	—	(13,013)	(5,101)
Gain (loss) on extinguishment of debt	(8,216)	3,882	7,052	—	932
Income (loss) before income taxes	(788,343)	(434,379)	1,976	85,732	41,539
Provision for income taxes	1,121	1,320	1,381	2,944	2,645
Net income (loss)	\$(789,464)	\$(435,699)	\$ 595	\$ 82,788	\$ 38,894
Basic net income (loss) per common share	\$ (10.60)	\$ (5.30)	\$ 0.01	\$ 0.97	\$ 0.44
Diluted net income (loss) per dilutive potential common share	\$ (10.60)	\$ (5.30)	\$ 0.01	\$ 0.87	\$ 0.42
Weighted average basic common shares	74,493	82,170	83,840	85,525	89,146
Weighted average dilutive potential common shares	74,493	82,170	85,011	99,604	110,605

## 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 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 to deliver more efficiently a broader mix of high-bandwidth communications services. Our products, along with our service-aware operating system 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 offering seeks to address holistically the business and network needs of our customers. By improving network productivity, reducing operating costs and enabling new and integrated service offerings, we create business and operational value for our customers.

### Effect of Recent Market Conditions and Uncertain Macroeconomic Environment on our Business

Through the first nine months of fiscal 2008, our financial performance continued to be strong. We achieved meaningful sequential quarterly revenue growth during this period and revenue was up 28.3% over the first nine months of fiscal 2007. Income from operations increased from \$21.5 million in the first nine months of fiscal 2007 to \$52.3 million for the first nine months of fiscal 2008. During the second half of 2008, however, our business began to experience the effects of worsening macroeconomic conditions, further exacerbated by customer-specific challenges and significant disruptions in the financial and credit markets globally. We initially experienced order delays, lengthening sales cycles and slowing deployments, principally among our largest service provider customers in North America and Europe. As economic conditions worsened globally, these effects on our business spread across our industry into other customer segments and geographies. Revenue was \$179.7 million for the fourth quarter of fiscal 2008, representing a 29.0% sequential decrease from the third quarter and a 16.9% decrease from our results in the fourth quarter of fiscal 2007. We also suffered a \$30.5 million loss from operations during the fourth quarter of 2008.

Significant uncertainty around current macroeconomic and industry conditions persists, particularly the effect these conditions and any sustained lack of liquidity in the capital markets may have upon the capital spending of our largest customers. Moreover, we are uncertain of the impact of any near-term change of enterprise and consumer spending and behavior, in response to these market conditions, may have on the spending or financial position of our customers. The level of competition we face during periods of economic weakness can be expected to increase. We can not be certain how long these conditions will continue and the magnitude of their effects on our business and results of operations. Consequently, these conditions have negatively affected visibility of our business and made our forecasting and planning more difficult.

While we expect the near-term market conditions to be challenging, we continue to believe in our longer-term market opportunities. We believe growing consumer and enterprise use, and increased dependence upon,

high-bandwidth applications and services, will require our customers to continue to invest in their networks and transition to more efficient, robust and economical network architectures. As a result, we intend to continue to invest in our business, prioritizing spending related to product development and sales efforts.

During this period of uncertainty, we intend to balance our strategy of continued investment for the long term and manage our workforce and operating costs carefully to ensure that they are aligned with our business and market opportunities. To that end, during the fourth quarter of fiscal 2008, we effected a targeted headcount reduction of 56 employees. This headcount reduction resulted in a restructuring charge of approximately \$1.1 million, principally associated with severance costs.

#### Acquisition of World Wide Packets

On March 3, 2008, we completed our acquisition of World Wide Packets, Inc. ("WWP"), a provider of communications network equipment that enables the cost-effective delivery of a variety of carrier Ethernet-based services, including business Ethernet services, Internet access, video conferencing and VoIP. WWP's service delivery and aggregation switches support the access and aggregation tiers of communications networks and are typically deployed in metro and access networks. Through our acquisition of WWP, we expanded our Ethernet offering beyond infrastructure to include service delivery capability and enhanced our embedded and management software suites. We believe that this transaction will improve our time to market with carrier Ethernet products and allow us to reach new customers and market segments, while strengthening and diversifying our position within existing customer networks. We also believe that the service delivery switching and aggregation technology acquired through this acquisition will enable us to penetrate additional application segments, including Ethernet business services, mobile backhaul for 4G wireless networks, and Ethernet infrastructure for high-bandwidth services such as IPTV and triple play.

As a result of this acquisition, we recorded \$223.7 million in goodwill and \$64.7 million in other intangible assets. We are amortizing the other intangible assets over their useful lives. See "Critical Accounting Policies and Estimates—Goodwill" and "—Long-lived Assets (excluding goodwill)" below for information relating to these items and our test for impairment. Under purchase accounting rules, we revalued the acquired WWP finished goods inventory to fair value at the time of the acquisition. This revaluation increased the marketable inventory carrying value by

approximately \$5.3 million above WWP's original cost, of which we recognized \$1.1 million in the second quarter of fiscal 2008 and \$4.2 million in the third quarter of fiscal 2008, as an increase in cost of goods sold. See Note 2 to the Consolidated Financial Statements included in Item 8 of Part II of this report for additional information related to this acquisition.

#### Financial Results for Fiscal 2008 and Financial Position

We generated revenue of \$902.4 million, representing a 15.7% increase from fiscal 2007 revenue of \$779.8 million. Results for fiscal 2008 include revenue from our acquisition of WWP, which closed during the second quarter. Optical service delivery product sales increased \$86.1 million, reflecting a \$67.9 million increase in sales of CN 4200™ FlexSelect™ Advanced Service Platform and a \$52.6 million increase in sales of our core switching products. Fiscal 2008 revenue growth also benefited from an increase in service revenue. Our percentage of international revenue increased from \$226.2 million, or 29.0% of total revenue in fiscal 2007, to \$311.6 million, or 34.5% of total revenue in fiscal 2008.

For fiscal 2008, two customers each accounted for greater than 10% of our revenue and 37.8% in the aggregate. AT&T represented 25.2% and BT represented 12.6% of total revenue. A small number of service providers continues to represent a large portion of our revenue. Our concentration of revenue has been affected in recent years by consolidation among communications service providers, including several of our largest customers. While we believe this illustrates our success in leveraging our incumbent position within service provider networks, the resulting concentration of revenue increases our risk of quarterly fluctuations in revenue and operating results. Our concentration in revenue can exacerbate our exposure to reductions in spending or changes in network strategy involving one or more of our significant customers.

Gross margin for fiscal 2008 was 50.0%, up from 46.5% in fiscal 2007. Product gross margin was 53.1% in fiscal 2008, up from 51.4% in fiscal 2007. Gross margin improvement during fiscal 2008 reflects the effect of favorable product and customer mix, including increased sales of our core switching products, and a significant improvement in our services gross margin. Gross margin benefited from significant product cost reductions and improved manufacturing efficiencies as a result of supply chain consolidation efforts and our increased use of lower cost contract manufacturers and suppliers in Asia. Gross margin continues to be susceptible to quarterly fluctuation due to a number of factors, including product and customer mix during the period, our ability to drive product

cost reductions, the level of pricing pressure we encounter, the effect of our services gross margin, the introduction of new products or entry into new markets, charges for excess and obsolete inventory and changes in warranty costs. Part of our strategy is to maintain the product gross margin improvements made in recent years by focusing our development and sale efforts on Ethernet-based, software-intensive products that enable the flexible, cost-effective delivery of higher value communications services.

Operating expense increased from \$313.6 in fiscal 2007 to \$429.1 million in fiscal 2008, and increased as a percentage of revenue from 40.2% to 47.5%, respectively. Increased operating expense reflects the addition of the WWP operations during the second quarter of fiscal 2008 and higher employee costs associated with headcount growth. Increased operating expense also reflects the expansion and acceleration of research and development initiatives that add features and functionality to our optical service delivery products and extend our portfolio of carrier Ethernet service delivery products to increase our addressable market.

Income from operations decreased from \$48.7 million in fiscal 2007 to \$21.9 million in fiscal 2008, primarily due to increased operating expense as a percentage of revenue. Net income decreased from \$82.8 million, or \$0.87 per diluted share, in fiscal 2007, to \$38.9 million, or \$0.42 per diluted share, in fiscal 2008. The decrease in net income for fiscal 2008 reflects the reduction in operating income as well as a \$39.7 million decrease in interest and other income, net, which was a significant component of our net income in fiscal 2007. Interest income decreased significantly during fiscal 2008 as a result of our repayment at maturity of the remaining principal balance of \$542.3 million on our 3.75% convertible notes during the first quarter of fiscal 2008 and our payment, during the second quarter, of approximately \$210.0 million in cash consideration for our acquisition of WWP. Lower cash balances resulting from these payments, together with lower interest rates, were the principal cause of our net income reduction. This decline was partially offset by a \$14.1 million decrease in interest expense over this same period.

We generated \$117.6 million in cash from operations during fiscal 2008 as compared to \$108.7 million during fiscal 2007. 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. Cash from operations during

fiscal 2007 consisted of \$170.7 million in cash from net income (adjusted for non-cash charges) and a \$62.0 million net decrease in cash resulting from changes in working capital.

At October 31, 2008, we had \$550.7 million in cash and cash equivalents and \$522.5 million of short-term and long-term investments in marketable debt securities. During fiscal 2007 and 2008, we recognized a \$13.0 million and \$5.1 million loss, respectively, relating to our commercial paper investments in Rhinebridge LLC and SIV Portfolio plc (formerly known as Cheyne Finance plc). See "Critical Accounting Policies and Estimates—Investments" below for information relating to our losses associated with our investment in commercial paper issued by these two structured investment vehicles (SIVs). During fiscal 2008, we received final payment in connection with the completion of restructuring activities related to these SIVs and we no longer hold these investments.

As of October 31, 2008, headcount was 2,203, an increase from 1,797 at October 31, 2007 and 1,485 at October 31, 2006.

## Results of Operations

Our results of operations for the fiscal 2008 include the operations of World Wide Packets beginning on March 3, 2008, the effective date of the acquisition.

### 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 acquired from WWP, Ethernet access products, broadband access products, and the related software.
3. **Global Network Services.** Included in Global Network Services revenue are sales of services, including installation, deployment, maintenance support and training activities.

A sizable portion of our revenue comes from sales to a small number of service providers for large communication network builds. These projects are generally characterized by large and sporadic equipment orders and contract terms that can result in the recognition or deferral of significant amounts of revenue in a given quarter. As a result, the nature of our business exposes us to the likelihood of quarterly fluctuation in revenue. The level of demand for our products, the timing and size of equipment orders, our ability to deliver products to fulfill those orders, and the timing of product acceptance for revenue recognition all contribute to and can cause significant fluctuations in our revenue and operating results on a quarterly basis.

### 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 associated with manufacturing-related operations, warranty and other contractual obligations, royalties, license fees, amortization of intangible assets and cost of excess and obsolete inventory.

Services cost of goods sold consists primarily of direct and third-party costs associated with provision of services including installation, deployment, maintenance support and training activities.

### 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 2007 Compared to Fiscal 2008

#### 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 (decrease)	%**
	2007	%*	2008	%*		
Revenue:						
Products	\$695,289	89.2	\$791,415	87.7	\$ 96,126	13.8
Services	84,480	10.8	111,033	12.3	26,553	31.4
Total revenue	779,769	100.0	902,448	100.0	122,679	15.7
Costs:						
Products	337,866	43.3	371,238	41.1	33,372	9.9
Services	79,634	10.2	80,283	8.9	649	0.8
Total cost of goods sold	417,500	53.5	451,521	50.0	34,021	8.1
Gross profit	\$362,269	46.5	\$450,927	50.0	\$ 88,658	24.5

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

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 (decrease)	%**
	2007	%*	2008	%*		
Product revenue	\$695,289	100.0	\$791,415	100.0	\$96,126	13.8
Product cost of goods sold	337,866	48.6	371,238	46.9	33,372	9.9
Product gross profit	\$357,423	51.4	\$420,177	53.1	\$62,754	17.6

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

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 (decrease)	%**
	2007	%*	2008	%*		
Service revenue	\$84,480	100.0	\$111,033	100.0	\$26,553	31.4
Service cost of goods sold	79,634	94.3	80,283	72.3	649	0.8
Service gross profit	\$ 4,846	5.7	\$ 30,750	27.7	\$25,904	534.5

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

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

	Fiscal Year				Increase (decrease)	%**
	2007	%*	2008	%*		
Optical service delivery	\$645,159	82.8	\$731,260	81.0	\$ 86,101	13.3
Carrier Ethernet service delivery	50,129	6.4	60,155	6.7	10,026	20.0
Global network services	84,481	10.8	111,033	12.3	26,552	31.4
Total	\$779,769	100.0	\$902,448	100.0	\$122,679	15.7

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

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

	Fiscal Year				Increase (decrease)	%**
	2007	%*	2008	%*		
United States	\$553,582	71.0	\$590,868	65.5	\$ 37,286	6.7
International	226,187	29.0	311,580	34.5	85,393	37.8
Total	\$779,769	100.0	\$902,448	100.0	\$122,679	15.7

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

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

	Fiscal Year			
	2007	%*	2008	%*
AT&T	\$196,924	25.3	\$227,737	25.2
BT	n/a	—	113,981	12.6
Sprint	100,122	12.8	n/a	—
Total	\$297,046	38.1	\$341,718	37.8

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

\* Denotes % of total revenue

## Revenue

- **Product revenue** increased primarily due to an \$86.1 million increase in sales of our optical service delivery products. Increased optical service delivery revenue reflects a \$67.9 million increase in sales of our CN 4200™ FlexSelect™ Advanced Service Platform and a \$52.6 million increase in sales of core switching products. These

increases were offset by a \$17.7 million decrease in core transport revenue and \$16.7 million decrease in our legacy metro and data networking products. We believe that our optical service delivery revenue during fiscal 2008 benefited from increasing network capacity requirements and customer transition to more efficient and economical network architectures. In particular, sales of our core switching products have benefited from an expansion in mesh-style optical networks. Revenue from our carrier Ethernet service delivery products increased by \$10.0 million, reflecting the addition of \$24.4 million in sales related to service delivery and aggregation switches from our acquisition of WWP. This increase offset a \$14.6 million reduction in revenue from our broadband access products.

- **Services revenue** increased primarily due to a \$15.1 million increase in deployment services sales and \$9.7 million increase in maintenance and support services, reflecting higher sales volume and increased installation activity.
- **United States revenue** increased primarily due to a \$15.0 million increase in sales of optical service delivery products. Increased optical service delivery revenue reflects a \$38.8 million increase in sales of CN 4200 and a \$22.5 million increase in sales of core switching products. These increases were partially offset by a \$23.6 million decrease in core transport revenue and a \$22.7 million decrease in sales of legacy metro and data networking products. Revenue from carrier Ethernet service delivery products increased by \$5.2 million, reflecting the addition of \$19.5 million in sales of products derived from our WWP acquisition. This increase offset a \$14.6 million reduction in revenue from our broadband access products. In addition, U.S. revenue benefited from a \$17.0 million increase in services revenue.
- **International revenue** increased primarily due to a \$71.1 million increase in sales of our optical service delivery products. This primarily reflects increases of \$30.1 million in sales of core switching products, \$29.1 million in sales of CN 4200 and \$5.9 million in sales of core transport products. International revenue also benefited from a \$4.8 million increase in carrier Ethernet service delivery revenue and a \$9.6 million increase in services revenue.

## Gross profit

- **Gross profit as a percentage of revenue** increased due to significant improvements in services gross margin, product cost reductions and favorable product mix.

- **Gross profit on products as a percentage of product revenue** increased primarily due to significant product cost reductions and improved manufacturing efficiencies as a result of consolidation efforts relating to our supply chain and our increased use of lower cost contract manufacturers and suppliers in Asia. Gross margin also benefited from a favorable product mix during fiscal 2008. This gross margin improvement was partially offset by the effect on product costs of goods sold of \$5.3 million in costs related to the revaluation of the acquired WWP inventory, as described in "Overview" above, and \$1.8 million in amortization of intangible assets costs relating to the acquisition of WWP.
- **Gross profit on services as a percentage of services revenue** increased significantly during fiscal 2008 due to improved deployment efficiencies. Services gross margin remains heavily dependent upon the mix of services in a given period and may fluctuate from quarter to quarter.

#### Operating expense

Increased operating expense for fiscal 2008 reflects, in part our acquisition of WWP on March 3, 2008. The table below (in thousands, except percentage data) sets forth the changes in operating expense for the periods indicated:

	Fiscal Year				Increase	
	2007	%*	2008	%*	(decrease)	%**
Research and development	\$127,296	16.3	\$175,023	19.4	\$ 47,727	37.5
Selling and marketing	118,015	15.1	152,018	16.8	34,003	28.8
General and administrative	50,248	6.4	68,639	7.6	18,391	36.6
Amortization of intangible assets	25,350	3.3	32,264	3.6	6,914	27.3
Restructuring (recoveries) costs	(2,435)	(0.3)	1,110	0.1	3,545	(145.6)
Gain on lease settlement	(4,871)	(0.6)	—	—	4,871	(100.0)
Total operating expenses	\$313,603	40.2	\$429,054	47.5	\$115,451	36.8

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

- **Research and development expense** increased due to higher employee compensation cost of \$29.5 million, including a \$3.6 million increase in share-based compensation expense, primarily reflecting increased headcount. Other increases included \$7.3 million in consulting expense, \$7.0 million in non-capitalized development tools and software maintenance support, and \$2.4 million in depreciation expense.

- **Selling and marketing expense** increased primarily due a \$19.4 million increase in employee compensation cost, including a \$4.1 million increase in share-based compensation expense, primarily reflecting increased headcount. Other increases included \$3.1 million in travel and entertainment expense, \$2.5 million of demonstration equipment, \$2.1 million in marketing programs, \$2.1 million in facilities and information systems expense and \$1.7 million in consulting expense.
- **General and administrative expense** increased due to higher employee compensation cost of \$7.6 million, including a \$2.1 million increase in share-based compensation expense, primarily reflecting increased headcount. In addition, legal expense increased by \$5.8 million, reflecting \$2.3 million and \$7.7 million in patent litigation settlements in fiscal 2007 and fiscal 2008, respectively. Fiscal 2008 expense also reflects a \$3.3 million increase in facilities and information systems expense.
- **Amortization of intangible assets costs** increased due to the purchase of intangible assets associated with the acquisition of WWP. See Note 2 to the Consolidated Financial Statements in Item 8 of Part II of this report for additional information related to purchased intangible assets.
- **Restructuring (recoveries) costs** for fiscal 2008 principally reflect costs associated with a workforce reduction of 56 employees during the fourth quarter. For fiscal 2007, recoveries primarily reflect adjustments related to the return to use of previously restructured facilities.
- **Gain on lease settlement** for fiscal 2007 was related to the termination of lease obligations for our former San Jose, CA facilities. During fiscal 2007, we paid \$53.0 million in connection with the settlement of these lease obligations. This transaction resulted in a gain on lease settlement of approximately \$4.9 million by eliminating the remaining unfavorable lease commitment balance of \$34.9 million and reducing our restructuring liabilities by \$23.5 million, offset by approximately \$0.5 million of other expenses.



### Other items

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

	Fiscal Year				Increase (decrease)	%**
	2007	%*	2008	%*		
Interest and other income, net	\$76,483	9.8	\$36,762	4.1	\$(39,721)	(51.9)
Interest expense	26,996	3.5	12,927	1.4	(14,069)	(52.1)
Realized loss on marketable debt investments, net	13,013	1.7	5,101	0.6	(7,912)	(60.8)
Gain on extinguishment of debt	—	—	932	0.1	932	100.0
Gain on equity investments, net	592	0.1	—	—	(592)	(100.0)
Provision for income taxes	\$ 2,944	0.4	\$ 2,645	0.3	\$ (299)	(10.2)

\* Denotes % of total revenue

\*\* Denotes % change from 2007 to 2008

- **Interest and other income, net** decreased due to lower average cash and investment balances resulting from the repayment at maturity of the \$542.3 million principal outstanding on our 3.75% convertible notes during the first quarter of fiscal 2008 and use of \$210.0 million in cash consideration and acquisition-related expenses associated with our acquisition of WWP in the second quarter of fiscal 2008. Interest income was also significantly affected by lower interest rates on investment balances.
- **Interest expense** decreased primarily due to the repayment of 3.75% convertible notes at maturity at the end of the first quarter of fiscal 2008. This decrease was slightly offset by the interest associated with our June 11, 2007 issuance of \$500 million in 0.875% convertible senior notes.
- **Realized loss on marketable debt investments, net** reflects losses related to commercial paper investments in SIV Portfolio plc (formerly known as Cheyne Finance plc) and Rhinebridge LLC, two structured investment vehicles (SIVs) that entered into receivership during the fourth quarter of fiscal 2007 and failed to make payment at maturity. See "Critical Accounting Policies and Estimates—Investments" below for information relating to these investments and related losses. During fiscal 2008, we received final payment in connection with the completion of restructuring activities related to these SIVs and we no longer hold these investments.

- **Gain on extinguishment of debt** reflects our repurchase of \$2.0 million in principal amount of our outstanding 0.25 % convertible senior notes due May 1, 2013 in an open market transaction. We used \$1.0 million of our cash to effect this repurchase, which resulted in a gain of approximately \$0.9 million.
- **Gain on equity investment, net** during fiscal 2007 was related to a final payment from the sale of a privately held technology company in which we held a minority equity investment.
- **Provision for income taxes** was primarily attributable to foreign tax related to our foreign operations and recognition of domestic deferred tax assets from prior acquisitions. Federal tax is largely offset, except for any alternative minimum tax, by recognizing deferred tax assets that were previously reserved against by a valuation allowance. We will continue to maintain a valuation allowance against all net deferred tax assets until sufficient evidence exists to support its reversal. See "Critical Accounting Policies and Estimates—Deferred Tax Valuation Allowance" below for information relating to our deferred tax valuation allowance and the conditions required for its release.

### Fiscal 2006 Compared to Fiscal 2007

#### 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 (decrease)	%**
	2006	%*	2007	%*		
Revenue:						
Products	\$502,427	89.1	\$695,289	89.2	\$192,862	38.4
Services	61,629	10.9	84,480	10.8	22,851	37.1
Total revenue	564,056	100.0	779,769	100.0	215,713	38.2
Costs:						
Products	263,667	46.7	337,866	43.3	74,199	28.1
Services	42,608	7.6	79,634	10.2	37,026	86.9
Total cost of goods sold	306,275	54.3	417,500	53.5	111,225	36.3
Gross profit	\$257,781	45.7	\$362,269	46.5	\$104,488	40.5

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007



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 (decrease)	%**
	2006	%*	2007	%*		
Product revenue	\$502,427	100.0	\$695,289	100.0	\$192,862	38.4
Product cost of goods sold	263,667	52.5	337,866	48.6	74,199	28.1
Product gross profit	\$238,760	47.5	\$357,423	51.4	\$118,663	49.7

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007

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 (decrease)	%**
	2006	%*	2007	%*		
Service revenue	\$61,629	100.0	\$84,480	100.0	\$22,851	37.1
Service cost of goods sold	42,608	69.1	79,634	94.3	37,026	86.9
Service gross profit	\$19,021	30.9	\$4,846	5.7	\$(14,175)	(74.5)

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007

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

	Fiscal Year				Increase (decrease)	%**
	2006	%*	2007	%*		
Optical service delivery	\$420,567	74.6	\$645,159	82.8	\$224,592	53.4
Carrier Ethernet service delivery	81,860	14.5	50,129	6.4	(31,731)	(38.8)
Global network services	61,629	10.9	84,481	10.8	22,852	37.1
Total	\$564,056	100.0	\$779,769	100.0	\$215,713	38.2

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007

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

	Fiscal Year				Increase (decrease)	%**
	2006	%*	2007	%*		
United States	\$423,687	75.1	\$553,582	71.0	\$129,895	30.7
International	140,369	24.9	226,187	29.0	85,818	61.1
Total	\$564,056	100.0	\$779,769	100.0	\$215,713	38.2

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007

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

	Fiscal Year			
	2006	%*	2007	%*
Verizon	\$70,225	12.4	n/a	—
Sprint	89,793	15.9	100,122	12.8
AT&T	66,926	11.9	196,924	25.3
Total	\$226,944	40.2	\$297,046	38.1

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

\* Denotes % of total revenue

## Revenue

- **Product revenue** increased due to a \$224.6 million increase in sales of our optical service delivery products. Increased product revenue for fiscal 2007 primarily reflects a \$140.2 million increase in sales of core switching products, a \$60.5 million increase in core transport and a \$59.4 million increase of our CN 4200™ FlexSelect™ Advanced Service Platform. The decrease in carrier Ethernet service delivery product revenue reflects a \$36.8 million reduction in sales of our CNX-5™ Broadband DSL System, which was negatively affected by customer consolidation activity.
- **Service revenue** increased primarily due to increases of \$17.1 million in deployment service sales and \$4.4 million in maintenance and support services, reflecting increased sales volume and increased installation activity.
- **United States revenue** increased due to a \$152.6 million increase in sales of our optical service delivery products. This primarily reflects a \$133.2 million increase in sales of core switching products, and a \$40.0 million increase in core transport sales. United States revenue

was also affected by a \$31.9 million decrease in revenue from carrier Ethernet service delivery products.

- **International revenue** increased due to a \$72.0 million increase in sales of our optical service delivery products. This primarily reflects a \$53.3 million increase in sales of CN 4200 and a \$20.5 million increase in sales of core transport products. International revenue also reflects an increase of \$13.7 million in service revenue, primarily related to deployment.

#### Gross profit

- **Gross profit as a percentage of revenue** increased primarily due to product gross margin improvement offset by a significant reduction in services gross margin.
- **Gross profit on products as a percentage of product revenue** increased primarily due to favorable product and customer mix, significant product cost reductions, improved manufacturing efficiencies, and lower warranty expense.
- **Gross profit on services as a percentage of services revenue** decreased significantly as a result of increased deployment overhead costs associated with the expansion of our internal resources related to deployment activities for international network infrastructure projects.

#### Operating expense

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

	Fiscal Year				Increase	
	2006	%*	2007	%*	(decrease)	%**
Research and development	\$111,069	19.7	\$127,296	16.3	\$ 16,227	14.6
Selling and marketing	104,434	18.5	118,015	15.1	13,581	13.0
General and administrative	44,445	7.9	50,248	6.4	5,803	13.1
Amortization of intangible assets	25,181	4.5	25,350	3.3	169	0.7
Restructuring (recoveries) costs	15,671	2.8	(2,435)	(0.3)	(18,106)	(115.5)
Gain on lease settlement	(11,648)	(2.1)	(4,871)	(0.6)	6,777	(58.2)
Total operating expenses	\$289,152	51.3	\$313,603	40.2	\$ 24,451	8.5

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007

- **Research and development expense** increased due to higher employee compensation cost of \$10.9 million, primarily due to growth in headcount at our India development center. Other

increases included \$4.8 million in prototype expense, \$1.2 million in facilities and information systems costs and \$0.6 million in travel-related expenditures. This was partially offset by a decrease in consulting expense of \$1.8 million.

- **Selling and marketing expense** increased primarily due to a \$9.4 million increase in employee compensation, which primarily reflects increased headcount in fiscal 2007. Other increases included \$1.7 million in travel expense, \$1.1 million in consulting, and \$0.8 million in tradeshow activities.
- **General and administrative expense** increased due to an \$8.6 million increase in employee compensation, which reflects a \$3.2 million increase in stock compensation cost and increased headcount. This increase was partially offset by a \$7.1 million reduction in legal expense. Legal expense for fiscal 2006 and fiscal 2007 included \$5.7 million and \$2.3 million, respectively, in costs associated with settlement of patent litigation.
- **Amortization of intangible assets costs** increased slightly due to the purchase of certain developed technology during the fourth quarter of fiscal 2007.
- **Restructuring (recoveries) costs** during fiscal 2007 primarily reflect adjustments related to the return to use of previously restructured facilities. Restructuring costs during fiscal 2006 were primarily related to an adjustment of \$10.0 million due to changes in market conditions related to our former facilities in San Jose, CA. During fiscal 2006, we also recorded charges totaling \$6.3 million related to the closure of our facilities in Kanata, Ontario, Shrewsbury, NJ and Beijing, China.
- **Gain on lease settlement** for fiscal 2007 was related to the termination of lease obligations for our former San Jose, CA facilities. During the fourth quarter of fiscal 2007, we paid \$53.0 million in connection with the settlement of this lease obligation. This transaction resulted in a gain on lease settlement of approximately \$4.9 million by eliminating the remaining unfavorable lease commitment balance of \$34.9 million and reducing our restructuring liabilities by \$23.5 million, offset by approximately \$0.5 million of other expenses. Gain during fiscal 2006 was related to the termination of the lease obligations for our former Fremont, CA and Cupertino, CA facilities.

## Other items

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

	Fiscal Year				Increase (decrease)	%**
	2006	%*	2007	%*		
Interest and other income, net	\$50,245	8.9	\$76,483	9.8	\$26,238	52.2
Interest expense	24,165	4.3	26,996	3.5	2,831	11.7
Realized loss on marketable debt investments, net	—	—	13,013	1.7	13,013	100.0
Gain on equity investments, net	215	—	592	0.1	377	175.3
Gain on extinguishment of debt	7,052	1.3	—	—	(7,052)	(100.0)
Provision for income taxes	\$ 1,381	0.2	\$ 2,944	0.4	\$ 1,563	113.2

\* Denotes % of total revenue

\*\* Denotes % change from 2006 to 2007

- **Interest and other income, net** increased due to increased average cash and investment balances and in part due to higher interest rates. Cash balances increased as a result of our April 10, 2006 issuance of \$300 million in 0.25% convertible senior notes and our June 11, 2007 issuance of \$500 million in 0.875% convertible senior notes.
- **Interest expense** increased primarily due to interest associated with our issuance of 0.25% convertible senior notes and 0.875% convertible senior notes.
- **Realized loss on marketable debt investments, net** for fiscal 2007 was the result of a realized loss of \$13.0 million related to our investments in SIV Portfolio plc (formerly known as Cheyne Finance plc) and Rhinebridge LLC, two structured investment vehicles (SIVs) that entered into receivership during the fourth quarter of fiscal 2007 and failed to make payment at maturity. See "Critical Accounting Policies and Estimates—Investments" below for information relating to these investments and related losses.
- **Gain on equity investment, net** during fiscal 2006 and fiscal 2007 related to final payments from the sale of privately held technology companies in which we held a minority equity investment.
- **Gain on extinguishment of debt** for fiscal 2006 resulted from our repurchase of \$106.5 million of our outstanding 3.75% convertible notes in open market transactions for \$98.4 million. We recorded a gain on the extinguishment of debt in the amount of \$7.1 million, which consists of the \$8.1 million gain from the repurchase of the notes, less \$1.0 million of associated debt issuance costs.

- **Provision for income taxes** was primarily attributable to foreign tax related to our foreign operations. We will continue to maintain a valuation allowance against all net deferred tax assets until sufficient evidence exists to support its reversal. See "Critical Accounting Policies and Estimates—Deferred Tax Valuation Allowance" below for information relating to this valuation allowance and the conditions required for our release of the valuation allowance.

## Liquidity and Capital Resources

At October 31, 2008, our principal sources of liquidity were cash and cash equivalents, short-term investments in marketable debt securities and cash from operations. The following table summarizes our cash and cash equivalents and investments in marketable debt securities (in thousands):

	October 31,		Increase (decrease)
	2007	2008	
Cash and cash equivalents	\$ 892,061	\$ 550,669	\$(341,392)
Short-term investments in marketable debt securities	822,185	366,336	(455,849)
Long-term investments in marketable debt securities	33,946	156,171	122,225
Total cash and cash equivalents and investments in marketable debt securities	\$1,748,192	\$1,073,176	\$(675,016)

The decrease in total cash and cash equivalents and investments in marketable debt securities at October 31, 2008 was primarily related to the repayment of the \$542.3 million principal outstanding on our 3.75% convertible notes at maturity on February 1, 2008 and \$210.0 million in cash consideration and acquisition-related expenses paid as part of our acquisition of WWP on March 3, 2008. This was partially offset by our cash provided by operating activities during fiscal 2008 described in "Operating Activities" below. Based on past performance and current expectations, we believe that our cash and cash equivalents, investments in marketable debt securities and cash generated from operations will satisfy our working capital needs, capital expenditures, and other liquidity requirements associated with our existing operations through at least the next 12 months.

Included in long-term investments in marketable debt securities at October 31, 2007 is approximately \$33.9 million in investments in commercial paper issued by two structured investment vehicles (SIVs) that entered into receivership during the fourth quarter of fiscal 2007 and

failed to make payment at maturity. See “Critical Accounting Policies and Estimates—Investments” below for information relating to these investments and the related losses. During fiscal 2008, we received final payment in connection with the completion of restructuring activities related to these SIVs and we no longer hold these investments.

The following sections review the significant activities that had an impact on our cash during fiscal 2008.

### Operating Activities

The following tables set forth (in thousands) components of our \$117.6 million of cash generated by operating activities for fiscal 2008:

#### Net income

	Year ended October 31, 2008
Net income	\$38,894

Our net income for fiscal 2008 included the significant non-cash items summarized in the following table (in thousands):

	Year ended October 31, 2008
Loss from equity investments and marketable debt securities	\$ 5,101
Depreciation of equipment, furniture and fixtures; and amortization of leasehold improvements	18,599
Share-based compensation costs	31,428
Amortization of intangible assets	37,956
Deferred tax provision	1,640
Provision for inventory excess and obsolescence	18,325
Provision for warranty	15,336
Total significant non-cash charges	\$128,385

#### Accounts receivable, net

Cash consumed by accounts receivable, net of allowance for doubtful accounts receivable, was \$32.5 million from the end of fiscal 2007 through the end of fiscal 2008. Our days sales outstanding (DSOs) increased from 48 days for fiscal 2007 to 55 days for fiscal 2008.

During fiscal 2008, we recorded an additional \$2.0 million of accounts receivable in connection with the acquisition of WWP. The following table sets forth (in thousands) changes to our accounts receivable, net of allowance for doubtful accounts receivable, from the end of fiscal 2007 through the end of fiscal 2008:

	October 31,		Increase (decrease)
	2007	2008	
Accounts receivable, net	\$104,078	\$138,441	\$34,363

#### Inventory

Cash provided by inventory for fiscal 2008 was \$3.7 million. Our inventory turns increased from 3.3 for fiscal 2007 to 4.0 for fiscal 2008.

During fiscal 2008, changes in inventory reflect an \$18.3 million reduction related to a non-cash provision for excess and obsolescence and a \$12.9 million increase related to additional inventory recorded in connection with the acquisition of WWP. The following table sets forth (in thousands) changes to the components of our inventory from the end of fiscal 2007 through the end of fiscal 2008:

	October 31,		Increase (decrease)
	2007	2008	
Raw materials	\$ 28,611	\$ 19,044	\$ (9,567)
Work-in-process	4,123	1,702	(2,421)
Finished goods	96,054	95,963	(91)
Gross inventory	128,788	116,709	(12,079)
Provision for inventory excess and obsolescence	(26,170)	(23,257)	2,913
Inventory	\$102,618	\$ 93,452	\$ (9,166)

#### Accounts payable, accruals and other obligations

Cash consumed by accounts payable, accruals and other obligations during fiscal 2008 was \$23.9 million.

During fiscal 2008, we recorded an additional \$10.0 million in accounts payable and accruals in connection with the acquisition of WWP. Changes in accrued liabilities also reflect a \$15.3 million increase related to non-cash provision for warranty, and the effect of other non-cash additions.

The following table sets forth (in thousands) changes in our accounts payable, accruals and other obligations from the end of fiscal 2007 through the end of fiscal 2008:

	October 31,		Increase (decrease)
	2007	2008	
Accounts payable	\$ 55,389	\$ 44,761	\$(10,628)
Accrued liabilities	90,922	96,143	5,221
Restructuring liabilities	4,688	4,225	(463)
Other long-term obligations	1,450	8,089	6,639
Accounts payable and accruals	\$152,449	\$153,218	\$ 769

#### *Interest payable on convertible notes*

We paid the final \$10.2 million interest payment on our 3.75% convertible notes, due February 1, 2008, during fiscal 2008.

Interest on our outstanding 0.25% convertible senior notes, due May 1, 2013, is payable on May 1 and November 1 of each year. We paid \$0.7 million in interest on our 0.25% convertible notes during fiscal 2008.

Interest on our outstanding 0.875% convertible senior notes, due June 15, 2017, is payable on June 15 and December 15 of each year. We paid \$4.4 million in interest on our 0.875% convertible notes during fiscal 2008.

The indentures governing our outstanding convertible notes do not contain any financial covenants. The indentures provide for customary events of default, including payment defaults, breaches of covenants, failure to pay certain judgments and certain events of bankruptcy, insolvency and reorganization. If an event of default occurs and is continuing, the principal amount of the notes, plus accrued and unpaid interest, if any, may be declared immediately due and payable. These amounts automatically become due and payable if an event of default relating to certain events of bankruptcy, insolvency or reorganization occurs. For additional information about our convertible notes, see Note 12 to our Consolidated Financial Statements included in Item 8 of Part II of this report.

The following table reflects (in thousands) the balance of interest payable and the change in this balance from the end of fiscal 2007 through the end of fiscal 2008:

	October 31,		Increase (decrease)
	2007	2008	
Accrued interest payable	\$6,998	\$1,683	\$(5,315)

#### *Deferred revenue*

Excluding the effect of \$3.2 million in deferred revenue added as a result of the acquisition of WWP, deferred revenue increased by \$7.6 million during fiscal 2008. Product deferred revenue represents payments received in advance of shipment and payments received in advance of our ability to recognize revenue. Services deferred revenue is related to payment for service contracts that will be recognized over the contract term. The following table reflects (in thousands) the balance of deferred revenue and the change in this balance from the end of fiscal 2007 through the end of fiscal 2008:

	October 31,		Increase (decrease)
	2007	2008	
Products	\$13,208	\$13,061	\$ (147)
Services	50,432	61,366	10,934
Total deferred revenue	\$63,640	\$74,427	\$10,787

#### **Investing Activities**

During fiscal 2008, we received net proceeds of approximately \$329.9 million from the maturity and purchases of marketable debt securities. These net proceeds were used to fund the repayment of our 3.75% convertible notes at maturity and the cash consideration paid as part of our acquisition of World Wide Packets on March 3, 2008. In connection with this acquisition, we paid cash consideration of approximately \$196.7 million and incurred acquisition-related expenses of \$14.2 million. We also issued equity consideration in the acquisition. See Note 2 to the Consolidated Financial Statements included in Item 8 of Part II of this report for a discussion of the aggregate purchase price for this transaction.

## Financing Activities

On February 1, 2008, we paid the remaining principal balance of \$542.3 million upon maturity of our 3.75% convertible notes. Cash received from financing activities during fiscal 2008 also includes \$5.8 million relating to the exercise of employee stock options.

During the fourth quarter of fiscal 2008, we repurchased \$2.0 million in principal amount of our outstanding 0.25 % convertible senior notes in an open market transaction. We used \$1.0 million of our cash to effect these repurchases during the quarter, which resulted in a gain of approximately \$0.9 million relating to this repurchase. At October 31, 2008, we had outstanding an aggregate principal amount of approximately \$298.0 million under our 0.25% convertible senior notes and \$500.0 million under our 0.875% convertible senior notes. We intend to continue to evaluate and pursue alternatives that enable us to exercise prudent cash management and achieve cost savings relating to the repayment of our outstanding convertible notes.

## Contractual Obligations

The following is a summary of our future minimum payments under contractual obligations as of October 31, 2008 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Interest due on convertible notes	\$ 42,728	\$ 5,120	\$10,240	\$ 9,868	\$ 17,500
Principal due at maturity on convertible notes	798,000	—	—	298,000	500,000
Operating leases <sup>(1)</sup>	67,331	14,346	23,757	16,117	13,111
Purchase obligations <sup>(2)</sup>	76,046	76,046			
Total <sup>(3)</sup>	\$984,105	\$95,512	\$33,997	\$323,985	\$530,611

(1) The amount for operating leases above does not include insurance, taxes, maintenance and other costs required by the applicable operating lease. These costs are variable and are not expected to have a material impact.

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

(3) As of October 31, 2008, we had approximately \$5.6 million of other long-term obligations in our condensed consolidated balance sheet for unrecognized tax positions that are not included in this table because the periods of cash settlement with the respective tax authority cannot be reasonably estimated.

Some of our commercial commitments, including some of the future minimum payments set forth above, are secured by standby letters of credit. The following is a summary of our commercial commitments secured by

standby letters of credit by commitment expiration date as of October 31, 2008 (in thousands):

	Total	Less than one year	One to three years	Three to five years	Thereafter
Standby letters of credit	\$19,617	\$13,654	\$5,701	\$239	\$23

## Off-Balance Sheet Arrangements

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

## Critical Accounting Policies and Estimates

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

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

### Revenue Recognition

We recognize revenue in accordance with SAB No. 104, "Revenue Recognition," which states that revenue is realized or realizable and earned when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the price to the buyer is fixed or determinable; and collectibility is reasonably assured. Customer purchase agreements and customer

purchase orders are generally used to determine the existence of an arrangement. Shipping documents and customer acceptance, when applicable, are used to verify delivery. We assess whether the price is fixed or determinable based on the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. We assess collectibility based primarily on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history. In instances where final acceptance of the product, system, or solution is specified by the customer, revenue is deferred until all acceptance criteria have been met. Revenue for maintenance services is generally deferred and recognized ratably over the period during which the services are to be performed.

Some of our communications networking equipment is integrated with software that is essential to the functionality of the equipment. Accordingly, we account for revenue from such equipment in accordance with SOP No. 97-2, "Software Revenue Recognition," and all related interpretations. SOP 97-2 incorporates additional guidance unique to software arrangements incorporated with general accounting guidance, such as, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectibility is probable. In instances where final acceptance of the product is specified by the customer, revenue is deferred until all acceptance criteria have been met.

Arrangements with customers may include multiple deliverables, including any combination of equipment, services and software. If multiple element arrangements include software or software-related elements that are essential to the equipment, we apply the provisions of SOP 97-2 to determine the amount of the arrangement fee to be allocated to those separate units of accounting. Multiple element arrangements that include software are separated into more than one unit of accounting if the functionality of the delivered element(s) is not dependent on the undelivered element(s), there is vendor-specific objective evidence of the fair value of the undelivered element(s), and general revenue recognition criteria related to the delivered element(s) have been met. The amount of product and services revenue recognized is affected by our judgments as to whether an arrangement includes multiple elements and, if so, whether vendor-specific objective evidence of fair value exists. Changes to the elements in an arrangement and our ability to establish vendor-specific objective evidence for those elements could affect the timing of revenue recognition. For all other deliverables, we apply the provisions of EITF 00-21, "Revenue

Arrangements with Multiple Deliverables." EITF 00-21 allows for separation of elements into more than one unit of accounting if the delivered element(s) have value to the customer on a stand-alone basis, objective and reliable evidence of fair value exists for the undelivered element(s), and delivery of the undelivered element(s) is probable and substantially within our control. Revenue is allocated to each unit of accounting based on the relative fair value of each accounting unit or using the residual method if objective evidence of fair value does not exist for the delivered element(s). The revenue recognition criteria described above are applied to each separate unit of accounting. If these criteria are not met, revenue is deferred until the criteria are met or the last element has been delivered.

Our total deferred revenue for products was \$13.2 million and \$13.1 million as of October 31, 2007 and October 31, 2008, respectively. Our services revenue is deferred and recognized ratably over the period during which the services are to be performed. Our total deferred revenue for services was \$50.4 million and \$61.4 million as of October 31, 2007 and October 31, 2008, respectively.

#### Share-Based Compensation

We recognize share-based compensation expense in accordance with SFAS 123(R), "Share-Based Payments," as interpreted by SAB 107. SFAS 123(R) requires the measurement and recognition of compensation expense for share-based awards based on estimated fair values on the date of grant. We estimate the fair value of each option-based award on the date of grant using the Black-Scholes option-pricing model. This option pricing model requires that we make several estimates, including the option's expected life and the price volatility of the underlying stock. The expected life of employee stock options represents the weighted-average period the stock options are expected to remain outstanding. Because we considered our options to be "plain vanilla," we calculated the expected term using the simplified method as prescribed in SAB 107 for fiscal 2007. Under SAB 107, options are considered to be "plain vanilla" if they have the following basic characteristics: they are granted "at-the-money;" exercisability is conditioned upon service through the vesting date; termination of service prior to vesting results in forfeiture; there is a limited exercise period following termination of service; and the options are non-transferable and non-hedgeable. Beginning in fiscal 2008, as prescribed by SAB 107, we gathered more detailed historical information about specific exercise behavior of our grantees, which we used to determine expected term. We considered the implied volatility and historical



volatility of our stock price in determining our expected volatility, and, finding both to be equally reliable, determined that a combination of both measures would result in the best estimate of expected volatility. We recognize the estimated fair value of option-based awards, net of estimated forfeitures, as share-based compensation expense on a straight-line basis over the requisite service period.

We estimate the fair value of our restricted stock unit awards based on the fair value of our common stock on the date of grant. Our outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. We recognize the estimated fair value of service-based awards, net of estimated forfeitures, as share-based expense ratably over the vesting period on a straight-line basis. Awards with performance-based vesting conditions require the achievement of certain financial or other performance criteria or targets as a condition to the vesting, or acceleration of vesting. We recognize the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon our determination of whether it is probable that the performance targets will be achieved. At each reporting period, we reassess the probability of achieving the performance targets and the performance period required to meet those targets. Determining whether the performance targets will be achieved involves judgment, and the estimate of expense may be revised periodically based on changes in the probability of achieving the performance targets. Revisions are reflected in the period in which the estimate is changed. If any performance goals are not met, no compensation cost is ultimately recognized against that goal, and, to the extent previously recognized, compensation cost is reversed.

Because share-based compensation expense is based on awards that are ultimately expected to vest, the amount of expense takes into account estimated forfeitures. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Changes in these estimates and assumptions can materially affect the measure of estimated fair value of our share-based compensation. See Note 16 to our Consolidated Financial Statements in Item 8 of Part II of this report for information regarding our assumptions related to share-based compensation and the amount of share-based compensation expense we incurred for the periods covered in this report. As of October 31, 2008, total unrecognized compensation

expense was: (i) \$22.0 million, which relates to unvested stock options and is expected to be recognized over a weighted-average period of 1.3 years; and (ii) \$43.7 million, which relates to unvested restricted stock units and is expected to be recognized over a weighted-average period of 1.7 years.

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

#### Reserve for Inventory Obsolescence

We make estimates about future customer demand for our products when establishing the appropriate reserve for excess and obsolete inventory. We write down inventory that has become obsolete or unmarketable by an amount equal to the difference between the cost of inventory and the estimated market value based on assumptions about future demand and market conditions. Inventory write downs are a component of our product cost of goods sold. Upon recognition of the write down, a new lower cost basis for that inventory is established, and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis. We recorded charges for excess and obsolete inventory of \$12.2 million and \$18.3 million in fiscal 2007 and 2008, respectively. These charges were primarily related to excess inventory due to a change in forecasted product sales. In an effort to limit our exposure to delivery delays and to satisfy customer needs we purchase inventory based on forecasted sales across our product lines. In addition, part of our research and development strategy is to promote the convergence of similar features and functionalities across our product lines.



Each of these practices exposes us to the risk that our customers will not order products for which we have forecasted sales, or will purchase less than we have forecasted. Historically, we have experienced write downs due to changes in strategic direction, discontinuance of a product and declines in market conditions. If actual market conditions worsen or differ from those we have assumed, if there is a sudden and significant decrease in demand for our products, or if there is a higher incidence of inventory obsolescence due to a rapid change in technology, we may be required to take additional inventory write-downs, and our gross margin could be adversely affected. Our inventory net of allowance for excess and obsolete was \$102.6 million and \$93.5 as of October 31, 2007 and October 31, 2008, respectively.

### Restructuring

As part of our restructuring costs, we provide for the estimated cost of the net lease expense for facilities that are no longer being used. The provision is equal to the fair value of the minimum future lease payments under our contracted lease obligations, offset by the fair value of the estimated sublease payments that we may receive. As of October 31, 2008, our accrued restructuring liability related to net lease expense and other related charges was \$3.2 million. The total minimum lease payments for these restructured facilities are \$14.5 million. These lease payments will be made over the remaining lives of our leases, which range from sixteen months to ten years. If actual market conditions are different than those we have projected, we will be required to recognize additional restructuring costs or benefits associated with these facilities.

### Allowance for Doubtful Accounts

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

doubtful accounts was \$104.1 million and \$138.4 as of October 31, 2007 and October 31, 2008, respectively. Our allowance for doubtful accounts as of October 31, 2007 and October 31, 2008 was \$0.1 million.

### Goodwill

As of October 31, 2007 and October 31, 2008, our consolidated balance sheet included \$232.0 million and \$455.7 million in goodwill, respectively. Goodwill represents the excess purchase price over amounts assigned to tangible or identifiable intangible assets acquired and liabilities assumed from our acquisitions. The increase above reflects goodwill recorded in connection with our acquisition of World Wide Packets during the second quarter of fiscal 2008. See Note 2 to the Consolidated Financial Statements in Item 8 of Part II of this report for additional information related to the allocation of the purchase price.

In accordance with SFAS 142, we test our goodwill for impairment on an annual basis, which we have determined to be the last business day of fiscal September each year. We also test our goodwill for impairment between annual tests if an event occurs or circumstances change that would, more likely than not, reduce the fair value of the reporting unit below its carrying value. SFAS 142 requires a two-step method for determining goodwill impairment. Step one is to compare the fair value of the reporting unit with the unit's carrying amount, including goodwill. If this test indicates that the fair value is less than the carrying value, then step two is required to compare the implied fair value of the reporting unit's goodwill with the carrying amount of the reporting unit's goodwill.

We determine the fair value of our single reporting unit to be equal to our market capitalization plus a control premium. Market capitalization is determined by multiplying the shares outstanding on the assessment date by the average market price of our common stock over a 10-day period before and a 10-day period after each assessment date. We use this 20-day duration to consider inherent market fluctuations that may affect any individual closing price. We believe that our market capitalization alone does not fully capture the fair value of our business as a whole, or the substantial value that an acquirer would obtain from its ability to obtain control of our business. As such, in determining fair value, we add a control premium—which seeks to give effect to the increased consideration a potential acquirer would be required to pay in order to gain sufficient ownership to set policies, direct operations and make decisions related to our company—to our market capitalization.

No goodwill impairment loss was recorded in fiscal 2007 or in fiscal 2008. For fiscal 2007 and 2008, we performed the step one fair value comparison as of September 29, 2007 and September 27, 2008, respectively. For fiscal 2007, our market capitalization, calculated as described above, was \$3.6 billion and our carrying value, including goodwill, was \$865 million. Because market capitalization significantly exceeded our carrying value, our estimate of the control premium was not a determining factor in the outcome of step one of the impairment assessment. For fiscal 2008, our market capitalization had fallen to \$886 million and our carrying value, including goodwill, had increased to \$995 million. We applied a 25% control premium to market capitalization to determine a fair value of \$1.1 billion. We believe that including a control premium at this level is supported by recent transaction data in our industry. But for the inclusion of a control premium greater than 12% for fiscal 2008, our carrying value would have exceeded fair value, requiring a step two analysis which may have resulted in an impairment of goodwill.

As evidenced above, our stock price and control premium are significant factors in assessing our fair value for purposes of the goodwill impairment assessment. Our stock price can be affected by, among other things, changes in industry or market conditions, changes in our results of operations, and changes in our forecasts or market expectations relating to future results. Significant turmoil in the financial markets and weakness in macroeconomic conditions globally have recently contributed to volatility in our stock price and a significant decline in our stock price during the fourth quarter of fiscal 2008. Our stock price has fluctuated from a high of \$20.10 to a low of \$6.60 during the fourth quarter of fiscal 2008. On numerous occasions during the fourth quarter, our stock price was high enough that our market capitalization exceeded our carrying value without giving effect to a control premium. The current macroeconomic environment, however, continues to be challenging and we cannot be certain of the duration of these conditions and their potential impact on our stock price performance. If our recent stock price decline persists and our market capitalization remains below our carrying value for a sustained period, it is reasonably likely that a goodwill impairment assessment prior to the next annual review in the fourth quarter of fiscal 2009 would be necessary and an impairment of goodwill may be recorded. A non-cash goodwill impairment charge would have the effect of decreasing our earnings or increasing our losses in such period. If we are required to take a substantial impairment charge, our operating results would be materially adversely affected in such period.

### Long-Lived Assets (excluding goodwill)

Our long-lived assets, excluding goodwill, include: equipment, furniture and fixtures; finite-lived intangible assets; and maintenance spares. As of October 31, 2007 and 2008 these assets totaled \$134.6 million and \$182.3 million, net, respectively. We account for the impairment or disposal of these long-lived assets in accordance with the provisions of SFAS 144. In accordance with SFAS 144, we test long-lived assets for impairment whenever events or changes in circumstances indicate that the assets' carrying amount is not recoverable from its undiscounted cash flows. Our long-lived assets are part of a single reporting unit which represents the lowest level for which we identify cash flows.

Due to effects on our business of worsening macroeconomic conditions, further exacerbated by significant disruptions in the financial and credit markets globally, we have recently experienced order delays, lengthening sales cycles and slowing deployments. As a result of these conditions, we performed an impairment analysis of all our long-lived assets during the fourth quarter of fiscal 2008. Valuation of our long-lived assets requires us to make assumptions about future sales prices and sales volumes for our products that involve new technologies and uncertainties around customer acceptance of new products. These and other assumptions are used to forecast future, undiscounted cash flows. Based on our estimate of future, undiscounted cash flows as of October 31, 2008, no impairment was required. If actual market conditions differ or our forecasts change, we may be required to record a non-cash impairment charge related to long-lived assets in future periods. Such charges would have the effect of decreasing our earnings or increasing our losses in such period.

### Investments

We have an investment portfolio comprised of marketable debt securities including short-term commercial paper, certificates of deposit, corporate bonds, asset-backed obligations and U.S. government obligations. The value of these securities is subject to market volatility for the period we hold these investments and until their sale or maturity. We recognize losses when we determine that declines in the fair value of our investments, below their cost basis, are other-than-temporary. In determining whether a decline in fair value is other-than-temporary, we consider various factors including market price (when available), investment ratings, the financial condition and near-term prospects of the investee, the length of time and the extent to which the fair value has been less than our cost basis, and our intent and ability to hold the investment until maturity or for a period

of time sufficient to allow for any anticipated recovery in market value. We make significant judgments in considering these factors. If we judge that a decline in fair value is other-than-temporary, the investment is valued at the current fair value, and we would incur a loss equal to the decline, which could materially adversely affect our profitability and results of operations.

During the fourth quarter of fiscal 2007, we determined that declines in the estimated fair value of our investments in certain commercial paper were other-than-temporary. This commercial paper was issued by SIV Portfolio plc (formerly known as Cheyne Finance plc) and Rhinebridge LLC, two structured investment vehicles (SIVs) that entered into receivership during the fourth quarter of fiscal 2007 and failed to make payment at maturity. Due to its mortgage-related assets, these SIVs were exposed to adverse market conditions that affected the value of its collateral and its ability to access short-term funding. We purchased these investments in the third quarter of fiscal 2007 and, at the time of purchase, each investment had a rating of A1+ by Standard and Poor's and P-1 by Moody's, their highest ratings respectively. At the end of fiscal 2007, these investments were no longer trading and had no readily determinable market value. We reviewed current investment ratings, valuation estimates of the underlying collateral, company specific news and events, and general economic conditions in considering the fair value of these investments at the end of fiscal 2007. In estimating fair value, we used a valuation approach based on a liquidation of assets held by each SIV and their subsequent distribution of cash. We utilized assessments of the underlying collateral from multiple indicators of value, which were then discounted to reflect the expected timing of disposition and market risks. Based on this assessment of fair value, as of October 31, 2007, we recognized losses of \$13.0 million related to these investments. Giving effect to these losses, our investment portfolio at October 31, 2007 included an estimated fair value of \$33.9 million in commercial paper issued by these entities. During fiscal 2008, we recognized additional losses of \$5.1 million related to these investments, received payments of totaling \$28.8 million in connection with the restructuring of these SIVs, and, as of the end of the fiscal year, no longer hold these investments.

As of October 31, 2008, our minority investments in privately held technology companies, reported in other assets, were \$6.7 million. These investments are generally carried at cost because we own less than 20% of the voting equity and do not have the ability to exercise significant influence over any of these companies. These investments are inherently high risk. The markets for technologies or products manufactured by these companies are usually early stage at the time of our investment and such

markets may never materialize or become significant. We could lose our entire investment in some or all of these companies. We monitor these investments for impairment and make appropriate reductions in carrying values when necessary. If market conditions, the expected financial performance, or the competitive position of the companies in which we invest deteriorate, we may be required to record a non-cash charge in future periods due to impairment in their value.

#### Deferred Tax Valuation Allowance

As of October 31, 2008, we have recorded a valuation allowance fully offsetting our gross deferred tax assets of \$1.2 billion. We calculated the valuation allowance in accordance with the provisions of SFAS 109, "Accounting for Income Taxes," which requires an assessment of both positive and negative evidence regarding the realizability of these deferred tax assets, when measuring the need for a valuation allowance. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. In determining net deferred tax assets and valuation allowances, management is required to make judgments and estimates related to projections of profitability, the timing and extent of the utilization of net operating loss carryforwards, applicable tax rates, transfer pricing methodologies and tax planning strategies. The valuation allowance is reviewed quarterly and is maintained until sufficient positive evidence exists to support the reversal. Based on our recent historical results and forecast, prior to the fourth quarter of fiscal 2008, management believed it was reasonably likely that there would be sufficient positive evidence to support the reversal of all or some portion of our valuation allowance at the end of fiscal 2008. Due to our most recent quarterly loss, the uncertain macroeconomic environment, and limited visibility into our future results, management does not believe such sufficient positive evidence exists as of October 31, 2008 and determined to maintain a full valuation allowance. We will release this valuation allowance when management determines that it is more likely than not that our deferred tax assets will be realized. Any release of valuation allowance may be recorded as a tax benefit increasing net income, an adjustment to acquisition intangibles, or an adjustment to paid-in capital, based on tax ordering requirements.

#### Warranty

Our liability for product warranties, included in other accrued liabilities, was \$33.6 million and \$37.3 million as of October 31, 2007 and October 31, 2008, respectively. Our products are generally covered by a warranty for periods ranging from one to five years. We accrue for warranty costs

as part of our cost of goods sold based on associated material costs, technical support labor costs, and associated overhead. Material cost is estimated based primarily upon historical trends in the volume of product returns within the warranty period and the cost to repair or replace the equipment. Technical support labor cost is estimated based primarily upon historical trends and the cost to support the customer cases within the warranty period. The provision for product warranties was \$12.7 million and \$15.3 million for fiscal 2007 and 2008, respectively. The provision for warranty claims may fluctuate on a quarterly basis depending upon the mix of products and customers in that period. If actual product failure rates, material replacement costs, service or labor costs differ from our estimates, revisions to the estimated warranty provision would be required. An increase in warranty claims or the related costs associated with satisfying these warranty obligations could increase our cost of sales and negatively affect our gross margin.

### Uncertain Tax Positions

Effective at the beginning of the first quarter of 2008, we adopted FIN 48, "Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109," which changes accounting for income taxes. FIN 48 contains a two-step approach to recognizing and measuring uncertain tax positions accounted for in accordance with SFAS No. 109, "Accounting for Income Taxes." The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. As a result of the implementation of FIN 48, we reduced the liability for net unrecognized tax benefits by \$0.1 million, and accounted for the reduction as a cumulative effect of a change in accounting principle that resulted in an increase to retained earnings of \$0.1 million and a decrease to income tax payable of \$0.1 million. Significant judgment is required in evaluating our uncertain

tax positions and determining our provision for income taxes. Although we believe our reserves are reasonable, no assurance can be given that the final tax outcome of these matters will not be different from that which is reflected in our historical income tax provisions and accruals. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made. As of October 31, 2007, we had \$6.0 million in uncertain tax positions recorded as income tax payable. Beginning in the first quarter of fiscal 2008, in accordance with FIN 48, we reclassified these amounts to other long-term obligations on our consolidated balance sheet. As of October 31, 2008, we had \$5.6 million recorded as other long-term obligations related to uncertain tax positions. The provision for income taxes includes the effect of reserve provisions and changes to reserves that are considered appropriate, as well as the related net interest.

### Loss Contingencies

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

### Effects of Recent Accounting Pronouncements

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

## Unaudited Quarterly Results of Operations

The tables below (in thousands, except per share data) set forth the operating results represented by certain items in our statements of operations for each of the eight quarters in the period ended October 31, 2008. This information is unaudited, but in our opinion reflects all adjustments (consisting only of normal recurring adjustments) that we consider necessary for a fair statement of such information in accordance with generally accepted accounting principles. The results for any quarter are not necessarily indicative of results for any future period.

	Jan. 31, 2007	Apr. 30, 2007	Jul. 31, 2007	Oct. 31, 2007	Jan. 31, 2008	Apr. 30, 2008	Jul. 31, 2008	Oct. 31, 2008
Revenue:								
Products	\$146,282	\$173,212	\$182,143	\$193,652	\$201,790	\$216,181	\$223,661	\$149,783
Services	18,819	20,315	22,808	22,538	25,626	26,018	29,518	29,871
Total Revenue	165,101	193,527	204,951	216,190	227,416	242,199	253,179	179,654
Costs:								
Products	74,979	91,319	84,383	87,185	91,387	96,041	107,953	75,857
Services	16,494	20,378	22,903	19,859	19,460	18,562	19,595	22,666
Total cost of goods sold	91,473	111,697	107,286	107,044	110,847	114,603	127,548	98,523
Gross profit	73,628	81,830	97,665	109,146	116,569	127,596	125,631	81,131
Operating expenses:								
Research and development	29,853	31,642	31,671	34,130	35,444	44,628	47,809	47,142
Selling and marketing	24,875	30,182	30,303	32,655	33,608	38,591	39,440	40,379
General and administrative	10,291	11,707	14,564	13,686	22,628	16,650	14,758	14,603
Amortization of intangible assets	6,295	6,295	6,295	6,465	6,470	8,760	8,671	8,363
Restructuring (recoveries) costs	(466)	(734)	(1,196)	(39)	—	—	—	1,110
Gain on lease settlement	—	—	—	(4,871)	—	—	—	—
Total operating expenses	70,848	79,092	81,637	82,026	98,150	108,629	110,678	111,597
Income (loss) from operations	2,780	2,738	16,028	27,120	18,419	18,967	14,953	(30,466)
Interest and other income, net	14,845	16,897	19,464	25,277	19,082	8,487	5,342	3,851
Interest expense	(6,148)	(6,148)	(6,931)	(7,769)	(7,358)	(1,861)	(1,855)	(1,853)
Gain on equity investments, net	—	—	592	—	—	—	—	—
Realized gain (loss) on marketable debt investments, net	—	—	—	(13,013)	—	—	(5,114)	13
Gain on early extinguishment of debt	—	—	—	—	—	—	—	932
Income (loss) before income taxes	11,477	13,487	29,153	31,615	30,143	25,593	13,326	(27,523)
Provision (benefit) for income tax	421	477	841	1,205	1,336	1,833	1,603	(2,127)
Net income (loss)	\$ 11,056	\$ 13,010	\$ 28,312	\$ 30,410	\$ 28,807	\$ 23,760	\$ 11,723	\$ (25,396)
Basic net income (loss) per common share	\$ 0.13	\$ 0.15	\$ 0.33	\$ 0.35	\$ 0.33	\$ 0.27	\$ 0.13	\$ (0.28)
Diluted net income (loss) per dilutive potential common share	\$ 0.12	\$ 0.14	\$ 0.29	\$ 0.30	\$ 0.28	\$ 0.23	\$ 0.12	\$ (0.28)
Weighted average basic common shares	84,953	85,198	85,651	86,241	86,910	89,102	90,216	90,413
Weighted average dilutive potential common shares	93,259	93,737	101,568	108,812	109,009	110,770	111,681	90,413

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The following discussion about our market risk disclosures involves forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements. We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

**Interest Rate Sensitivity.** We maintain a short-term and long-term investment portfolio. See Note 5 to the Consolidated Financial Statements in Item 8 of Part II of this report for information relating to the fair value of these investments. These available-for-sale securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels at October 31, 2008, the fair value of the portfolio would decline by approximately \$16.8 million.

**Foreign Currency Exchange Risk.** As a global concern, we face exposure to adverse movements in foreign currency exchange rates. Because our sales are primarily denominated in U.S. dollars, the impact of foreign currency fluctuations on sales has not been material. Our primary exposures are related to non-U.S. dollar denominated operating expense in Canada, United Kingdom, the European Union and India. During fiscal 2008, approximately 78.3% of our operating expense was U.S. dollar denominated. As of October 31, 2008, our assets and liabilities related to non-dollar denominated currencies were primarily related to intercompany payables and receivables. We do not expect an increase or decrease of 10% in the foreign exchange rate would have a material impact on our financial position. To date, we have not hedged against foreign currency fluctuations. Due to the recent, significant fluctuations in currency exchange rates, we are considering and may pursue hedging strategies in fiscal 2009.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The following is an index to the consolidated financial statements:

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## Report of Independent Registered Public Accounting Firm

To The Board of Directors and Shareholders of Ciena Corporation:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Ciena Corporation and its subsidiaries at October 31, 2008 and 2007, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2008 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2008, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for uncertain tax positions in 2008.

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

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

/s/ PricewaterhouseCoopers LLP

McLean, Virginia

December 23, 2008



## CONSOLIDATED BALANCE SHEETS

	October 31,	
<i>(in thousands, except share data)</i>	2007	2008
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 892,061	\$ 550,669
Short-term investments	822,185	366,336
Accounts receivable, net	104,078	138,441
Inventories	102,618	93,452
Prepaid expenses and other	47,817	35,888
Total current assets	1,968,759	1,184,786
Long-term investments	33,946	156,171
Equipment, furniture and fixtures, net	46,671	59,967
Goodwill	232,015	455,673
Other intangible assets, net	67,144	92,249
Other long-term assets	67,738	75,748
Total assets	\$ 2,416,273	\$ 2,024,594
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 55,389	\$ 44,761
Accrued liabilities	90,922	96,143
Restructuring liabilities	1,026	1,668
Income taxes payable	7,768	—
Deferred revenue	33,025	36,767
Convertible notes payable	542,262	—
Total current liabilities	730,392	179,339
Long-term deferred revenue	30,615	37,660
Long-term restructuring liabilities	3,662	2,557
Other long-term obligations	1,450	8,089
Convertible notes payable	800,000	798,000
Total liabilities	1,566,119	1,025,645
Commitments and contingencies		
Stockholders' equity:		
Preferred stock—par value \$0.01; 20,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock—par value \$0.01; 140,000,000 and 290,000,000 shares authorized; 86,752,069 and 90,470,803 shares issued and outstanding	868	905
Additional paid-in capital	5,519,741	5,629,498
Changes in unrealized gains (losses) on investments, net of income taxes	350	(1,129)
Translation adjustment	(1,593)	(146)
Accumulated deficit	(4,669,212)	(4,630,179)
Total stockholders' equity	850,154	998,949
Total liabilities and stockholders' equity	\$ 2,416,273	\$ 2,024,594

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



## CONSOLIDATED STATEMENTS OF OPERATIONS

<i>(in thousands, except per share data)</i>	Year Ended October 31,		
	2006	2007	2008
Revenue:			
Products	\$502,427	\$695,289	\$791,415
Services	61,629	84,480	111,033
Total revenue	564,056	779,769	902,448
Costs:			
Products	263,667	337,866	371,238
Services	42,608	79,634	80,283
Total cost of goods sold	306,275	417,500	451,521
Gross profit	257,781	362,269	450,927
Operating expenses:			
Research and development	111,069	127,296	175,023
Selling and marketing	104,434	118,015	152,018
General and administrative	44,445	50,248	68,639
Amortization of intangible assets	25,181	25,350	32,264
Restructuring (recoveries) costs	15,671	(2,435)	1,110
Gain on lease settlement	(11,648)	(4,871)	—
Total operating expenses	289,152	313,603	429,054
Income (loss) from operations	(31,371)	48,666	21,873
Interest and other income, net	50,245	76,483	36,762
Interest expense	(24,165)	(26,996)	(12,927)
Realized loss on marketable debt investments, net	—	(13,013)	(5,101)
Gain on extinguishment of debt	7,052	—	932
Gain on equity investments, net	215	592	—
Income before income taxes	1,976	85,732	41,539
Provision for income taxes	1,381	2,944	2,645
Net income	\$ 595	\$ 82,788	\$ 38,894
Basic net income per common share	\$ 0.01	\$ 0.97	\$ 0.44
Diluted net income per dilutive potential common share	\$ 0.01	\$ 0.87	\$ 0.42
Weighted average basic common shares	83,840	85,525	89,146
Weighted average dilutive potential common shares	85,011	99,604	110,605

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

## CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

<i>(in thousands, except share data)</i>	Common Stock Shares	Par Value	Additional Paid-in Capital	Deferred Stock Compensation	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
Balance at October 31, 2005	82,905,849	\$829	\$5,494,587	\$(2,286)	\$(5,168)	\$(4,752,595)	\$735,367
Net income	—	—	—	—	—	595	595
Changes in unrealized gains on investments, net	—	—	—	—	4,177	—	4,177
Translation adjustment	—	—	—	—	(85)	—	(85)
Comprehensive income	—	—	—	—	—	—	4,687
Exercise of stock options, net	1,985,807	20	27,967	—	—	—	27,987
Share-based compensation expense	—	—	14,042	—	—	—	14,042
Removal of opening deferred stock compensation balance upon adoption of SFAS 123(R)	—	—	(2,286)	2,286	—	—	—
Purchase of call spread option	—	—	(28,457)	—	—	—	(28,457)
Balance at October 31, 2006	84,891,656	849	5,505,853	—	(1,076)	(4,752,000)	753,626
Net income	—	—	—	—	—	82,788	82,788
Changes in unrealized losses on investments, net	—	—	—	—	846	—	846
Translation adjustment	—	—	—	—	(1,013)	—	(1,013)
Comprehensive income	—	—	—	—	—	—	82,621
Exercise of stock options, net	1,847,455	19	36,816	—	—	—	36,835
Share-based compensation expense	—	—	19,572	—	—	—	19,572
Exercise of warrant	12,958	—	—	—	—	—	—
Purchase of call spread option	—	—	(42,500)	—	—	—	(42,500)
Balance at October 31, 2007	86,752,069	868	5,519,741	—	(1,243)	(4,669,212)	850,154
Cumulative effect of adopting FIN 48	—	—	—	—	—	139	139
Net income	—	—	—	—	—	38,894	38,894
Changes in unrealized gains on investments, net	—	—	—	—	(1,479)	—	(1,479)
Translation adjustment	—	—	—	—	1,447	—	1,447
Comprehensive income	—	—	—	—	—	—	38,862
Exercise of stock options, net	1,253,350	12	5,764	—	—	—	5,776
Tax benefit from employee stock option plans	—	—	318	—	—	—	318
Share-based compensation expense	—	—	31,428	—	—	—	31,428
Issuance of common stock for acquisitions, net of issuance costs	2,465,384	25	72,247	—	—	—	72,272
Balance at October 31, 2008	90,470,803	\$905	\$5,629,498	\$ —	\$(1,275)	\$(4,630,179)	\$998,949

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

## CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>(in thousands)</i>	Year Ended October 31,		
	2006	2007	2008
Cash flows from operating activities:			
Net income	\$ 595	\$ 82,788	\$ 38,894
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Early extinguishment of debt	(7,052)	—	(932)
Amortization of discount on marketable debt securities	(823)	(14,191)	(2,878)
Loss from equity investments and marketable debt securities	733	13,013	5,101
Depreciation and amortization of leasehold improvements	16,401	12,833	18,599
Share-based compensation	14,042	19,572	31,428
Amortization of intangibles	29,050	29,220	37,956
Deferred tax provision	—	—	1,640
Provision for inventory excess and obsolescence	9,012	12,180	18,325
Provision for warranty	14,522	12,743	15,336
Other	2,028	2,544	5,243
Changes in assets and liabilities, net of effect of acquisition:			
Accounts receivable	(34,386)	3,094	(32,471)
Inventories	(65,764)	(8,713)	3,713
Prepaid expenses and other	4,056	(20,568)	1,649
Accounts payable, accruals and other obligations	(59,161)	(60,524)	(23,945)
Income taxes payable	196	1,787	(7,655)
Deferred revenue	(2,842)	22,964	7,616
Net cash provided by (used in) operating activities	(79,393)	108,742	117,619
Cash flows from investing activities:			
Payments for equipment, furniture, fixtures and intellectual property	(17,760)	(32,105)	(29,998)
Change in restricted cash	4,552	(13,277)	1,340
Purchase of available for sale securities	(1,090,409)	(864,012)	(571,511)
Proceeds from maturities of available for sale securities	851,084	989,705	901,433
Minority equity investments, net	948	(181)	—
Acquisition of business, net of cash acquired	—	—	(210,016)
Net cash provided by (used in) investing activities	(251,585)	80,130	91,248
Cash flows from financing activities:			
Proceeds from issuance of convertible notes payable	300,000	500,000	—
Repurchase or payment at maturity of 3.75% convertible notes payable	(98,410)	—	(542,262)
Repurchase of 0.25% convertible notes payable	—	—	(1,034)
Debt issuance costs	(7,990)	(11,750)	—
Purchase of call spread option	(28,457)	(42,500)	—
Repayment of indebtedness of acquired business	—	—	(12,363)
Excess tax benefit from employee stock option plans	—	—	318
Proceeds from issuance of common stock	27,987	36,835	5,776
Net cash provided by (used in) financing activities	193,130	482,585	(549,565)
Effect of exchange rate changes on cash and cash equivalents	—	440	(694)
Net increase (decrease) in cash and cash equivalents	(137,848)	671,897	(341,392)

## CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

<i>(in thousands)</i>	Year Ended October 31,		
	2006	2007	2008
Cash and cash equivalents at beginning of period	358,012	220,164	892,061
Cash and cash equivalents at end of period	\$ 220,164	\$ 892,061	\$ 550,669
<b>Supplemental disclosure of cash flow information</b>			
Cash paid during the period for:			
Interest expense	\$ 21,685	\$ 21,504	\$ 15,339
Income taxes	\$ 969	\$ 1,157	\$ 3,120
<b>Non-cash investing and financing activities</b>			
Purchase of equipment in accounts payable	\$ —	\$ 3,062	\$ 2,316
Value of common stock issued in acquisition	\$ —	\$ —	\$ 62,360
Fair value of vested options assumed in acquisition	\$ —	\$ —	\$ 9,912

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

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### (1) CIENA CORPORATION AND SIGNIFICANT ACCOUNTING POLICIES AND ESTIMATES

#### Description of Business

Ciena Corporation is a provider of communications networking equipment, software and services that support the transport, switching, aggregation and management of voice, video and data traffic. Ciena's optical service delivery and carrier Ethernet service delivery products are used, individually or as part of an integrated solution, in networks operated by communications service providers, cable operators, governments and enterprises around the globe. Ciena is a network specialist targeting the transition of disparate, legacy communications networks to converged, next-generation architectures, better able to handle increased traffic and to deliver more efficiently a broader mix of high-bandwidth communications services. Ciena's products, along with its service-aware operating system and unified service and transport management enable service providers to efficiently and cost-effectively deliver critical enterprise and consumer-oriented communication services.

Ciena was incorporated in Delaware in November 1992, and completed its initial public offering on February 7, 1997. Ciena's principal executive offices are located at 1201 Winterson Road, Linthicum, Maryland 21090.

#### Principles of Consolidation

Ciena has 13 wholly owned U.S. and international subsidiaries, which have been consolidated in the accompanying financial statements.

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

#### Fiscal Year

Ciena has a 52- or 53-week fiscal year, which ends on the Saturday nearest to the last day of October in each year (October 28, 2006, November 3, 2007 and November 1, 2008 for the periods reported). For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 2006 and fiscal 2008 consisted of 52 weeks and fiscal 2007 consisted of 53 weeks.

During fiscal 2007, Ciena identified certain immaterial adjustments and recorded expenses of \$0.7 million related to its provision for warranty and \$0.3 million related to service costs, each of which related to fiscal 2006. Also, during fiscal 2007, Ciena identified immaterial operating expense totaling \$0.5 million incurred in fiscal 2007 that was inadvertently recorded in fiscal 2006. Ciena's revenue for fiscal 2007 is understated by \$0.8 million due to an equivalent overstatement of revenue during fiscal 2006. Ciena believes that these adjustments are not material to its results for fiscal 2006 or fiscal 2007, or any interim period therein.

#### Use of Estimates

The preparation of the financial statements and related disclosures in conformity with accounting principles generally accepted in the United States requires management to make estimates and judgments that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are used for bad debts, valuation of inventories and investments, recoverability of intangible assets, other long-lived assets and goodwill, income taxes, warranty obligations, restructuring liabilities and contingencies and litigation. Ciena bases its estimates on historical experience and assumptions that it believes are reasonable. Actual results may differ materially from management's estimates.

#### Cash and Cash Equivalents

Ciena considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents. Restricted cash collateralizing letters of credits are included in other current assets and other long-term assets depending upon the duration of the restriction.

#### Investments

Ciena's investments represent investments in marketable debt securities that are classified as available-for-sale and are reported at fair value, with unrealized gains and losses recorded in accumulated other comprehensive income. Realized gains or losses and declines in value on available-for-sale securities determined to be other-than-temporary are reported in other income or expense as incurred. Ciena considers all marketable debt securities that it expects to convert to cash within one year or less to be classified as short-term investments. All others are considered long-term investments.

#### Inventories

Inventories are stated at the lower of cost or market, with cost computed using standard cost, which approximates actual cost on a first-in, first-out

basis. Ciena records a provision for excess and obsolete inventory when an impairment has been identified.

### Equipment, Furniture and Fixtures

Equipment, furniture and fixtures are recorded at cost. Depreciation and amortization are computed using the straight-line method over useful lives of two years to five years for equipment, furniture and fixtures and the shorter of useful life or lease term for leasehold improvements. Impairments of equipment, furniture and fixtures are determined in accordance with Statement of Financial Accounting Standards (SFAS) No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets."

Internal use software and web site development costs are capitalized in accordance with Statement of Position (SOP) No. 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use," and Emerging Issues Task Force (EITF) Issue No. 00-2, "Accounting for Web Site Development Costs." Qualifying costs incurred during the application development stage, which consist primarily of outside services and purchased software license costs, are capitalized and amortized straight-line over the estimated useful life of the asset.

### Goodwill and Other Intangible Assets

Ciena has recorded goodwill and purchased intangible assets as a result of several acquisitions. Ciena accounts for goodwill in accordance with SFAS 142, "Goodwill and Other Intangible Assets," which requires Ciena to test each reporting unit's goodwill for impairment on an annual basis, which Ciena has determined to be the last business day of its fiscal September each year. Testing is required between annual tests if events occur or circumstances change that would, more likely than not, reduce the fair value of the reporting unit below its carrying value. Ciena operates its business and tests its goodwill for impairment as a single reporting unit. See Note 4 below.

Purchased finite-lived intangible assets are carried at cost less accumulated amortization. Amortization is computed using the straight-line method over the economic lives of the respective assets, generally three to seven years, which approximates the use of intangible assets. Impairments of finite-lived intangible assets are determined in accordance SFAS 144.

### Minority Equity Investments

Ciena has certain minority equity investments in privately held technology companies that are classified as other assets. These investments are carried at cost because Ciena owns less than 20% of the voting equity and does not have the ability to exercise significant influence over these companies. These are inherently high risk investments as the markets for technologies or products manufactured by these companies are usually early stage at the time of investment and such markets may never be significant. Ciena could lose its entire investment in some or all of these companies. Ciena monitors these investments for impairment and makes appropriate reductions in carrying values when necessary.

### Concentrations

Substantially all of Ciena's cash and cash equivalents and short-term and long-term investments in marketable debt securities are maintained at three major U.S. financial institutions. The majority of Ciena's cash equivalents consist of money market funds. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and, therefore, management believes that they bear minimal risk.

Historically, a large percentage of Ciena's revenue has been the result of sales to a small number of communications service providers. Consolidation among Ciena's customers has increased this concentration. Consequently, Ciena's accounts receivable are concentrated among these customers. See Notes 6 and 19 below.

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

### Revenue Recognition

Ciena recognizes revenue in accordance with Staff Accounting Bulletin (SAB) No. 104, "Revenue Recognition," which states that revenue is realized or realizable and earned when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the price to the buyer is fixed or

determinable; and collectibility is reasonably assured. Customer purchase agreements and customer purchase orders are generally used to determine the existence of an arrangement. Shipping documents and evidence of customer acceptance, when applicable, are used to verify delivery. Ciena assesses whether the price is fixed or determinable based on the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. Ciena assesses collectibility based primarily on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history. In instances where final acceptance of the product, system, or solution is specified by the customer, revenue is deferred until all acceptance criteria have been met. Revenue for maintenance services is generally deferred and recognized ratably over the period during which the services are to be performed.

Some of Ciena's communications networking equipment is integrated with software that is essential to the functionality of the equipment. Accordingly, Ciena accounts for revenue from such equipment in accordance with Statement of Position No. 97-2, "Software Revenue Recognition," (SOP 97-2) and all related interpretations. SOP 97-2 incorporates additional guidance unique to software arrangements incorporated with general revenue recognition criteria, such as, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectibility is probable. In instances where final acceptance of the product is specified by the customer, revenue is deferred until all acceptance criteria have been met.

Arrangements with customers may include multiple deliverables, including any combination of equipment, services and software. If multiple element arrangements include software or software-related elements that are essential to the equipment, Ciena applies the provisions of SOP 97-2 to determine the amount of the arrangement fee to be allocated to those separate units of accounting. Multiple element arrangements that include software are separated into more than one unit of accounting if the functionality of the delivered element(s) is not dependent on the undelivered element(s), there is vendor-specific objective evidence of the fair value of the undelivered element(s), and general revenue recognition criteria related to the delivered element(s) have been met. The amount of product and services revenue recognized is affected by Ciena's judgments as to whether an arrangement includes multiple elements and, if so, whether vendor-specific objective evidence of fair value

exists. Changes to the elements in an arrangement and Ciena's ability to establish vendor-specific objective evidence for those elements could affect the timing of revenue recognition. For all other deliverables, Ciena applies the provisions of Emerging Issues Task Force (EITF) No. 00-21, "Revenue Arrangements with Multiple Deliverables." EITF 00-21 allows for separation of elements into more than one unit of accounting if the delivered element(s) have value to the customer on a stand-alone basis, objective and reliable evidence of fair value exists for the undelivered element(s), and delivery of the undelivered element(s) is probable and substantially in Ciena's control. Revenue is allocated to each unit of accounting based on the relative fair value of each accounting unit or using the residual method if objective evidence of fair value does not exist for the delivered element(s). The revenue recognition criteria described above are applied to each separate unit of accounting. If these criteria are not met, revenue is deferred until the criteria are met or the last element has been delivered.

#### Warranty Accruals

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

#### Accounts Receivable, Net

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

### Research and Development

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

### Advertising Costs

Ciena expenses all advertising costs as incurred.

### Legal Costs

Ciena expenses legal costs associated with litigation defense as incurred.

### Share-Based Compensation Expense

Ciena accounts for share-based compensation expense in accordance with SFAS 123(R), as interpreted by SAB 107. SFAS 123(R) requires the measurement and recognition of compensation expense for share-based awards based on estimated fair values on the date of grant. Ciena estimates the fair value of each option-based award on the date of grant using the Black-Scholes option-pricing model. This model is affected by Ciena's stock price as well as estimates regarding a number of variables including expected stock price volatility over the expected term of the award and projected employee stock option exercise behaviors. Ciena estimates the fair value of each share-based award based on the fair value of the underlying common stock on the date of grant. In each case, Ciena only recognizes expense to its consolidated statement of operations for those options or shares that are expected ultimately to vest. Ciena uses two attribution methods to record expense, the straight-line method for grants with only service-based vesting or the graded-vesting method, which considers each performance period or tranche separately, for all other awards. See Note 16 below.

### Income Taxes

Ciena accounts for income taxes in accordance with SFAS 109, "Accounting for Income Taxes." SFAS 109 describes an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences attributable to differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases, and for operating loss and tax credit carry forwards. In estimating future tax consequences, SFAS 109 generally considers all expected future events other than the enactment of changes in tax laws or rates. Valuation allowances are provided, if,

based upon the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

Ciena adopted the provisions of FASB Interpretation (FIN) No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of Statement of Financial Accounting Standards No. 109, Accounting for Income Taxes," at the beginning of fiscal 2008. The adoption of FIN 48 resulted in Ciena's recognition of a cumulative effect adjustment that was accounted for as an increase of \$0.1 million to retained earnings, a decrease of \$0.1 million to income taxes payable and the reclassification of \$6.0 million from current income taxes payable to other long-term liabilities as of November 1, 2007. The total amount of unrecognized tax benefits as of the beginning of fiscal 2008 was \$6.0 million, which includes \$1.0 million of interest and some minor penalties. All of the uncertain tax positions, if recognized, would decrease the effective income tax rate.

Ciena historically classified interest and penalties related to uncertain tax positions as a component of income tax expense. With the adoption of FIN 48, Ciena is maintaining its historical method of accruing interest and penalties associated with uncertain tax positions as a component of tax expense.

In the ordinary course of business, transactions occur for which the ultimate outcome may be uncertain. In addition, tax authorities periodically audit Ciena's income tax returns. These audits examine significant tax filing positions, including the timing and amounts of deductions and the allocation of income tax expenses among tax jurisdictions. Ciena's major tax jurisdictions include the United States, United Kingdom, Canada and India, with open tax years beginning with fiscal year 2005, 2003, 2004 and 2006, respectively. However, limited adjustments can be made to Federal tax returns in earlier years in order to reduce net operating loss carryforwards.

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

Ciena recognizes windfall tax benefits associated with the exercise of stock options or release of restricted stock units directly to stockholders' equity only when realized. A windfall tax benefit occurs when the actual tax benefit realized by Ciena upon an employee's disposition of a share-



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

### Loss Contingencies

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

### Fair Value of Financial Instruments

The carrying value of Ciena's cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities, approximates fair market value due to the relatively short period of time to maturity. The fair value of investments in marketable debt securities is determined using quoted market prices for those securities or similar financial instruments. For convertible notes, see Note 12 below.

### Foreign Currency

Some of Ciena's foreign branch offices and subsidiaries use the U.S. dollar as their functional currency, because Ciena, as the U.S. parent entity, exclusively funds the operations of these branch offices and subsidiaries with U.S. dollars. For those subsidiaries using the local currency as their functional currency, assets and liabilities are translated at exchange rates in effect at the balance sheet date, and the statement of operations is

translated at a monthly average rate. Resulting translation adjustments are recorded directly to a separate component of stockholders' equity. Where the U.S. dollar is the functional currency of foreign branch offices or subsidiaries, re-measurement adjustments are recorded in other income. The net gain (loss) on foreign currency re-measurement and exchange rate changes is immaterial for separate financial statement presentation.

### Computation of Basic Net Income per Common Share and Diluted Net Income per Dilutive Potential Common Share

Ciena calculates earnings per share (EPS) in accordance with the SFAS 128, "Earnings per Share." This statement requires dual presentation of basic and diluted EPS on the face of the income statement for entities with a complex capital structure and requires a reconciliation of the numerator and denominator used for the basic and diluted EPS computations.

### Software Development Costs

SFAS 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed," requires the capitalization of certain software development costs incurred subsequent to the date technological feasibility is established and prior to the date the product is generally available for sale. The capitalized cost is then amortized straight-line over the estimated product life. Ciena defines technological feasibility as being attained at the time a working model is completed. To date, the period between achieving technological feasibility and the general availability of such software has been short, and software development costs qualifying for capitalization have been insignificant. Accordingly, Ciena has not capitalized any software development costs.

### Segment Reporting

SFAS 131, "Disclosures about Segments of an Enterprise and Related Information," establishes annual and interim reporting standards for operating segments and requires certain disclosures about the products and services an entity provides, the material countries in which it holds assets and reports revenue, and its major customers. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. Ciena's chief operating decision maker is its chief executive officer, who reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. Ciena has one business activity, and

there are no segment managers who are held accountable for operations, operating results and plans for levels or components below the consolidated unit level. Accordingly, Ciena considers its business to be in a single reportable segment.

### Newly Issued Accounting Standards

In September 2006, the FASB issued SFAS 157, "Fair Value Measurements." SFAS 157 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS 157 is effective for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. Ciena does not believe the adoption of this statement will have a material effect on its financial condition, results of operations and cash flows.

In February 2008, the FASB issued FASB Staff Position 157-1, "Application of FASB Statement No. 157 to FASB Statement No. 13 and Other Accounting Pronouncements That Address Fair Value Measurements for Purposes of Lease Classification or Measurement under Statement 13." This staff position amends SFAS 157 to remove certain leasing transactions from its scope. Also in February 2008 the FASB issued FASB Staff Position 157-2, "Effective Date of FASB Statement No. 157." This staff position delays the effective date of SFAS 157 for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), until fiscal years beginning after November 15, 2008. Ciena is currently evaluating the impact the adoption of these staff positions could have on its financial condition, results of operations and cash flows.

In February 2007, the FASB issued SFAS 159, "The Fair Value Option for Financial Assets and Financial Liabilities — Including an Amendment of FASB Statement No. 115." SFAS 159 permits an entity to measure at fair value many financial instruments and certain other items not currently required to be measured at fair value. Entities that elect the fair value option will report unrealized gains and losses in earnings at each subsequent reporting date. SFAS 159 is effective for fiscal years beginning after November 15, 2007. Ciena does not plan to elect the fair value option permitted under SFAS 159.

In June 2007, the FASB ratified EITF 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future

Research and Development Activities." EITF 07-3 requires nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities to be deferred and capitalized. Such amounts should be recognized as an expense as the related goods are delivered or the related services are performed. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment should be charged to expense. EITF 07-3 is effective for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. Earlier application is not permitted. Ciena does not believe the adoption of this statement will have a material effect on its financial condition, results of operations and cash flows.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51." SFAS 160 requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. This statement is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. Earlier adoption is prohibited. Ciena is currently evaluating the impact the adoption of this statement could have on its financial condition, results of operations and cash flows.

In December 2007, the FASB issued SFAS 141(R), a revised version of SFAS 141, "Business Combinations." The revision is intended to simplify existing guidance and converge rulemaking under U.S. generally accepted accounting principles with international accounting rules. This statement applies prospectively to business combinations where the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. An entity may not apply this statement before that date. Ciena is currently evaluating the impact the adoption of this statement could have on its financial condition, results of operations and cash flows. Its effect will depend on the nature and significance of any acquisitions subject to this statement.

In March 2008, the FASB issued SFAS 161, "Disclosures about Derivative Instruments and Hedging Activities, an amendment of FASB Statement No. 133." SFAS 161 requires additional disclosures about the objectives of using derivative instruments, the method by which the derivative instruments and related hedged items are accounted for under SFAS 133 and its related interpretations, and the effect of derivative instruments and related hedged items on financial position, financial performance, and

cash flows. SFAS 161 also requires disclosure of the fair values of derivative instruments and their gains and losses in a tabular format. SFAS 161 is effective for financial statements issued for fiscal years and interim periods beginning after November 15, 2008, with early adoption encouraged. Ciena is currently evaluating the impact the adoption of this statement could have on its financial condition, results of operations and cash flows.

In May 2008, the FASB issued SFAS 162, "The Hierarchy of Generally Accepted Accounting Principles." SFAS 162 identifies the sources of accounting principles and the framework for selecting the accounting principles to be used. Any effect of applying the provisions of this statement will be reported as a change in accounting principle in accordance with SFAS No. 154, "Accounting Changes and Error Corrections." This Statement is effective 60 days following the SEC's approval of the Public Company Accounting Oversight Board amendments to AU Section 411, "The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles." Ciena does not expect the adoption of this statement to have a material effect on its financial condition, results of operations and cash flows.

In April 2008, the FASB issued FASB Staff Position No. FAS 142-3, "Determination of the Useful Life of Intangible Assets," which amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB Statement No. 142, "Goodwill and Other Intangible Assets." This pronouncement requires enhanced disclosures concerning a company's treatment of costs incurred to renew or extend the term of a recognized intangible asset. FSP 142-3 is effective for fiscal years beginning after December 15, 2008. Ciena is currently evaluating the impact the adoption of this statement could have on its financial condition, results of operations and cash flows.

In May 2008, the FASB issued Staff Position No. APB 14-1, "Accounting for Convertible Debt Instruments That May Be Settled in Cash Upon Conversion." APB 14-1 requires that the liability and equity components of convertible debt instruments that may be settled in cash upon conversion (including partial cash settlement) be separately accounted for in a manner that reflects an issuer's nonconvertible debt borrowing rate. The resulting debt discount is amortized over the period the convertible debt is expected to be outstanding as additional non-cash interest expense. APB 14-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within

those fiscal years. Retrospective application to all periods presented is required except for instruments that were not outstanding during any of the periods that will be presented in the annual financial statements for the period of adoption but were outstanding during an earlier period. Ciena's existing convertible notes payable do not provide for settlement in cash upon conversion and Ciena does not expect the adoption of this statement to have an effect on its financial condition, results of operations and cash flows.

## **(2) BUSINESS COMBINATIONS**

On March 3, 2008, Ciena acquired World Wide Packets, Inc. ("World Wide Packets" or "WWP") pursuant to the terms of an Agreement and Plan of Merger dated January 22, 2008 (the "Merger Agreement") by and among Ciena, World Wide Packets, Wolverine Acquisition Subsidiary, Inc., a wholly owned subsidiary of Ciena ("Merger Sub"), and Daniel Reiner, as stockholders' representative. Pursuant to the Merger Agreement, on March 3, 2008, Merger Sub was merged with and into World Wide Packets, with World Wide Packets continuing as the surviving corporation and a wholly owned subsidiary of Ciena. World Wide Packets is a supplier of communications networking equipment that enables the cost-effective delivery of a wide variety of carrier Ethernet-based services. Prior to the acquisition, World Wide Packets was a privately held company. Ciena's results of operations for fiscal 2008 in this report include the operations of World Wide Packets beginning on March 3, 2008, the effective date of the acquisition.

Upon the closing of the acquisition, all of the outstanding shares of World Wide Packets common stock and preferred stock were exchanged for approximately 2.5 million shares of Ciena common stock and approximately \$196.7 million in cash. Of this amount, \$20.0 million in cash and 340,000 shares of Ciena common stock were placed into escrow for a period of one year as security for the indemnification obligations of World Wide Packets' stockholders under the Merger Agreement. Upon the closing, Ciena also assumed all then outstanding World Wide Packets options and exchanged them for options to acquire approximately 0.9 million shares of Ciena common stock. Under the Merger Agreement, Ciena also agreed to indemnify certain officers and directors of World Wide Packets against third-party claims arising out of their employment relationship. Ciena has determined the fair value of this indemnification obligation to be insignificant.

The following table summarizes the purchase price for the acquisition (in thousands):

	<b>Amount</b>
Cash	\$196,668
Acquisition-related costs	14,183
Value of common stock issued	62,360
Fair value of vested options assumed	9,912
<b>Total purchase price</b>	<b>\$283,123</b>

The value of Ciena common stock issued in the acquisition was based on the average closing price of Ciena's common stock for the two trading days prior to, the date of, and the two trading days after the announcement of the acquisition. The fair value of the vested options assumed was determined using the Black-Scholes option-pricing model.

The acquisition has been accounted for under the purchase method of accounting, which requires the total purchase price to be allocated to the acquired assets and assumed liabilities based on their estimated fair values. The amount of the purchase price in excess of the amounts assigned to acquired tangible or intangible assets and assumed liabilities is recognized as goodwill. Amounts allocated to goodwill are not tax deductible. As set forth below, Ciena recorded acquired, finite-lived intangible assets related to developed technology, covenants not to compete, and customer relationships, outstanding purchase orders and contracts. The following table summarizes the allocation of the acquisition purchase price based on the estimated fair value of the acquired assets and assumed liabilities (in thousands):

	<b>Amount</b>
Cash	\$ 835
Accounts receivable	2,049
Inventory	12,872
Equipment, furniture and fixtures	2,691
Other tangible assets	2,003
Developed technology	42,400
Covenants not to compete	3,200
Customer relationships, outstanding purchase orders and contracts	19,100
Goodwill	223,658
Accounts payable, accrued liabilities and deferred revenue	(13,322)
Promissory notes and loans payable	(12,363)
<b>Total purchase price allocation</b>	<b>\$283,123</b>

Under purchase accounting rules, Ciena revalued the acquired finished goods inventory to fair value, which is defined as the estimated selling

price less the sum of (a) costs of disposal, and (b) a reasonable profit allowance for Ciena's selling effort. This revaluation resulted in an increase in inventory carrying value of approximately \$5.3 million for marketable inventory slightly offset by a decrease of \$0.7 million for unmarketable inventory.

Developed technology represents purchased technology which has reached technological feasibility and for which World Wide Packets had substantially completed development as of the date of acquisition. Fair value is determined using future discounted cash flows related to the projected income stream of the developed technology for a discrete projection period. Cash flows are discounted to their present value. Developed technology will be amortized on a straight line basis over its estimated useful life of 4 years to 6 years.

Covenants not to compete represent agreements entered into with key employees of World Wide Packets. Covenants not to compete will be amortized on a straight line basis over estimated useful lives of 3.5 years.

Customer relationships, outstanding purchase orders and contracts represent agreements with existing World Wide Packets' customers and have estimated useful lives of 4 months to 6 years.

The following unaudited pro forma financial information summarizes the results of operations for the periods indicated as if Ciena's acquisition of World Wide Packets had been completed as of the beginning of each of the periods presented. These pro forma amounts (in thousands, except per share data) do not purport to be indicative of the results that would have actually been obtained if the acquisition occurred as of the beginning of the periods presented or that may be obtained in the future.

	<b>Years Ended October 31,</b>	
	<b>2007</b>	<b>2008</b>
Pro forma revenue	\$802,323	\$909,098
Pro forma net income	\$ 39,721	\$ 22,179
Pro forma basic net income per common share	\$ 0.45	\$ 0.25
Pro forma diluted net income per potential common share	\$ 0.43	\$ 0.24

### **(3) RESTRUCTURING COSTS**

During the fourth quarter of fiscal 2008, management committed to and implemented a restructuring plan to reduce operating expense and improve overall operational efficiencies. All actions of this plan were completed during the fourth quarter of fiscal 2008. Ciena has previously taken actions to align its workforce, facilities and operating costs with perceived

market opportunities and business conditions. Ciena implemented these restructuring plans and incurred the associated liability concurrently in accordance with the provisions of SFAS 146, "Accounting for Costs Associated with Exit or Disposal Activities."

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

	Workforce reduction	Consolidation of excess facilities	Total
Balance at October 31, 2005	\$ 270	\$ 69,507	\$ 69,777
Additional liability recorded	4,652 <sup>(a)</sup>	1,782 <sup>(a)</sup>	6,434
Adjustment to previous estimates	—	9,237 <sup>(a)</sup>	9,237
Lease settlements	—	(11,648) <sup>(a)</sup>	(11,648)
Cash payments	(4,922)	(33,244)	(38,166)
Balance at October 31, 2006	—	35,634	35,634
Additional liability recorded	72 <sup>(b)</sup>	1 <sup>(b)</sup>	73
Adjustment to previous estimates	—	(2,508) <sup>(b)</sup>	(2,508)
Lease settlements	—	(4,871) <sup>(b)</sup>	(4,871)
Cash payments	(72)	(23,568)	(23,640)
Balance at October 31, 2007	—	4,688	4,688
Additional liability recorded	1,057 <sup>(c)</sup>	53 <sup>(c)</sup>	1,110
Cash payments	(75)	(1,498)	(1,573)
Balance at October 31, 2008	\$ 982	\$ 3,243	\$ 4,225
Current restructuring liabilities	\$ 982	\$ 686	\$ 1,668
Non-current restructuring liabilities	\$ —	\$ 2,557	\$ 2,557

(a) During the first quarter of fiscal 2006, Ciena recorded a charge of \$0.7 million related to the closure of one of its facilities located in Kanata, Canada and a charge of \$1.5 million related to a workforce reduction of 62 employees. During the first quarter of fiscal 2006, Ciena recorded a credit adjustment of \$0.2 million related to costs associated with previously restructured facilities. During the first quarter of fiscal 2006, Ciena recorded a gain of \$6.0 million related to the buy-out of the lease of its former Fremont, CA facility, which Ciena had previously restructured.

During the second quarter of fiscal 2006, Ciena recorded a charge of \$0.7 million related to the closure of its Shrewsbury, NJ facility and a charge of \$2.5 million related to a workforce reduction of 86 employees. During the second quarter of fiscal 2006, Ciena recorded a credit adjustment of \$0.2 million related to costs associated with previously restructured facilities. During the second quarter of fiscal 2006, Ciena recorded a gain of \$5.6 million related to the buy-out of the lease of its former Cupertino, CA facility, which Ciena had previously restructured.

During the third quarter of fiscal 2006, Ciena recorded a charge of \$0.5 million related to a workforce reduction of 7 employees and additional employee costs related to the closure of its Shrewsbury, NJ facility in the second quarter of fiscal 2006. During the third quarter of fiscal 2006, primarily due to changes in market conditions, Ciena recorded an adjustment of \$10.1 million related to costs associated with previously restructured facilities, \$10.0 million of which was related to its former facilities located in San Jose, CA. Ciena also recorded a charge of \$0.4 million related to the closure of its facility located in Beijing, China during the third quarter of fiscal 2006.

During the fourth quarter of fiscal 2006, Ciena recorded a charge of \$0.1 million related to other costs associated with a previous workforce reduction and a credit of \$0.5 million related to the settlement of a previously recorded facility liability.

(b) During the first quarter of fiscal 2007, Ciena recorded a charge of \$0.1 million related to other costs associated with a previous workforce reduction and an adjustment of \$0.5 million related to costs associated with previously restructured facilities.

During the second quarter of fiscal 2007, Ciena recorded an adjustment of \$0.8 million related to its return to use of a facility that had been previously restructured.

During the third quarter of fiscal 2007, Ciena recorded an adjustment of \$1.2 million primarily related to its return to use of a facility that had been previously restructured.

During the fourth quarter of fiscal 2007, Ciena recorded a gain on lease settlement of \$4.9 million related to the termination of lease obligations for our former San Jose, CA facilities. Ciena paid \$53.0 million in connection with the settlement of this lease obligation. This transaction eliminated Ciena's remaining unfavorable lease commitment balance of \$34.9 million and reduced Ciena's restructuring liabilities by \$23.5 million, offset by approximately \$0.5 million of other expenses.

(c) During the fourth quarter of fiscal 2008, Ciena recorded a charge of \$1.0 million related to a workforce reduction of 56 employees and a charge of approximately \$0.1 million related to the closure of a facility located in San Antonio, Texas.

## (4) GOODWILL AND LONG-LIVED ASSET ASSESSMENT

### Goodwill

Ciena tests its single reporting unit's goodwill for impairment on an annual basis, which Ciena has determined to be the last business day of fiscal September each year. Testing is required between annual tests if events occur or circumstances change that would, more likely than not, reduce the fair value of the reporting unit below its carrying value. The fair value of Ciena's goodwill was tested for impairment on a single reporting unit. The table below sets forth changes in carrying amount of goodwill during the fiscal years indicated (in thousands):

	Total
Balance as of October 31, 2005	\$232,015
Goodwill acquired	—
Impairment losses	—
Balance as of October 31, 2006	232,015
Goodwill acquired	—
Impairment losses	—
Balance as of October 31, 2007	232,015
Goodwill acquired	223,658
Impairment losses	—
Balance as of October 31, 2008	\$455,673

Ciena performed assessments of the fair value of its single reporting unit as of September 23, 2006, September 29, 2007, and September 27, 2008. Ciena compared its fair value on each assessment date to its carrying value, including goodwill, and determined that the carrying value, including goodwill, did not exceed fair value. Because the carrying amount was less than its fair value, no impairment loss was recorded.

Ciena determines the fair value of its single reporting unit to be equal to its market capitalization plus a control premium. Market capitalization is determined by multiplying the shares outstanding on the assessment date by the average market price of Ciena's common stock over a 10-day period before and a 10-day period after each assessment date. Ciena uses this 20-day duration to consider inherent market fluctuations that may affect any individual closing price. Ciena believes that its market capitalization alone does not fully capture the fair value of its business as a whole, or the substantial value that an acquirer would obtain from its ability to obtain control of Ciena's business. As such, in determining fair value, Ciena added a control premium—which seeks to give effect to the increased consideration a potential acquirer would be required to pay in order to gain sufficient ownership to set policies, direct operations and make decisions related to Ciena—to its market capitalization. In determining an appropriate control premium, Ciena looked to recent transaction data in its industry. For fiscal 2006, 2007 and 2008, Ciena used a 25% control premium in its goodwill assessment.

For fiscal 2006, Ciena's market capitalization, calculated as described above, was \$2.4 billion and its carrying value, including goodwill, was \$733 million. For fiscal 2007, Ciena's market capitalization, calculated as described above, was \$3.6 billion and its carrying value, including goodwill, was \$865 million. Because Ciena's market capitalization significantly exceeded its carrying value in each of these years, the control premium was not a determining factor in the outcome of step one of the impairment assessment. For fiscal 2008, Ciena's market capitalization had fallen to \$886 million and its carrying value, including goodwill, had increased to \$995 million. Ciena applied a 25% control premium to market capitalization to determine a fair value of \$1.1 billion.

Ciena's stock price and control premium are significant factors in assessing its fair value for purposes of the goodwill impairment assessment. Ciena's stock price can be affected by, among other things, changes in industry or market conditions, changes in its results of operations, and changes in its forecasts or market expectations relating to future results. Significant turmoil in the financial markets and weakness in

macroeconomic conditions globally have recently contributed to volatility in Ciena's stock price and a significant decline in its stock price during the fourth quarter of fiscal 2008. Ciena's stock price has fluctuated from a high of \$20.10 to a low of \$6.60 during the fourth quarter of fiscal 2008. The current macroeconomic environment, however, continues to be challenging and Ciena cannot be certain of the duration of these conditions and their potential impact on its stock price performance. If Ciena's recent stock price decline persists and its market capitalization remains below its carrying value for a sustained period, it is reasonably likely that a goodwill impairment assessment prior to the next annual review in the fourth quarter of fiscal 2009 would be necessary and an impairment of goodwill may be recorded.

### Long-Lived Assets

Our long-lived assets, excluding goodwill, include: equipment, furniture and fixtures; finite-lived intangible assets; and maintenance spares. Ciena tests long-lived assets for impairment whenever events or changes in circumstances indicate that the assets' carrying amount is not recoverable from its undiscounted cash flows. Ciena's long-lived assets are part of a single reporting unit which represents the lowest level for which it can identify cash flows.

During the fourth quarter of fiscal 2008, Ciena experienced order delays, lengthening sales cycles and slowing deployments. Ciena believes that these conditions are the result of uncertain macroeconomic conditions, further exacerbated by significant disruptions in the financial and credit markets globally. As a result, Ciena performed an impairment analysis of its long-lived assets during the fourth quarter of fiscal 2008. Based on Ciena's estimate of future, undiscounted cash flows as of October 31, 2008, no impairment was recorded in fiscal 2008.

During fiscal 2006 and fiscal 2007 there were no events or changes in circumstances that indicated the assets' carrying amount were not recoverable from its undiscounted cash flows. Consequently, Ciena did not perform an impairment test or record an impairment of its long-lived assets during these periods.

## (5) MARKETABLE DEBT SECURITIES

As of the dates indicated, short-term and long-term investments in marketable debt securities are comprised of the following (in thousands):

October 31, 2008				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate bonds	\$116,531	\$ 81	\$2,260	\$114,352
Asset backed obligations	10,188	—	7	10,181
Commercial paper	49,871	7	8	49,870
US government obligations	334,195	949	40	335,104
Certificate of deposit	13,000	—	—	13,000
	\$523,785	\$1,037	\$2,315	\$522,507
Included in short-term investments	366,054	812	530	366,336
Included in long-term investments	157,731	225	1,785	156,171
	\$523,785	\$1,037	\$2,315	\$522,507

October 31, 2007				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate bonds	\$258,904	\$252	\$42	\$259,114
Asset backed obligations	121,274	136	44	121,366
Commercial paper	198,407	—	—	198,407
US government obligations	31,186	55	—	31,241
Certificate of deposit	246,003	—	—	246,003
	\$855,774	\$443	\$86	\$856,131
Included in short-term investments	821,828	443	86	822,185
Included in long-term investments	33,946	—	—	33,946
	\$855,774	\$443	\$86	\$856,131

Estimated fair value of commercial paper at October 31, 2007 includes investments in SIV Portfolio plc (formerly known as Cheyne Finance plc) and Rhinebridge LLC, two structured investment vehicles (SIVs) that entered into receivership during the fourth quarter of fiscal 2007 and failed to make payment at maturity. Due to their mortgage-related assets, each of these entities was exposed to adverse market conditions that affected its collateral and its ability to access short-term funding. Ciena purchased these investments in the third quarter of fiscal 2007 and, at the time of purchase, each investment had a rating of A1+ by Standard and Poor's and P-1 by Moody's, their highest ratings respectively. In estimating fair value, Ciena used a valuation approach based on a liquidation of assets held by

each SIV and their subsequent distribution of cash. Ciena utilized assessments of the underlying collateral from multiple indicators of value which were then discounted to reflect the expected timing of disposition and market risks. Based on this assessment of fair value, as of October 31, 2007, Ciena recognized realized losses of \$13.0 million related to these investments. Giving effect to these losses, our investment portfolio at October 31, 2007 included an estimated fair value of \$33.9 million in commercial paper issued by these entities. During fiscal 2008, Ciena recognized additional losses of \$5.1 million related to these investments, received payments of \$28.8 million in connection with the restructuring of these SIVs, and, as of the end of the fiscal year, no longer hold these investments.

Gross unrealized losses related to marketable debt investments, included in short-term and long-term investments, were primarily due to changes in interest rates. Ciena's management has determined that the gross unrealized losses at October 31, 2007 and October 31, 2008 are temporary in nature because Ciena has the ability and intent to hold these investments until a recovery of fair value, which may be maturity. As of the dates indicated, gross unrealized losses were as follows (in thousands):

	October 31, 2008					
	Unrealized Losses Less Than 12 Months		Unrealized Losses 12 Months or Greater		Total	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
Corporate bonds	\$2,260	\$ 88,176	\$—	\$—	\$2,260	\$ 88,176
Asset backed obligations	7	10,181	—	—	7	10,181
Commercial Paper	8	29,709	—	—	8	29,709
US government obligations	40	23,438	—	—	40	23,438
	\$2,315	\$151,504	\$—	\$—	\$2,315	\$151,504

	October 31, 2007					
	Unrealized Losses Less Than 12 Months		Unrealized Losses 12 Months or Greater		Total	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
Corporate bonds	\$41	\$50,152	\$ 1	\$ 2,999	\$42	\$53,151
Asset backed obligations	7	6,140	37	22,923	44	29,063
	\$48	\$56,292	\$38	\$25,922	\$86	\$82,214

The following table summarizes legal maturities of debt investments at October 31, 2008 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	\$361,668	\$361,934
Due in 1–2 years	162,117	160,573
Due in 2–5 years	—	—
	\$523,785	\$522,507

## (6) ACCOUNTS RECEIVABLE

As of October 31, 2008, three customers accounted for 59.0% of net trade accounts receivable. As of October 31, 2007, one customer accounted for 40.1% of net trade accounts receivable. Ciena's allowance for doubtful accounts as of each of October 31, 2008 and October 31, 2007 was \$0.1 million.

During fiscal 2006, Ciena recorded a recovery of doubtful accounts in the amount of \$3.0 million as a result of the receipt of amounts due from customers from whom payment was previously deemed doubtful due to their financial condition. In addition, during fiscal 2006, \$0.1 million of uncollectible accounts was written off against the allowance.

The following table summarizes the activity in Ciena's allowance for doubtful accounts for the fiscal years indicated (in thousands):

Year ended October 31,	Balance at beginning of period	Net Provisions (Recovery)	Deductions	Balance at end of period
2006	\$3,291	\$(3,031)	\$114	\$146
2007	\$ 146	\$ (14)	\$ —	\$132
2008	\$ 132	\$ 157	\$165	\$124



## (7) INVENTORIES

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

	October 31,	
	2007	2008
Raw materials	\$ 28,611	\$ 19,044
Work-in-process	4,123	1,702
Finished goods	96,054	95,963
	128,788	116,709
Provision for excess and obsolescence	(26,170)	(23,257)
	\$102,618	\$ 93,452

Ciena writes down its inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based on assumptions about future demand and market conditions. During fiscal 2006, fiscal 2007 and fiscal 2008, Ciena recorded provisions for inventory reserves of \$9.0 million, \$12.2 million and \$18.3 million, respectively, primarily related to changes in forecasted sales for certain products. Deductions from the reserve for excess and obsolete inventory generally relate to disposal activities.

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

Year ended October 31,	Balance at beginning of period	Provisions	Disposals	Balance at end of period
2006	\$22,595	\$ 9,012	\$ 9,281	\$22,326
2007	\$22,326	\$12,180	\$ 8,336	\$26,170
2008	\$26,170	\$18,325	\$21,238	\$23,257

## (10) OTHER INTANGIBLE ASSETS

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

	October 31,					
	2007			2008		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Developed technology	\$145,073	\$(104,822)	\$40,251	\$185,833	\$(128,255)	\$57,578
Patents and licenses	47,370	(31,708)	15,662	47,370	(37,952)	9,418
Customer relationships, covenants not to compete, outstanding purchase orders and contracts	45,981	(34,750)	11,231	68,281	(43,028)	25,253
	\$238,424		\$67,144	\$301,484		\$92,249

## (8) PREPAID EXPENSES AND OTHER

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

	October 31,	
	2007	2008
Interest receivable	\$ 4,981	\$ 2,082
Prepaid VAT and other taxes	18,092	15,160
Deferred deployment expense	6,237	4,481
Prepaid expenses	10,724	10,557
Restricted cash	3,994	1,717
Other non-trade receivables	3,789	1,891
	\$47,817	\$35,888

## (9) EQUIPMENT, FURNITURE AND FIXTURES

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

	October 31,	
	2007	2008
Equipment, furniture and fixtures	\$ 269,534	\$ 286,940
Leasehold improvements	37,249	40,574
	306,783	327,514
Accumulated depreciation and amortization	(260,112)	(267,547)
	\$ 46,671	\$ 59,967

The aggregate amortization expense of other intangible assets was \$29.1 million, \$29.2 million and \$38.0 million for fiscal 2006, fiscal 2007 and fiscal 2008, respectively. During fiscal 2008, developed technology increased by \$42.4 million and customer relationships, covenants not to compete, outstanding purchase order and contracts increased by \$22.3 million due to Ciena's acquisition of World Wide Packets. See Note 2 above. Developed technology as of October 31, 2008 reflects a \$1.6 million decrease due to the release of valuation allowance of deferred tax assets from prior acquisitions. Expected future amortization of other intangible assets for the fiscal years indicated is as follows (in thousands):

Year ended October 31,	
2009	\$31,228
2010	28,073
2011	13,852
2012	9,473
Thereafter	9,623
	<u>\$92,249</u>

## (11) OTHER BALANCE SHEET DETAILS

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

	October 31,	
	2007	2008
Maintenance spares inventory, net	\$20,816	\$30,038
Deferred debt issuance costs	18,059	15,127
Investments in privately held companies	6,671	6,671
Restricted cash	19,499	20,436
Other	2,693	3,476
	<u>\$67,738</u>	<u>\$75,748</u>

Debt issuance costs are amortized using the straight line method which approximates the effect of the effective interest rate method on the maturity of the related debt. Amortization of debt issuance cost, which is included in interest expense, was \$3.1 million, \$4.0 million and \$2.9 million for fiscal 2006, fiscal 2007 and fiscal 2008, respectively.

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

	October 31,	
	2007	2008
Warranty	\$33,580	\$37,258
Accrued compensation, payroll related tax and benefits	32,053	35,200
Accrued interest payable	6,998	1,683
Other	18,291	22,002
	<u>\$90,922</u>	<u>\$96,143</u>

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

Year ended October 31,	Balance at beginning of period	Provisions	Settlements	Balance at end of period
2006	\$27,044	\$14,522	\$ 9,815	\$31,751
2007	\$31,751	\$12,743	\$10,914	\$33,580
2008	\$33,580	\$15,336	\$11,658	\$37,258

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

	October 31,	
	2007	2008
Products	\$13,208	\$ 13,061
Services	50,432	61,366
	63,640	74,427
Less current portion	(33,025)	(36,767)
Long-term deferred revenue	<u>\$30,615</u>	<u>\$ 37,660</u>

## (12) CONVERTIBLE NOTES PAYABLE

### Ciena 3.75% Convertible Notes, due February 1, 2008

During fiscal 2008, Ciena paid at maturity the remaining \$542.3 million in aggregate principal amount on its 3.75% convertible notes. All of the notes were retired without conversion into common stock.

### 0.25% Convertible Senior Notes due May 1, 2013

On April 10, 2006, Ciena completed a public offering of 0.25% Convertible Senior Notes due May 1, 2013, in aggregate principal amount of \$300.0 million. Interest is payable on May 1 and November 1 of each year. The notes are senior unsecured obligations of Ciena and rank equally with all of Ciena's other existing and future senior unsecured debt.

During the fourth quarter of fiscal 2008, Ciena repurchased \$2.0 million in principal amount of its outstanding 0.25 % convertible senior notes in an open market transaction. We used \$1.0 million of cash to effect these repurchases during the quarter, which resulted in a gain of approximately \$0.9 million relating to this repurchase.

At the election of the holder, notes may be converted prior to maturity into shares of Ciena common stock at the initial conversion rate of 25.3001 shares per \$1,000 in principal amount, which is equivalent to an initial conversion price of \$39.5255 per share. The notes may not be redeemed by Ciena prior to May 5, 2009. At any time on or after May 5, 2009, if the closing sale price of Ciena's common stock for at least 20 trading days in any 30 consecutive trading day period ending on the date one day prior to the date of the notice of redemption exceeds 130% of the conversion price, Ciena may redeem the notes in whole or in part, at a redemption price in cash equal to the principal amount to be redeemed, plus accrued and unpaid interest.

If Ciena undergoes a "fundamental change" (as that term is defined in the indenture governing the notes to include certain change in control transactions), holders of notes will have the right, subject to certain exemptions, to require Ciena to purchase for cash any or all of their notes at a price equal to the principal amount, plus accrued and unpaid interest. If the holder elects to convert his or her notes in connection with a specified fundamental change, in certain circumstances, Ciena will be required to increase the applicable conversion rate, depending on the price paid per share for Ciena common stock and the effective date of the fundamental change transaction.

Ciena used approximately \$28.5 million of the net proceeds of this offering to purchase a call spread option on its common stock that is intended

to limit exposure to potential dilution from the conversion of the notes. See Note 14 below for a description of this call spread option.

At October 31, 2007 and 2008, the fair value of the outstanding \$300.0 million and \$298.0 million in aggregate principal amount of 0.25% convertible senior notes outstanding was \$387.5 million and \$154.4 million, respectively. Fair value is based on the quoted market price for the notes on the dates above.

### 0.875% Convertible Senior Notes due June 15, 2017

On June 11, 2007, Ciena completed a public offering of 0.875% Convertible Senior Notes due June 15, 2017, in aggregate principal amount of \$500.0 million. Interest is payable on June 15 and December 15 of each year, beginning on December 15, 2007. The notes are senior unsecured obligations of Ciena and rank equally with all of Ciena's other existing and future senior unsecured debt.

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

If Ciena undergoes a "fundamental change" (as that term is defined in the indenture governing the notes to include certain change in control transactions), holders of notes will have the right, subject to certain exemptions, to require Ciena to purchase for cash any or all of their notes at a price equal to the principal amount, plus accrued and unpaid interest. If the holder elects to convert his or her notes in connection with a specified fundamental change, in certain circumstances, Ciena will be required to increase the applicable conversion rate, depending on the price paid per share for Ciena common stock and the effective date of the fundamental change transaction.

Ciena used approximately \$42.5 million of the net proceeds of this offering to purchase a call spread option on its common stock that is intended to limit exposure to potential dilution from conversion of the notes. See Note 14 below for a description of this call spread option.

At October 31, 2007 and 2008, the fair value of the outstanding \$500.0 million in aggregate principal amount of 0.875% convertible senior notes was \$675.9 million and \$172.3 million, respectively. Fair value is based on the quoted market price for the notes on the dates above.

### (13) EARNING PER SHARE CALCULATION

The following table (in thousands except per share amounts) is a reconciliation of the numerator and denominator of the basic net income per common share ("Basic EPS") and the diluted net income per dilutive potential common share ("Diluted EPS"). Basic EPS is computed using the weighted average number of common shares outstanding. Diluted EPS is computed using the weighted average number of (i) common shares outstanding, (ii) shares issuable upon vesting of restricted stock units, (iii) shares issuable upon exercise of outstanding stock options, employee stock purchase plan options and warrants using the treasury stock method; and (iv) shares underlying the 0.25% and 0.875% convertible senior notes. Diluted EPS for fiscal 2007 reflects only a portion of the shares underlying the 0.875% convertible notes because they were issued on June 11, 2007.

Numerator	Year Ended October 31,		
	2006	2007	2008
Net income	\$595	\$82,788	\$38,894
Add: Interest expense for 0.25% convertible senior notes	—	1,882	1,874
Add: Interest expense for 0.875% convertible senior notes	—	2,261	5,510
Net income used to calculate diluted EPS	\$595	\$86,931	\$46,278

Denominator	Year Ended October 31,		
	2006	2007	2008
Basic weighted average shares outstanding	83,840	85,525	89,146
Add: Shares underlying outstanding stock options, employees stock purchase plan options, warrants and restricted stock units	1,171	1,352	761
Add: Shares underlying 0.25% convertible senior notes	—	7,590	7,590
Add: Shares underlying 0.875% convertible senior notes	—	5,137	13,108
Dilutive weighted average shares outstanding	85,011	99,604	110,605

EPS	Year Ended October 31,		
	2006	2007	2008
Basic EPS	\$0.01	\$0.97	\$0.44
Diluted EPS	\$0.01	\$0.87	\$0.42

#### Explanation of Shares Excluded due to Anti-Dilutive Effect

For fiscal 2006, the weighted average number of certain shares underlying outstanding stock options, employee stock purchase plan options, restricted stock units and warrants in the table below are considered anti-dilutive because the exercise price of these awards is greater than the average closing price per share on the NASDAQ Stock Market during this period. In addition, the weighted average number of shares issuable upon conversion of Ciena's 0.25% convertible senior notes and 3.75% convertible notes are considered anti-dilutive because the related interest expense on a per common share "if converted" basis exceeds Basic EPS for the period.

For fiscal 2007 and fiscal 2008, the weighted average number of certain shares underlying outstanding stock options, employee stock purchase plan options, restricted stock units, and warrants, is considered anti-dilutive because the exercise price of these equity awards is greater than the average closing price per share on the NASDAQ Stock Market during these periods. In addition, the weighted average number of shares underlying Ciena's previously outstanding 3.75% convertible notes are considered anti-dilutive because the related interest expense on a per common share "if converted" basis exceeds Basic EPS for the periods.

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

Shares Excluded from EPS Denominator Due to Anti-dilutive Effect	Year Ended October 31,		
	2006	2007	2008
Shares underlying stock options, restricted stock units and warrants	4,178	3,041	5,311
0.25% Convertible senior notes	4,203	—	—
3.75% Convertible notes	756	742	182
Total excluded due to anti-dilutive effect	9,137	3,783	5,493

## (14) STOCKHOLDERS' EQUITY

### Call Spread Option

Ciena holds two call spread options on its common stock relating to the shares issuable upon conversion of its two issues of convertible notes. These call spread options are designed to mitigate exposure to potential dilution from the conversion of the notes. Ciena purchased a call spread option relating to the 0.25% Convertible Senior Notes due May 1, 2013 for \$28.5 million during the second quarter of fiscal 2006. Ciena purchased a call spread option relating to the 0.875% Convertible Senior Notes due June 15, 2017 for \$42.5 million during the third quarter of fiscal 2007. In each case, the call spread options were purchased at the time of the notes offering from an affiliate of the underwriter. The cost of each call spread option was recorded as a reduction in paid-in capital.

Each call spread option is exercisable, upon maturity of the relevant issue of convertible notes, for such number of shares of Ciena common stock issuable upon conversion of that series of notes in full. Each call spread option has a "lower strike price" equal to the conversion price for the notes and a "higher strike price" that serves to cap the amount of dilution protection provided. At its election, Ciena can exercise the call spread options on a net cash basis or a net share basis. The value of the consideration of a net share settlement will be equal to the value upon a net cash settlement and can range from \$0, if the market price per share of Ciena common stock upon exercise is equal to or below the lower strike price, to approximately \$45.7 million (in the case of the April 2006 call spread option) or approximately \$76.1 million (in the case of the June 2007 call

spread), if the market price per share of Ciena common stock upon exercise is at or above the higher strike price. If the market price on the date of exercise is between the lower strike price and the higher strike price, in lieu of a net settlement, Ciena may elect to receive the full number of shares underlying the call spread option by paying the aggregate option exercise price, which is equal to the original principal outstanding on that series of notes. Should there be an early unwind of the call spread option, the amount of cash or shares to be received by Ciena will depend upon the existing overall market conditions, and on Ciena's stock price, the volatility of Ciena's stock and the remaining term of the call spread option. The number of shares subject to the call spread options, and the lower and higher strike prices, are subject to customary adjustments.

## (15) INCOME TAXES

The provision for income taxes consists of the following (in thousands):

	October 31,		
	2006	2007	2008
Provision for income taxes:			
Current:			
Federal	\$ —	\$ —	\$ (712)
State	23	309	209
Foreign	1,358	2,635	1,508
Total current	1,381	2,944	1,005
Deferred:			
Federal	—	—	1,640
State	—	—	—
Foreign	—	—	—
Total deferred	—	—	1,640
Provision for income taxes	\$1,381	\$2,944	\$2,645

Income (loss) before provision for income taxes consists of the following (in thousands):

	October 31,		
	2006	2007	2008
United States	\$(2,549)	\$77,150	\$32,868
Foreign	4,525	8,582	8,671
Total	\$1,976	\$85,732	\$41,539

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

	October 31,		
	2006	2007	2008
Provision at statutory rate	35.00%	35.00%	35.00%
Federal AMT	0.00%	0.00%	0.89%
State taxes	1.14%	0.36%	0.50%
Foreign taxes	14.04%	0.11%	(3.67%)
Research and development credit	(55.94%)	(2.47%)	(2.60%)
Non-deductible compensation and other	16.15%	0.99%	10.31%
Valuation allowance	59.48%	(30.55%)	(34.06%)
Effective income tax rate	69.87%	3.44%	6.37%

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

	October 31,	
	2007	2008
Deferred tax assets:		
Reserves and accrued liabilities	\$ 22,815	\$ 27,795
Depreciation and amortization	156,918	130,617
NOL and credit carry forward	959,704	960,632
Other	40,686	45,340
Gross deferred tax assets	1,180,123	1,164,384
Valuation allowance	(1,180,123)	(1,164,384)
Net deferred tax asset	\$ —	\$ —

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

Unrecognized tax benefits at November 1, 2007	\$4,924
Increase (decrease) related to positions taken in prior period	(724)
Increase (decrease) related to positions taken in current period	734
Reductions related to expiration of statute of limitations	(498)
Unrecognized tax benefits at October 31, 2008	\$4,436

As of October 31, 2008, Ciena had accrued \$1.1 million of interest and some minor penalties related to unrecognized tax benefits within other long-term liabilities in the consolidated balance sheets, of which \$0.1 million interest was recorded to the provision for income taxes during fiscal 2008. If recognized, the entire balance of unrecognized tax benefits would impact the effective tax rate. Over the next 12 months, Ciena estimates no material changes in the unrecognized income tax benefits.

During fiscal 2002, Ciena established a valuation allowance against its deferred tax assets. Based on Ciena's recent historical results and forecast, prior to the fourth quarter of fiscal 2008, Ciena's management believed it was reasonably likely that there would be sufficient positive evidence to support the reversal of all or some portion of its valuation allowance at the end of fiscal 2008. Due to Ciena's most recent quarterly loss, the uncertain macroeconomic environment, and limited visibility into its future results, Ciena's management does not believe such sufficient positive evidence exists as of October 31, 2008 and determined to maintain a full valuation allowance. Ciena will release this valuation allowance when its management determines that it is more likely than not that its deferred tax assets will be realized. Any release of valuation allowance may be recorded as a tax benefit increasing net income, an adjustment to acquisition intangibles, or an adjustment to paid-in capital, based on tax ordering requirements. The following table summarizes the activity in Ciena's valuation allowance against its gross deferred tax assets (in thousands):

Year ended October 31,	Balance at beginning of period	Additions	Deductions	Balance at end of period
2006	\$1,173,266	\$16,256	\$ —	\$1,189,522
2007	\$1,189,522	\$ —	\$ 9,399	\$1,180,123
2008	\$1,180,123	\$ —	\$15,739	\$1,164,384

As of October 31, 2008, Ciena had a \$2.4 billion net operating loss carry forward and an \$83.7 million income tax credit carry forward which begin to expire in fiscal year 2018 and 2012, respectively. Ciena's ability to use net operating losses and credit carry forwards is subject to limitations pursuant to the ownership change rules of the Internal Revenue Code Section 382.

The income tax provision does not reflect the tax savings resulting from deductions associated with Ciena's equity compensation and convertible debt. The cumulative tax benefit through October 31, 2008 of approximately \$80.6 million will be credited to additional paid-in capital when realized. For deductions associated with Ciena's equity compensation, credits to paid-in capital will be recorded when those tax benefits are used to reduce taxes payable.

Approximately \$50.2 million of the valuation allowance as of October 31, 2008 was attributable to deferred tax assets associated with the acquisitions of ONI, WaveSmith, Akara, Catena, IPI and WWP.

## (16) SHARE-BASED COMPENSATION EXPENSE

Ciena has outstanding equity awards issued under its legacy equity plans and equity plans assumed as a result of previous acquisitions. In connection with its acquisition of World Wide Packets during the second quarter of fiscal 2008, Ciena also assumed the World Wide Packets, Inc. 2000 Stock Incentive Plan and exchanged these outstanding options at closing for options to acquire approximately 0.9 million shares of Ciena common stock. While Ciena maintains a number of legacy and acquired equity incentive plans, which have awards outstanding, upon stockholder approval of the 2008 Omnibus Incentive Plan, Ciena's Board of Directors committed to make future equity awards exclusively from that plan and the 2003 Employee Stock Purchase Plan, each as described below.

### Ciena Corporation 2008 Omnibus Incentive Plan

The 2008 Omnibus Incentive Plan (the "2008 Plan") was approved by Ciena's Board of Directors on December 12, 2007 and became effective upon the approval of Ciena's stockholders on March 26, 2008. The 2008 Plan has a ten-year term. The 2008 Plan reserves eight million shares of common stock for issuance, subject to increase from time to time by the number of shares: (i) subject to outstanding awards granted under Ciena's prior equity compensation plans that terminate without delivery of any stock (to the extent such shares would have been available for issuance under such prior plan), and (ii) subject to awards assumed or substituted in connection with the acquisition of another company.

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

exercise price may not be less than 100% of fair market value on the date of grant. Repricing of stock options and SARs is prohibited without stockholder approval. Each share subject to an award other than stock options or SARs will reduce the number of shares available for issuance under the 2008 Plan by 1.6 shares. Certain change in control transactions may cause awards granted under the 2008 Plan to vest, unless the awards are continued or substituted for in connection with the transaction. As of October 31, 2008, there were 7.8 million shares authorized and available for issuance under the 2008 Plan.

### Stock Options

Outstanding stock option awards to employees are generally subject to service-based vesting restrictions and vest incrementally over a four-year period. The following table is a summary of Ciena's stock option activity for the periods indicated (shares in thousands):

	Shares Underlying Options Outstanding	Weighted Average Exercise Price
Balance as of October 31, 2005	8,650	\$44.80
Granted	579	21.95
Exercised	(1,304)	16.71
Canceled	(815)	41.18
Balance as of October 31, 2006	7,110	48.52
Granted	695	32.47
Exercised	(1,507)	23.04
Canceled	(427)	41.52
Balance as of October 31, 2007	5,871	53.67
Granted	760	28.92
Granted in exchange for WWP options	934	7.50
Exercised	(658)	7.12
Canceled	(508)	52.79
Balance as of October 31, 2008	6,399	\$48.84

The total intrinsic value of options exercised during fiscal 2006, fiscal 2007 and fiscal 2008, was \$18.2 million, \$21.6 million and \$14.7 million, respectively. The weighted average fair values of each stock option granted by Ciena during fiscal 2006, fiscal 2007 and fiscal 2008 were \$13.19, \$18.68 and \$14.52, respectively.

The following table summarizes information with respect to stock options outstanding at October 31, 2008, based on Ciena's closing stock price of \$9.61 per share on the last trading day of Ciena's fiscal 2008 (shares and intrinsic value in thousands):

Range of Exercise Price	Options Outstanding at October 31, 2008				Vested Options at October 31, 2008			
	Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value	Number of Underlying Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
\$ 0.01–\$ 16.52	853	7.10	\$ 10.08	\$2,569	523	6.64	\$ 10.85	\$1,417
\$16.53–\$ 17.43	618	6.96	17.21	—	438	6.45	17.15	—
\$17.44–\$ 22.96	538	6.46	21.75	—	432	5.77	21.96	—
\$22.97–\$ 31.71	1,677	6.17	29.43	—	1,187	5.14	29.96	—
\$31.72–\$ 46.97	1,077	7.25	39.31	—	604	5.81	40.57	—
\$46.98–\$ 83.13	697	3.41	60.39	—	697	3.41	60.39	—
\$83.14–\$1,046.50	939	2.26	157.35	—	939	2.26	157.35	—
\$ 0.01–\$1,046.50	<u>6,399</u>	5.70	\$ 48.84	<u>\$2,569</u>	<u>4,820</u>	4.75	\$ 56.57	<u>\$1,417</u>

### Assumptions for Option-Based Awards

Ciena recognizes the fair value of service-based options as share-based compensation expense on a straight-line basis over the requisite service period. Ciena estimates the fair value of each option award on the date of grant using the Black-Scholes option-pricing model, with the following weighted average assumptions:

	Year Ended October 31,		
	2006	2007	2008
Expected volatility	61.5%	55.8%	53.0%
Risk-free interest rate	4.3%–5.1%	4.2%–5.1%	2.7%–3.6%
Expected term (years)	5.5–6.1	6.0–6.4	5.1–5.3
Expected dividend yield	0.0%	0.0%	0.0%

Consistent with SFAS 123(R) and SAB 107, Ciena considered the implied volatility and historical volatility of its stock price in determining its expected volatility, and, finding both to be equally reliable, determined that a combination of both would result in the best estimate of expected volatility.

The risk-free interest rate assumption is based upon observed interest rates appropriate for the expected term of Ciena's employee stock options.

The expected life of employee stock options represents the weighted-average period the stock options are expected to remain outstanding.

Because Ciena considered its options to be "plain vanilla," it calculated the expected term using the simplified method as prescribed in SAB 107 for fiscal 2006 and fiscal 2007. Under SAB 107, options are considered to be "plain vanilla" if they have the following basic characteristics: they are granted "at-the-money"; exercisability is conditioned upon service through the vesting date; termination of service prior to vesting results in forfeiture; there is a limited exercise period following termination of service; and the options are non-transferable and non-hedgeable. Beginning in fiscal 2008, as prescribed by SAB 107, Ciena gathered more detailed historical information about specific exercise behavior of its grantees, which it used to determine the expected term.

The dividend yield assumption is based on Ciena's history and expectation of dividend payouts.

Because share-based compensation expense is recognized only for those awards that are ultimately expected to vest, the amount of share-based compensation expense recognized reflects a reduction for estimated forfeitures. Ciena estimates forfeitures at the time of grant and revises those estimates in subsequent periods based upon new or changed information. Ciena relies upon historical experience in establishing forfeiture rates. If actual forfeitures differ from current estimates, total unrecognized share-based compensation expense will be adjusted for future changes in estimated forfeitures.



## Restricted Stock Units

A restricted stock unit is a stock award that entitles the holder to receive shares of Ciena common stock as the unit vests. Ciena's outstanding restricted stock unit awards are subject to service-based vesting conditions and/or performance-based vesting conditions. Awards subject to service-based conditions typically vest in increments over a three- to four-year period. Awards with performance-based vesting conditions require the achievement of certain operational, financial or other performance criteria or targets as a condition of vesting, or acceleration of vesting, of such awards.

Ciena's outstanding restricted stock units include "performance-accelerated" restricted stock units (PARS), which vest in full four years after the date of grant (assuming that the executive is still employed by Ciena at that time). At the beginning of each of the first three fiscal years following the date of grant, the Compensation Committee establishes one-year performance targets which, if satisfied, provide for the acceleration of vesting of one-third of the award. As a result, the recipient has the opportunity, subject to satisfaction of performance conditions, to vest as to the entire award in three years. Ciena recognizes the estimated fair value of performance-based awards, net of estimated forfeitures, as share-based expense over the performance period, using graded vesting, which considers each performance period or tranche separately, based upon Ciena's determination of whether it is probable that the performance targets will be achieved. At each reporting period, Ciena reassess the probability of achieving the performance targets and the performance period required to meet those targets.

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

	<b>Restricted Stock Units Outstanding</b>	<b>Weighted Average Grant Date Fair Value Per Share</b>	<b>Aggregate Intrinsic Value</b>
Balance as of October 31, 2005	18	\$47.32	\$ 301
Granted	261		
Vested	(64)		
Canceled or forfeited	(53)		
Balance as of October 31, 2006	162	\$22.99	\$ 3,829
Granted	1,216		
Vested	(176)		
Canceled or forfeited	(67)		
Balance as of October 31, 2007	1,135	\$27.94	\$53,236
Granted	1,411		
Vested	(513)		
Canceled or forfeited	(184)		
Balance as of October 31, 2008	1,849	\$30.85	\$17,773

The total fair value of restricted stock units that vested and were converted into common stock during fiscal 2006, fiscal 2007 and fiscal 2008 was \$2.6 million, \$6.5 million and \$14.6 million, respectively. The weighted average fair value of each restricted stock unit granted by Ciena during fiscal 2006, fiscal 2007 and fiscal 2008 was \$19.47, \$28.36 and \$32.38, respectively.

## Assumptions for Restricted Stock Unit Awards

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

Share-based expense for performance-based restricted stock unit awards, net of estimated forfeitures, is recognized ratably over the performance period based upon Ciena's determination of whether it is probable that the performance targets will be achieved. At each reporting period, Ciena

reassesses the probability of achieving the performance targets and the performance period required to meet those targets. The estimation of whether the performance targets will be achieved involves judgment, and the estimate of expense is revised periodically based on the probability of achieving the performance targets. Revisions are reflected in the period in which the estimate is changed. If any performance goals are not met, no compensation cost is ultimately recognized against that goal and, to the extent previously recognized, compensation cost is reversed.

### 2003 Employee Stock Purchase Plan

In March 2003, Ciena stockholders approved the 2003 Employee Stock Purchase Plan (the "ESPP"), which has a ten-year term. At the 2005 annual meeting, Ciena stockholders approved an amendment increasing the number of shares available to 3.6 million and adopting an "evergreen" provision. On December 31 of each year, the number of shares available under the ESPP will increase by up to 0.6 million shares, provided that the total number of shares available shall not exceed 3.6 million. Pursuant to the evergreen provision, the maximum number of shares that may be added to the ESPP during the remainder of its ten-year term is 2.9 million.

Under the ESPP, eligible employees may enroll in an offer period during certain open enrollment periods. New offer periods begin March 16 and September 16 of each year.

Prior to the offer period commencing September 15, 2006, (i) each offer period consisted of four six-month purchase periods during which employee payroll deductions were accumulated and used to purchase shares of common stock; and (ii) the purchase price of the shares was 15% less than the fair market value on either the first day of an offer period or the last day of a purchase period, whichever was lower. In addition, if the fair market value on the purchase date was less than the fair market value on the first day of an offer period, then participants automatically commenced a new offer period.

On May 30, 2006, the Compensation Committee amended the ESPP, effective September 15, 2006, to shorten the offer period under the ESPP to six months. As a result of this change, the offer period and any purchase period will be the same six-month period. Under the amended ESPP, the applicable purchase price equals 95% of the fair market value of Ciena common stock on the last day of each purchase period. The following table is a summary of ESPP activity for the periods indicated (shares and intrinsic value in thousands):

	ESPP shares available for issuance	Intrinsic value at stock issuance date
Balance as of October 31, 2005	3,264	
Evergreen provision	307	
Issued March 15, 2006	(335)	\$8,662
Issued September 15, 2006	(260)	4,610
Balance as of October 31, 2006	2,976	
Evergreen provision	571	
Issued March 15, 2007	(119)	1,137
Issued September 14, 2007	(45)	581
Balance as of October 31, 2007	3,383	
Evergreen provision	188	
Issued March 15, 2008	(38)	99
Issued September 15, 2008	(45)	\$ 26
Balance as of October 31, 2008	3,488	

The amendments to the ESPP for offer periods on or after September 15, 2006 were intended to enable the ESPP to be considered a non-compensatory plan under FAS 123(R) for future offering periods. For offer periods that commenced prior to September 15, 2006, however, fair value is determined as of the grant date, using the graded vesting approach. Under the graded vesting approach, the 24-month ESPP offer period, which consists of four six-month purchase periods, is treated for valuation purpose as four separate option tranches with individual lives of six, 12, 18 and 24 months, each commencing on the initial grant date. Each tranche is expensed straight-line over its individual life. The final offer period reflecting the ESPP terms prior to the amendment described above was completed during the second quarter of fiscal 2008. Any future issuances under the as-amended ESPP will not result in share-based compensation expense.

## Share-Based Compensation Expense for Periods Reported

The following table summarizes share-based compensation expense for the periods indicated (in thousands):

	Year Ended October 31,		
	2006	2007	2008
Product costs	\$ 1,075	\$ 1,257	\$ 2,953
Service costs	810	920	1,412
Share-based compensation expense included in cost of sales	1,885	2,177	4,365
Research and development	5,058	3,649	7,264
Sales and marketing	3,415	6,724	10,928
General and administrative	3,385	6,440	8,644
Share-based compensation expense included in operating expense	11,858	16,813	26,836
Share-based compensation expense capitalized in inventory, net	299	582	227
Total share-based compensation	\$14,042	\$19,572	\$31,428

As of October 31, 2008, total unrecognized compensation expense was: (i) \$22.0 million, which relates to unvested stock options and is expected to be recognized over a weighted-average period of 1.3 years; and (ii) \$43.7 million, which relates to unvested restricted stock units and is expected to be recognized over a weighted-average period of 1.7 years.

## (17) OTHER EMPLOYEE BENEFIT PLANS

### Employee 401(k) Plan

Ciena has a 401(k) defined contribution profit sharing plan. The plan covers all U.S. based employees who are not part of an excluded group. Participants may contribute up to 60% of pre-tax compensation, subject to certain limitations. Effective January 1, 2007, the plan includes an employer matching contribution equal to 50% of the first 6% an employee contributes each pay period. For fiscal 2006 the employer matching contribution was equal to 50% of the first 3% an employee contributed each pay period. Ciena may also make discretionary annual profit sharing contributions up to the IRS regulated limit. Ciena has made no profit sharing contributions to date. During fiscal 2006, fiscal 2007, and fiscal 2008, Ciena made matching contributions of approximately \$1.2 million, \$2.3 million and \$3.0 million, respectively.

## (18) COMMITMENTS AND CONTINGENCIES

### Foreign Tax Contingencies

Ciena has received assessment notices from the Mexican tax authorities asserting deficiencies in payments between 2001 and 2005 related primarily to income taxes and import taxes and duties. Ciena has filed judicial petitions appealing these assessments. As of October 31, 2008 and October 31, 2007, Ciena had accrued liabilities of \$1.0 million and \$0.9 million, respectively, related to these contingencies, which are reported as a component of other current accrued liabilities. As of October 31, 2008, Ciena estimates that it could be exposed to possible losses of up to \$5.8 million, for which it has not accrued liabilities. Ciena has not accrued the additional income tax liabilities because it does not believe that such losses are more likely than not to be incurred. Ciena has not accrued the additional import taxes and duties because it does not believe the incurrence of such losses are probable. Ciena continues to evaluate the likelihood of probable and reasonably possible losses, if any, related to these assessments. As a result, future increases or decreases to accrued liabilities may be necessary and will be recorded in the period when such amounts are estimable and more likely than not (for income taxes) or probable (for non-income taxes).

### Operating Lease Commitments

Ciena has certain minimum obligations under non-cancelable operating leases expiring on various dates through 2019 for equipment and facilities. Future annual minimum rental commitments under non-cancelable operating leases at October 31, 2008 are as follows (in thousands):

Year ended October 31,	
2009	\$14,346
2010	12,487
2011	11,270
2012	8,787
2013	7,330
Thereafter	13,111
Total	\$67,331

Rental expense for fiscal 2006, fiscal 2007, and fiscal 2008 was approximately \$9.2 million, \$10.6 million and \$12.4 million, respectively. In addition, Ciena paid approximately \$45.3 million, \$29.9 million and \$1.3 million during fiscal 2006, fiscal 2007 and fiscal 2008, respectively, related to rent costs for restructured facilities and unfavorable lease commitments, which

were offset against Ciena's restructuring liabilities and unfavorable lease obligations. The amount for operating lease commitments above does not include insurance, taxes, maintenance and other costs required by the applicable operating lease. These costs are variable and are not expected to have a material impact.

#### Purchase Commitments with Contract Manufacturers and Suppliers

As of October 31, 2008, Ciena has purchase commitments of \$76.0 million. Purchase commitments relate to purchase order obligations to our contract manufacturers and component suppliers for inventory. In certain instances, Ciena is permitted to cancel, reschedule or adjust these orders. Consequently, only a portion of the amount reported as purchase commitments relates to firm, non-cancelable and unconditional obligations.

#### Litigation

On November 7, 2008, JDS Uniphase Corp. filed a complaint with the United States International Trade Commission (ITC) against Ciena and several other respondents, alleging infringement of two patents (U.S. Patent Nos. 6,658,035 and 6,687,278) relating to tunable laser chip technology. The complaint, which names Ciena as a company whose products incorporate the accused technology manufactured by certain other respondents and are imported into the United States, seeks a determination and relief under Section 337 of the Tariff Act of 1930. Specifically, the complaint seeks an order from the ITC blocking the importation of the accused technology, and products incorporating the accused technology, into the United States. Ciena believes it has valid defenses to the complaint.

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 relating to an identifier system and components for optical assemblies. The complaint, which has not yet been served upon Ciena, seeks injunctive relief and damages. Ciena believes that it has valid defenses to the lawsuit and intends to defend it vigorously.

On January 31, 2008, Ciena Corporation and Northrop Grumman Guidance and Electronics Company (previously named Litton Systems, Inc.) entered into an agreement to settle patent litigation between the parties pending in the United States District Court for the Central District of California. Pursuant to the settlement agreement, Ciena made a \$7.7 million payment and agreed to indemnify the plaintiff, should it be unable to collect compensatory damages awarded, if any, in a final judgment in its favor against

a specified Ciena supplier. This obligation is specific to this litigation and, while there is no maximum amount payable, Ciena's obligation is limited to plaintiff's inability to collect that portion of any compensatory damages award that relates to the supplier's sale of infringing products to Ciena. Ciena has determined the fair value of this guarantee to be insignificant.

As a result of its June 2002 merger with ONI Systems Corp., Ciena 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, whereby the plaintiffs' cases against the issuers would be dismissed, the insurers would agree to guarantee a recovery by the plaintiffs from the underwriter defendants of at least \$1 billion, and the issuer defendants would agree to assign or surrender to the plaintiffs certain claims the issuers may have against the underwriters. The settlement agreement did not require Ciena to pay any amount toward the settlement or to make any other payments. 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 filed by the plaintiffs and issuer defendants for preliminary approval of the settlement agreement, subject to certain modifications to the proposed bar order, 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, as well as a set of amended master allegations against the other issuer defendants, including changes to the definition of the purported class of investors. 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. Due to the inherent uncertainties of litigation, the ultimate outcome of the matter is uncertain.

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

## (19) ENTITY WIDE DISCLOSURES

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

	Fiscal Year					
	2006	%*	2007	%*	2008	%*
United States	\$423,687	75.1	\$553,582	71.0	\$590,868	65.5
United Kingdom	n/a	—	100,681	12.9	149,426	16.5
International	140,369	24.9	125,506	16.1	162,154	18.0
Total	\$564,056	100.0	\$779,769	100.0	\$902,448	100.0

\* Denotes % of total revenue  
n/a Denotes less than 10% for period

The following table reflects Ciena's geographic distribution of equipment, furniture and fixtures. Equipment, furniture and fixtures attributable to geographic regions outside of the United States are reflected as "International," with any country attributable for greater than 10% of total equipment, furniture and fixtures specifically identified. For the periods below, Ciena's geographic distribution of equipment, furniture and fixtures was as follows (in thousands, except percentage data):

	Fiscal Year			
	2007	%*	2008	%*
United States	\$38,391	82.3	\$49,351	82.3
International	8,280	17.7	10,616	17.7
Total	\$46,671	100.0	\$59,967	100.0

\* Denotes % of total equipment, furniture and fixtures

For the periods below, Ciena's distribution of revenue was as follows (in thousands, except percentage data):

	Fiscal Year					
	2006	%*	2007	%*	2008	%*
Optical service delivery	\$420,567	74.6	\$645,159	82.8	\$731,260	81.0
Carrier Ethernet						
service delivery	81,860	14.5	50,129	6.4	60,155	6.7
Global network services	61,629	10.9	84,481	10.8	111,033	12.3
Total	\$564,056	100.0	\$779,769	100.0	\$902,448	100.0

\* Denotes % of total revenue

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

	Fiscal Year					
	2006	%*	2007	%*	2008	%*
AT&T	\$ 66,926	11.9	\$196,924	25.3	\$227,737	25.2
BT	n/a	—	n/a	—	113,981	12.6
Sprint	89,793	15.9	100,122	12.8	n/a	—
Verizon	70,225	12.4	n/a	—	n/a	—
Total	\$226,944	40.2	\$297,046	38.1	\$341,718	37.8

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

\* Denotes % of total revenue

## ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

## ITEM 9A. CONTROLS AND PROCEDURES

### Disclosure Controls and Procedures

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

### Changes in Internal Control over Financial Reporting

We completed our acquisition of World Wide Packets on March 3, 2008. We have incorporated the operations of World Wide Packets within our existing control environment and have expanded the scope of a number of our internal processes and controls to include these operations. We have included the operations of World Wide Packets within the scope of our assessment of internal control over financial reporting as of October 31, 2008.

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

## Report of Management on Internal Control Over Financial Reporting

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

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

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

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

Management of Ciena Corporation assessed the effectiveness of the company's internal control over financial reporting as of October 31, 2008. Management based this assessment on criteria for effective internal control over financial reporting described in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management determined that, as of October 31, 2008, Ciena Corporation maintained effective internal control over financial reporting. Management reviewed the results of its assessment with the Audit Committee of our Board of Directors.

PricewaterhouseCoopers LLP, independent registered public accounting firm, who audited and reported on the consolidated financial statements of Ciena Corporation included in this annual report, has also audited the effectiveness of Ciena Corporation's internal control over financial reporting as of October 31, 2008, as stated in its report appearing under Item 8 of part II of this annual report.

/s/ Gary B. Smith

Gary B. Smith

President and Chief Executive Officer

December 23, 2008

/s/ James E. Moylan, Jr.

James E. Moylan, Jr.

Senior Vice President and Chief Financial Officer

December 23, 2008

## ITEM 9B. OTHER INFORMATION

None.



### **PART III**

#### **ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

Pursuant to General Instruction G(3) of Form 10-K, information relating to Ciena's directors and executive officers is set forth in Part I of this annual report under the caption Item 1. "Business—Directors and Executive Officers."

Additional information concerning our Audit Committee and regarding compliance with Section 16(a) of the Exchange Act responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

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

#### **ITEM 11. EXECUTIVE COMPENSATION**

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

#### **ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

#### **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.

#### **ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

Information responsive to this item is incorporated herein by reference to Ciena's definitive proxy statement with respect to our 2009 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K.



## PART IV

### ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

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

### SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Linthicum, County of Anne Arundel, State of Maryland, on the 23rd day of December 2008.

Ciena Corporation  
By: /s/ Gary B. Smith  
Gary B. Smith  
President, Chief Executive Officer and Director

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

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Patrick H. Nettles, Ph.D.</u> Patrick H. Nettles, Ph.D.	Executive Chairman of the Board of Directors	December 23, 2008
<u>/s/ Gary B. Smith</u> Gary B. Smith (Principal Executive Officer)	President, Chief Executive Officer and Director	December 23, 2008
<u>/s/ James E. Moylan, Jr.</u> James E. Moylan, Jr. (Principal Financial Officer)	Sr. Vice President, Finance and Chief Financial Officer	December 23, 2008
<u>/s/ Andrew C. Petrik</u> Andrew C. Petrik (Principal Accounting Officer)	Vice President, Controller	December 23, 2008
<u>/s/ Stephen P. Bradley, Ph.D.</u> Stephen P. Bradley, Ph.D.	Director	December 23, 2008
<u>/s/ Harvey B. Cash</u> Harvey B. Cash	Director	December 23, 2008
<u>/s/ Bruce L. Claffin</u> Bruce L. Claffin	Director	December 23, 2008
<u>/s/ Lawton W. Fitt</u> Lawton W. Fitt	Director	December 23, 2008
<u>/s/ Judith M. O'Brien</u> Judith M. O'Brien	Director	December 23, 2008
<u>/s/ Michael J. Rowny</u> Michael J. Rowny	Director	December 23, 2008
<u>/s/ Gerald H. Taylor</u> Gerald H. Taylor	Director	December 23, 2008

# corporate information

## corporate headquarters

Ciena Corporation  
1201 Winterson Road  
Linthicum, MD 21090-2205  
Telephone: (800) 921-1144  
or (410) 865-8500  
www.Ciena.com

## annual meeting

Ciena's annual meeting of shareholders will be held at 3:00 PM (Eastern) on Wednesday, March 25, 2009 at The Westin Baltimore Washington Airport—BWI, 1110 Old Elkridge Landing Road, Baltimore, MD.

## independent registered public accounting firm

PricewaterhouseCoopers LLP  
McLean, VA

## outside counsel

Hogan & Hartson LLP  
Baltimore, MD

## transfer agent

Computershare Trust Company, N.A.  
P.O. Box 43078  
Providence, RI 02940-3078  
Shareholder Inquiries: (781) 575-2879  
www.Computershare.com

## common stock market data

Since its initial public offering on February 7, 1997, Ciena's Common Stock has traded on the Nasdaq Stock Market under the symbol CIEN.

## investor relations

For additional copies of this report or copies of our SEC filings, contact:  
Investor Relations  
Ciena Corporation  
1201 Winterson Road  
Linthicum, MD 21090-2205  
Telephone: (888) 243-6223  
or (410) 694-5700

Additional information is available on Ciena's website at [www.Ciena.com](http://www.Ciena.com).

## operating executive officers

**Patrick H. Nettles, Ph.D.**  
Executive Chairman of the Board of Directors

**Gary B. Smith**  
President, Chief Executive Officer and Director

**Stephen B. Alexander**  
Senior Vice President, Products and Technology, Chief Technology Officer

**James E. Moylan, Jr.**  
Senior Vice President, Finance, Chief Financial Officer

**Arthur D. Smith, Ph.D.**  
Senior Vice President, Chief Operating Officer

**Michael G. Aquino**  
Senior Vice President, Global Field Operations

**David M. Rothenstein**  
Senior Vice President, General Counsel and Secretary

**Andrew C. Petrik**  
Vice President and Controller

## outside board members

**Stephen P. Bradley, Ph.D.**  
William Ziegler Professor of Business Administration Emeritus  
Harvard Business School

**Harvey B. Cash**  
General Partner  
InterWest Partners

**Bruce L. Clafflin**  
Retired, President and CEO  
3Com Corporation

**Lawton W. Fitt**  
Retired Partner  
Goldman Sachs

**Judith M. O'Brien**  
Executive Vice President, General Counsel  
Obopay, Inc.

**Michael J. Rowny**  
Chairman  
Rowny Capital

**Gerald H. Taylor**  
Managing Member  
mortonsgroup, LLC

002CS17767

**ciena**<sup>®</sup>

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