CIENA®

02013843

AR/S 936395
P.E. 10/31/01

FEB 0 8 2002

"I like things to happen;
and if they don't happen,
I like to make them happen."

—WINSTON CHURCHILL

PROCESSED
FEB 1 9 2002
THOMSON
FINANCIAL

annual report 2001

operating highlights

(in thousands, except net income per common share and number of employees)

	1997	1998	1999	2000	2001
Revenue	$413,215	$508,087	$482,085	$ 858,750	**$ 1,603,229**
Gross profit	$246,743	$252,073	$182,316	$ 381,357	**$ 698,680**
Gross margin	59.7%	49.6%	37.8%	44.4%	**43.6%**
Operating income (loss)	$180,878	$ 69,070	$ (19,935)	$ 107,894	**$(1,739,717)**
Adjusted operating income (loss)*	$188,907	$115,116	$ (2,989)	$ 136,708	**$ 260,635**
Operating margin	43.8%	13.6%	(4.1)%	12.6%	**(108.5)%**
Adjusted operating margin*	45.7%	22.7%	(0.6)%	15.9%	**16.3%**
Net income (loss)	$115,568	$ 45,700	$ (3,924)	$ 81,387	**$(1,794,062)**
Adjusted net income (loss)*	$120,518	$ 79,566	$ 8,292	$ 100,837	**$ 195,259**
Diluted net income (loss) per common share	$ 0.55	$ 0.18	$ (0.01)	$ 0.27	**$ (5.75)**
Adjusted diluted net income (loss) per common share*	$ 0.57	$ 0.31	$ 0.03	$ 0.34	**$ 0.60**
Total assets	$468,247	$602,809	$677,835	$1,027,201	**$ 3,317,301**
Total stockholders' equity	$377,278	$501,036	$530,473	$ 809,835	**$ 2,128,982**
Employees	841	1,476	1,928	2,775	**3,778**

*Excludes payroll tax on stock options, settlement of accrued contract obligations, deferred stock compensation costs, amortization of goodwill, amortization of intangible assets, in-process research and development, restructuring costs, goodwill impairment, provision for doubtful accounts, income tax effect, Pirelli litigation and merger-related costs.

the shift is happening.

We saw it coming. In fact, we made it happen—the shift to next-generation communications networks; the shift to a new communications architecture based on intelligent optical networking. It's happening. And CIENA is right in the middle of it.

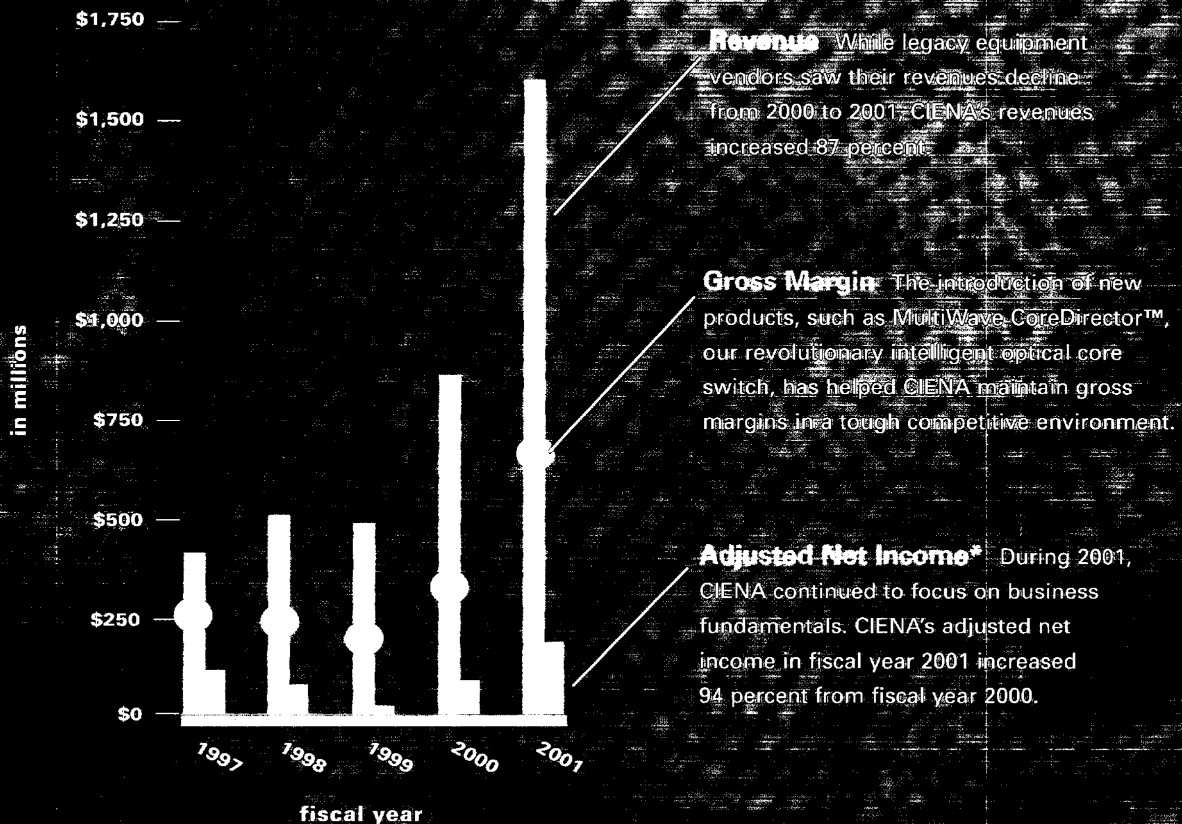
This shift has its origins in technological change. Revolutionary change. Fundamental change. It's reshaping the telecom landscape. It's big. And it's happening now.

why us? why now?

why us?

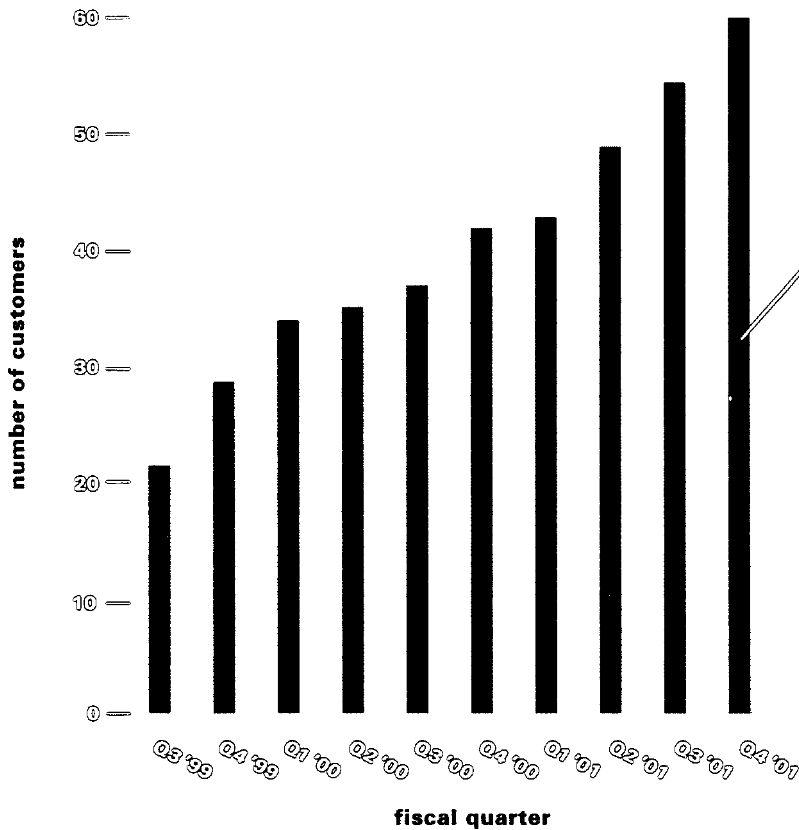
our performance

Our fiscal year 2001 financial results reflect the effects of the shift. In a tough telecom equipment market, CIENA weathered the storm far better than most.

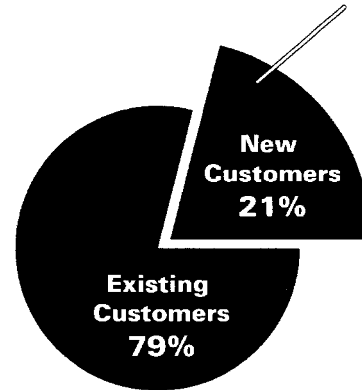


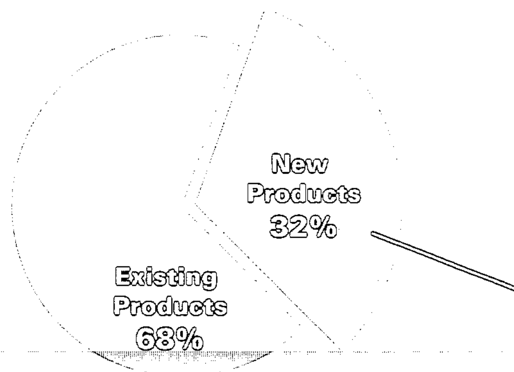
*Adjusted net income excludes payroll tax on stock options, settlement of accrued contract obligations, deferred stock compensation costs, amortization of goodwill, amortization of intangible assets, in-process research and development, restructuring costs, goodwill impairment, provision for doubtful accounts, income tax effect, Pirelli litigation and merger-related costs.

a growing customer base



CIENA continues to expand its customer base. In fiscal year 2001, we recorded sales to 53 optical networking equipment customers, an **increase of 65 percent over 2000.** In total, we now have more than 60 optical networking equipment customers with more than **20 percent of fiscal 2001 revenues coming from new customers.** In part, it is this diversity in our customer base that has helped us outperform our competitors.





a growing product portfolio

CIENA continues to broaden its product offerings and is one of the only equipment vendors able to offer service providers a complete next-generation optical networking solution that spans from the edge of their network to the core. **In fiscal year 2001, more than 30% of our total revenues came from new products.**

why us?

Because we're different. It's like apples and oranges...

Would you try to make an apple pie with oranges? Of course not. Nor would you try to make orange juice by squeezing an apple.

Next-generation optical networking and legacy networks are like apples and oranges—they're different. Legacy networks were built to handle voice traffic, but the traffic has changed. Next-generation optical networks are built for the new traffic—traffic that is a mix of voice and data.

CIENA is focused exclusively on next-generation optical networking products. Unlike legacy equipment providers, we're not tied down by sales of old, tired products. That's why CIENA is driving the shift to more efficient communications networks.

today's networks need

something different

why now?

The past year was a volatile one for the telecom industry. The economic slowdown and tighter capital markets meant that CIENA's customers, service providers, had less access to the capital they needed to continue to build their networks. Carriers worldwide dramatically reduced their spending, and throughout the telecom equipment industry, sales declined, margins eroded, profits evaporated and share prices fell.

What caused the sudden change? Where was the demand that drove the network building boom in the first place? Our customers tell us traffic is still growing. They also tell us that they need to build networks differently, and they need networks that run more efficiently. They need CIENA's LightWorks™ solutions.

environment is tough

why now?

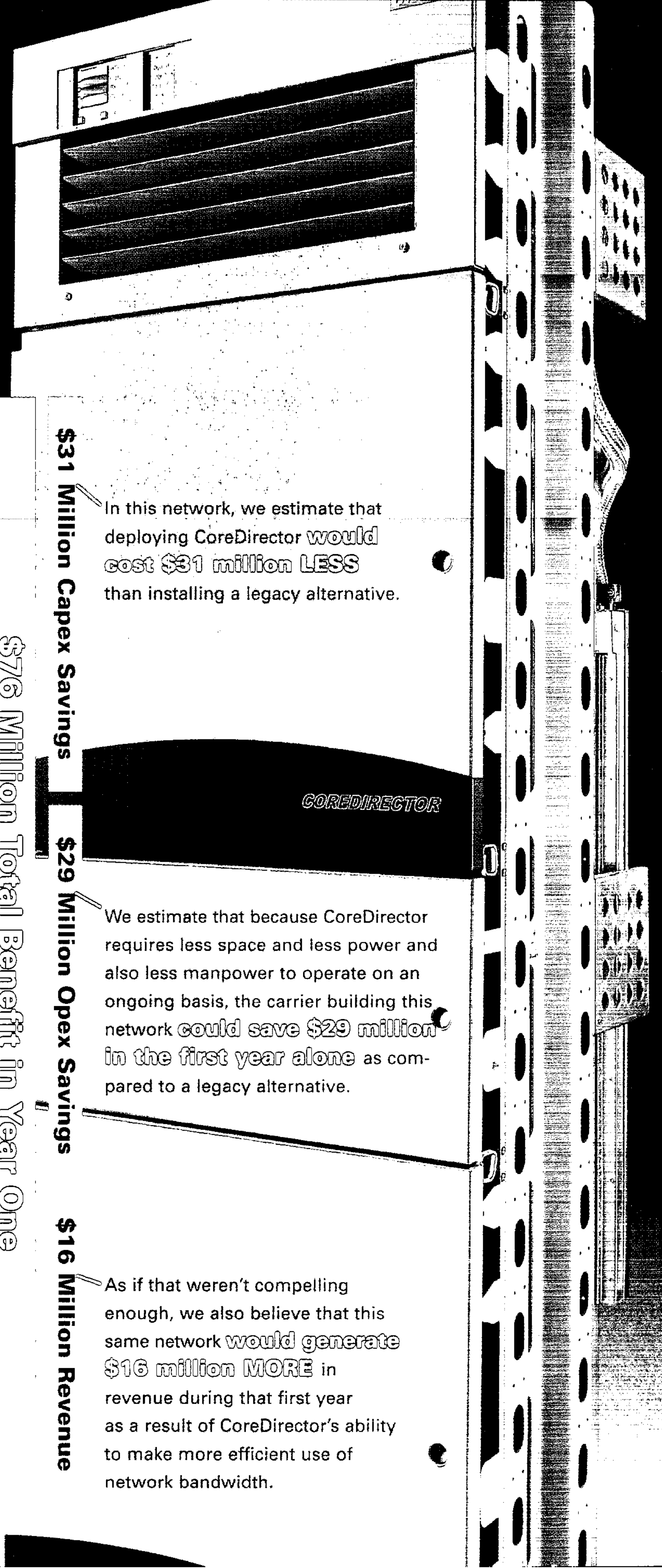
In this tough economic environment, service providers are more closely evaluating every dollar they spend. They are looking for solutions to help them simplify their networks and streamline their operations. They need to spend less and do more. They need new ways to generate revenues. The old ways of building networks just don't work anymore.

CIENA's LightWorks solutions simplify carrier networks because they incorporate more functionality, more intelligence, in a single network element. With LightWorks, carriers buy less equipment, that equipment costs less to operate and it gives them the ability to offer new, revenue-generating services.

the old ways just don't work anymore

So, CIENA, you say you're different. So you say you can save carriers money and help them generate more revenue. Just how much are we talking about?

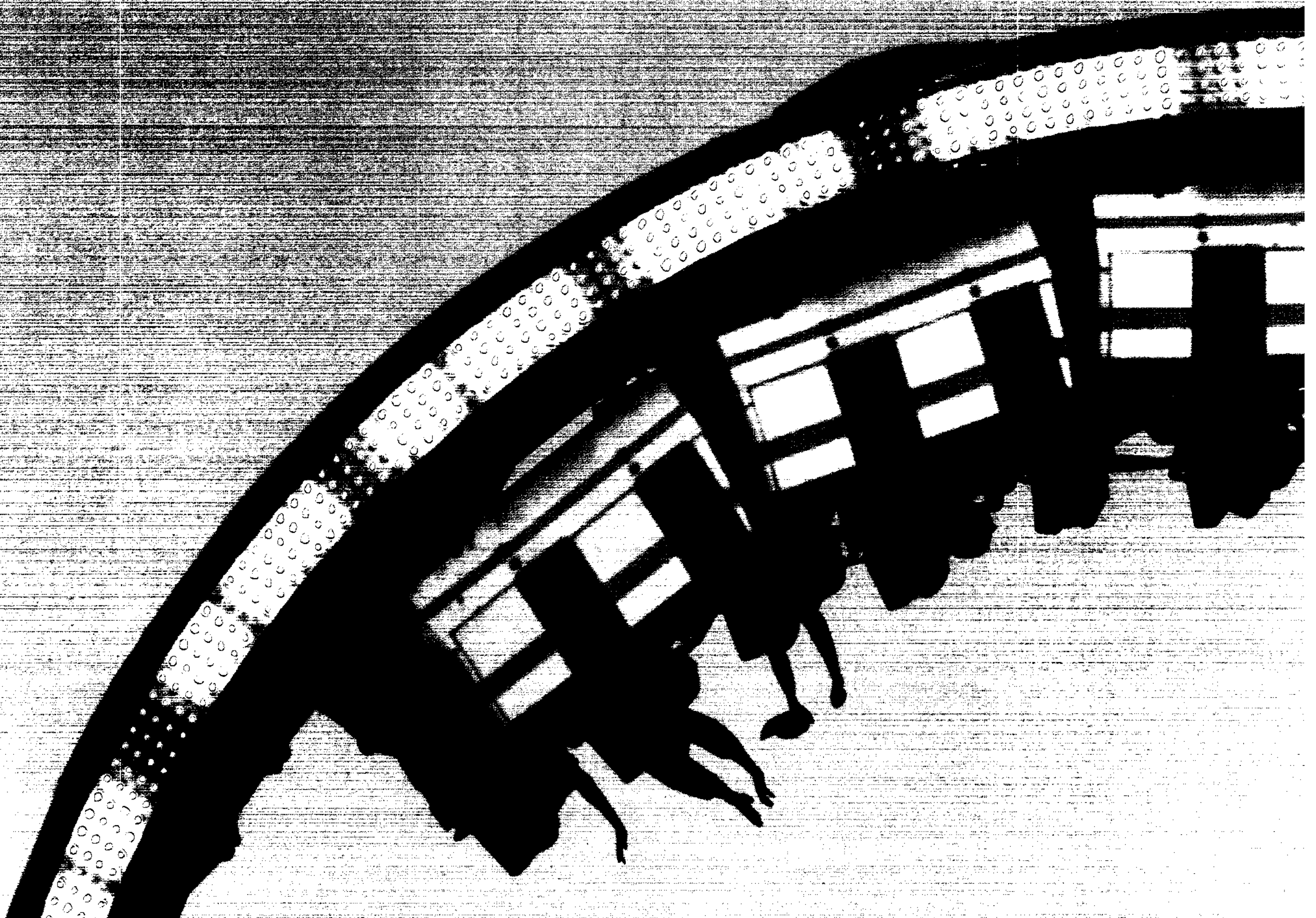
Well, for example, let's compare a U.S.-based network connecting 15 major cities using 15 CoreDirectors with the same network constructed using legacy equipment. We estimate that deploying a CoreDirector network could result in a $76 million benefit for the carrier in the first year of deployment.



why now?

In the face of what appeared to be skyrocketing bandwidth demand, service providers worldwide rushed to build their networks. As a result, their capital investment and operating expenses outpaced revenue and profit growth. Their business models were upside down.

business models



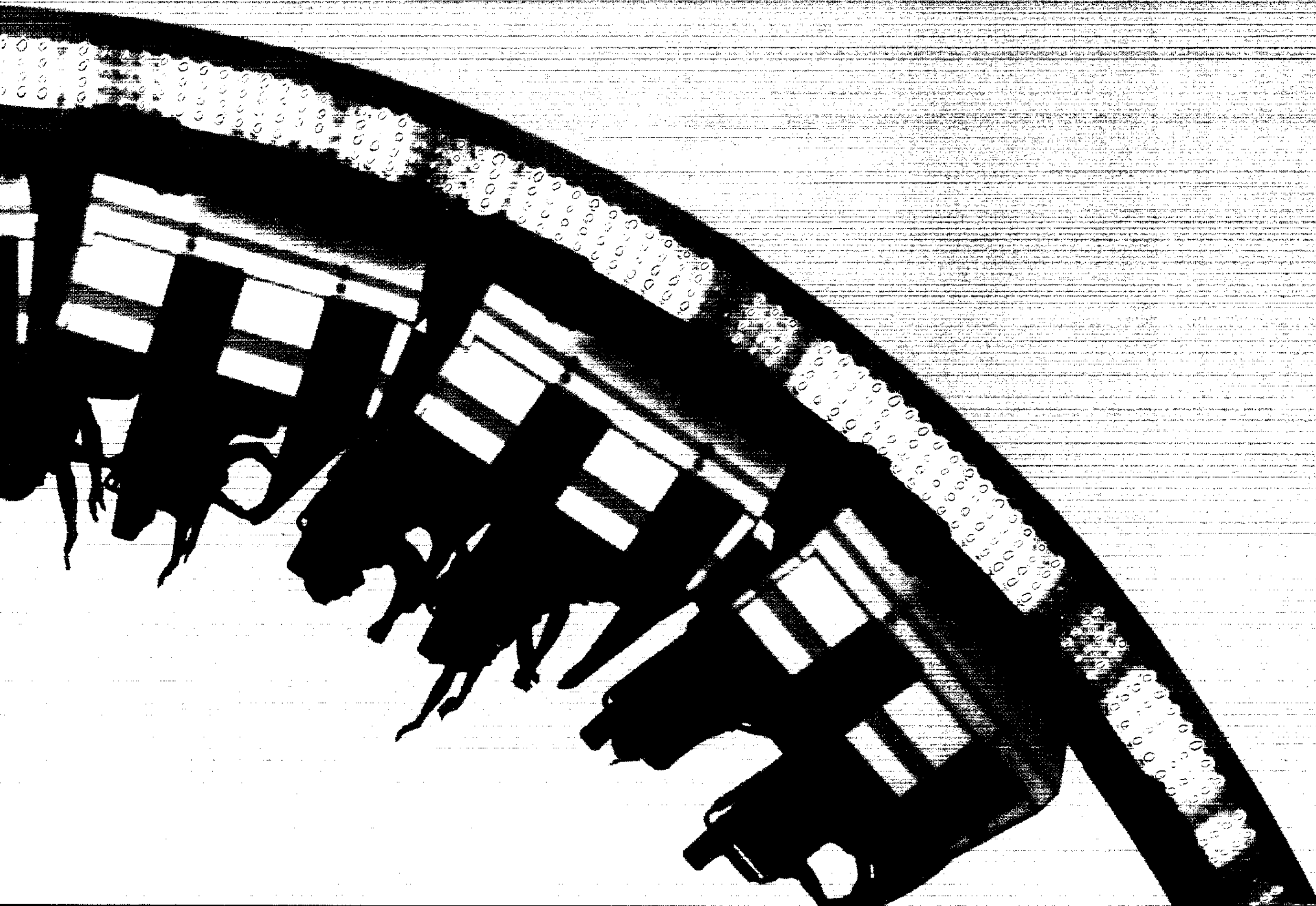
Recognizing this problem, CIENA sought to create networking solutions that would help service providers return to healthy financial models. CIENA's next-generation intelligent optical networking equipment helps improve carriers' business models in two ways.

First, CIENA's LightWorks solutions lower carriers' capital costs by enabling them to do more for less. They simply don't have to buy as much equipment.

Second, CIENA's LightWorks solutions allow service providers to spend less because it enables them to operate more efficiently. Because they don't have to buy as much equipment, they don't need as much space and they don't need as much power. In addition, the intelligence built into CIENA's LightWorks solutions means the network can do more for itself. It can think for itself, so it takes fewer people to run it.

By dramatically lowering the cost of ownership, CIENA's LightWorks solutions are helping service providers turn their business models right side up.

were upside down



why us now?

Relatively speaking, during a very tough year CIENA fared well. Although our stock price exhibited the volatile characteristic of our sector, our performance was better than most.

While many of our peers and competitors saw their revenues start to decline toward the end of 2000, ours continued to grow. While others posted losses, CIENA continued to post operating profits. We knew we were not immune to the larger economic environment, and eventually, we too saw the impact of service providers' capex cuts on our revenues. But our results, our resilience, suggest we are different.

we're leading

the shift

- CIENA is focused exclusively on next-generation optical networking equipment.
  Our equipment allows our customers to do more for less. When service providers began to spend more carefully, they realized it made more sense to spend with CIENA.

- CIENA is aligned with some of the strongest service providers in the world.
  Many of our customers were able to continue to build their networks while their competitors ran out of cash.

- Our customers know and trust CIENA.
  We're no longer a start-up. We're financially strong. We've got a global presence and our customers trust that we'll be there for them.

Patrick H. Nettles
Executive Chairman
of the Board of Directors

Gary B. Smith
President, Chief Executive
Officer and Director

fellow shareholders:

2001 was a challenging year for all of us in the telecommunications industry. The volatility inherent in our rapidly changing industry was only exacerbated by the larger economic downturn in the U.S. economy. During the year, CIENA performed better than many of our peers and competitors, we believe, as a result of our exclusive focus on next-generation optical networking solutions. In last year's annual report, we talked about a shift to intelligent optical networking, a shift that CIENA was leading. In 2001, we saw mounting evidence of that shift. Carriers, while dramatically reducing overall capital expenditures, were spending more on next-generation equipment like CIENA's.

However, even CIENA could not be immune to the larger market dynamics. Customer spending patterns and the overall industry slowdown began to affect our sales growth in our fiscal third quarter, interrupting what had been 11 sequential quarters of growth. In this letter, we will discuss the year that was, and why we think it was. We'll also discuss our plans for weathering this telecom storm and explain why we believe CIENA has the ability to come out ahead of our competition.

Fiscal Year 2001

Given the challenging telecom environment, we are very pleased with CIENA's performance in 2001. We believe our financial results—growth of 87 percent in revenue and 94 percent in adjusted net income—point to CIENA's strength and market leadership. CIENA concluded its fiscal year 2001 with revenue of $1,603.2 million, an increase of 87 percent over revenue of $858.8 million for fiscal year 2000.

For the fiscal year 2001, exclusive of a goodwill impairment charge, restructuring costs, deferred stock compensation charges, in-process research and development, provision for doubtful accounts, settlement of accrued contract

obligations, payroll taxes on stock option exercises and amortization of intangibles and goodwill, CIENA's adjusted net income totaled $195.3 million, or $0.60 earnings per diluted share, an increase of 94 percent compared to fiscal year 2000 adjusted net income of $100.8 million, or $0.34 earnings per diluted share. Reported, or GAAP, net loss for fiscal year 2001 was $1,794.1 million, or a loss of $5.75 per diluted share.

In addition to delivering strong revenue and earnings, CIENA executed on a number of other strategic and operational fronts in fiscal year 2001:

- We increased our customer base by more than 65 percent, recording sales to 53 optical networking customers in 2001, up from 32 in 2000.
- In addition to ongoing business from existing customers, CIENA continues to win new business, with more than 20 percent of total revenues for 2001 coming from new customers and more than 30 percent of total revenues coming from new products.
- We also gained dramatic market share. We estimate that we increased our share of the next-generation optical networking market from 24 percent in 2000 to 33 percent in 2001.

The Environment

So, what happened to all the demand the telecom industry saw in 1999 and 2000? How did an entire industry turn so quickly from apparent boom to bust? To answer those questions, we have to take a closer look at what happened in 2001 and, perhaps more importantly, the events that led up to it.

First, deregulation in the U.S. telecom industry and privatization in the international telecom industry during the 1990s helped transform the industry. Numerous insurgent competitors emerged to compete with what had always been a small number of heavily regulated, large service providers. Rapid traffic growth and readily available capital further fueled the growth in the number of service providers as emerging carriers built networks and fought to take market share from incumbents.

As it turned out, the growth we saw came with a price. The rush of capital and new competitors into the market and the hurry to build bigger, faster networks left many service providers with unhealthy businesses. Many had capital and operating expenses that were growing faster than revenues and profit. In addition, many of CIENA's competitors offered substantial financing to their customers to encourage sales. In hindsight, it is clear that this financing only contributed to what turned out to be a temporary and, ultimately, unsustainable demand for networking equipment.

Toward the end of calendar 2000 and into calendar 2001, capital markets tightened. As access to capital lessened, many service providers were forced to curtail network build-outs. Most dramatically reduced their overall capital spending. Some carriers, with no access to additional capital and inadequate revenue to support their businesses, failed.

At about this time, the industry also saw the emergence of next-generation optical networking equipment like CIENA's LightWorks solutions. This new equipment enabled carriers to spend less and do more. It offered carriers the ability to grow their networks more efficiently while lowering both initial capital expenditures and ongoing operational expenses.

While the introduction of next-generation equipment was clearly beneficial for CIENA and for service providers' business models, the combined effect of the capital crunch and carriers being able to buy more for less was a sharp decline in the demand for legacy telecom equipment and a general overall slowdown in equipment purchases by carriers. This slowdown affected legacy suppliers first, but the slowdown was so dramatic, it ultimately caught up with next-generation suppliers like CIENA too.

The Shift Continues

So what happens next? A few things are clear. First, we believe that the underlying demand for bandwidth will continue to grow.

Second, we also believe that although carriers will spend less overall, they have begun to recognize that the same old way of building networks just won't work. And as a

result, we believe they will continue to increase the proportion of their capex dedicated to next-generation solutions.

And how will CIENA fare in all of this? We think we're well positioned on several fronts:

- CIENA's exclusive focus on next-generation solutions means that we stand to be a primary beneficiary as carriers shift spending away from legacy equipment to intelligent optical networks that will enable them to lower capital and operating costs while delivering new, revenue-generating services.

- Among next-generation equipment providers, only CIENA has both the breadth of solutions and the critical mass required to install and support those new optical networks on a global basis.

- We are aligned with some of the strongest service providers in the world and are working to expand our customer base every day.

- CIENA is financially sound, with a strong balance sheet and a management team that has consistently focused on fundamentals.

CIENA—Playing to Win

We believe that the combination of CIENA's market-leading position, our compelling value proposition to carriers, our diverse and growing customer base, and our strong financial position enables us to make operating decisions differently from many of our competitors—we can play to win, not just to survive.

CIENA intends to use the current market uncertainty to our advantage by pursuing a strategy of sustained investment in our business. Where others in the industry have elected to cut costs dramatically in attempts to preserve cash and merely survive the market downturn, we can continue to invest in strategic areas such as research and development and sales. We believe through sustained investment, particularly in these critical areas, we can extend our technology leadership and expand our market presence, firmly establishing ourselves as a winner when the market recovers.

This strategy of sustained investment does not mean that we will take our eye off the bottom line. While in the short-term, the uncertainty in the market and the resulting unpredictability of quarterly revenues mean that we will incur operating losses, we are focused on long-term profitability. We have several initiatives underway company-wide to ensure that we are prioritizing our investments and spending wisely.

Tough economic times often provide the opportunity for the strong to get stronger—for leaders to extend their lead. The steps we've taken, in addition to ongoing expense management and continued strategic investment, will help to ensure CIENA's long-term financial health and our role as a leader in the optical networking industry.

At the end of the day, it's important to realize that CIENA could not be the company it is today without the hard work and dedication of each and every one of our employees. We thank you. We also extend our thanks to our customers, our suppliers and our shareholders, whose continued support has enabled CIENA to lead the shift to intelligent optical networking.

Patrick H. Nettles
Executive Chairman
of the Board of Directors

Gary B. Smith
President, Chief Executive
Officer and Director

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

form 10-k

(Mark One)

○ Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the fiscal year ended October 31, 2001

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)

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

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

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

(Zip Code) **21090-2205**

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

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

Securities registered pursuant to Section 12(g) of the Act: **Common Stock**

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. ○

The aggregate market value of the 328,022,264 shares of Common Stock of the Registrant issued and outstanding as of October 31, 2001, excluding 5,294,320 shares of Common Stock held by affiliates of the Registrant was $4,986,146,734. This amount is based on the average bid and asked price of the Common Stock on the Nasdaq Stock Market of $15.45 per share on November 2, 2001.

Documents Incorporated by Reference

Part III of the Form 10-K incorporates by reference certain portions of the Registrant's proxy statement for its 2002 annual meeting of stockholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this report.

partone

The information in this Form 10-K contains certain forward-looking statements, including statements related to markets for the Company's products and trends in its business that involve risks and uncertainties. The Company's actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause such a difference include those discussed in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Risk Factors" and "Business" as well as those discussed elsewhere in this Form 10-K.

item 1 business

General

Overview

CIENA is a leader in the intelligent optical networking equipment market. We offer a portfolio of products for communications service providers worldwide. Our customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, wireless and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. We have pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

The Company had revenues of $1,603.2 million for its fiscal year ended October 31, 2001, an increase of more than 86% when compared with fiscal 2000 revenues of $858.8 million. The Company recorded a net loss of $1,794.1 million in fiscal 2001 compared with net income of $81.4 million for fiscal 2000. The net income for fiscal 2001 and fiscal 2000, adjusted to exclude payroll tax on stock options, settlement of accrued contract obligation, deferred compensation costs, amortization of goodwill, amortization of intangible assets, in-process research and development, restructuring costs, goodwill impairment and provision for doubtful accounts (which we refer to as "adjusted net income") was $195.3 million and $100.9 million, respectively.

For the fiscal year ended October 31, 2001, the Company recorded revenue from sales of intelligent optical networking equipment to a total of 53 customers. This represents an increase of more than 65% over 2000's customer base of 32. During fiscal 2001, Qwest and Sprint each represented more than 10% of CIENA's total revenues.

CIENA believes it holds the leading position in the global next-generation optical networking market with approximately 33% market share. Our belief is based upon estimates developed from a variety of sources, including vendors' public statements regarding their optical networking businesses, CIENA internal estimates, and recent discussions with industry analysts, such as RHK, CIR, Dell'Oro, Infonetics, KMI, and IDC.

Historically, the majority of CIENA's revenue has come from the sale of products in a single product category: long-distance optical transport equipment. CIENA believes it is one of the worldwide market leaders in field deployment of open-architecture long-distance optical transport equipment utilizing dense wavelength division multiplexing ("DWDM") technology. The majority of CIENA's fiscal 2001 revenue was derived from sales of its long-distance optical transport products. During the fiscal year 2001, CIENA also recognized meaningful revenue for the first time from the sale of its intelligent optical core switch, MultiWave CoreDirector. CIENA believes it holds an industry-leading market share in this important emerging product category. In addition, during 2001, CIENA also recognized revenue from the sale of its metropolitan optical transport product line, MultiWave Metro, and its next-generation multi-service access and switching platform MultiWave MetroDirector K2.

Our research and development efforts as well as potential future acquisition and partnership activities are targeted at capitalizing on our installed base of carrier customers and leveraging our position as a leader in the rapidly growing optical networking market.

Industry Background

The world's tele- and data-communications infrastructure is formed by fiber optic networks owned and operated by service providers. In recent years, the combination of several factors, including global deregulation which fueled competition among service providers and increased bandwidth demand resulting from the proliferation of the Internet and the emergence of electronic commerce, gave rise to the increased deployment of optical networking equipment.

Deregulation in the United States telecom industry and privatization in the international telecom industry during the 1990's began a transition from an industry characterized by a small number of heavily regulated large service providers to one in which numerous insurgent competitors began to emerge. Rapid traffic growth and readily available capital further fueled the growth in the number of service providers as emerging carriers built networks and fought to take market share from the incumbents. This rush of capital and new competitors into the market left many service providers with a situation in which capital and operating expenses grew faster than revenues. In addition, many equipment vendors offered substantial vendor financing to service providers as a means to encourage sales, thereby creating a temporary, and ultimately unsustainable demand for networking equipment.

Toward the end of calendar 2000 and into calendar 2001, capital markets tightened, leading to what appears to be a new period of consolidation among service providers. As access to capital lessened, many service providers curtailed further network build-outs and dramatically reduced their overall capital spending. In addition, the industry saw the emergence and general availability of next-generation optical networking equipment that enabled carriers to spend less and do more. This new equipment offered carriers the ability to grow their networks more efficiently while lowering both initial capital expenditures and ongoing operational expenses. The combined effect of these developments was a sharp decline in the demand for legacy telecom equipment and a general overall slowdown in carriers' equipment purchases. As a result, many equipment vendors, who were now experiencing financial challenges of their own because of the slowdown in demand, stepped away from their previous practice of providing vendor financing. This only exacerbated the capital crunch and caused further capital spending reductions by carriers. In addition, several carriers found that they had built networks in anticipation of demand that failed to materialize and now faced an over capacity situation. Some carriers, with no access to additional capital and inadequate revenue, failed.

During this time service providers looked to new products and technologies, in particular optical networking equipment, to help them more efficiently scale their networks to handle the increased traffic load while also bringing their spending and expenses in line with their revenue growth.

CIENA's Solutions

CIENA's intelligent optical networking equipment was designed to enable service providers to transition from inefficient, legacy, voice-centric networks to more efficient data-optimized, intelligent optical networks. CIENA's systems address the network scalability and capital spending challenges and the escalating operational costs faced by service providers.

- CIENA leverages its expertise in optics, software, systems and Application Specific Integrated Circuits ("ASICs"), to develop innovative products designed to lower the cost of constructing and operating communications networks.
- CIENA's equipment can replace multiple legacy network elements with fewer, more intelligent network elements, thereby simplifying the network and lowering carriers' initial capital costs and ongoing operations expenses.

- With the bandwidth flexibility and availability enabled by CIENA's optical transport equipment utilizing DWDM technology, service providers are able to ramp their network bandwidth with demand, adding bandwidth when and where it is needed and only paying for capacity as it is added and turned up.
- CIENA's equipment is designed to lower network operating costs by enabling carriers to manage network traffic and network bandwidth more efficiently.
- CIENA's equipment also is designed to enable carriers to shorten the time it takes to provision services, in some cases from months to nearly real-time, thereby accelerating revenue generation.
- In addition to capital and operational cost savings, CIENA's equipment and network management software is designed to enable carriers to offer new, revenue-generating and service-differentiating optical services.

Our optical networking product portfolio is targeted at the critical areas of service provider networks: intelligent optical switching, long-distance optical transport, short-distance optical transport and network management.

- ***Intelligent Optical Core Switching.*** Our family of intelligent optical core switches, MultiWave CoreDirector, and MultiWave CoreDirector CI, enable carriers to manage network bandwidth more efficiently. CoreDirector and CoreDirector CI help carriers solve both the challenges of network scalability and escalating operating costs by incorporating the functionality of multiple network elements into a single network element with previously unavailable switching and bandwidth management capabilities.
- ***Multi-Service Access and Switching.*** MultiWave MetroDirector K2 is CIENA's next-generation multi-service access and switching platform designed for service providers seeking increased availability of usable, cost-effective bandwidth. MultiWave MetroDirector K2 has been designed to easily integrate into existing network environments and deliver superior levels of price/performance, bandwidth optimization, reliability, service flexibility, provisioning capabilities, and support for circuit-switched and data-centric traffic. The MultiWave MetroDirector K2 platform has an innovative architecture that helps service providers alleviate traffic gridlock in metropolitan networks, while providing the opportunity for increased revenues and improved performance from their existing network.
- ***Optical Transport.*** CIENA's long-distance optical transport products, MultiWave CoreStream, MultiWave Sentry, MultiWave 1600, and our short-distance products, MultiWave Metro, MultiWave Metro One and MultiWave Firefly, utilize DWDM technology which enables carriers to cost-effectively add critical network bandwidth when and where they need it. As a result, service providers are better able to scale their networks to meet demand.
- ***Network Management.*** ON-Center, CIENA's fully integrated family of software-based tools for comprehensive element, network and service layer management, is designed to enable accelerated deployment of new, differentiating optical services. ON-Center is designed to reduce network operating and management costs.

CIENA calls the network architecture created by these products "LightWorks." The components of CIENA's LightWorks architecture can be sold together as a complete network solution or separately as best-of-breed solutions. CIENA's LightWorks architecture is designed to dramatically simplify a carrier's network by reducing the number of network elements. We believe this network simplification will lead to lower capital equipment cost and lower operating cost.

Strategy

CIENA's strategy is to maintain and build upon its market leadership in the deployment of intelligent optical networking systems and to leverage our technologies in order to provide solutions for both voice and data communications-based network architectures. We believe that the technological, operational and cost benefits of our optical networking solutions create competitive advantages for service providers worldwide. We believe our solutions will become increasingly important as these service providers are being pressed by their customers to deliver services to address the dramatic growth

in Internet and other data communications traffic and at the same time need to find ways to reduce operating and capital expenses while ultimately realizing and improving profits. CIENA's strategy includes the following:

- ***Expand Our Base of Customers Using Our Optical Networking Solutions.*** We believe that achieving early widespread operational deployment of our systems in a particular carrier's network will provide CIENA significant competitive advantages with respect to additional optical networking deployments and will enhance our marketing to other carriers as a field-proven supplier. While continuing to aggressively serve our existing customers, we intend to actively pursue additional optical networking deployment opportunities among carriers in domestic and foreign long-distance, interoffice and local exchange markets.
- ***Target Incumbent Carriers.*** The nature of our customer base requires a focused sales effort on a customer-by-customer basis. We plan to shift the focus of our sales and marketing efforts towards incumbent carriers.
- ***Sustain Our Investment in Research and Development.*** We believe our future success will depend heavily on our ability to offer products that excel in meeting the needs of our customers—products that will allow them to reduce their capital expenditures and operating costs and to address the obstacles they will confront as they build out, grow and operate next-generation optical networks. In order to meet this challenge, we believe we must make significant and sustained investments in enhancing our existing products and developing new ones. We must also continue to monitor developments in optical networking technology and, where appropriate, make strategic investments or acquisitions designed to help us maintain our technological leadership. We will take advantage of our strong balance sheet to continue to make investments in these areas even during periods in which our revenues are reduced by temporary declines in demand.
- ***Continue to Emphasize Technical Support and Customer Service.*** CIENA markets technically advanced systems to sophisticated customers. The nature of CIENA's systems and market require a high level of technical support and customer service. We believe we have a good reputation for our technical support and customer service and we intend to emphasize our global service, and support capabilities as differentiating factors in our efforts to maintain and enhance our market position. CIENA offers complete engineering, furnishing and installation services, as well as full-time customer support, from strategic locations worldwide.
- ***Maintain World Class Manufacturing Capability.*** CIENA's optical networking systems play a critical role in our customers' networks. Quality assurance and manufacturing excellence are necessary for CIENA to achieve success. CIENA believes it has developed a world class optical manufacturing and system test capability and this capability provides CIENA with a competitive advantage. In addition, CIENA expects to utilize this expertise to leverage our manufacturing capability with contract manufacturers.
- ***Leverage the Company's High Bandwidth Technologies and Know-How.*** We believe there will be further opportunities for the application of next-generation solutions in service provider networks. We believe, for instance, that the bandwidth and capacity management enabled by next-generation equipment at the core of service provider networks will result in the need for more efficient traffic handling and management toward the edge of the network. CIENA expects to leverage the core competencies it has developed in the design, development and manufacturing of its optical transport and intelligent optical switching product lines by pursuing internal product development efforts, forming strategic alliances and making acquisitions to address these expected opportunities. CIENA intends to move aggressively to maintain leadership in the design and development of intelligent optical networking equipment and software that will both respond to customer needs and help customers move toward newer, higher capacity, more cost-efficient network designs for the future.
- ***Pursue the Opportunity for Solution Sales.*** As one of the few equipment vendors with a complete next-generation product set, CIENA is in a position to pursue a "solution sale" approach with carriers. CIENA is developing the capability to offer carriers a choice of choosing either an

open architecture approach to building networks—one that potentially combines equipment from multiple vendors, or an integrated solution from CIENA—one that utilizes only CIENA equipment. With an integrated CIENA network, service providers will be able to take advantage of significant capital cost savings through the application of integrated optics across CIENA's product lines. In addition, an integrated CIENA network will offer customers significant network management and service provisioning benefits that have the potential to lower operations costs. CIENA believes that during challenging economic times, service providers will look to consolidate the number of vendors from which they purchase. CIENA believes that its ability to offer carriers an integrated solution that delivers significant capital and operational cost savings over other vendors' solutions will be a strategic advantage.

Products

Our optical networking product portfolio is targeted at the critical areas of service provider networks: *intelligent optical switching, long-distance optical transport, short-distance optical transport, and network management.* CIENA's "open architecture" design means its products interoperate with most carriers' existing fiber optic transmission systems, and network elements, including connecting directly to either traditional voice equipment, or data-centric equipment.

Intelligent Optical Core Switching

MultiWave CoreDirector

- Provides traffic management and switching capability beyond current network solutions of up to 256 ports of OC-48 or up to 640 gigabits per second in a single 7 foot bay.
- Designed for in-service growth: scalable to 1,536 and 3,072 port configurations in the future.
- Designed to reduce capital equipment costs by displacing multiple legacy network devices.
- Designed to simplify service provisioning, in some cases reducing provisioning times from months to real-time.
- Offers the ability to switch at the wavelength level, OC-192, OC-48 or at levels down to an STS-1.
- May enable new revenue opportunities for service providers through new optical layer capabilities and services.
- Development to include benefits of both optical–optical ("OO") and optical-electrical-optical ("OEO") switching functionality integrated into one intelligent system.

CoreDirector CI

- Delivers CoreDirector functionality in a smaller package and at a lower entry cost that is ideal for lower capacity networks or smaller switching sites.
- Provides up to 64 ports of OC-48 or up to 160 gigabits per second in half the space occupied by a full size CoreDirector.

Next-Generation Multi-Service Access Switching

MultiWave MetroDirector K2

- Provides scalability from 1.5 megabits per second to 10 gigabits per second with total switching capacity of 480 gigabits per second.
- Extends the intelligence of CoreDirector software to the edge of the network and enables end-to-end point-and-click provisioning.
- Designed to reduce capital equipment costs by displacing multiple legacy network devices with a single network element.
- Supports multiple services including voice and native data over SONET, and will enable IP, ATM, 10/100 Ethernet, Gigabit Ethernet and VLAN services.

Long-Distance Optical Transport

MultiWave CoreStream

- CIENA's fourth generation carrier-class intelligent optical transport product.
- First commercially deployed 96-channel DWDM system with commercial shipments beginning in fiscal Q3 1999.
- Utilizes DWDM technology to deliver up to 96 optical channels at 2.5 gigabits per second (240 gigabits) or up to 48 channels at 10 gigabits per second (480 gigabits).
- Designed for in-service growth; scalable to handle 3.2 terabits of traffic in the future.
- With ultra-long haul features ultimately capable of transporting signals up to 5,000 kilometers without electrical regeneration.

MultiWave Sentry 4000

- CIENA's third generation carrier-class intelligent optical transport product.
- First commercially deployed 40-channel system with commercial shipments beginning in fiscal Q2 1998.
- Utilizes DWDM technology to deliver up to 40 channels at 2.5 gigabits per second (100 gigabits).

MultiWave Sentry 1600

- CIENA's second generation carrier-class intelligent optical transport product.
- First commercially deployed 16-channel system with commercial shipments beginning in the second half of fiscal 1996.
- Utilizes DWDM technology to deliver up to 16 channels at 2.5 gigabits per second (40 gigabits).
- Incorporated performance monitoring capabilities, not previously available in DWDM equipment.

MultiWave 1600

- CIENA's first generation carrier-class intelligent optical transport product.
- First commercially deployed 16-channel system with commercial shipments beginning in the first half of fiscal 1996.
- Utilizes DWDM technology to deliver 16 channels at 2.5 gigabits per second (40 gigabits).

Short-Distance Optical Transport

MultiWave Metro

- A carrier-class optical transport product designed specifically to address the performance and economic requirements of metropolitan markets.
- Provides up to 24 duplex channels over a single fiber pair, enabling a service provider to transport up to 60 gigabits per second.
- Supports multiple network topologies, such as rings, hubs, and stars.
- Allows service providers to carry non-SONET/SDH, data formats such as ESCON, Fibre Channel, Gigabit Ethernet and rate-adaptive Gigabit Ethernet, FICON, and digitized video.

MultiWave Metro One

- Offers the same carrier-class reliability and functionality as MultiWave Metro, but for a single channel in a reduced size and reduced power consumption package.

MultiWave Firefly

- MultiWave Firefly was developed specifically for use by carriers in short-distance, point-to-point applications.
- This system multiplexes up to 24 channels at 2.5 gigabits per second, over a single fiber pair, allowing a carrier to transport up to 60 gigabits per second.

Network Management

LightWorks ON-Center

- Fully integrated family of software-based tools for comprehensive element, network and service layer management across service provider networks.
- Designed to enable accelerated deployment of new, differentiating optical services, reduced network operating and management costs, and innovative customer service solutions.
- Designed so that service providers can select any or all components necessary to meet their particular network's management needs.
- Elements include:
  - an Optical Service Layer Management System for cross-vendor end-to-end service management;
  - an Optical Network Management System for integrated management across all of CIENA's intelligent optical transport, switching and access systems, and;
  - a Modeling and Planning System for network design.

Product Development

We believe there will be further opportunities for the application of next-generation solutions in service provider networks. We believe, for instance, that the bandwidth and capacity management enabled by next-generation equipment at the core of service provider networks will result in the need for more efficient traffic handling and management toward the edge of the network. CIENA expects to leverage the core competencies it has developed in the design, development and manufacturing of its optical transport and intelligent optical switching product lines by pursuing internal product development efforts, forming strategic alliances and making acquisitions to address these expected opportunities. We also believe there may be opportunities for us to develop products and technologies complementary to existing optical networking technologies which may broaden our ability to provide, facilitate and/or interconnect with high bandwidth solutions offered throughout fiber optic networks. CIENA intends to focus its product development efforts and possibly pursue strategic alliances or acquisitions to address expected opportunities in these areas.

Customers

CIENA has announced publicly relationships with the following forty-seven customers:

1 AFN Communications, LLC (US)
2 Alltel Corporation (US)
3 AT&T Corp. (US)
4 Beijing IDN Telecom Corporation Ltd.,(CEC/IDN) (China)
5 BellSouth Telecommunications, Inc. (US)
6 Broadwing Communications Services, Inc. (US)
7 Cable & Wireless Communications Services Limited (UK)
8 Cable & Wireless USA, Inc. (US)
9 CompleTel SAS (France)
10 Crosswave Communications, Inc. (Japan)
11 Daini Deuden Inc. (Japan)
12 Digital Teleport, Inc. (US)
13 Dynegy Inc. (Europe)
14 eAccess, Ltd. (Japan)
15 Ebone (formerly GTS Network Limited) (Belgium)
16 El Paso Global Networks (US)
17 Enron Communications, Inc. (US)
18 ESAT Telecom (Ireland)
19 FLAG Telecom Holdings Ltd. (Global)
20 Genuity Solutions Inc. (US)
21 Global Crossing Limited (UK)

22 HanseNet GmbH (Germany)
23 Intermedia Communications Inc. (US)
24 Interoute Telecommunications Limited (Europe)
25 Japan Telecom (Japan)
26 KDD Network Systems Co. Ltd. (Japan)
27 Korea Telecom (Korea)
28 Level 3 Communications, Inc. (US)
29 McLeod USA, Inc. (US)
30 MetroRed Telecomunicacoes Ltda. (Brazil)
31 MobilCom (Germany)
32 Operadora Protel, S.A. de C.V. (Mexico)
33 PSINet, Inc. (US)
34 Qwest Communications Corporation (US)
35 RCN of Pennsylvania, Inc. (US)
36 Sigma Networks, Inc. (US)
37 Sprint Corporation (US)
38 TANet (formerly Fibernet UK Limited) (UK)
39 Telecom Developpement (France)
40 Telia AB (Sweden)
41 Tycom Ltd. (Global)
42 Verizon Communications, Inc. (US)
43 Williams Communications, Inc. (US)
44 WorldCom, Inc. (US)
45 WorldCom, Inc. (Europe)
46 XO Communications, Inc. (US)
47 Zephyr Telecommunications (Europe)

In addition, CIENA has several unannounced customer relationships.

Marketing and Distribution

CIENA's intelligent optical networking systems require substantial investment, and our target customers in the fiber optic telecommunications market—where network capacity and reliability are critical—are highly demanding and technically sophisticated. There are only a small number of such customers in any country or geographic market. Also, every network operator has unique configuration requirements, which affect the integration of optical networking systems with existing transmission equipment. The convergence of these factors leads to a very long sales cycle for optical networking equipment, often more than a year between initial introduction to the Company and commitment to purchase, and has further led CIENA to pursue sales efforts on a focused, customer-by-customer basis. See Item 7. "Management's Discussion and Analysis of Financial Conditions and Results of Operations."

CIENA has organized worldwide sales activities by geographical regions: North America; Latin America; Europe, Middle East, and Africa; and Asia Pacific. Sales teams, comprised of an account manager, systems engineers and technical support and training personnel, are assigned responsibility for each customer account. In some countries CIENA makes use of distributors, independent marketing representatives or independent sales consultants. CIENA has established offices in Belgium, Brazil, Canada, China, France, Germany, Japan, Korea, Mexico, Spain, Sweden, United Kingdom and United States.

In support of its worldwide selling efforts, CIENA conducts marketing communications programs intended to position and promote its products within the telecommunications industry. Marketing personnel also coordinate our participation in trade shows and conduct media relations activities with trade and general business publications.

Manufacturing

CIENA conducts most of the optical assembly, final assembly and final component, module and system test functions for its optical transport products at its manufacturing facilities in Maryland. It also manufactures the in-fiber Bragg gratings used in its optical transport product lines. CIENA relies on a small number of contract manufacturers to manufacture its MultiWave CoreDirector and MultiWave MetroDirector K2 product lines, with final system test and assembly performed by CIENA. We also rely on third party manufacturers to manufacture the majority of the components for our products and continue to evaluate whether additional portions of our manufacturing can be done on a reliable and cost-effective basis by third party manufacturers.

CIENA believes that portions of its manufacturing technologies and processes represent a competitive advantage. We have invested significantly in automated production capabilities, production process control systems, and manufacturing process improvements. Certain critical manufacturing functions require a highly skilled work force, and CIENA invests significant resources in training and in maintaining the quality of its manufacturing personnel.

CIENA's optical transport product lines utilize hundreds of individual parts, many of which are customized for us. Component suppliers in the specialized, high technology end of the optical communications industry are generally not as plentiful or, in some cases, as reliable, as component suppliers, in more mature industries. CIENA works closely with its strategic component suppliers to pursue new component technologies that could either reduce cost or enhance the performance of our products.

Competition

Competition in the telecommunications equipment industry is intense, particularly in that portion of the industry focused on delivering higher bandwidth and more cost effective services throughout the telecommunications network. CIENA believes that its position as a leading supplier of open architecture optical networking equipment gives it a competitive advantage and expects to leverage that advantage by gaining general market acceptance of its core and access switching products. However, competition has been and will continue to be very intense. See Item 7. "Management's Discussion and Analysis of Financial Conditions and Results of Operations."

CIENA's competition is dominated by a small number of very large, usually multinational, vertically integrated companies, each of which has substantially greater financial, technical and marketing resources, and greater manufacturing capacity as well as better established relationships with the incumbent carriers than CIENA. Included among CIENA's competitors are Lucent Technologies Inc., ("Lucent"), Northern Telecom Inc. ("Nortel"), Alcatel Alsthom Group ("Alcatel"), NEC Corporation ("NEC"), Cisco Systems, Inc. ("Cisco"), Siemens AG ("Siemens"), Fujitsu Group ("Fujitsu"), Hitachi Ltd. ("Hitachi") and Telefon AB LM Ericsson ("Ericsson"). CIENA also believes that several smaller companies, such as ONI Systems Corp. ("ONI"), Sycamore Networks, Inc. ("Sycamore"), Corvis Corporation ("Corvis"), and Tellium, Inc. ("Tellium"), will be able to win some share of the optical networking market. CIENA believes each of its major competitors is engaged in the development, introduction or deployment of products directly competitive with CIENA's optical transport, core switching and next-generation multi-service access and switching platforms.

In addition to optical networking equipment suppliers, traditional TDM-based transmission, SONET multiplexing, and digital cross-connect equipment suppliers compete with CIENA in the market for transmission capacity and switching capabilities. Lucent, Alcatel, Tellabs, Inc. ("Tellabs"), Nortel, Fujitsu, Hitachi and NEC are already providers of a full complement of such transmission and switching equipment. These and other competitors have introduced or are expected to introduce equipment that will offer 10 Gbps transmission and/or switching capability.

Patents and Other Intellectual Property Rights

CIENA has licensed intellectual property from third parties, including certain key enabling technologies with respect to the production of in-fiber Bragg gratings; utilized publicly available technology associated with Erbium-doped fiber amplifiers; and applied its design, engineering and manufacturing skills

to develop its optical transport systems. These licenses expire when the last of the licensed patents expires or is abandoned. CIENA also licenses from third parties certain software components for its network management products. These licenses are perpetual but will generally terminate after an uncured breach of the agreement by CIENA. CIENA also relies on contractual rights, trade secrets and copyrights to establish and protect its proprietary rights in its products.

CIENA enforces its intellectual property rights vigorously against infringement or misappropriation. CIENA's practice is to require its employees and consultants to execute non-disclosure and proprietary rights agreements upon commencement of employment or consulting arrangements with CIENA. These agreements acknowledge CIENA's exclusive ownership of all intellectual property developed by the individual during the course of his or her work with CIENA, and require that all proprietary information disclosed to the individual will remain confidential. CIENA's employees generally also sign agreements not to compete with CIENA for a period of twelve months following any termination of employment.

As of November 2001, CIENA had received 81 United States patents, and 213 pending U.S. patent applications. We also have a number of foreign patents and patent applications. Of the United States patents that have been issued to CIENA, the earliest any will expire is 2015. Pursuant to an agreement between CIENA and General Instrument Corporation dated March 10, 1997, CIENA is a co-owner with General Instrument Corporation of a portfolio of 27 United States and foreign patents relating to optical communications, primarily for video-on-demand applications. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Employees

As of October 31, 2001, CIENA and its subsidiaries employed 3,778 persons, of whom 962 were primarily engaged in research and development activities, 1,624 in manufacturing, 275 in installation services, 578 in sales, marketing, customer support and related activities and 339 in administration. On November 12, 2001, CIENA announced a reduction in its manufacturing and manufacturing support workforce of approximately 10 percent or approximately 380 employees. None of CIENA's employees are currently represented by a labor union. CIENA considers its relations with its employees to be good.

Directors and Executive Officers

The table below sets forth certain information concerning each of the directors and executive officers of CIENA:

Name	Age	Position
Patrick H. Nettles, Ph.D.[1]	58	Executive Chairman of the Board of Directors
Gary B. Smith[1]	41	President, Chief Executive Officer and Director
Stephen B. Alexander	42	Senior Vice President, Chief Technology Officer
Steve W. Chaddick	50	Senior Vice President, Systems and Technology and Chief Strategy Officer
Joseph R. Chinnici	47	Senior Vice President, Finance and Chief Financial Officer
Michael O. McCarthy III	36	Senior Vice President, Worldwide Sales and Support
Russell B. Stevenson, Jr.	60	Senior Vice President, General Counsel and Secretary
Andrew C. Petrik	38	Vice President, Controller and Treasurer
Stephen P. Bradley, Ph.D.[1][3]	60	Director
Harvey B. Cash[1][2]	63	Director
John R. Dillon[1][3]	60	Director
Lawton W. Fitt[1][3]	48	Director
Judith M. O'Brien[1][2]	51	Director
Gerald H. Taylor[1][2]	60	Director

[1] The Company's Directors hold staggered terms of office, expiring as follows: Ms. Fitt and Messrs Dillon and Nettles in 2004; Ms. O'Brien and Messrs Cash and Smith in 2002; Messrs Bradley and Taylor in 2003

[2] Member of the Human Resources Committee

[3] Member of the Audit Committee

Patrick H. Nettles, Ph.D. has served as Executive Chairman of the Board of Directors since May 2001. From October 2000 until May 2001, Dr. Nettles served as CIENA's Chairman of the Board of Directors and Chief Executive Officer. From April 1994 until October 2000, Dr. Nettles served as President, Chief Executive Officer and Director of the Company. Dr. Nettles is a Trustee for the California Institute of Technology and a member of the advisory board to the President of Georgia Institute of Technology. Additionally, he serves on the board of trustees of the Center for Excellence in Education and was elected to the board of directors at Axcelis Technologies, Inc. Dr. Nettles received his B.S. degree from the Georgia Institute of Technology and his Ph.D. from the California Institute of Technology.

Gary B. Smith began serving as Chief Executive Officer of CIENA in May 2001, in addition to his existing responsibilities as President and Director, positions he has held since October 2000. Prior to his current role, his positions with the Company included: Chief Operating Officer and Senior Vice President of Worldwide Sales. Mr. Smith joined CIENA in November 1997 as Vice President of International Sales. From 1995 through 1997, Mr. Smith served as Vice President of Sales and Marketing for Intelsat. Mr. Smith currently serves on the board of directors for Valaran Corporation. Mr. Smith received an M.B.A. from Ashridge Management College, U.K.

Stephen B. Alexander has served as Senior Vice President and Chief Technology Officer of CIENA since January 2000. He served as CIENA's Vice President and Chief Technology Officer from September 1998 to January 2000, and as Vice President, Transport Products from September 1996 to August 1998. Mr. Alexander has served as an Associate Editor for the Journal of Lightwave Technology and was a General Chair of the conference on Optical Fiber Communication (OFC) in 1997. Mr. Alexander received both his B.S. and M.S. degrees in electrical engineering from the Georgia Institute of Technology.

Steve W. Chaddick was appointed CIENA's Chief Strategy Officer in May 2001, in addition to his existing responsibilities as Senior Vice President, Systems and Technology, a role he has held since February 2000. Between July 1999 and February 2000, Mr. Chaddick served as President of CIENA's Core Switching Division. From August 1998 to July 1999, he served as the Company's Senior Vice President, Strategy and Corporate Development, and from CIENA's inception in 1994 until August 1998, Mr. Chaddick served as Vice President, Product Development, and Senior Vice President, Products and Technologies. Mr. Chaddick holds several patents in the area of WDM systems and techniques, and serves on the Georgia Tech Advisory board, the Advisory board of the School of Electrical and Computer Engineering. Mr. Chaddick received both his B.S. and M.S. degrees in electrical engineering from the Georgia Institute of Technology and is a member of the Georgia Tech Academy of Distinguished Engineering Alumni.

Joseph R. Chinnici has served as CIENA's Senior Vice President, Finance and Chief Financial Officer since August 1997. From May 1995 to August 1997, Mr. Chinnici served as the Company's Vice President, Finance and Chief Financial Officer. Mr. Chinnici joined CIENA in September 1994 as its Controller. Mr. Chinnici serves on the board of directors for OTG Software and holds a B.S. degree in accounting from Villanova University and an M.B.A. from Southern Illinois University.

Michael O. McCarthy III has served as CIENA's Senior Vice President, Worldwide Sales and Support since May 2001. Mr. McCarthy served as the Company's Vice President and General Counsel from July 1999 to May 2001 and previously served as the Assistant General Counsel from September 1997 to July 1999. From June 1996 to September 1997 Mr. McCarthy was a Corporate Counsel in MCI Communications Corporation's mergers and acquisitions group. Mr. McCarthy holds a B.A. degree in mathematical economics from Colgate University and a J.D. degree from Vanderbilt University's School of Law.

Russell B. Stevenson, Jr. has served as Senior Vice President, General Counsel and Secretary since joining CIENA in August 2001. From March 2000 to August 2001, he was Executive Vice President, General Counsel and Secretary of ARBROS Communications, Inc.,

an integrated communications provider. From 1996 to 2000, Mr. Stevenson was Executive Vice President and General Counsel of Cyber Cash, Inc. Mr. Stevenson graduated with distinction from Cornell University and Cum Laude from Harvard Law School.

Andrew C. Petrik has served as Vice President, Controller and Treasurer of CIENA since August 1997. He served as Controller and Treasurer for the Company from December 1996 to August 1997. Mr. Petrik joined CIENA in 1996 as Controller. From 1989 to 1996, Mr. Petrik was employed by Microdyne Corporation where he was the Assistant Vice President of Marketing and Product Planning from 1994 to 1996. Mr. Petrik holds a B.S. degree in accounting from the University of Maryland and is a Certified Public Accountant.

Stephen P. Bradley, Ph.D. has served as a Director of the Company since April 1998. Professor Bradley is a William Ziegler Professor of Business Administration and the Chairman of the Program for Management Development 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 and teaches in Harvard's Delivering Information Services program. Professor Bradley has written extensively on the telecommunications industry and the impact of technology on competitive strategy. Professor Bradley received his B.E. degree in electrical engineering from Yale University in 1963 and his M.S. degree and Ph.D. in operations research from the University of California, Berkeley, in 1965 and 1968 respectively.

Harvey B. Cash has served as a Director of the Company 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 the following public companies; i2 Technologies, Silicon Laboratories, MicroTune, Inc. and Liberté, Inc. Mr. Cash received a B.S. degree in electrical engineering from Texas A&M University and an M.B.A. degree from Western Michigan University. Mr. Cash served on the board of directors of Benchmarq Microelectronics from 1990 to 1999, on the board of directors of Aurora Electronics, Inc. from 1991 to 1999 and on the board of AMX Corp. from 1996 to 2001.

John R. Dillon has served as a Director of the Company since October 1999. Mr. Dillon serves on the board of directors of Airgate PCS. Mr. Dillon's experience includes a variety of positions at such companies as The Coca-Cola Company, Scientific Atlanta and Fuqua National. Mr. Dillon joined Cox Communications in 1981 as Vice President, Finance, and Chief Financial Officer. He was instrumental in taking the Company private in 1985 and merging it with Cox Newspapers to form Cox Enterprises, at which time he was elected Senior Vice President, CFO and a member of the board of directors. At Cox Enterprises, he was responsible for all corporate financial activities as well as planning and development until his retirement in December 1996. Mr. Dillon holds an M.B.A. degree from Harvard Business School and a B.E.E. degree from Georgia Institute of Technology, where he was elected to the Academy of Distinguished Engineering Alumni in 1997. He was a founding director of the Georgia Center for Advanced Telecommunications Technology and served on the Georgia Institute of Technology National Advisory Board.

Lawton W. Fitt became a Director of the Company in November 2000. Ms. Fitt was elected a partner at Goldman Sachs in 1994 and has been a managing director since 1996. She has been involved in investment banking and equity underwriting for high-technology companies, including numerous initial public offerings in the Internet, software and communications equipment sectors. Ms. Fitt is currently co-head of Goldman Sachs' European High Technology Investment Banking Group. Ms. Fitt serves as a director on the boards of Wink Communications, Inc. and NewView Corporation. Ms. Fitt is a trustee of the Darden School Foundation. Ms. Fitt received an A.B. degree in European History from Brown University and her M.B.A. degree from the Darden School of the University of Virginia.

Judith M. O'Brien has served as a Director of the Company since July 2000. Since February 2001, Ms. O'Brien has been a Managing Director at INCUBIC L.L.C. From 1984 until 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. In July 1993, Ms. O'Brien was named as one of the top 25 lawyers under 45 in California by the California Law Business, and in 1997 she was named one of the top five women attorneys in Northern California by the California Lawyer as well as one of the leading women securities lawyers by The Recorder. In February 2001 she was named one of the nation's top 100 venture investors in 2000. Ms. O'Brien received her B.A. from Smith College and her law degree from UCLA, where she was a member of Order of the Coif.

Gerald H. Taylor has served as a Director of the Company since January 2000. Mr. Taylor serves as a Managing Member of mortonsgroup, LLC and serves on the board of directors of Lafarge Corporation, INETO and Intelliden. Mr. Taylor brings 29 years of experience from MCI. During his employment with MCI, Mr. Taylor was integrally involved in establishing MCI as one of the world's largest telecommunications companies. In addition to his roles as Chief Executive Officer from November 1996 to October 1998, as President from July 1994 to November 1996, and as Chief Operating Officer from 1993 until 1996, Mr. Taylor held key roles in operations, sales and marketing. Since 1998 Mr. Taylor has worked as an independent consultant for the telecom industry. Mr. Taylor received a B.S. degree in physics from San Francisco State University.

Company

CIENA Corporation was incorporated in Delaware in November 1992. We completed our initial public offering on February 7, 1997, a secondary offering on July 2, 1997, and a follow-on offering on February 9, 2001. CIENA's principal executive offices are located at 1201 Winterson Road, Linthicum, Maryland 21090. Our telephone number is (410) 865-8500.

"CIENA," "CIENA MultiWave," "WaveWatcher," "Module Scope," "CIENA Optical Communications," "MultiWave," and "MultiWave Sentry" are registered trademarks of CIENA. "CIENA Simply Smarter Light," "CoreDirector," "CoreDirector CI," "CoreStream," "Delivering On The Vision," "Direct Connect," "Fastmesh," "Fastpath," "Flexible Concatenation," "Intelligent Optical Internet," "JEM," "LightWorks," "LightWorks OS," "LightWorks ONCenter," "LightWorks Toolkit," "MultiWave Firefly," "MultiWave CoreDirector," "MultiWave CoreStream," "MultiWave Metro," "MultiWave Metro One," "MultiWave Mocha," "MultiWave Opcenter," "ONCenter," "OSRP," "Simply Smarter Light," "SmartSpan," "SmartSupport," "SmartTools," "VLSR," "Wavelength Binding," "WaveLock," and "WaveLogic" are trademarks of CIENA under state law.

item 2 properties

As of October 31, 2001, all of CIENA's properties are leased. CIENA's principal executive offices are located in Linthicum, Maryland. We lease space at 14 buildings located at various sites near Linthicum, Maryland, two as engineering facilities, nine as manufacturing facilities, two as sales facilities and one as an administrative facility. The Company has engineering and or manufacturing facilities located in Marlborough, Massachusetts; Alpharetta, Georgia; Cupertino, California; and Fremont, California.

The Company also leases various small offices in the United States and abroad to support its sales and installation services. For additional information regarding the Company's lease obligations, see Item 8. "Financial Statements and Supplementary Data."

We recorded a restructuring charge of $15.4 million relating to consolidation of excess facilities during fiscal 2001. The consolidation included the closure of certain manufacturing warehouse facilities and the consolidation of certain operational centers related to business activities that have been restructured. The charge included $7.0 million primarily related to lease terminations and non-cancelable lease costs and also included $8.4 million write-down related to property and equipment consisting primarily of leasehold improvements and production equipment.

item 3 legal proceedings

On July 19, 2000, CIENA and CIENA Properties, Inc., a wholly owned subsidiary of CIENA, filed a complaint in the United States District Court for the District of Delaware requesting damages and injunctive relief against Corvis Corporation. The complaint charges Corvis Corporation with infringing several patents relating to CIENA's optical networking communication systems and technology. On September 8, 2000, Corvis filed an Answer and Counterclaim alleging invalidity, non-infringement and unenforceability of the asserted patents, and tortious interference with prospective economic advantage. CIENA believes that Corvis' counterclaims are without merit, and intends to defend itself vigorously. The suit is still in discovery proceedings. The trial of the matter is scheduled to begin on April 1, 2002. On the basis of the proceedings so far, we continue to believe we have a strong case on both our own claim and the counterclaim. Litigation is inherently uncertain, however, and there remains a possibility that we could lose either or both.

On October 3, 2000, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into CIENA's products infringe U.S. Patent No. 4,859,016. We are unable to estimate what impact, if any, an adverse outcome would have on the Company. To date, we have not been served with a complaint in the proceeding. If served, we intend to defend the action vigorously.

item 4 submission of matters to a vote of security holders

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2001.

part two

item 5 market for registrant's common stock and related stockholder matters

CIENA's Common Stock is traded on the NASDAQ National Market under the symbol CIEN. The following table sets forth for the fiscal periods indicated the high and low sales prices of the Common Stock, as reported on the NASDAQ National Market, adjusted to reflect the two-for-one stock split of the Common Stock, which became effective on September 18, 2000.

	Price Range of Common Stock	
	High	**Low**
Fiscal Year 2000		
First Quarter ended January 31, 2000	$ 39.69	$16.75
Second Quarter ended April 30, 2000	$ 94.50	$30.03
Third Quarter ended July 31, 2000	$ 90.13	$44.94
Fourth Quarter ended October 31, 2000	$151.00	$64.19
Fiscal Year 2001		
First Quarter ended January 31, 2001	$121.38	$59.56
Second Quarter ended April 30, 2001	$ 94.00	$33.50
Third Quarter ended July 31, 2001	$ 66.73	$28.29
Fourth Quarter ended October 31, 2001	$ 37.03	$ 9.20

The closing sale price for the Common Stock on November 2, 2001 was $15.09.

The market price of CIENA's Common Stock has fluctuated significantly and may be subject to significant fluctuations in the future. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

As of October 31, 2001, there were approximately 1,787 holders of record of CIENA's Common Stock and 328,022,264 shares of Common Stock outstanding.

CIENA has never paid cash dividends on its capital stock. CIENA currently intends to retain earnings for use in its business and does not anticipate paying any cash dividends in the foreseeable future.

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." CIENA has 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 1997, 1998, 1999 and 2000 comprised 52 weeks and fiscal 2001 comprised 53 weeks.

			As of October 31,		
(in thousands)	**1997**	**1998**	**1999**	**2000**	**2001**
Balance Sheet Data:					
Cash and cash equivalents	$273,286	$250,714	$143,440	$ 143,187	$ 397,890
Working capital	338,078	391,305	427,471	639,675	1,936,707
Total assets	468,247	602,809	677,835	1,027,201	3,317,301
Long-term obligations, excluding current portion	1,900	3,029	4,881	4,882	869,865
Stockholders' equity	$377,278	$501,036	$530,473	$ 809,835	$2,128,982

(in thousands, except per share data)	Year Ended October 31, 1997	1998	1999	2000	2001
Statement of Operations Data:					
Revenue	$413,215	$508,087	$482,085	$858,750	$ 1,603,229
Cost of goods sold	166,472	256,014	299,769	477,393	904,549
Gross profit	246,743	252,073	182,316	381,357	698,680
Operating expenses:					
Research and development (exclusive of $0, $0, $0, $0 and $17,825 deferred stock compensation costs)	23,773	71,186	101,006	125,434	235,831
Selling and marketing (exclusive of $0, $0, $0, $0 and $8,336 deferred stock compensation costs)	22,627	47,343	61,603	90,922	146,949
General and administrative (exclusive of $40, $40, $40, $40 and $15,206 deferred stock compensation costs)	11,436	18,428	22,696	33,960	57,865
Settlement of accrued *contract obligation*	—	—	—	(8,538)	—
Deferred stock compensation costs	40	40	40	40	41,367
Amortization of goodwill	—	2,341	3,197	3,197	177,786
Amortization of intangible assets	—	229	438	438	4,413
In-process research and development	—	9,503	—	—	45,900
Restructuring costs	—	—	—	—	15,439
Goodwill impairment	—	—	—	—	1,719,426
Pirelli litigation	7,500	30,579	—	—	—
Merger related costs	—	2,548	13,021	—	—
Provision for doubtful accounts	489	806	250	28,010	(6,579)
Total operating expenses	65,865	183,003	202,251	273,463	2,438,397
Income (loss) from operations	180,878	69,070	(19,935)	107,894	(1,739,717)
Other income (expense), net	7,178	12,830	13,944	12,680	32,988
Income (loss) before income taxes	188,056	81,900	(5,991)	120,574	(1,706,729)
Provision (benefit) for income taxes	72,488	36,200	(2,067)	39,187	87,333
Net income (loss)	$115,568	$ 45,700	$ (3,924)	$ 81,387	$(1,794,062)
Basic net income (loss) *per common share*	$ 0.76	$ 0.19	$ (0.01)	$ 0.29	$ (5.75)
Diluted net income (loss) per common and dilutive potential common share	$ 0.55	$ 0.18	$ (0.01)	$ 0.27	$ (5.75)
Weighted average basic common shares outstanding	151,928	235,980	267,042	281,621	311,815
Weighted average basic common and dilutive potential common shares outstanding	209,686	255,788	267,042	299,662	311,815

Adjusted Statement of Operations Data

CIENA provides adjusted net income and as adjusted net income per share data to assist readers in understanding our operating results. These adjustments are not in accordance with, or an alternative for, generally accepted accounting principles and may be different from the presentation of financial information provided by other companies. See Item 8. "Financial Statements and Supplementary Data" for CIENA's complete financial statements presented under generally accepted accounting principles:

	Year Ended October 31,				
(in thousands, except per share data)	1997	1998	1999	2000	2001
Net income (loss)	$115,568	$ 45,700	$ (3,924)	$ 81,387	$(1,794,062)
Payroll tax on stock option[1]	—	—	—	5,667	2,600
Settlement of accrued contract obligation	—	—	—	(8,538)	—
Deferred stock compensation costs[2]	40	40	40	40	41,367
Amortization of goodwill	—	2,341	3,197	3,197	177,786
Amortization of intangible assets	—	229	438	438	4,413
In-process research and development	—	9,503	—	—	45,900
Restructuring costs	—	—	—	—	15,439
Goodwill impairment	—	—	—	—	1,719,426
Pirelli litigation	7,500	30,579	—	—	—
Merger related costs	—	2,548	13,021	—	—
Provision for doubtful accounts	489	806	250	28,010	(6,579)
Income tax effect	(3,079)	(12,180)	(4,730)	(9,364)	(11,031)
Adjusted net income	$120,518	$ 79,566	$ 8,292	$100,837	$ 195,259
Adjusted diluted net income (loss) per common and dilutive potential common share[3]	$ 0.57	$ 0.31	$ 0.03	$ 0.34	$ 0.60
Adjusted weighted average basic common and dilutive potential common shares outstanding[3]	209,686	255,788	289,431	299,662	324,670

[1] Payroll tax on stock option exercises of $5.7 million during fiscal 2000 was allocated to research and development ($1.3 million), sales and marketing ($2.2 million) and general and administrative ($2.2 million). Payroll tax on stock option exercises of $2.6 million during fiscal 2001 was allocated to research and development ($0.9 million), sales and marketing ($0.3 million) and general and administrative ($1.4 million).

[2] Deferred stock compensation costs of $41.4 million during fiscal 2001 was allocated to research and development ($17.9 million), sales and marketing ($8.3 million) and general and administrative ($15.2 million).

[3] As adjusted net income per share is computed using the as adjusted weighted-average number of common shares and dilutive potential common shares outstanding during the period.

item 7 management's discussion and analysis of financial condition and results of operations

The following discussion and analysis should be read in conjunction with "Selected Consolidated Financial Data" and the Company's consolidated financial statements and notes thereto included elsewhere in this report on Form 10-K.

Overview

CIENA is a leader in the intelligent optical networking equipment market. We offer a portfolio of products for communications service providers worldwide. Our customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, wireless and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. We have pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

CIENA's LightWorks architecture is an optical networking architecture designed to reduce both the capital and the operating costs of building service provider networks. The LightWorks architecture addresses the critical areas of optical networking: long-distance optical transport, short-distance optical transport, intelligent optical switching, and network management. It allows us to combine the functionalities that previously required several network elements into a single element, thereby lowering the customer's capital equipment requirements and simplifying its network so as to reduce operating costs.

The products included in CIENA's LightWorks architecture can be sold together as a complete network solution or separately as best-of-breed solutions. Products include four generations of long-distance optical transport systems: MultiWave 1600, MultiWave Sentry 1600, MultiWave Sentry 4000, and MultiWave CoreStream. LightWorks also includes CIENA's short-distance optical transport products: MultiWave Firefly, MultiWave Metro, and MultiWave Metro One. CIENA's LightWorks architecture also includes its MultiWave CoreDirector family of optical core switching products: MultiWave CoreDirector and MultiWave CoreDirector CI. Our LightWorks architecture also includes MultiWave MetroDirector K2. The recently introduced MultiWave MetroDirector K2 is a next-generation multi-service access and switching platform designed to help carriers alleviate metro area gridlock, while providing the opportunity for increased revenue and performance from their existing networks.

On February 9, 2001, we completed a public offering of 11,000,000 shares of common stock at a price of $83.50 per share less underwriters' discounts and commissions. Concurrent with this offering we also completed a public offering of 3.75% convertible notes with an aggregate principal amount of $690 million. The aggregate net proceeds from these offerings were approximately $1.6 billion, after deducting underwriting discounts, commissions and offering expenses. Pending our use of the net proceeds, we have invested them in interest bearing, investment grade securities.

On March 29, 2001, CIENA acquired all of the outstanding capital stock, and assumed the options of Cyras Systems, Inc. ("Cyras"), a privately held provider of next-generation optical networking systems based in Fremont, California. The purchase price was approximately $2.2 billion and consisted of the issuance of approximately 26.1 million shares of CIENA common stock, the assumption of approximately 1.9 million stock options and the indirect assumption of $150 million principal amount of Cyras' convertible subordinated indebtedness. The Cyras K2 product, which has become CIENA's MultiWave MetroDirector K2, became available for shipment in the third quarter of fiscal 2001.

As part of our review of financial results for 2001, we performed an assessment of the carrying value of our long-lived assets including significant amounts of goodwill and other intangible assets recorded in connection with the acquisition of Cyras. Pursuant to Statement Financial Accounting Standards No. 121 "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of" (SFAS 121) the assessment was performed because of the significant negative industry and economic trends affecting both the Company's current operations and expected future sales of MultiWave MetroDirector K2 as well as the general decline of technology valuations. It was concluded that the decline in market conditions within the Company's industry was significant and other than temporary. As a result, the Company recorded a charge of $1.7 billion to reduce goodwill during the fourth quarter of 2001 based on the amount by which the carrying amount of these assets exceeded their estimated fair value. The write-down is related to the goodwill associated with the Cyras transaction.

In the fourth quarter of fiscal 2001, we also recorded a restructuring charge of $15.4 million related to the consolidation of excess facilities. The consolidation included the closure of certain manufacturing warehouse facilities and the consolidation of certain operational centers related to business activities that have been restructured. The restructuring charge had two primary components. The first component was $7 million related lease terminations and non-cancelable lease costs. This amount is included in the Company's accrued liabilities at October 31, 2001. As of October 31, 2001, none of these exit costs have been paid; the Company expects to pay these costs over the remaining lease terms. There have been no adjustments to the lease liability. The second component of the restructuring was a write-down to fair value of leasehold improvements and fixed assets associated with the leases being consolidated. The Company determined the fair value of these assets based on current market conditions and recent sales activity from this type of asset. The write-down of these assets is classified in the restructuring charges on the statement of operations.

As of October 31, 2001, the Company and its subsidiaries employed approximately 3,778 persons, which was an increase of 1,003 persons over the approximate 2,775 employed on October 31, 2000. On November 12, 2001, we announced a workforce reduction of approximately 380 employees concentrated in manufacturing operations staff. Affected employees will be paid through January 10, 2002 and will be eligible for additional severance packages. They also received outplacement assistance and training. CIENA will record a restructuring charge of between $5 million and $6 million associated with this action, in the first quarter of fiscal 2002.

For much of the last five years the market for our equipment has been influenced by the entry into the communications services business of a substantial number of new companies. In the United States this was due largely to changes in the regulatory environment, in particular those brought about by the Telecommunications Act of 1996. These new companies raised billions of dollars in capital, much of which they invested in new plant, causing an acceleration in the growth of the market for telecommunications equipment.

The last year or so has seen a reversal of this trend, including the failure of a large number of the new entrants and a sharp contraction of the availability of capital to the industry. This, in turn, has caused a substantial reduction in demand for telecommunications equipment, including our products.

This industry trend has been compounded by the slowing not only of the United States economy—which is now in recession—but the economies in virtually all of the countries in which we are marketing our products. Moreover, the economic uncertainty has been accentuated by the events of September 11, 2001. The combination of these factors has caused most of our customers to become more conservative in their capital investment plans and more uncertain about their future purchases. As a consequence, we are facing a market that is, both reduced in absolute size and more difficult to predict and plan for.

Results of Operations

Fiscal Years Ended 2001, 2000 and 1999

Revenue. We recognized $1,603.2 million, $858.8 million and $482.1 million in revenue for the fiscal years ended October 31, 2001, 2000, and 1999, respectively. The increase in revenue of approximately $744.4 million, or 86.7% from fiscal 2000 to 2001 was due primarily to an increase in shipments of both long-distance optical transport products, primarily configured for 10.0 Gbps transmission rates, and intelligent core switching products. The increase in revenue of approximately $376.7 million, or 78.1%, from fiscal 1999 to fiscal 2000 was due primarily to an increase in shipments across all product lines.

CIENA recognized revenues from a total of 53, 32 and 27 optical equipment customers during fiscal 2001, 2000, and 1999, respectively. During fiscal 2001, Sprint and Qwest Communications each accounted for at least 10% of our revenue and together they accounted for 50.5% of total revenue. During fiscal 2000, Sprint, Qwest Communications and GTS Network Ltd. each accounted for at least 10% of our revenue and combined they accounted for 60.9% of total revenue. During fiscal 1999 Sprint, WorldCom, and GTS Network Ltd., each accounted for at least 10% of our revenue and combined they accounted for 46.2% of total revenue. Revenue from overseas sales accounted for approximately 23.9%, 33.0% and 44.3%, of our total revenue during fiscal 2001, 2000 and 1999 respectively.

For the reasons discussed above in the overview, we anticipate our revenue for first quarter of fiscal 2002, will be less, and possibly significantly less than our revenues in the 4th fiscal quarter 2001. Given the current uncertainty in the market we have limited visibility of our revenues for fiscal 2002. See "Risk Factors."

Gross Profit. Cost of goods sold consists of component costs, direct compensation costs, warranty and other contractual obligations, royalties, license fees, inventory obsolescence costs and overhead related to the Company's manufacturing and engineering, furnishing and installation operations. Gross profit was $698.7 million, $381.4 million and $182.3 million for fiscal 2001, 2000, and 1999, respectively. Gross margin was 43.6%, 44.4% and 37.8% for fiscal 2001, 2000 and 1999, respectively. The decrease in gross margin from fiscal 2000 to fiscal 2001 was due primarily to an increase in inventory obsolescence costs and price reductions resulting from competitive pressures, which were partially offset by increased sales of higher margin products such as MultiWave CoreDirector systems and LightWorks On-Center network element and service management software. The increase in gross margin from fiscal 1999 to fiscal 2000 was due primarily to lower component costs and improved production efficiencies.

As discussed above, our current ability to make reliable forecasts for fiscal 2002 is limited. It is possible, however, that we could experience reductions of gross margins compared to fiscal 2001 as a result of one or more of several factors, including changes in product mix, downward pressure on pricing due to more aggressive competition, decreased manufacturing efficiencies, increases in inventory obsolescence, and increased costs of components.

Research and Development Expenses. Research and development expenses were $235.8 million, $125.4 million and $101.0 million for fiscal 2001, 2000 and 1999, respectively. The approximate $110.4 million, or 88.0% increase from fiscal 2000 to 2001 was related to increases in staffing, prototype parts and depreciation expenses. The approximate $24.4 million, or 24.2% increase from fiscal 1999 to 2000 in research and development expenses related to increased staffing levels, purchases of materials used in development of new or enhanced product prototypes, and outside consulting services in support of certain developments and design efforts. During fiscal 2001, 2000 and 1999, research and development expenses were 14.7%, 14.6% and 21.0% of revenue, respectively. CIENA expects that its research and development expenditures will continue to increase in absolute dollars and as a percentage of revenue during fiscal 2002 to support the continued development of CIENA's intelligent optical networking products, the exploration of new or complementary technologies, and the pursuit of various cost reduction strategies. CIENA has expensed research and development costs as incurred.

Selling and Marketing Expenses. Selling and marketing expenses were $146.9 million, $90.9 million and $61.6 million for fiscal 2001, 2000 and 1999, respectively. The approximate $56.0 million or 61.6% increase from fiscal 2000 to 2001 and the approximate $29.3 million or 47.6% increase from fiscal 1999 to 2000 in selling and marketing expenses were primarily the result of increases in staffing levels, commissions earned, depreciation expenses, trade show participation and promotional costs. During fiscal 2001, 2000 and 1999 selling and marketing expenses were 9.2%, 10.6% and 12.8% of revenue, respectively. The Company anticipates that its selling and marketing expenses will increase in absolute dollars and as a percentage of revenue during fiscal 2002 as additional personnel are hired and additional offices are opened to pursue new customers and market opportunities. The Company also expects the portion of selling and marketing expenses attributable to technical assistance and field support, specifically in Europe, Latin America, and Asia, will increase as the Company's installed base of operational MultiWave systems increases.

General and Administrative Expenses. General and administrative expenses were $57.9 million, $34.0 million and $22.7 million for fiscal 2001, 2000 and 1999, respectively. The approximate $23.9 million or 70.4% increase from fiscal 2000 to 2001 and the $11.2 million or 49.5% increase from fiscal year 1999 to 2000 were primarily the result of increased staffing levels and outside consulting services. During fiscal 2001, 2000 and 1999 general and administrative expenses were 3.6%, 4.0% and 4.7% of revenue, respectively. The Company believes that its general and administrative expenses will increase in absolute dollars and as a percentage of revenue during fiscal 2002 as a result of the expansion of the Company's administrative staff required to support its expanding operations.

Settlement of Accrued Contract Obligation. The $8.5 million gain from settlement of accrued contract obligation recorded in fiscal 2000 relates to the July 2000 termination of certain accrued contract obligations that CIENA received from iaxis Limited, one of CIENA's European customers. In September 2000, CIENA was informed that an administrative order had been issued by a London court against iaxis Limited. As a result of this order, joint administrators were appointed to manage the business of iaxis Limited while they marketed the business for sale and formulated a reorganization of the Company. See "Provision for Doubtful Accounts" below.

Deferred Stock Compensation Costs. Deferred stock compensation costs were $41.4 million during fiscal 2001. As part of our acquisition of Cyras, we recorded $98.5 million of deferred stock compensation relating to the unvested stock options and restricted stock assumed in the acquisition. Deferred stock compensation is presented as a reduction of stockholders' equity and is amortized over the remaining vesting period of the applicable options.

Amortization of Goodwill. Amortization of goodwill costs were $177.8 million, $3.2 million and $3.2 million for fiscal 2001, 2000 and 1999, respectively. The approximate $174.6 million increase in amortization of goodwill from fiscal 2000 to 2001 was related to CIENA's acquisition of Cyras, which was accounted for under the purchase method of accounting. We recorded goodwill and workforce related intangibles of approximately $2.1 billion representing the excess of the purchase price paid over the fair value of the net tangible and other intangible assets acquired. The goodwill and workforce acquired from the Cyras purchase was amortized using a straight-line method based upon a three to seven-year period during fiscal 2001. As a result of the issuance of SFAS No. 142, we will not record amortization in subsequent fiscal years. See "Goodwill Impairment" below.

Amortization of Intangible Assets. Amortization of intangible assets was $4.4 million, $0.4 million and $0.4 million for fiscal 2001, 2000 and 1999, respectively. The approximate $4.0 million, or 907.5% increase in amortization from 2000 to 2001 is related to our acquisition of Cyras, for which we recorded $47.7 million worth of other intangible assets. The other intangible assets from the Cyras purchase will be amortized over a seven-year period. See "Goodwill Impairment" below.

In-Process Research and Development. In connection with the Cyras acquisition, we recorded a $45.9 million charge for in-process research and development during fiscal 2001. This represents the estimated value of purchased in-process technology related to Cyras' K2 product development that had not yet reached technological feasibility and had no alternative future use at the time of the acquisition. The amount of purchase price allocated to in-process research and development was

determined using the discounted cash flow method. This method consisted of estimating future net cash flows attributable to the in-process K2 technology for a discrete projection period and discounting the net cash flows back to their present value.

Restructuring Costs. We recorded a restructuring charge of $15.4 million relating to consolidation of excess facilities during fiscal 2001. The consolidation included the closure of certain manufacturing warehouse facilities and the consolidation of certain operational centers related to business activities that have been restructured. The charge included $7.0 million primarily related to lease terminations and non-cancelable lease costs and also included an $8.4 million write-down related to property and equipment consisting primarily of leasehold improvements and production equipment.

Goodwill Impairment. As part of our review of financial results for fiscal 2001, we performed an assessment of the carrying value of our long-lived assets including significant amounts of goodwill and other intangible assets recorded in connection with the acquisition of Cyras. The assessment was performed pursuant to Statement Financial Accounting Standards No. 121 "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of" (SFAS 121) because of the significant negative industry and economic trends affecting both the Company's current operations and expected future sales of MultiWave MetroDirector K2 as well as the general decline of technology valuations. The conclusion of that assessment was that the decline in market conditions within the Company's industry was significant and other than temporary. As a result, the Company recorded a charge of $1.7 billion to reduce goodwill during the fourth quarter of 2001 based on the amount by which the carrying amount of these assets exceeded their fair value. The write-down is related to the goodwill associated with the Cyras transaction. Fair value was determined based on discounted future cash flows for the operating entity, which had separately identifiable cash flows. The cash flow periods used were six years, applying annual growth rates ranging from 25% to 100%. The discount rate used was 11.3%, and the terminal values were estimated based upon a terminal growth rate of 4%. The assumptions supporting the estimated future cash flows, including the discount rate and estimated terminal values, reflect management's best estimates. The discount rate was based upon the Company's weighted average cost of capital as adjusted for the risks associated with its operations.

Merger Related Costs. The merger costs for fiscal 1999 of approximately $13.0 million were related to CIENA's acquisition of Omnia and Lightera. These costs include an $8.1 million non-cash charge for the acceleration of warrants based upon CIENA's common stock price on June 30, 1999 and $4.9 million for fees, legal and accounting services and other costs. The warrants were issued to one of Omnia's potential customers and became exercisable upon the consummation of the merger between CIENA and Omnia.

Provision for Doubtful Accounts. CIENA performs ongoing credit evaluations of its customers and generally does not require collateral from its customers. CIENA maintains an allowance for potential losses when identified. CIENA's allowance for doubtful accounts as of October 31, 2001 and October 31, 2000 was $1.5 million and $29.6 million, respectively. Approximately $27.8 million of the October 31, 2000 balance relates to provisions made for doubtful accounts associated with iaxis Limited, one of CIENA's European customers. In September 2000, CIENA was informed that an administrative order had been issued by a London court against iaxis Limited. As a result of this order, joint administrators were appointed to manage the business of iaxis Limited while they marketed the business for sale and formulated a reorganization of the Company. In November 2000, CIENA was notified that Dynegy Inc. had entered into a proposed agreement to acquire the assets and stock of iaxis Limited from the administrators. As a consequence of the terms of (a) the proposed agreement between the administrators of iaxis Limited and Dynegy, and of (b) a related sales agreement between CIENA and Dynegy, CIENA expected to realize approximately $8.9 million of the gross outstanding accounts receivable balance due from iaxis Limited as of October 31, 2000. In July 2001 CIENA received approximately $15.4 million of the gross outstanding accounts receivable balance due from iaxis Limited primarily through the sales agreement with Dynegy. Accordingly, CIENA recognized a reduction in the provision for doubtful accounts of $6.6 million during fiscal 2001.

Other Income (Expense), Net. Other income (expense), net, consists of interest income earned on the Company's cash, cash equivalents and available-for-sale securities, net of interest expense associated with the Company's debt obligations. Other income (expense), net, was $33.0 million, $12.7 million and $13.9 million for fiscal 2001, 2000 and 1999, respectively. The increase in other income (expense) from fiscal 2000 to 2001 was due to increases in cash, cash equivalents and available-for-sale securities offset by increased interest expense. The decrease in other income (expense) from fiscal 1999 to fiscal 2000 was due to lower balances of cash, cash equivalents and short-term investments in fiscal 2000 as compared to fiscal 1999.

Provision (Benefit) for Income Taxes. CIENA's provision (benefit) for income taxes was (5.1)%, 32.5% and (34.5%) of pre-tax earnings (loss) for fiscal 2001, 2000 and 1999, respectively. The income tax provision for 2001 was $87.3 million. The income tax provision for 2001 was higher than the expected 35% benefit due to the non-deductibility of the goodwill impairment, and in-process research and development. The income tax provision for 2000 was lower than the expected 35% primarily due to benefits from research and development tax credits. The benefit for fiscal 1999 was less than the expected statutory benefit of 35% due to non-deductible merger costs. As of October 31, 2001, CIENA's deferred tax asset was $186.9 million. The realization of this asset could be adversely affected if future earnings are lower than anticipated.

Liquidity and Capital Resources

At October 31, 2001, CIENA's principal source of liquidity was its cash and cash equivalents, and short-term and long-term investments. The Company had $397.9 million in cash and cash equivalents, and $1,397.3 million short-term and long-term investments.

The Company's operating activities provided cash of $157.0 million, $59.0 million and $28.7 million for fiscal 2001, 2000 and 1999, respectively. Cash provided by operations in fiscal 2001 was primarily attributable to a net loss adjusted for the non-cash charges of amortization of goodwill, other intangibles, deferred stock compensation and debt issuance costs, depreciation, in-process research and development, tax benefit related to exercise of stock options, inventory obsolescence, and warranty, increases in accounts payable and accruals, and deferred revenue and other obligations, offset by increases in accounts receivable, inventories and prepaid expenses.

Cash used in investment activities in fiscal 2001, 2000 and 1999 was $1,490.6 million, $103.2 million and $149.7 million, respectively. Investment activities included the net redemption of $23.8 million of short and long-term investments during 2000 and the net purchase of $103.0 million and $1,293.2 million of short and long-term investments during 1999 and 2001, respectively. Investment activities also include approximately $3.0 million and $13.0 million of equity investments in private companies during fiscal 2000 and 2001, respectively. Also included in investment activities were additions to capital equipment and leasehold improvements in fiscal 2001, 2000 and 1999 of $238.5 million, $123.9 million and $46.8 million, respectively. The capital equipment expenditures were primarily for test, manufacturing and computer equipment. The Company expects additional combined capital equipment and leasehold improvement expenditures of approximately $90.0 million to be made during fiscal 2002 to support selling and marketing, manufacturing and product development activities and the construction of leasehold improvements for its facilities, and we will use our cash and cash equivalents to fund these purchases.

We generated $1,588.4 million, $43.9 million and $13.8 million in cash from financing activities in fiscal 2001, 2000 and 1999, respectively. During fiscal 2001, CIENA received $31.9 million from the exercise of stock options and the sale of stock through our employee stock purchase plan. On February 9, 2001, we completed a public offering of 11,000,000 shares of common stock at a price of $83.50 per share less underwriters' discounts and commissions. Concurrent with the offering of common stock, we completed a public offering of 3.75% convertible notes with an aggregate principal amount of $690 million. Net proceeds from these offerings were approximately $1,547.8 million, after deducting underwriting discounts, commissions and offering. During fiscal 2000, CIENA received $44.0 million from the exercise of stock options and the sale of stock through our employee

stock purchase plan. During fiscal 1999, CIENA received $11.3 million from the exercise of stock options, the sale of stock through our employee stock purchase plan, and from the additional capitalization of Omnia and Lightera.

Cyras Systems LLC, our wholly owned subsidiary, has $150 million of 4.5% convertible subordinated notes outstanding. In the event that the holders of the Cyras notes convert their notes into our common stock, we would have to issue a significant number of shares of additional common stock. Based on the exchange ratio for the Cyras acquisition of approximately 0.13, we will have to issue approximately 1,037,055 shares of our common stock if holders of the entire $150 million of convertible notes decided to convert their notes. At our current stock price it appears more likely that the holders of the Cyras notes will not elect to convert them into our common stock before March 31, 2002. As a result, it is probable that we will have to make an offer to repurchase the notes at 118.942% of their principal balance on April 30, 2002. If all of the note holders accept that offer, we will have to expend approximately $178 million of our cash and cash equivalents for the repurchase.

We believe that our existing cash balances and investments, together with cash flow from operations, will be sufficient to meet our liquidity and capital spending requirements at least through the end of fiscal 2002. However, investments in or acquisitions of complementary businesses, products or technologies may require us to seek additional financing prior to that time. We cannot be certain that additional debt or equity financing will be available when required or, if available, that we can secure it on terms satisfactory to us.

Effects of Recent Accounting Pronouncements

In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 141 "Business Combinations" (SFAS No. 141) and Statement of Financial Accounting Standards No. 142 "Goodwill and Other Intangible Assets" (SFAS No. 142). SFAS No. 141 addresses financial accounting and reporting for business combinations. This statement requires the purchase method of accounting to be used for all business combinations, and prohibits the pooling-of-interests method of accounting. This statement is effective for all business combinations initiated after June 30, 2001 and supersedes APB Opinion No. 16, "Business Combinations" as well as Financial Accounting Standards Board Statement of Financial Accounting Standards No. 38, "Accounting for Preacquisition Contingencies of Purchased Enterprises."

SFAS No. 142 addresses how intangible assets that are acquired individually or with a group of other assets should be accounted for in financial statements upon their acquisition. This statement requires goodwill amortization to cease and for goodwill to be periodically reviewed for impairment, for fiscal years beginning after October 31, 2001. SFAS No. 142 supersedes APB Opinion No. 17, "Intangible Assets." The Company will adopt the provisions of this standard for its first quarter of fiscal 2002. The Company has recorded goodwill amortization expense of $3.2 million, $3.2 million, and $177.8 million for fiscal years 1999, 2000 and 2001, respectively, and will no longer be recorded in subsequent fiscal years.

In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 143, "Accounting for Asset Retirement Obligation" (SFAS No. 143). SFAS No. 143 is effective for fiscal years beginning after June 15, 2002, and will require companies to record a liability for asset retirement obligations in the period in which they are incurred, which typically could be upon completion or shortly thereafter. The FASB decided to limit the scope to legal obligation and the liability will be recorded at fair value. The effect of adoption of this standard on our results of operations and financial positions is being evaluated.

In October 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (SFAS No. 144). SFAS No. 144 is effective for fiscal years beginning after December 15, 2001. It provides a single accounting model for long-lived assets to be disposed of and replaces SFAS No. 121 "Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of." The effect of adoption of this standard on our results of operations and financial positions is being evaluated.

Quarterly Results of Operations

The tables below (in thousands, except per share data) set forth the operating results and percentage of revenue represented by certain items in CIENA's statements of operations for each of the eight quarters in the period ended October 31, 2001. This information is unaudited, but in our opinion reflects all adjustments (consisting only of normal recurring adjustments) that we consider necessary for a fair presentation 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, 2000	Apr. 30, 2000	Jul. 31, 2000	Oct. 31, 2000	Jan. 31, 2001	Apr. 30, 2001	Jul. 31, 2001	Oct. 31, 2001
Revenue	$152,213	$185,679	$233,268	$287,590	$351,989	$425,396	$458,070	$ 367,774
Cost of goods sold	87,003	104,205	128,172	158,013	191,837	231,509	259,649	221,554
Gross profit	65,210	81,474	105,096	129,577	160,152	193,887	198,421	146,220
Operating expenses:								
Research and development[1]	28,834	29,056	31,788	35,756	42,504	54,344	65,788	73,195
Selling and marketing[2]	18,122	20,331	24,375	28,094	29,636	38,782	39,622	38,909
General and administrative[3]	6,611	7,166	9,329	10,854	11,145	16,787	14,790	15,143
Settlement of accrued contract obligation	—	—	(8,538)	—	—	—	—	—
Deferred stock compensation costs	10	10	10	10	—	2,735	22,231	16,401
Amortization of goodwill	799	799	799	800	898	25,373	75,642	75,873
Amortization of intangible assets	109	110	110	109	109	1,000	1,382	1,922
In-process research and development	—	—	—	—	—	45,900	—	—
Restructuring costs	—	—	—	—	—	—	—	15,439
Goodwill impairment	—	—	—	—	—	—	—	1,719,426
Provision for doubtful accounts	250	—	8,538	19,222	—	—	(6,579)	—
Total operating expenses	54,735	57,472	66,411	94,845	84,292	184,921	212,876	1,956,308
Income (loss) from operations	10,475	24,002	38,685	34,732	75,860	8,966	(14,455)	(1,810,088)
Other income (expense), net	2,950	3,268	3,026	3,436	4,209	13,579	8,542	6,658
Income (loss) before income taxes	13,425	27,270	41,711	38,168	80,069	22,545	(5,913)	(1,803,430)
Provision (benefit) for income taxes	4,363	8,863	13,556	12,405	26,823	73,225	(11,567)	(1,148)
Net income (loss)	$ 9,062	$ 18,407	$ 28,155	$ 25,763	$ 53,246	$ (50,680)	$ 5,654	$(1,802,282)
Basic net income (loss) per common share	$ 0.03	$ 0.07	$ 0.10	$ 0.09	$ 0.19	$ (0.17)	$ 0.02	$ (5.51)
Diluted net income (loss) per common share and dilutive potential common share	$ 0.03	$ 0.06	$ 0.09	$ 0.09	$ 0.18	$ (0.17)	$ 0.02	$ (5.51)
Weighted average basic common share	276,182	280,162	282,258	285,177	287,001	306,329	324,368	326,834
Weighted average basic common and dilutive potential common share	295,806	299,126	299,790	301,582	300,956	306,329	337,877	326,834

[1] Exclusive of $1,672, $6,464, $9,647 deferred stock compensation costs for quarters ending April 30, 2001, July 31, 2001 and October 31, 2001, respectively.

[2] Exclusive of $491, $6,928, $959 deferred stock compensation costs for quarters ending April 30, 2001, July 31, 2001 and October 31, 2001, respectively.

[3] Exclusive of $572, $8,839, $5,795 deferred stock compensation costs for quarters ending April 30, 2001, July 31, 2001 and October 31, 2001, respectively. Exclusive of $10 deferred stock compensation cost for each of the quarters ended in January 31, 2000, April 30, 2000, July 31, 2000 and October 31, 2000.

	Jan. 31, 2000	Apr. 30, 2000	Jul. 31, 2000	Oct. 31, 2000	Jan. 31, 2001	Apr. 30, 2001	Jul. 31, 2001	Oct. 31, 2001
Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of goods sold	57.2	56.1	54.9	54.9	54.5	54.4	56.7	60.2
Gross profit	42.8	43.9	45.1	45.1	45.5	45.6	43.3	39.8
Operating expenses:								
Research and development	18.9	15.6	13.7	12.4	12.1	12.9	14.4	19.9
Selling and marketing	11.9	10.9	10.5	9.8	8.4	9.1	8.6	10.6
General and administrative	4.3	3.9	4.0	3.8	3.2	3.9	3.2	4.1
Settlement of accrued contract obligation	—	—	(3.7)	—	—	—	—	—
Deferred stock compensation costs	—	—	—	—	—	0.6	4.9	4.5
Amortization of goodwill	0.5	0.4	0.3	0.3	0.3	6.0	16.5	20.7
Amortization of intangible assets	0.1	0.1	—	—	—	0.2	0.3	0.5
In-process research and development	—	—	—	—	—	10.8	—	—
Restructuring costs	—	—	—	—	—	—	—	4.2
Goodwill impairment	—	—	—	—	—	—	—	467.5
Provision for doubtful accounts	0.2	—	3.7	6.7	—	—	(1.4)	—
Total operating expenses	35.9	30.9	28.5	33.0	24.0	43.5	46.5	532.0
Income (loss) from operations	6.9	13.0	16.6	12.1	21.5	2.1	(3.2)	(492.2)
Other income (expense), net	1.9	1.8	1.3	1.2	1.2	3.2	1.9	1.8
Income (loss) before income taxes	8.8	14.8	18.1	13.3	22.7	5.3	(1.3)	(490.4)
Provision (benefit) for income taxes	2.9	4.8	5.8	4.3	7.6	17.2	(2.5)	(0.3)
Net income (loss)	5.9%	10.0%	12.1%	9.0%	15.1%	(11.9)%	1.2%	(490.1)%

Quarterly Adjusted Results of Operations

The table below (in thousands, except per share data) sets forth as adjusted net income and as adjusted net income per share data to assist readers in understanding our operating results. These adjustments are not in accordance with, or an alternative for, generally accepted accounting principles and may be different from the presentation of financial information provided by other companies:

	Jan. 31, 2000	Apr. 30, 2000	Jul. 31, 2000	Oct. 31, 2000	Jan. 31, 2001	Apr. 30, 2001	Jul. 31, 2001	Oct. 31, 2001
Net income (loss)	$ 9,062	$ 18,407	$ 28,155	$ 25,763	$ 53,246	$ (50,680)	$ 5,654	$(1,802,282)
Payroll tax on stock options	—	759	1,135	3,773	1,280	738	508	74
Settlement of accrued contract obligation	—	—	(8,538)	—	—	—	—	—
Deferred stock compensation costs	10	10	10	10	—	2,735	22,231	16,401
Amortization of goodwill	799	799	799	800	898	25,373	75,642	75,873
Amortization of intangible assets	109	110	110	109	109	1,000	1,382	1,922
In-process research and development	—	—	—	—	—	45,900	—	—
Restructuring costs	—	—	—	—	—	—	—	15,439
Goodwill impairment	—	—	—	—	—	—	—	1,719,426
Provision for doubtful accounts	250	—	8,538	19,222	—	—	(6,579)	—
Income tax effect	(380)	(545)	(667)	(7,772)	(767)	40,298	(40,803)	(9,759)
Adjusted net income	$ 9,850	$ 19,540	$ 29,542	$ 41,905	$ 54,766	$ 65,364	$ 58,035	$ 17,094
As adjusted diluted net income (loss) per common share and dilutive potential common share	$ 0.03	$ 0.07	$ 0.10	$ 0.14	$ 0.18	$ 0.20	$ 0.17	$ 0.05
Weighted average basic common and dilutive potential common share	295,806	299,126	299,790	301,582	300,956	319,166	337,877	334,717

CIENA's quarterly operating results have varied, and we expect them to vary in the future. The detailed discussion of risk factors below addresses the principal factors that have caused these variations in the past, and may cause similar variations in the future. See "Risk Factors."

CIENA's revenues increased during each of the seven quarters beginning in the first quarter of fiscal 2000 through the third quarter of fiscal 2001 due to a strong demand across existing products and introduction of new products such as MultiWave CoreStream long-distance optical transport systems configured for both 2.5 Gbps and 10.0 Gbps transmission rates, and our intelligent optical core switching product the MultiWave CoreDirector. The decline in revenues during the fourth quarter of fiscal 2001 compared to the third quarter of fiscal 2001 was primarily the result of a reduction in sales of our long-distance optical transport systems partially offset by a continued increase in sales of our intelligent optical switching and multi-service access products, the MultiWave CoreDirector and MultiWave MetroDirector K2.

CIENA's gross margin percentage improved from the first quarter fiscal 2000 to the second quarter fiscal 2001 as a result of component cost reductions, production efficiencies, favorable product mix and relative stable sales pricing. The decline in gross margins in the third quarter of fiscal 2001 was primarily the result of increased inventory obsolescence costs due to the sudden decrease in demand for our older generation long-distance optical transport products. The further decline in gross margin during the fourth quarter of fiscal 2001 was primarily the result of increased production inefficiencies and costs due to lower demand requirements. CIENA's operating expenses have increased in each of the last eight quarters due to continued investments in research and development, selling and marketing, and infrastructure activities. During fiscal 2002, CIENA's operating expenses will continue to increase in absolute dollars and as a percentage of revenue. We expect to preserve and enhance our market leadership and build on our installed base with new and additional products in conjunction with increased investments in selling, marketing, and customer service activities. See "Risk Factors."

Risk Factors

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

Our Business Has Been Adversely Affected by Recent Developments in the Communications Industry and the Economy in General

For much of the last five years the market for our equipment has been influenced by the entry into the communications services business of a substantial number of new companies. In the United States this was due largely to changes in the regulatory environment, in particular those brought about by the Telecommunications Act of 1996. These new companies raised billions of dollars in capital, much of which they invested in new plants, causing an acceleration in the growth of the market for telecommunications equipment.

The last year or so has seen a reversal of this trend, including the failure of a large number of the new entrants and a sharp contraction of the availability of capital to the industry. This, in turn, has caused a substantial reduction in demand for telecommunications equipment, including our products.

This industry trend has been compounded by the slowing not only of the United States economy—which is now in recession—but the economies in virtually all of the countries in which we are marketing our products. Moreover, the economic uncertainty has been accentuated by the events of September 11, 2001. The combination of these factors has caused most of our customers to become more conservative in their capital investment plans and more uncertain about their future purchases. As a consequence, we are facing a market that is, both reduced in absolute size and more difficult to predict and plan for.

We expect the factors described above to affect our business, for at least several quarters if not longer, in several significant ways compared to the recent past:

- it is likely that our markets will be characterized by reduced capital expenditures by our customers;
- our ability to forecast the volume and product mix of our sales will be substantially reduced;
- managing our expenditures will be significantly more difficult in light of the uncertainties surrounding our business;
- increased competition resulting from reduced demand will put substantial downward pressures on the pricing of our products, tending to reduce our profit margins;

- increased competition has also enabled customers to insist on more favorable terms and conditions for sales, including extended payment terms or other financing assistance, as a condition of procuring their business; and
- the result in any or combination of these factors could be reduced revenues and profitability and perhaps losses in particular periods or for the entire year.

Our Results Can Fluctuate Unpredictably

In general, our revenues and operating results in any reporting period may fluctuate significantly due to a variety of factors including:

- fluctuations in demand for our products;
- changes in our pricing policies or the pricing policies of our competitors;
- the timing and size of orders from customers;
- changes in customers' requirements, including changes or cancellations to orders from customers;
- the introduction of new products by us or our competitors;
- changes in the price or availability of components for our products;
- readiness of customer sites for installation;
- satisfaction of contractual customer acceptance criteria and related revenue recognition issues;
- manufacturing and shipment delays and deferrals;
- increased service, installation, warranty or repair costs;
- the timing and amount of employer payroll tax to be paid on employee gains on stock options exercised; and
- changes in general economic conditions as well as those specific to the telecommunications and intelligent optical networking industries.

Our intelligent optical networking products require large investments. We have only a limited number of potential customers in each geographic market, and each has unique needs. Our customers are generally technically sophisticated and demanding. As a result, the sales cycles for our products are long, often as much as a year or two between initial contact with a potential customer and the recognition of revenue from sales to the customer. Our customers' purchases tend to be large and sporadic, depending upon their need to build a customer base, their plans for expanding their networks, the availability of financing, and the effects of regulatory and business conditions in the countries in which they operate. As a result, their purchase decisions can be unpredictable and subject to unanticipated changes. Our results, in turn, tend to fluctuate unpredictably. This tendency has been amplified by conditions arising from the current uncertain economic environment.

Current economic conditions have made it more difficult to make reliable estimates of future revenues. Fluctuations in our revenues can lead to even greater fluctuations in our operating profits. We budget expense levels on our expectations of long-term future revenue. These budgets reflect the substantial investments in financial, engineering, manufacturing and logistics support resources we must make to support large customers, even though we are unsure of the volume, duration or timing of their purchases. In addition, we continue to make substantial expenditures on the development of new and enhanced products. Any substantial adjustment to expenses to account for lower levels of revenue is difficult and takes time. Consequently if our revenue does decline, in the short run our levels of inventory, operating expenses and general overhead would be high relative to our revenue, reducing our profitability, and perhaps resulting in operating losses.

Our Future Success Will Depend on Our Ability to Acquire New Customers

Historically, a large percentage of our sales have been made to emerging carriers, many of which have recently begun to experience severe financial difficulties. Consequently, we expect our sales to emerging carriers to be reduced, and our future success will depend on our ability to increase our sales to incumbent carriers, including, in the United States, the regional Bell operating companies ("RBOCs"), and abroad, the large, traditional telecommunications operators ("TOs"), many of which were formerly government-owned "post, telephone and telegraph" enterprises. These large companies

typically require longer sales cycles, many have long-standing supplier relationships with other vendors, and our experience in selling to them is limited. If we do not succeed in penetrating this segment of the market, our business could suffer.

We May Not Be Able to Successfully Complete Development and Achieve Commercial Acceptance of New Products

It is necessary for us to continually enhance our products. Certain enhancements to our products are in the development phase and are not yet ready for commercial manufacturing or deployment. For example, we expect to offer additional feature enhancement releases of the MultiWave CoreDirector product line over the life of the product and we expect to continue to enhance features of our MultiWave CoreStream, MultiWave Metro and MultiWave MetroDirector K2 products over the life of these products. The maturing process from laboratory prototype to customer trials, and subsequently to general availability, involves a number of steps, including:

- completion of product development;
- the qualification and multiple sourcing of critical components, including ASICs;
- validation of manufacturing methods and processes;
- extensive quality assurance and reliability testing, and staffing of testing infrastructure;
- validation of software; and
- establishment of systems integration and systems test validation requirements.

Each of these steps in turn presents serious risks of failure, rework or delay, any one of which could decrease the speed and scope of product introduction and marketplace acceptance of the product. Specialized ASICs and intensive software testing and validation are key to the timely introduction of enhancements to the MultiWave CoreDirector and MultiWave MetroDirector K2 product lines; and schedule delays are common in the final validation phase, as well as in the manufacture of specialized ASICs. In addition, unexpected intellectual property disputes, failure of critical design elements, and a host of other execution risks may delay or even prevent the introduction of these products. If we do not develop and successfully introduce these products in a timely manner, our business, financial condition and results of operations would be harmed.

The markets for our MultiWave CoreDirector and MultiWave MetroDirector K2 product lines are relatively new. We are only beginning to establish commercial acceptance of these products, and we cannot be certain that the substantial sales and marketing efforts necessary to achieve commercial acceptance in traditionally long sales cycles will be successful. If the markets for these products do not develop, or the products are not accepted by the market, our business, financial condition and results of operations would suffer. We have recently written down the value of the goodwill associated with our acquisition of Cyras, the source of our MultiWave MetroDirector K2 product, in recognition of what we believe to be a significant and permanent decline in the market for these types of products.

We Face Intense Competition Which Could Hurt Our Sales and Profitability

The market for optical networking equipment is extremely competitive. Competition in the optical networking market is based on varying combinations of price, functionality, software functionality, manufacturing capability, installation, services, scalability and the ability of the system solution to meet customers' immediate and future network requirements. A small number of very large companies, including Alcatel, Cisco Systems, Fujitsu Group, Hitachi, Lucent Technologies, NEC Corporation, Nortel Networks, Siemens AG and Telefon AB LM Ericsson, have historically dominated the telecommunications equipment industry. They all have substantial financial, marketing, manufacturing and intellectual property resources and greater resources than CIENA to develop or acquire new technologies than we do. They also often have existing relationships with our potential customers.

Because we sell systems that compete directly with product offerings of these companies, and in some cases displace or replace their equipment, we represent a competitive threat. The continued expansion of our product offerings with the MultiWave CoreDirector and MultiWave

MetroDirector K2 product lines and enhancements to our MultiWave CoreStream and MultiWave Metro product lines likely will increase this perceived threat. The recent decline in the market for optical networking equipment has resulted in even greater competitive pressures. We expect that the aggressive tactics we have confronted on the part of many of these competitors will continue, and perhaps become more severe. These tactics include:

- price discounting; particularly when a competitor is selling used equipment or inventory that a competitor has written down or written off;
- early announcements of competing products and other marketing efforts;
- "one-stop shopping" options;
- customer financing assistance;
- marketing and advertising assistance; and
- intellectual property disputes.

These tactics can be particularly effective in a highly concentrated customer base such as ours. Our customers are under increasing competitive pressure to deliver their services at the lowest possible cost. This pressure may result in the pricing of optical networking systems becoming a more important factor in customer decisions, which may favor larger competitors that can spread the effect of price discounts in their optical networking products across a larger array of products and services and across a larger customer base than ours. If we are unable to offset any reductions in the average sales price for our products by a reduction in the cost of our products, our gross profit margins will be adversely affected. Our inability to compete successfully against our competitors and maintain our gross profit margins would harm our business, financial condition and results of operations.

Many of our customers have indicated that they intend to establish a relationship with at least two vendors for optical networking products. With respect to customers for whom we are the only supplier of intelligent optical products, we do not know when or if these customers will select a second vendor or what impact the selection might have on purchases from us. If a second optical networking supplier is chosen, these customers could reduce their purchases from us, which could in turn have a material adverse effect on us.

New competitors are emerging to compete with our existing products as well as our future products. We expect new competitors to continue to emerge as the optical networking market continues to expand. These companies may achieve commercial availability of their products more quickly due to the narrow and exclusive focus of their efforts. Several of these competitors have raised significant cash and they have in some cases offered stock in their companies, positions on technical advisory boards, or have provided significant vendor financing to attract new customers. Our inability to compete successfully against these companies would harm our business, financial condition and results of operations.

If We Fail to Respond Rapidly to Technological Changes, Our Products Will Become Obsolete, Damaging Our Short-Term Prospects and Threatening Our Long-Term Survival

The market for optical networking products is likely to be characterized by rapid technological change, frequent introductions of new products, and recurring changes in customer requirements. To succeed in this market, we must continue to develop new products and new features for existing products. Doing so is difficult and costly, and there is no assurance that we will continue to be successful. In addition, we must be able to identify and gain access to promising new technologies. A failure to keep pace with technological advances would impair the competitiveness of our products and sooner or later do serious harm to our business.

Several of our new products, including the MultiWave CoreDirector, the MultiWave MetroDirector K2 and enhancements to the MultiWave CoreStream and MultiWave Metro, are based on complex technology which could result in unanticipated delays in the development, manufacturing or deployment of these products. Our LightWorks initiative, which involves modifying these products to enable customers to implement a new type of network architecture, entails similar development risks.

Our customers often require extensive testing of new products before accepting them, and we are typically unable to recognize revenue until the tests are completed satisfactorily. The certification process for new telecommunications equipment used in the networks of the RBOCs and TOs tends to be particularly lengthy and difficult. Complying with these certification requirements may involve unanticipated delays that could adversely affect the timing of our ability to sell our products to these larger carriers.

Concentration of Customers

Although the number of customers who make purchases from us continues to grow, a substantial fraction of our revenues continues to come from sales to a small number of customers. In fiscal 2001, 50.5% of our revenues came from our two most significant customers, Sprint and Qwest. The loss of, or a substantial reduction in purchases by, either of these customers could reduce our revenues materially. Both of these companies have been affected to some extent by the current economic recession and the even more difficult conditions in the communications industry. The communications industry is, moreover, undergoing a period of consolidation. It is possible that either of these customers could become a party to a merger or other business combination. The distraction and uncertainty inevitably attendant on such a transaction could delay or alter decisions on network deployments or capital expenditures, and this could result in delayed or reduced purchases from us.

We Are Exposed to the Credit Risk of Our Customers

Industry and economic conditions have weakened the financial position of some of our customers. To sell to some of these customers we may be required to take risks of uncollectible accounts. 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, if large, could have a material adverse effect on our operating results and financial condition.

We also continue to experience demands from customers that we finance sales to them. While we have done only a limited amount of such financing in the past, the increasingly competitive environment in which we are now operating may require us to engage in more customer financing in the future. Our ability to recognize revenue from financed sales will depend on the relative financial condition of the specific customer, among other factors. Further, we will need to evaluate the collectability of receivables from these customers if their financial condition deteriorates in the future. Any change in the financial condition of customers to which we provide financing could have a material adverse effect on our operating results and financial condition.

Our Strategy Involves Pursuing Strategic Acquisitions and Investments That May Not Be Successful

Our business strategy includes acquiring or making strategic investments in other companies with a view to expanding our portfolio of products and services, acquiring new technologies, and accelerating the development of new or improved products. To do so, we may issue equity that would dilute our current shareholders' percentage ownership or incur debt or assume indebtedness. In addition, we may incur significant amortization expenses related to intangible assets. In the fourth quarter fiscal 2001 we incurred a significant write-off of goodwill associated with our Cyras acquisition completed in March 2001.

Acquisitions and strategic investments involve numerous risks, including difficulties in integrating the operations, technologies, and products of the acquired companies; diversion of management's attention from our core business; potential difficulties in completing projects of the acquired company; the potential loss of key employees of the acquired company; and dependence on unfamiliar or relatively small supply partners. In addition, acquisitions and strategic investments may involve risks of entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions and of obtaining insufficient revenues to offset increased expenses associated with acquisitions. Mergers and acquisitions are inherently risky. Not all of those we have made in the past have been successful; and it is possible that acquisitions we make in the future may be unsuccessful, even to the extent of materially and adversely affecting our business.

We Depend on a Limited Number of Suppliers, and for Some Items We Do Not Have a Substitute Supplier

We depend on a limited number of suppliers for components of our products, as well as for equipment used to manufacture and test our products. Our products include several high-performance components for which reliable, high-volume suppliers are particularly limited. Furthermore, some key optical and electronic components we use in our optical transport systems are currently available only from sole or limited sources, and in some cases, that source also is a competitor. Any delay in component availability for any of our products could result in delays in deployment of these products and in our ability to recognize revenues. These delays could also harm our customer relationships and our results of operations.

Failures of components affect the reliability and performance of our products and can reduce customer confidence in them, perhaps to the extent of adversely affecting our financial performance. On occasion, we have experienced delays in receipt of components and have received components that do not perform according to their specifications. Any future difficulty in obtaining sufficient and timely delivery of components could result in delays or reductions in product shipments which, in turn, could harm our business. A consolidation among suppliers of these components or adverse developments in their businesses affecting their ability to supply us, could adversely impact the availability of components on which we depend. Delayed deliveries of key components from these sources could adversely affect our business.

Any delays in component availability for any of our products or test equipment could result in delays in deployment of these products and in our ability to recognize revenue from them. These delays could also harm our customer relationships and our results of operations.

We Rely on Contract Manufacturers for Our Products

We rely on a small number of contract manufacturers to manufacture our MultiWave CoreDirector and MultiWave MetroDirector K2 product lines and some of the components for our other products. The qualification of these manufacturers is an expensive and time-consuming process, and these contract manufacturers build modules for other companies, including our competitors. In addition, we do not have contracts in place with many of these manufacturers. We may not be able to effectively manage our relationships with our manufacturers and we cannot be certain that they will be able to fill our orders in a timely manner. We provide forecasts of our demand to our contract manufacturers several months prior to scheduled delivery of products. If we overestimate our future product requirements, the contract manufacturers may have excess inventory, which would increase our costs. Conversely, if we underestimate our future product requirements the contract manufacturer may not have enough product to meet our customer requirements, and this could result in delays in the shipment of our products and our ability to recognize revenue. If we cannot effectively manage these manufacturers and forecast future demand, or if they fail to deliver components on time, our business may suffer.

Some of Our Suppliers Are Also Competitors

Some of our component suppliers are both primary sources for components and major competitors in the market for system equipment. For example, we buy components from Alcatel, Lucent Technologies, NEC Corporation, Nortel Networks, and Siemens AG. Each of these companies offers optical communications systems and equipment that are competitive with our products. A decline in reliability or other adverse change in these supply relationships could harm our business.

Our Ability to Compete Could Be Harmed If We Are Unable to Protect and Enforce Our Intellectual Property Rights or If We Infringe on Intellectual Property Rights of Others

We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We also enter into non-disclosure and proprietary rights agreements with our employees and consultants, and license agreements with our corporate partners, and control access to and distribution of our products, documentation and other proprietary information. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our prod-

ucts is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. If competitors are able to use our technology, our ability to compete effectively could be harmed. We are involved in an intellectual property dispute regarding the use of our technology and may become involved with additional disputes in the future. Such lawsuits can be costly and may significantly divert time and attention from some members of our personnel.

We have received, and may receive in the future, notices from holders of patents in the optical technology field that raise issues of possible infringement by our products. Questions of infringement in the optical networking equipment market often involve highly technical and subjective analysis. We cannot assure you that any of these patent holders or others will not in the future initiate legal proceedings against us, or that we will be successful in defending against these actions. We are involved in an intellectual property dispute regarding the possible infringement of our products. In the past, we have been forced to take a license from the owner of the infringed intellectual property, or to redesign or stop selling the product that includes the challenged intellectual property. If we are sued for infringement and are unsuccessful in defending the suit, we could be subject to significant damages, and our business and customer relationships could be adversely affected.

Product Performance Problems Could Limit Our Sales Prospects

The production of new optical networking products and systems with high technology content involves occasional problems as the technology and manufacturing methods mature. If significant reliability, quality or network monitoring problems develop, including those due to faulty components, a number of negative effects on our business could result, including:

- costs associated with reworking our manufacturing processes;
- high service and warranty expenses;
- high inventory obsolescence expense;
- high levels of product returns;
- delays in collecting accounts receivable;
- reduced orders from existing customers; and
- declining interest from potential customers.

Although we maintain accruals for product warranties, actual costs could exceed these amounts. From time to time, there will be interruptions or delays in the activation of our products at a customer's site. These interruptions or delays may result from product performance problems or from aspects of the installation and activation activities, some of which are outside our control. If we experience significant interruptions or delays that we can not promptly resolve, confidence in our products could be undermined, which could harm our business.

We Face Risks Associated with Our International Operations

We market, sell and service our products globally. We have established offices around the world, including in North America, Europe, Latin America and in the Asia Pacific region. We will continue to expand our international operations and enter new international markets. This expansion will require significant management attention and financial resources to develop successfully direct and indirect international sales and support channels. We may not be able to maintain or increase international market demand for our products.

International operations are subject to inherent risks, and our future results could be adversely affected by a variety of uncontrollable and changing factors. These include greater difficulty in collecting accounts receivable and longer collection periods; difficulties and costs of staffing and managing foreign operations; the impact of recessions in economies outside the United States; unexpected changes in regulatory requirements; certification requirements, reduced protection for intellectual property rights in some countries; potentially adverse tax consequences; political and economic instability; trade protection measures and other regulatory requirements; service provider and government spending patterns; and natural disasters. Such factors could have a material adverse impact on our operating results and financial condition.

Leverage and Debt Service Obligations May Adversely Affect Our Cash Flow and Our Ability to Repay or Repurchase Our Notes

We have approximately $840 million of outstanding principal indebtedness, primarily related to notes offered by us and the assumption of notes from the acquisition of Cyras Systems, Inc. As a result of this indebtedness, we have significant principal and interest payment obligations. There is the possibility that we may be unable to generate sufficient cash to pay the principal of, interest on and other amounts due in respect of our indebtedness, including the notes, when due. We may also add equipment loans and lease lines to finance capital expenditures and may obtain additional long-term debt, working capital lines of credit and lease lines.

Our leverage could have important negative consequences, including:

- increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our expected cash flow from operations to service our indebtedness, thereby reducing the amount of our expected cash flow available for other purposes, including capital expenditures;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete;
- placing us at a possible competitive disadvantage relative to less leveraged competitors and competitors that have better access to capital resources; and
- making it difficult or impossible for us to pay the principal amount of the notes at maturity or the repurchase price of the notes upon a change of control, thereby causing an event of default under the indenture.

Cyras Systems LLC, our wholly owned subsidiary, has $150 million of 4.5% convertible subordinated notes outstanding. In the event that the holders of the Cyras notes convert their notes into our common stock, we would have to issue a significant number of shares of additional common stock. Based on the exchange ratio for the Cyras acquisition of approximately 0.13, we will have to issue approximately 1,037,055 shares of our common stock if holders of the entire $150 million of convertible notes decided to convert their notes. At our current stock price it appears more likely that the holders of the Cyras notes will not elect to convert them into our common stock before March 31, 2002. As a result, it is probable that we will have to make an offer to repurchase the notes at 118.942% of their principal balance on April 30, 2002. If all of the note holders accept that offer, we will have to expend approximately $178 million of our cash and cash equivalents for the repurchase.

Our Stock Price May Exhibit Volatility

Our common stock price has experienced substantial volatility in the past, and is likely to remain volatile in the future. Volatility can arise as a result of the activities of short sellers and risk arbitrageurs, and may have little relationship to our financial results or prospects. Volatility can also result from any divergence between our actual or anticipated financial results and published expectations of analysts, and announcements that we, our competitors, or our customers may make.

Divergence between our actual results and our anticipated results, analyst estimates and public announcements by us, our competitors, or by customers will occur from time to time in the future, with resulting stock price volatility, irrespective of our overall year-to-year performance or long-term prospects. As long as we continue to depend on a limited customer base, and particularly when a substantial majority of their purchases consist of newly-introduced products, there is substantial chance that our quarterly results will vary widely.

Forward-Looking Statements

Some of the statements contained, or incorporated by reference, in this annual report discuss future expectations, contain projections of results of operations or financial condition or state other "forward-looking" information. Those statements are subject to known and unknown risks, uncertainties and other factors that could cause the actual results to differ materially from those contemplated by the

statements. The "forward-looking" information is based on various factors and was derived using numerous assumptions. In some cases, you can identify these so-called "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 those statements only reflect our predictions. Actual events or results may differ substantially. 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" above.

item 7a quantitative and qualitative disclosures about market risk

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

Interest Rate Sensitivity

The Company maintains a short-term and long-term investment portfolio. 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 percent from levels at October 31, 2001, the fair value of the portfolio would decline by approximately $115.5 million.

Foreign Currency Exchange Risk

As a global concern, the Company faces exposure to adverse movements in foreign currency exchange rates. These exposures may change over time as business practices evolve and if our exposure increases, adverse movement in foreign currency exchange rates could have a material adverse impact on the Company's financial results. Historically the Company's primary exposures have been related to non-dollar denominated operating expenses in Europe and Asia where the Company sells primarily in U.S. dollars. The Company is prepared to hedge against fluctuations in foreign currency if this exposure becomes material. As of October 31, 2001, the assets and liabilities of the Company related to non-dollar denominated currencies were not material. Therefore we do not expect an increase or decrease of 10% in the foreign exchange rate would have a material impact on the Company's financial position.

item 8 financial statements and supplementary data

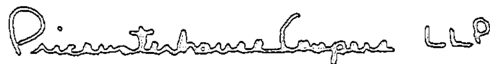
The following is an index to the consolidated financial statements and supplementary data:

	Page Number
Report of Independent Accountants	38
Consolidated Balance Sheets	39
Consolidated Statements of Operations	40
Consolidated Statements of Changes in Stockholders' Equity	41
Consolidated Statements of Cash Flows	42
Notes to Consolidated Financial Statements	43

report of independent accountants

To the Board of Directors and
Stockholders of CIENA Corporation

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of cash flows and of changes in stockholders' equity present fairly, in all material respects, the financial position of CIENA Corporation and its subsidiaries at October 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2001 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes 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. We believe that our audits provide a reasonable basis for our opinion.



PricewaterhouseCoopers LLP
McLean, VA
December 11, 2001

CIENA Corporation

consolidated balance sheets

(in thousands, except share data)	October 31, 2000	2001
ASSETS		
Current assets:		
Cash and cash equivalents	$ 143,187	$ 397,890
Short-term investments	95,131	902,594
Accounts receivable (net of allowance of $29,581 and $1,491)	248,950	395,063
Inventories, net	141,279	254,968
Deferred income taxes	143,029	186,861
Prepaid expenses and other	41,438	53,713
Total current assets	813,014	2,191,089
Long-term investments	—	494,657
Equipment, furniture and fixtures, net	189,231	331,490
Goodwill and workforce, net	4,461	178,891
Other intangible assets, net	4,588	47,874
Other assets	15,907	73,300
Total assets	$1,027,201	$ 3,317,301
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 70,250	$ 68,735
Accrued liabilities	84,163	148,523
Income taxes payable	7,483	6,649
Deferred revenue	10,731	29,480
Other current obligations	712	995
Total current liabilities	173,339	254,382
Deferred income taxes	39,145	64,072
Other long-term obligations	4,882	5,982
Convertible notes payable	—	863,883
Total liabilities	217,366	1,188,319
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; 460,000,000 and 980,000,000 shares authorized; 286,530,631 and 328,022,264 shares issued and outstanding	2,865	3,280
Additional paid-in capital	557,257	3,667,512
Notes receivable from stockholders	(30)	(3,236)
Accumulated other comprehensive income	(903)	4,842
Retained earnings (deficit)	250,646	(1,543,416)
Total stockholders' equity	809,835	2,128,982
Total liabilities and stockholders' equity	$1,027,201	$ 3,317,301

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

CIENA Corporation

consolidated statements of operations

(in thousands, except per share data)		Year Ended October 31,	
	1999	**2000**	**2001**
Revenue	$482,085	$858,750	$ 1,603,229
Cost of goods sold	299,769	477,393	904,549
Gross profit	182,316	381,357	698,680
Operating expenses:			
Research and development (exclusive of $0, $0, and $17,825 deferred stock compensation costs)	101,006	125,434	235,831
Selling and marketing (exclusive of $0, $0, and $8,336 deferred stock compensation costs)	61,603	90,922	146,949
General and administrative (exclusive of $40, $40, and $15,206 deferred stock compensation costs)	22,696	33,960	57,865
Settlement of accrued contract obligation	—	(8,538)	—
Deferred stock compensation costs	40	40	41,367
Amortization of goodwill	3,197	3,197	177,786
Amortization of intangible assets	438	438	4,413
In-process research and development	—	—	45,900
Restructuring costs	—	—	15,439
Goodwill impairment	—	—	1,719,426
Merger related costs	13,021	—	—
Provision for doubtful accounts	250	28,010	(6,579)
Total operating expenses	202,251	273,463	2,438,397
Income (loss) from operations	(19,935)	107,894	(1,739,717)
Interest and other income (expense), net	14,448	13,020	63,579
Interest expense	(504)	(340)	(30,591)
Income (loss) before income taxes	(5,991)	120,574	(1,706,729)
Provision (benefit) for income taxes	(2,067)	39,187	87,333
Net income (loss)	$ (3,924)	$ 81,387	$(1,794,062)
Basic net income (loss) per common share	$ (0.01)	$ 0.29	$ (5.75)
Diluted net income (loss) per common share and dilutive potential common share	$ (0.01)	$ 0.27	$ (5.75)
Weighted average basic common shares outstanding	267,042	281,621	311,815
Weighted average basic common and dilutive potential common shares outstanding	267,042	299,662	311,815

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

CIENA Corporation

consolidated statements of changes in stockholders' equity

(dollars in thousands)	Common Stock Shares	Common Stock Amount	Additional Paid-in-Capital	Notes Receivable From Stock-holders	Accumulated Other Compre-hensive Income	Retained Earnings (Deficit)	Total Stockholders' Equity
Balance at October 31, 1998	269,210,982	$2,692	$ 327,475	$ (586)	$ (107)	$ 171,562	$ 501,036
Net loss	—	—	—	—	—	(3,924)	(3,924)
Translation adjustment	—	—	—	—	67	—	67
Comprehensive loss							$ (3,857)
Exercise of warrants	807,902	8	—	—	—	—	8
Exercise of stock options	3,442,768	34	8,198	—	—	—	8,232
Compensation cost of stock options and warrants	—	—	8,521	—	—	—	8,521
Issuance of common stock, net of issuance costs	2,913,060	30	3,502	(481)	—	—	3,051
Tax benefit from the exercise of stock options	—	—	11,004	—	—	—	11,004
Repayment of receivables from stockholders	—	—	—	857	—	—	857
Adjustment to conform fiscal year ends of pooled acquisition	—	—	—	—	—	1,621	1,621
Balance at October 31, 1999	276,374,712	$2,764	$ 358,700	$ (210)	$ (40)	$ 169,259	$ 530,473
Net income	—	—	—	—	—	81,387	81,387
Translation adjustment	—	—	—	—	(863)	—	(863)
Comprehensive income							$ 80,524
Exercise of warrants	286,084	3	—	—	—	—	3
Exercise of stock options	9,166,133	91	38,144	—	—	—	38,235
Compensation cost of stock options and warrants	—	—	40	—	—	—	40
Issuance of common stock, net of issuance costs	703,702	7	5,732	—	—	—	5,739
Tax benefit from the exercise of stock options	—	—	154,641	—	—	—	154,641
Repayment of receivables from stockholders	—	—	—	180	—	—	180
Balance at October 31, 2000	286,530,631	$2,865	$ 557,257	$ (30)	$ (903)	$ 250,646	$ 809,835
Net loss	—	—	—	—	—	(1,794,062)	(1,794,062)
Changes in unrealized gains on investments, net	—	—	—	—	5,804	—	5,804
Translation adjustment	—	—	—	—	(59)	—	(59)
Comprehensive loss							$(1,788,317)
Exercise of stock options	4,373,093	44	31,854	—	—	—	31,898
Unearned stock compensation	—	—	(98,456)	—	—	—	(98,456)
Deferred stock compensation costs	—	—	41,367	—	—	—	41,367
Forfeiture of unearned stock compensation	—	—	3,489	—	—	—	3,489
Issuance of common stock, net of issuance costs	37,118,540	371	3,060,396	(7,785)	—	—	3,052,982
Tax benefit from the exercise of stock options	—	—	71,605	—	—	—	71,605
Repayment of receivables from stockholders	—	—	—	4,579	—	—	4,579
Balance at October 31, 2001	328,022,264	$3,280	$3,667,512	$(3,236)	$4,842	$(1,543,416)	$ 2,128,982

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

CIENA Corporation

consolidated statements of cash flows

(in thousands)	1999	Year Ended October 31, 2000	2001
Cash flows from operating activities:			
Net income (loss)	$ (3,924)	$ 81,387	$(1,794,062)
Adjustments to reconcile net income to net cash provided by operating activities:			
Adjustment to conform fiscal year ends of pooled acquisitions	1,621	—	—
Tax benefit related to exercise of stock options and warrants	11,004	154,641	71,605
Non-cash charges from equity transactions	8,481	—	—
Amortization of premiums on marketable debt securities	1,776	1,016	—
Effect of accumulated other comprehensive income (loss)	67	(863)	(59)
In-process research and development	—	—	45,900
Depreciation	46,783	59,969	100,882
Amortization of goodwill, goodwill impairment, other intangibles, deferred stock compensation and debt issuance costs	3,675	3,675	1,948,740
Provision for doubtful accounts	250	28,010	(6,579)
Provision for inventory excess and obsolescence	6,534	15,022	68,411
Provision for warranty and other contractual obligations	8,396	15,804	33,073
Settlement of accrued contract obligation	—	(8,538)	—
Changes in assets and liabilities:			
Accounts receivable	(65,807)	(132,612)	(139,534)
Inventories	(15,234)	(76,693)	(177,482)
Deferred income tax asset	(8,964)	(117,644)	(6,631)
Prepaid income taxes	11,688	—	—
Prepaid expenses and other	(13,222)	(27,153)	(35,640)
Accounts payable and accruals	22,159	54,262	8,648
Income taxes payable	8,697	(1,214)	(834)
Deferred revenue and other obligations	4,698	9,969	40,552
Net cash provided by operating activities	28,678	59,038	156,990
Cash flows from investing activities:			
Additions to equipment, furniture and fixtures	(46,776)	(123,947)	(238,544)
Purchase of available for sale securities	(274,897)	(266,112)	(1,714,077)
Maturities of available for sale securities	171,934	289,927	420,885
Acquisition of business, inclusive of intellectual property and other intangibles, net of cash acquired	—	—	54,101
Minority equity investments	—	(3,037)	(13,005)
Net cash used in investing activities	(149,739)	(103,169)	(1,490,640)
Cash flows from financing activities:			
Net proceeds from (repayment of) other obligations	1,639	(279)	7,448
Proceeds from issuance of convertible subordinated notes	—	—	669,300
Proceeds from issuance of common stock and warrants	11,291	43,977	907,026
Repayment of notes receivable from stockholders	857	180	4,579
Net cash provided by financing activities	13,787	43,878	1,588,353
Net (decrease) increase in cash and cash equivalents	(107,274)	(253)	254,703
Cash and cash equivalents at beginning of period	250,714	143,440	143,187
Cash and cash equivalents at end of period	$ 143,440	$ 143,187	$ 397,890
Supplemental disclosure of cash flow information:			
Cash paid during the period for:			
Interest	$ 504	$ 340	$ 16,051
Income taxes	$ 313	$ 1,231	$ 1,007
Supplemental disclosure of non-cash financing activities:			
Issuance of common stock for notes receivable from stockholders	$ 481	$ —	$ —

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

notes to consolidated financial statements

(1) The Company and Significant Accounting Policies

Description of Business

CIENA is a leader in the intelligent optical networking equipment market. The Company offers a portfolio of products for communications service providers worldwide. CIENA's customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, wireless and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. CIENA has pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

Principles of Consolidation

The Company has seventeen wholly owned U.S. and international subsidiaries which have been consolidated in the accompanying financial statements. On March 29, 2001, CIENA acquired all of the outstanding capital stock, and assumed the options of Cyras Systems, Inc. ("Cyras"), a Delaware company based in Fremont, California. The Company completed a merger with Omnia Communications, Inc. ("Omnia"), a Delaware company headquartered in Marlborough, Massachusetts, on July 1, 1999. On March 31, 1999 the Company completed a merger with Lightera Networks, Inc. ("Lightera"), a Delaware company headquartered in Cupertino, California. The Cyras transaction constituted a tax-free reorganization and was recorded using the purchase accounting method. The Omnia and Lightera transactions constituted tax-free reorganizations and have been accounted for as poolings of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Omnia and Lightera as though they had been a part of CIENA.

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All material intercompany accounts and transactions have been eliminated in consolidation.

Fiscal Year

The Company has a 52 or 53 week fiscal year, which ends on the Saturday nearest to the last day of October in each year (November 3, 2001, October 28, 2000, and October 30, 1999). For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 2001 was comprised of 53 weeks. Fiscal 2000 and 1999 were comprised of 52 weeks. Prior to the merger, Omnia's fiscal year ended on December 31.

The fiscal year ended October 31, 1999 contains two months of Omnia's financial results, which are also recorded in the fiscal year ending October 31, 1998. The net loss for these two months, November and December 1998, was $1.6 million.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the Company to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, together with amounts disclosed in the related notes to the financial statements. Actual results could differ from the recorded estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents.

Investments

CIENA's short-term and long-term investments are classified as available-for-sale as of October 31, 2001 and are reported at fair value, with unrealized gains and losses, net of tax, recorded in accumulated other comprehensive income. Realized gains or losses and declines in value determined to be other than temporary, if any, on available-for-sale securities will be reported in other income or expense as incurred. As of October 31, 2000, CIENA's marketable securities were classified as held-to-maturity securities and were recorded at their amortized cost.

CIENA also has certain other minority equity investments in non-publicly traded companies. These investments are generally carried at cost as CIENA owns less than 20% of the voting equity and does not have the ability to exercise significant influence over these companies. As of October 31, 2000 and October 31, 2001, $3.0 million and $16.1 million of these investments are included in other long-term assets, respectively. These investments are inherently high risk as the market for technologies or product manufactured by these companies are usually early stage at the time of the investment by CIENA and such markets may never be significant. CIENA could lose its entire investment in certain or all of these companies. CIENA monitors these investments for impairment and makes appropriate reductions in carrying values when necessary. No write-downs were recorded during fiscal 2000 or fiscal 2001.

Inventories

Inventories are stated at the lower of cost or market, with cost determined on the first-in, first-out basis. The Company records a provision for excess and obsolete inventory whenever such 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 2-5 years for equipment, furniture and fixtures and 2-10 years for leasehold improvements.

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. 00-02, "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 over the estimated useful life of the asset.

Goodwill and Purchased Intangible Assets

The Company has recorded goodwill and purchased intangible assets from several acquisitions. See Note 7. Goodwill and purchased 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. It is the Company's policy to assess periodically the carrying amount of its goodwill and purchased intangible assets to determine if there has been an impairment to their carrying value. Impairments of goodwill and other intangible assets are determined in accordance with Statement of Financial Accounting Standard No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" ("SFAS No. 121"). The Company has recorded goodwill amortization expense of $3.2 million, $3.2 million, and $177.8 million for fiscal years 1999, 2000 and 2001, respectively.

Concentrations

Substantially all of the Company's cash and cash equivalents, short-term and long-term investments, are custodied at four major U.S. financial institutions. The majority of the Company's cash equivalents consist of U.S. Government Federal Agency Securities, short-term marketable securities, and overnight repurchase agreements. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally these deposits may be redeemed upon demand and, therefore, bear minimal risk.

Historically, the Company has relied on a limited number of customers for a substantial portion of its revenue. During fiscal year 2001, Sprint and Qwest Communications each accounted for at least 10% or more of CIENA's revenue and combined accounted for 50.5% of the Company's fiscal 2001 revenue. During fiscal year 2000, Sprint, Qwest Communications and GTS Network Ltd. each accounted for at least 10% of CIENA's revenue and all three combined accounted for 60.9% of the Company's fiscal 2000 revenue. During fiscal year 1999 Sprint, MCI WorldCom, and GTS Network Ltd. each accounted for at least 10% of CIENA's revenue and all three combined accounted for 46.2% of the Company's fiscal 1999 revenue. The Company expects that a significant portion of its future revenue will continue to be generated by a limited number of customers. The loss of any one of these customers or any substantial reduction in orders by any one of these customers could materially adversely affect the Company's financial condition or operating results. Additionally, the Company's access to certain raw materials is dependent upon single and sole source suppliers. The inability of any supplier to fulfill supply requirements of the Company could affect future results.

CIENA performs ongoing credit evaluations of its customers and generally does not require collateral from its customers. CIENA maintains an allowance for potential losses on a specific identification basis. CIENA's allowance for doubtful accounts as of October 31, 2001 and October 31, 2000 was $1.5 million and $29.6 million, respectively. Approximately $27.8 million of the October 31, 2000 balance relates to provisions made for doubtful accounts associated with iaxis Limited, one of CIENA's European customers. In September 2000, CIENA was informed that an administrative order had been issued by a London court against iaxis Limited. As a result of this order, joint administrators were appointed to manage the business of iaxis Limited while they marketed the business for sale and formulated a reorganization of the Company. In November 2000, CIENA was notified that Dynegy Inc. and its subsidiaries had entered into a proposed agreement to acquire the assets and stock of iaxis Limited from the administrators. As a consequence of the terms of (a) the proposed agreement between the administrators of iaxis Limited and Dynegy, and of (b) a related sales agreement between CIENA and Dynegy, CIENA expected to realize approximately $8.9 million of the gross outstanding accounts receivable balance due from iaxis Limited as of October 31, 2000. In July 2001 CIENA recovered approximately $15.4 million of the gross outstanding accounts receivable balance due from iaxis Limited primarily through the sales agreement with Dynegy. Accordingly, CIENA recognized a reduction in the provision for doubtful accounts of $6.6 million during fiscal year 2001.

As of October 31, 2001, the trade accounts receivable included three customers who each accounted for 38%, 18%, and 15% of the trade accounts receivable, respectively. As of October 31, 2000, the trade accounts receivable included three customers who each accounted for 28%, 16%, and 13% of the trade accounts receivable, respectively.

Revenue Recognition

CIENA recognizes product revenue in accordance with the shipping terms specified and where collection is reasonably assured. For transactions where CIENA has yet to obtain customer acceptance, revenue is deferred until the terms of acceptance are satisfied. Revenue for installation services is recognized as the services are performed unless the terms of the supply contract combine product acceptance with installation, in which case revenues for installation services are recognized when the terms of acceptance are satisfied and installation is completed. Revenues from installation service fixed price contracts are recognized on the percentage-of-completion method, measured by the percentage of costs incurred to date compared to estimated total costs for each contract. Amounts received in excess of revenue recognized are included as deferred revenue in the accompanying balance sheets. For transactions involving the sale of software, revenue is recognized in accordance with Statement of Position No. 97-2 (SOP 97-2), "Software Revenue Recognition," including deferral of revenue recognition in instances where vendor specific objective evidence for undelivered elements is not determinable. For distributor sales where risks of ownership have not transferred, CIENA recognizes revenue when the product is shipped through to the end user.

Revenue-Related Accruals

The Company provides for the estimated costs to fulfill customer warranty and other contractual obligations upon the recognition of the related revenue. Such reserves are determined based upon actual warranty cost experience, estimates of component failure rates, and management's industry experience. The Company's sales contracts generally do not permit the right of return of product by the customer after the product has been accepted.

Research and Development

The Company charges all research and development costs to expense as incurred.

Advertising Costs

The Company expenses all advertising costs as incurred.

Income Taxes

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards No. 109 (SFAS No. 109), "Accounting for Income Taxes." SFAS No. 109 is 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 No. 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. Tax savings resulting from deductions associated with stock options and certain stock warrants are credited directly to additional paid in capital when realization of such benefit is fully assured and to deferred tax liabilities prior to such point. See Note 13.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include short-term and long-term investments, accounts receivable, accounts payable, and other accrued expenses, approximate their fair values due to their short maturities.

Foreign Currency Translation

The majority of the Company's foreign branches and subsidiaries use the U.S. dollar as their functional currency, as the U.S. parent exclusively funds the branches and subsidiaries' operations 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. Resulting translation adjustments are recorded directly to a separate component of stockholders' equity. Where the U.S. dollar is the functional currency, translation adjustments are recorded in other income. The net gain (loss) on foreign currency re-measurement and exchange rate changes for fiscal 1999, 2000 and 2001 was immaterial for separate financial statement presentation.

Computation of Basic Net Income (Loss) per Common Share and Diluted Net Income (Loss) per Common and Dilutive Potential Common Share

The Company calculates earnings per share in accordance with the Statement of Financial Accounting Standards No. 128, "Earnings per Share" (SFAS No. 128). SFAS No. 128 simplifies the earnings per share (EPS) computation and replaces the presentation of primary EPS with a presentation of basic EPS. This statement also 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. See Note 10.

Software Development Costs
Statement of Financial Accounting Standards No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed" ("SFAS No. 86"), 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 over the estimated product life. The Company 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, the Company has not capitalized any software development costs.

Accounting for Stock Options
In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123 (SFAS No. 123), "Accounting for Stock-Based Compensation." SFAS No. 123 allows companies to either account for stock-based compensation under the new provisions of SFAS No. 123 or using the intrinsic value method provided by Accounting Principles Board Opinion No. 25 (APB No. 25), "Accounting for Stock Issued to Employees," but requires pro forma disclosure in the footnotes to the financial statements as if the measurement provisions of SFAS No. 123 had been adopted. The Company has elected to continue to account for its stock based compensation in accordance with the provisions of APB No. 25 as interpreted by FASB Interpretation No. 44, "Accounting for Certain Transactions Involving Stock Compensation, and Interpretation of APB Opinion No. 25," ("FIN 44") and present the pro forma disclosures required by SFAS No. 123. See Note 13.

Segment Reporting
In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 131 (SFAS No. 131), "Disclosures about Segments of an Enterprise and Related Information." SFAS No. 131 establishes annual and interim reporting standards for operating segments of a company. It also requires entity-wide disclosures about the products and services an entity provides, the material countries in which it holds assets and reports revenues, and its major customers. The Company is not organized by multiple operating segments for the purpose of making operating decisions or assessing performance. Accordingly, the Company operates in one operating segment and reports only certain enterprise-wide disclosures.

Newly Issued Accounting Standards
In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 141 "Business Combinations" (SFAS No. 141) and Statement of Financial Accounting Standards No. 142 "Goodwill and Other Intangible Assets" (SFAS No. 142). SFAS No. 141 addresses financial accounting and reporting for business combinations. This statement requires the purchase method of accounting to be used for all business combinations, and prohibits the pooling-of-interests method of accounting. This statement is effective for all business combinations initiated after June 30, 2001 and supercedes APB Opinion No. 16, "Business Combinations" as well as Financial Accounting Standards Board Statement of Financial Accounting Standards No. 38, "Accounting for Preacquisition Contingencies of Purchased Enterprises."

SFAS No. 142 addresses how intangible assets that are acquired individually or with a group of other assets should be accounted for in financial statements upon their acquisition. This statement requires goodwill amortization to cease and for goodwill to be periodically reviewed for impairment, for fiscal years beginning after October 31, 2001. SFAS No. 142 supercedes APB Opinion No. 17, "Intangible Assets." The Company will adopt the provisions of this standard for its first quarter of fiscal 2002.

In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 143, "Accounting for Asset Retirement Obligation" (SFAS No. 143). SFAS No. 143 is effective for fiscal years beginning after June 15, 2002, and will require companies to record a liability

for asset retirement obligations in the period in which they are incurred, which typically could be upon completion or shortly thereafter. The FASB decided to limit the scope to legal obligation and the liability will be recorded at fair value. The effect of adoption of this standard on our results of operations and financial positions is being evaluated.

In October 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (SFAS No. 144). SFAS No. 144 is effective for fiscal years beginning after December 15, 2001. It provides a single accounting model for long-lived assets to be disposed of and replaces SFAS No. 121 "Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of." The effect of adoption of this standard on our results of operations and financial positions is being evaluated.

Reclassification

Certain prior year amounts have been reclassified to conform to current year consolidated financial statement presentation.

(2) Business Combinations

Cyras

On March 29, 2001, CIENA acquired all of the outstanding capital stock, and assumed the options of Cyras Systems, Inc. ("Cyras"), a privately held provider of next-generation optical networking systems based in Fremont, California. The purchase price was approximately $2.2 billion and consisted of the issuance of approximately 26.1 million shares of CIENA common stock, the assumption of approximately 1.9 million stock options and the indirect assumption of $150 million principal amount of Cyras' convertible subordinated indebtedness. Cyras is designing and developing next-generation optical networking solutions for telecommunications carriers. The Cyras K2 product, which has become CIENA's MultiWave MetroDirector K2, enables carriers of metropolitan area networks to consolidate multiple legacy network elements into a single switching platform.

The transaction was recorded using the purchase accounting method with the allocation of the purchase price summarized below (in thousands):

Tangible assets	$ 80,712
Deferred tax asset	37,201
Developed technology	47,700
In-process research and development	45,900
Workforce	11,600
Goodwill	2,059,899
Deferred stock compensation	98,456
Acquisition costs	(14,790)
Other assumed liabilities	(21,124)
Convertible subordinated notes	(167,700)
Employee loans	7,784
Total purchase price	$2,185,638

The amortization period for the goodwill and intangibles, based on management's estimate of the useful life of the acquired technology, is three to seven years. As a result of the issuance of SFAS No. 142, amortization related to goodwill will no longer be recorded in subsequent fiscal years.

In connection with the Cyras acquisition, the Company recorded a $45.9 million charge in the period ended April 30, 2001 for in-process research and development. This represents the estimated value of purchased in-process technology related to Cyras' K2 product development that had not yet

reached technological feasibility and had no alternative future use at the time of the acquisition. The amount of purchase price allocated to in-process research and development was determined using the discounted cash flow method. This method consisted of estimating future net cash flows attributable to in-process K2 technology for a discrete projection period and discounting the net cash flows back to their present value. The discount rate includes a factor that takes into account the uncertainty surrounding the successful development of the purchased in-process technology.

In connection with the Cyras acquisition, the Company recorded a $47.7 million intangible asset related to developed technology. This represents the estimated value of the portion of the purchased technology for which development had been completed. The amount of purchase price allocated to purchased technology was determined using the income approach. This method consisted of estimating future net cash flows attributable to existing K2 technology for a discrete projection period and discounting the net cash flows back to their present value.

In conjunction with the Cyras acquisition, the Company recorded deferred stock compensation of $98.4 million. The unamortized deferred stock compensation was $53.6 million at October 31, 2001.

The following unaudited pro forma data summarizes the results of operations for the period indicated as if the Cyras acquisition had been completed as of the beginning of the periods presented. The unaudited pro forma data gives effect to actual operating results prior to the acquisition, adjusted to include the pro forma effect of amortization of intangibles, deferred stock compensation costs, the elimination of the charge for acquired in-process research and development, the tax effects to the pro forma adjustments and the recognition of the tax benefits arising from Cyras' net operating loss carry forwards. These pro forma amounts 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 (in thousands, except per share data).

	Year Ended	
	October 31, 2000	**October 31, 2001**
Revenue	$ 858,750	$ 1,603,229
Net loss	$(274,330)	$(1,890,627)
Diluted net loss per common share and dilutive potential common share	$ (0.90)	$ (6.06)

Omnia

On July 1, 1999, the Company completed a merger with Omnia in a transaction valued at approximately $483 million. Omnia is a telecommunications equipment supplier which focuses on developing solutions to allow public telephone network operators to offer services cost effectively over integrated metropolitan fiberoptic access and transport networks. Under the terms of the merger agreement, the Company acquired all of the outstanding shares and assumed the stock options of Omnia in exchange for approximately 30.4 million shares of CIENA common stock and 1.6 million CIENA shares issuable upon exercise of stock options. The transaction constituted a tax-free reorganization and has been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Omnia as though it had been a part of CIENA.

The following table shows the separate historical results of CIENA and Omnia for the periods prior to the consummation of the merger of the two entities. No financial information has been presented for the fiscal year ended 1996 as Omnia did not commence operations until June 1997. Omnia's fiscal year end was December 31. CIENA's results for the years ended October 31, 1997 and 1998 include Omnia's financial results from June 3, 1997 (date of inception) to December 31, 1997 and January 1, 1998 to December 31, 1998, respectively (in thousands).

	Year Ended October 31, 1997	1998	Nine Months Ended July 31, 1999
Revenues:			
CIENA	$413,215	$508,087	$340,733
Omnia	—	—	—
Intercompany eliminations	—	—	—
Consolidated revenues	$413,215	$508,087	$340,733
Net income (loss):			
CIENA	$115,967	$ 51,113	$ (1,020)
Omnia	(399)	(5,413)	(7,403)
Consolidated net income (loss)	$115,568	$ 45,700	$ (8,423)

Lightera

On March 31, 1999 the Company completed a merger with Lightera in a transaction valued at approximately $459 million. Lightera is a developer of carrier class optical core switches for fiberoptic communications networks. Under the terms of the merger agreement, the Company acquired all of the outstanding shares and assumed outstanding stock options and warrants of Lightera in exchange for approximately 35.0 million shares of CIENA common stock and 5.8 million CIENA shares issuable upon exercise of stock options and warrants. The transaction constituted a tax-free reorganization and has been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Lightera as though it had been a part of CIENA.

The following table shows the separate historical results of CIENA and Lightera for the periods prior to the consummation of the merger of the two entities. No financial information has been presented for the fiscal year ended 1997 as Lightera did not commence operations until April 1998 (in thousands).

	Year Ended October 31, 1998	Six Months Ended April 30, 1999
Revenues:		
CIENA	$508,087	$211,907
Lightera	—	—
Intercompany eliminations	—	—
Consolidated revenues	$508,087	$211,907
Net income (loss):		
CIENA	$ 53,194	$ 8,046
Lightera	(2,081)	(6,169)
Consolidated net income	$ 51,113	$ 1,877

(3) Restructuring Costs and Impairment Charges

During the fiscal year ended October 31, 2001 the Company recorded a restructuring charge of $15.4 million relating to consolidation of excess facilities. The consolidation of excess facilities included the closure of certain manufacturing warehouse facilities and the consolidation of certain operational centers related to business activities that have been restructured. The change included $7.0 million primarily related to lease terminations and non-cancelable lease costs and also included an $8.4 million write-down related to property and equipment consisting primarily of leasehold improvements and production equipment.

As part of our review of financial results for fiscal 2001, we performed an assessment of the carrying value of our long-lived assets including significant amounts of goodwill and other intangible assets recorded in connection with the acquisition of Cyras. The assessment was performed pursuant

to Statement Financial Accounting Standards No. 121 "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of" (SFAS 121) because of the significant negative industry and economic trends affecting both the Company's current operations and expected future sales of MultiWave MetroDirector K2 as well as the general decline of technology valuations. The conclusion of that assessment was that the decline in market conditions within the Company's industry was significant and other than temporary. As a result, the Company recorded a charge of $1.7 billion to reduce goodwill during the fourth quarter of 2001 based on the amount by which the carrying amount of these assets exceeded their fair value. The write-down is related to the goodwill associated with the Cyras transaction. Fair value was determined based on discounted future cash flows for the operating entity, which had separately identifiable cash flows. The cash flow periods used were six years, applying annual growth rates of 25% to 100%. The discount rate used was 11.3%, and the terminal value was estimated based upon terminal growth rates of 4%. The assumptions supporting the estimated future cash flows, including the discount rate and estimated terminal values reflect management's best estimates. The discount rate was based upon the Company's weighted average cost of capital as adjusted for the risks associated with its operations.

(4) Marketable Debt and Equity Securities

Cash, short-term and long-term investments are comprised of the following (in thousands):

	October 31, 2001			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate bonds	$ 501,584	$ 7,403	$ —	$ 508,987
Asset backed obligations	199,416	1,974	132	201,258
Foreign debt securities	8,040	74	—	8,114
Equity securities	9,000	—	7,512	1,488
Commercial paper	119,394	394	—	119,788
U.S. government obligations	550,888	6,728	—	557,616
Money market funds	397,890	—	—	397,890
	$1,786,212	$16,573	$7,644	$1,795,141
Included in cash and cash equivalents	$ 397,890	$ —	$ —	$ 397,890
Included in short-term investments	903,690	6,548	7,644	902,594
Included in long-term investments	484,632	10,025	—	494,657
	$1,786,212	$16,573	$7,644	$1,795,141

As of October 31, 2000 the Company classified its investments as marketable debt securities held-to-maturity defined by Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Such investments were recorded at their amortized cost and had $70,255 of unrealized gains and $32,000 of unrealized loss.

	October 31, 2000
Commercial paper	$ 90,745
U.S. government obligations	4,386
Money market funds	143,187
	$238,318
Included in cash and cash equivalents	$143,187
Included in short-term investments	95,131
	$238,318

The following table summarizes maturates of debt investments (including restricted investments) at October 31, 2001 (in thousands):

	Amortized Cost	Estimated Fair Value
Less than one year	$ 894,690	$ 901,106
Due in 1-2 years	474,449	484,388
Due in 2-5 years	10,183	10,269
	$1,379,322	$1,395,763

(5) Inventories

Inventories are comprised of the following (in thousands):

	October 31,	
	2000	2001
Raw materials	$ 52,576	$161,837
Work-in-process	48,300	75,669
Finished goods	58,641	71,266
	159,517	308,772
Reserve for excess and obsolescence	(18,238)	(53,804)
	$141,279	$254,968

(6) Equipment, Furniture and Fixtures

Equipment, furniture and fixtures are comprised of the following (in thousands):

	October 31,	
	2000	2001
Equipment, furniture and fixtures	$ 290,726	$ 516,433
Leasehold improvements	43,394	62,017
	334,120	578,450
Accumulated depreciation and amortization	(147,638)	(249,195)
Construction-in-progress	2,749	2,235
	$ 189,231	$ 331,490

(7) Goodwill and Other Intangible Assets

Goodwill and other intangible assets are comprised of the following (in thousands):

	October 31,	
	2000	2001
Goodwill and workforce	$13,198	$ 353,620
Intangible	5,700	65,000
	18,898	418,620
Accumulated amortization	(9,849)	(191,855)
	$ 9,049	$ 226,765

(8) Convertible Notes Payable

On February 9, 2001, CIENA completed a public offering of 3.75% convertible notes, in an aggregate principal amount of $690 million, due February 1, 2008. Interest is payable on February 1 and August 1 of each year beginning August 1, 2001. The notes may be converted into shares of CIENA's common stock at any time before their maturity or their prior redemption or repurchase by CIENA. The conversion rate is 9.5808 shares per each $1,000 principal amount of notes, subject to adjustment in

certain circumstances. On or after the third business day after February 1, 2004, CIENA has the option to redeem all or a portion of the notes that have not been previously converted at the following redemption prices (expressed as percentage of principle amount):

Period	Redemption Price
Beginning on the third business day after February 1, 2004 and ending on January 31, 2005	102.143%
Beginning on February 1, 2005 and ending on January 31, 2006	101.607%
Beginning on February 1, 2006 and ending on January 31, 2007	101.071%
Beginning on February 1, 2007 and ending on January 31, 2008	100.536%

In August 2000, Cyras issued $150 million of 4.5% convertible subordinated notes due August 15, 2005. Interest is payable on February 15 and August 15 of each year, beginning February 15, 2001. CIENA indirectly assumed the convertible subordinated notes on March 29, 2001 as a result of its acquisition of Cyras. CIENA recorded the estimated fair value of the notes on the date of the acquisition at $167.7 million. The notes may be converted into shares of CIENA's common stock at any time before their maturity or their prior redemption. The conversion rate is 6.9137 shares per each $1,000 principal amount of notes, subject to adjustment in certain circumstances. Cyras Systems LLC is the successor to Cyras Systems Inc. and a wholly owned subsidiary of CIENA. If an IPO of Cyras Systems LLC has not occurred on or before March 31, 2002, CIENA will be obligated to make an offer to repurchase the notes at 118.9% of the principal balance thereof on April 30, 2002. CIENA is accreting the redemption premium over the remaining period to April 30, 2002, such that the carrying value of the notes equals the redemption price at the date of the redemption obligation. Accretion of the redemption premium was $6.2 million during the fiscal year 2001.

(9) Accrued Liabilities

Accrued liabilities are comprised of the following (in thousands):

	October 31,	
	2000	2001
Warranty and other contractual obligations	$27,605	$ 39,846
Accrued compensation and payroll related tax	34,163	43,570
Accrued interest payable	—	8,363
Accrued restructuring costs	—	15,439
Other	22,395	41,305
	$84,163	$148,523

(10) Earnings (Loss) per Share Calculation

The following is a reconciliation of the numerators and denominators of the basic net income (loss) per common share ("basic EPS") and diluted net income (loss) per common and 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 common shares outstanding, stock options and warrants using the treasury stock method (in thousands except per share amounts).

	October 31,		
	1999	2000	2001
Net income (loss)	$ (3,924)	$ 81,387	$(1,794,062)
Weighted average shares—basic	267,042	281,621	311,815
Effect of dilutive securities:			
Employee stock options and warrants	—	18,041	—
Weighted average shares—diluted	267,042	299,662	311,815
Basic EPS	$ (0.01)	$ 0.29	$ (5.75)
Diluted EPS	$ (0.01)	$ 0.27	$ (5.75)

Approximately 23.8 million, 1.2 million and 16.4 million options and restricted stock were outstanding during fiscal 1999, 2000 and 2001 respectively, but were not included in the computation of the Diluted EPS as the effect would be anti-dilutive.

(11) Stockholders' Equity

Authorized Shares

On March 12, 2001, the shareholders of the Company approved an increase to the number of authorized shares of common stock from 460 million to 980 million shares.

Stock Split

The Board of Directors authorized the splitting of the Company's common stock on a two-for-one basis for shareholders of record on August 28, 2000 and the resulting shares from the split were distributed on September 18, 2000. All references to share and per-share data for all periods presented have been adjusted to give effect to this two-for-one stock split.

Stockholder Rights Plan

In December 1997, the Company's Board of Directors adopted a Stockholder Rights Plan. This plan is designed to deter any potential coercive or unfair takeover tactics in the event of an unsolicited takeover attempt. It is not intended to prevent a takeover of the Company on terms that are favorable and fair to all shareholders and will not interfere with a merger approved by the Board of Directors. Each right entitles shareholders to buy a "unit" equal to one one-thousandth of a share of Preferred Stock of the Company. The rights will be exercisable only if a person or a group acquires or announces a tender or exchange offer to acquire 15% or more of the Company's common stock or if the Company enters into certain other business combination transactions not approved by the Board of Directors.

In the event the rights become exercisable, the rights plan allows for CIENA shareholders to acquire stock of the surviving corporation, whether or not CIENA is the surviving corporation, having a value twice that of the exercise price of the rights. The rights were distributed to shareholders of record in January 1998. The rights will expire December 2007 and are redeemable for $0.001 per right at the approval of the Company's Board of Directors.

Public Offerings

On February 9, 2001, CIENA completed a public offering of 11,000,000 shares of common stock at a price of $83.50 per share less underwriters' discounts and commissions. Net proceeds from the public offering was approximately $878.5 million, after deducting underwriting discounts, commissions and offering expenses. Pending use of the net proceeds, the Company has invested them in interest bearing, investment grade securities.

Other Offerings

During fiscal 1999 Omnia issued 368,990 shares of common stock in exchange for approximately $66,000. In fiscal 1999, Lightera issued 1,937,022 shares of common stock in exchange for approximately $104,000.

Accumulated Comprehensive Income

The components of accumulated comprehensive income (loss) are as follows (in thousands):

	October 31,	
	2000	2001
Net income (loss)	$81,387	$(1,794,062)
Changes in net unrealized gains on investments	—	5,804
Change in accumulated translation adjustments	(863)	(59)
Total comprehensive income (loss)	$80,524	$(1,788,317)

(12) Income Taxes

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

	October 31,		
	1999	2000	2001
Income (loss) before income taxes	$(5,991)	$120,574	$(1,706,729)
Provision (benefit) for income taxes:			
Current:			
Federal	5,175	44,914	77,705
State	235	4,640	(500)
Foreign	75	250	133
Total current	5,485	49,804	77,338
Deferred:			
Federal	(7,477)	(10,013)	9,595
State	(75)	(604)	400
Foreign	—	—	—
Total deferred	(7,552)	(10,617)	9,995
Provision (benefit) for income taxes	$(2,067)	$ 39,187	$ 87,333

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

	October 31,		
	1999	2000	2001
Provision at statutory rate	35.0%	35.0%	35.0%
Non-deductible purchased research and development	—	—	(0.9)
State taxes, net of federal benefit	(2.6)	2.2	—
Research and development credit	48.9	(5.5)	0.3
Foreign sales corporation benefit	28.7	(0.7)	0.2
Non-deductible merger costs and other	(75.5)	1.5	(39.7)
	(34.5)%	32.5%	(5.1)%

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

	October 31,	
	2000	2001
Deferred tax assets:		
Reserves and accrued liabilities	$ 33,846	$ 67,378
Other	1,178	15,250
Net operating loss and credit carry forward	109,410	105,581
Gross deferred tax assets	144,434	188,209
Valuation allowance	(1,405)	(1,348)
Net current deferred tax asset	$143,029	$186,861
Deferred tax liabilities:		
Equipment leases	$ 8,885	$ 9,385
Services	24,319	25,819
Depreciation and other	5,941	28,868
Deferred long-term tax liabilities	$ 39,145	$ 64,072

As of October 31, 2001, the Company had a $199.1 million net operating loss carry forward and a $31.3 million income tax credit which begin to expire in fiscal 2021 and 2014, respectively. Management believes that, after considering the anticipated future operating results of the Company, the net deferred tax assets will be realized. However, there cannot be complete assurance that this will occur.

The income tax provision does not reflect the tax savings resulting from deductions associated with the Company's stock option plans. Tax benefits from exercises of stock options of approximately $11.0 million, $154.6 million and $71.6 million in fiscal 1999, fiscal 2000 and fiscal 2001, respectively, were credited directly to additional paid-in-capital.

The IRS is currently examining the Company's federal income tax returns for fiscal 1997 and fiscal 1998. Management does not expect the outcome of these examinations to have a material adverse affect on the Company's consolidated financial position, results of operations or cash flows.

(13) Employee Benefit Plans

Stock Incentive Plans

In August of 1999, the Company approved the 1999 Non-Officer Incentive Stock Plan (the "1999 Plan"). Under the 1999 Plan, as of October 31, 2001, 39,000,000 shares of the Company's authorized but unissued Common Stock were reserved for options issuable to employees who are not executive officers of the Company. This number will increase on the last day of each fiscal year by 4.2% of the number of issued and outstanding shares of common stock on that date. These options vest to the employee over four years and are exercisable once vested. Options under the 1999 Plan are categorized as non-qualified, and the exercise price for each option shall be established by the Board of Directors provided the price is not less than 85% of fair market value.

The Company has an Amended and Restated 1994 Stock Option Plan (the "1994 Plan"). Under the 1994 Plan, as of October 31, 2001, 48,560,167 shares of the Company's authorized but unissued Common Stock were reserved for options issuable to employees. This number increases by 0.75% of the number of issued and outstanding shares of the common stock on the last day of the fiscal years 2002, 2003, and 2004. Certain of these options are immediately exercisable upon grant, and both the options and the shares issuable upon exercise of the options generally vest to the employee over a four year period. The Company has the right to repurchase any exercised and non-vested shares at the original purchase price from the employee upon termination of employment. Under the 1994 Plan, options may be incentive stock options or non-qualified options, and the exercise price for each option shall be established by the Board of Directors provided, however, that the exercise price per share shall not be not less than 100% of the fair market value.

In June 1996, the Company approved the 1996 Outside Directors Stock Option Plan (the "1996 Plan"). Under the 1996 Plan, 1,500,000 shares of the Company's authorized but unissued Common Stock are reserved for options issuable to outside members of the Company's Board of Directors. These options vest to the director over periods from one to three years, depending on the type of option granted, and are exercisable once vested. Under the 1996 Plan, options may be incentive stock options or non-qualified options, and the exercise price for each option shall be established by the Board of Directors provided, however, that the exercise price per share shall not be not less than the fair market value for incentive stock options and not less than 85% of fair market value for non-qualified stock options.

As a result of the Company's purchase of Cyras, the Company assumed the Cyras 1998 Stock Option Plan ("the Cyras 1998 Plan"). The Cyras 1998 Plan provided for the granting of stock options to employees and consultants of Cyras. Options granted under the Cyras 1998 Plan were either incentive stock options or non-statutory stock options. Incentive stock options ("ISO"), could be granted only to Cyras employees (including officers and directors who were also employees).

Non-statutory stock options ("NSO") could be granted to Cyras employees and consultants. The Company has reserved 2,015,783 shares of Common Stock for outstanding options under the plan. Options exercised are immediately subject to a repurchase right held by the Company which lapse over a maximum period of four years at such times and under such conditions as determined by the Board of Directors.

As a result of the Company's merger with Omnia, the Company assumed the Omnia 1997 Stock Option Plan ("the 1997 Plan"). The 1997 Plan provided for the granting of stock options to employees and consultants of Omnia. Options granted under the 1997 Plan were either incentive stock options or non-statutory stock options. Incentive stock options ("ISO"), could be granted only to Omnia employees (including officers and directors who were also employees). Non-statutory stock options ("NSO") could be granted to Omnia employees and consultants. The Company has reserved 1,519,778 shares of Common Stock for outstanding options under the plan. Options exercised are immediately subject to a repurchase right held by the Company which lapse over a maximum period of four years at such times and under such conditions as determined by the Board of Directors.

As a result of the Company's merger with Lightera, the Company assumed the Lightera 1998 Stock Option Plan ("the 1998 Plan"). The 1998 Plan provided for the granting of stock options to employees and consultants of Lightera. Options granted under the 1998 Plan were either incentive stock options or non-statutory stock options. Incentive stock options ("ISO"), could be granted only to Lightera employees (including officers and directors who were also employees). Non-statutory stock options ("NSO") could be granted to Lightera employees and consultants. The Company has reserved 5,058,322 shares of Common Stock for outstanding options under the plan. Options exercised are immediately subject to a repurchase right held by the Company which lapse over a maximum period of five years at such times and under such conditions as determined by the Board of Directors.

Following is a summary of the Company's stock option activity (shares in thousands):

	Shares	Weighted Average Exercise Price
Balance at October 31, 1998	19,072	$ 2.41
Granted	16,262	11.73
Exercised	(3,456)	2.33
Canceled	(1,756)	6.65
Balance at October 31, 1999	30,122	7.22
Granted	12,529	98.85
Exercised	(9,383)	4.10
Canceled	(2,547)	17.13
Balance at October 31, 2000	30,721	44.72
Granted	23,715	41.35
Exercised	(3,987)	6.07
Canceled	(3,517)	54.62
Balance at October 31, 2001	46,932	$45.56

At October 31, 2001, approximately 1.5 million shares of Common Stock subject to repurchase by the Company had been issued upon the exercise of options and restricted stock purchase agreements, and 12.5 million of the total outstanding options were vested and not subject to repurchase by the Company upon exercise. As of October 31, 2001, approximately 66.4 million shares are available for issuance under these plans.

The following table summarizes information with respect to stock options outstanding at October 31, 2001 (shares in thousands):

	Options Outstanding			Options Not Subject to Repurchase upon Exercise	
Range of Exercise Price	**Number Outstanding at Oct. 31, 2001**	**Weighted Average Remaining Contractual Life (Years)**	**Weighted Average Exercise Price**	**Number at Oct. 31, 2001**	**Weighted Average Exercise Price**
$ 0.01–$ 6.19	6,468	5.88	$ 2.03	4,911	$ 2.13
$ 6.28–$ 15.78	6,223	7.70	12.42	2,984	12.13
$ 16.13–$ 19.88	10,410	9.51	16.51	1,071	16.52
$ 21.31–$ 57.66	9,555	9.22	44.23	880	37.78
$ 58.25–$ 69.19	3,515	9.08	66.19	408	64.71
$ 69.93–$127.88	4,953	8.97	93.58	806	93.49
$130.00–$149.50	5,808	8.96	130.35	1,452	130.35
$ 0.01–$149.50	46,932	8.55	$ 45.56	12,512	$ 31.06

Employee Stock Purchase Plan

In March 1998, the shareholders approved the Corporation's 1998 Stock Purchase Plan ("the Purchase Plan") under which 5.0 million shares of common stock have been reserved for issuance. Eligible employees may purchase a limited number of shares of the Company's stock at 85% of the market value at certain plan-defined dates. Approximately 424,000, 693,000 and 607,000 shares of common stock have been issued for $7.8 million, $5.8 million and $3.3 million during fiscal 2001, 2000 and 1999, respectively. As of October 31, 2001 approximately 3.3 million shares are available for issuance under this plan.

Pro Forma Stock-Based Compensation

Had compensation cost for the Company's stock option plans and the Purchase Plan been determined based on the fair value at the grant date for awards in fiscal years 1999, 2000 and 2001 consistent with the provisions of SFAS No. 123, the Company's net income and net income per share for fiscal 2000 would have been decreased and the net loss and the net loss per share for fiscal 1999 and 2001 would have been increased to the pro forma amounts indicated below (in thousands, except per share):

		October 31,	
	1999	**2000**	**2001**
Net income (loss) applicable to common stockholders—as reported	$ (3,924)	$ 81,387	$(1,794,062)
Net loss applicable to common stockholders—pro forma	$(40,067)	$(26,244)	$(2,118,722)
Basic net income (loss) per share—as reported	$ (0.01)	$ 0.29	$ (5.75)
Basic net loss per share—pro forma	$ (0.15)	$ (0.09)	$ (6.79)
Diluted net loss per share—as reported	$ (0.01)	$ 0.27	$ (5.75)
Diluted net loss per share—pro forma	$ (0.15)	$ (0.09)	$ (6.79)

The above pro forma disclosures are not necessarily representative of the effects on reported net income or loss for future years.

The weighted average fair value of each option granted under the various stock option plans for 1999, 2000 and 2001 is $9.45, $64.99 and $27.92 respectively. The fair value of each option grant is estimated on the date of grant using the Black-Scholes Option Pricing Model with the following weighted average assumptions for fiscal years 1999, 2000, and 2001:

	Employee Stock Option Plans October 31,			Employee Stock Purchase Plan October 31,		
	1999	2000	2001	1999	2000	2001
Expected volatility	88%	106%	131%	88%	106%	131%
Risk-free interest rate	5.5%	6.1%	3.6%	5.5%	6.1%	3.6%
Expected life (years)	2.8	2.7	2.6	0.5	0.5	0.5
Expected dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

The Black-Scholes option pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option pricing models require the input of highly subjective assumptions including the expected stock price volatility. The Company uses projected volatility rates, which are based upon historical volatility rates trended into future years. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of the Company's options.

Employee 401(k) Plan

The Company has a 401(k) defined contribution profit sharing plan. The plan covers all full-time employees who are not covered by a collective bargaining agreement where retirement benefits are subject to good faith bargaining. Participants may contribute up to 15% of pre-tax compensation, subject to certain limitations. The Company may make discretionary annual profit sharing contributions of up to the lesser of $30,000 or 25% of each participant's compensation. The Company has made no profit sharing contributions to date. The plan also includes an employer matching contribution equal to 100% of the first 3% of participating employee contributions, with a five year vesting plan applicable to the Company's contribution with the exception that participants vest immediately upon turning age fifty-five. During fiscal 1999, 2000 and 2001 the Company made matching contributions of approximately $1.7 million, $2.3 million and $3.7 million, respectively.

(14) Commitments and Contingencies

Operating Lease Commitments

The Company has certain minimum obligations under non-cancelable operating leases expiring on various dates through 2006 for equipment and facilities. Future annual minimum rental commitments under non-cancelable operating leases at October 31, 2001 are as follows (in thousands):

Fiscal Year Ending October 31,	
2002	$ 23,562
2003	20,439
2004	19,852
2005	18,873
2006	16,285
Thereafter	50,346
	$149,357

Rental expense for fiscal 1999, 2000 and 2001 was approximately $9.5 million, $13.7 million and $19.5 million, respectively.

Litigation

On July 19, 2000, CIENA and CIENA Properties, Inc., a wholly owned subsidiary of CIENA, filed a complaint in the United States District Court for the District of Delaware requesting damages and injunctive relief against Corvis Corporation. The complaint charges Corvis Corporation with infringing several patents relating to CIENA's optical networking communication systems and technology. On September 8, 2000, Corvis filed an Answer and Counterclaim alleging invalidity, non-infringement and unenforceability of the asserted patents, and tortious interference with prospective economic advantage. CIENA believes that Corvis' counterclaims are without merit, and intends to defend itself vigorously. The suit is still in discovery proceedings. The trial of the matter is scheduled to begin on April 1, 2002. On the basis of the proceedings so far, the Company continues to believe they have a strong case on both the claim and counterclaim. Litigation is inherently uncertain, however, and there remains a possibility that CIENA could lose either or both.

On October 3, 2000, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into CIENA's products infringe U.S. Patent No. 4,859,016. CIENA is unable to estimate what impact, if any, an adverse outcome would have on the Company. To date, CIENA has not been served with a complaint in the proceeding. If served, the Company intends to defend the action vigorously.

(15) Foreign Sales

The Company has sales and marketing operations outside the United States in Belgium, Brazil, Canada, China, France, Germany, Japan, Korea, Mexico, Spain, Sweden, and the United Kingdom. Included in revenues are export sales of approximately $213.6 million, and $283.1 million and $382.5 million in fiscal years 1999, 2000 and 2001, respectively.

(16) Subsequent Events

Restructuring Costs

On November 12, 2001, the Company announced an immediate workforce reduction of approximately 380 employees. The workforce reduction was concentrated in the Company's manufacturing operations staff. Affected employees will be paid through January 10, 2002 and will be eligible for additional severance packages. They will also receive outplacement assistance and training. CIENA will record a restructuring charge of between $5.0 million to $6.0 million, associated with this workforce reduction action, in the first fiscal quarter of 2002

item 9 changes in and disagreements with accountants on accounting and financial disclosure

None.

item 10 directors and executive officers of the registrant

Information relating to the directors and executive officers of the Company is set forth in Part I of this report under the caption Item 1. Business "Directors, and Executive Officers" and is incorporated by reference herein.

Section 16(a) Beneficial Ownership Reporting Compliance
Robert Finch filed one late Form 3 reporting his initial beneficial ownership.

item 11 executive compensation

The information is incorporated herein by reference to the Company's definitive 2002 Proxy Statement.

item 12 security ownership of certain beneficial owners and management

The information is incorporated herein by reference to the Company's definitive 2002 Proxy Statement.

item 13 certain relationships and related transactions

The information is incorporated herein by reference to the Company's definitive 2002 Proxy Statement.

index to exhibits

Exhibit Number	Description
3.1[1]	Certificate of Amendment to Third Restated Certificate of Incorporation
3.2[1]	Third Restated Certificate of Incorporation
3.3[1]	Amended and Restated Bylaws
3.5[6]	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 23, 1998
3.6[8]	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 16, 2000
3.7[11]	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 13, 2001
4.1[1]	Specimen Stock Certificate
4.2[2]	Rights Agreement dated December 29, 1997
4.3[3]	Amendment to Rights Agreement
4.4[9]	Amendment No. 2 to Rights Agreement dated September 13, 1998
4.5[3]	Amendment No. 3 to Rights Agreement dated October 19, 1998
4.6[10]	Indenture dated February 9, 2001 between CIENA Corporation and First Union National Bank for 3.75% convertible notes due February 1, 2008
4.7[11]	Indenture dated August 18, 2000 between Cyras Systems, Inc. and State Street Bank and Trust Company for 4.50% convertible notes due August 15, 2005
4.8[11]	First Supplemental Indenture dated November 27, 2000 to the Indenture dated August 18, 2000 between Cyras Systems, Inc. and State Street Bank and Trust Company for 4.50% convertible subordinated notes due August 15, 2005
4.9[11]	Second Supplemental Indenture dated November 28, 2000 to the Indenture dated August 18, 2000 between Cyras Systems, Inc. and State Street Bank and Trust Company for 4.50% convertible subordinated notes due August 15, 2005
4.10[11]	Third Supplemental Indenture dated March 29, 2001 between Cyras Systems, Inc., CIENA Corporation and State Street Bank and Trust Company to the Indenture dated August 18, 2000 between Cyras Systems, Inc. and State Street Bank and Trust Company for 4.50% convertible subordinated notes due August 15, 2005
10.1[1]	Form of Indemnification Agreement for Directors and Officers
10.2[12]	Amended and Restated 1994 Stock Option Plan
10.3[1]	Form of Employee Stock Option Agreements
10.4[1]	1996 Outside Directors Stock Option Plan
10.5[1]	Forms of 1996 Outside Directors Stock Option Agreement
10.13[1]	Employment Agreement dated April 9, 1994 between the Company and Patrick Nettles
10.18[4]	Form of Transfer of Control/Severance Agreement
10.19[5]	Lightera 1998 Stock Option Plan and Form of Stock Option Agreement
10.20[6]	Omnia Communications, Inc. 1997 stock plan and form of agreements
10.21[7]	Employment Agreement dated August 18, 1999 between the Company and Gary B. Smith
10.22[7]	1999 Non-Officer Stock Option Plan and Form of Stock Option Agreement
10.24[11]	Cyras Systems, Inc. 1998 Stock Plan as amended and form of Stock Option Agreement
10.25	Amendment Number 1 to the 1999 Non-Officer Stock Option Plan
21	Subsidiaries of registrant
23.1	Consent of Independent Accountants (filed herewith)

[1] Incorporated by reference from the Company's Registration Statement on Form S-1 (333-17729).
[2] Incorporated by reference from the Company's Form 8-K dated December 29, 1997.
[3] Incorporated by reference from the Company's Form 8-K dated October 14, 1998.
[4] Incorporated by reference from the Company's Form 10-K dated December 10, 1998.
[5] Incorporated by reference from the Company's Form 10-Q dated May 21, 1999.
[6] Incorporated by reference from the Company's Form 10-Q dated August 19, 1999.
[7] Incorporated by reference from the Company's Form 10-K dated December 10, 1999.
[8] Incorporated by reference from the Company's Form 10-Q dated May 18, 2000.
[9] Incorporated by reference from the Company's Form 8-K dated September 14, 1998.
[10] Incorporated by reference from the Company's Form 10-Q dated February 15, 2001.
[11] Incorporated by reference from the Company's Form 10-Q dated May 17, 2001.
[12] Incorporated by reference from the Company's Form S-8 dated October 30, 2001.

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, Chief Technology Officer

Steve W. Chaddick
Senior Vice President, Systems and Technology and Chief Strategy Officer

Joseph R. Chinnici
Senior Vice President, Finance and Chief Financial Officer

Michael O. McCarthy III
Senior Vice President, Worldwide Sales and Support

Russell B. Stevenson, Jr.
Senior Vice President, General Counsel and Secretary

Andrew C. Petrik
Vice President, Controller and Treasurer

Outside Board Members

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

Harvey B. Cash
General Partner
InterWest Partners

John R. Dillon
Retired—Cox Enterprises

Lawton W. Fitt
Managing Director, Goldman Sachs International

Judith M. O'Brien
Managing Director, Incubic LLC

Gerald H. Taylor
Independent Communications Consultant

Corporate Information

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

Annual Meeting
CIENA's annual shareholder meeting will be held at 3:00 p.m. on Thursday, March 7, 2002, at the BWI Airport Marriott Hotel, Linthicum, MD.

Independent Certified Public Accountants
PricewaterhouseCoopers LLP
McLean, VA

General Counsel
Hogan & Hartson
Baltimore, MD

Transfer Agent
EquiServe Trust Company
P.O. Box 43010
Providence, RI 02940-3010
Telephone: (781) 575-3120
Website: www.EquiServe.com

Common Stock Market Data
Since its initial public offering on February, 7, 1997, the Company's Common Stock has traded on the Nasdaq Stock Market under the symbol CIEN and appears in most daily newspaper stock tables as CIEN. As of January 16, 2002, there were approximately 1,816 stockholders of record and 328,459,081 shares of Common Stock outstanding.

Investor Relations
For additional copies of this report or other financial information, contact:
Investor Relations
CIENA Corporation
1201 Winterson Road
Linthicum, MD 21090-2205
IR Hotline: (888) 243-6223 or
(410) 865-8500

Additional information is available on CIENA's website at www.CIENA.com

©2002 CIENA Corporation Design: Financial Communications Inc. Bethesda, MD www.fcicreative.com

CIENA Corporation
1201 Winterson Road
Linthicum, Maryland 21090-2205
410.865.8500
800.921.1144
www.CIENA.com

1562-AR-02