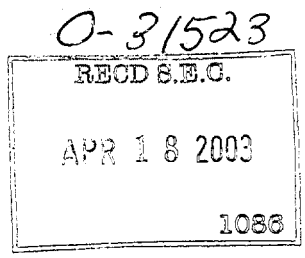
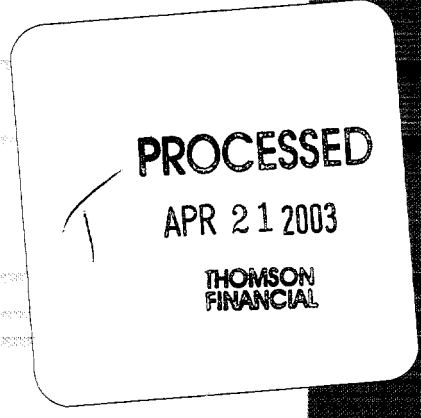


2002 ANNUAL REPORT



Financial highlights

(in thousands, except per share data)	2002	2001	2000	1999	1998
Net revenues	$ 67,594	$ 77,157	$ 76,044	$ 24,499	$ 4,916
Gross margin percentage	80.3%	78.5%	80.5%	79.8%	73.4%
Net income	3,410	9,749	7,985	4,810	320
Diluted earnings per share	0.06	0.16	0.15	0.10	0.01
Diluted weighted average shares outstanding	60,609	61,977	53,777	45,970	44,576
Pro forma net income*	9,142	19,062	24,019	6,640	470
Pro forma diluted earnings per share*	0.15	0.31	0.45	0.14	0.01
Cash and investments	$ 122,221	$ 116,643	$ 96,066	$ 8,733	$ 1,124
Working capital	83,125	128,206	104,025	7,500	1,232
Total assets	157,661	144,166	121,682	15,822	3,266
Total shareholders' equity	149,167	137,821	108,051	8,610	1,760

Company profile

Ixia delivers powerful, distributed, multiport traffic generators and performance & conformance analyzers for wire-speed verification of optical networking equipment, LAN, MAN, WAN, and SAN multilayer switches and routers. Our analysis systems are used in the design, manufacture, and quality assurance stages of network equipment development. Our Real World Traffic solutions address the growing need to test Enterprise networks prior to deployment under real load conditions with actual business application traffic. Ixia's analysis solutions utilize a variety of interfaces - 10/100/1000 Mbps Ethernet, 10 Gigabit Ethernet, Packet Over SONET, BERT, and USB, and are distinguished by their accuracy, reliability, and adaptability to the industry's constant evolution.

* excludes stock-based compensation and impairment of intangible assets

dear fellow shareholders:

➜ The headlines of the last twelve months have been filled with turmoil in the telecommunications world and stories of corporate downsizing. As the economy continued to soften, many companies cut back on capital spending, operating expenses, and jobs. In the world of high-tech, even R&D spending was not immune to these trends and engineers were let go in significant numbers for the first time in several years.

➜ Ixia's stable performance in 2002 demonstrates that there are at least two ways to fight back in a down market. While many companies were downsizing, we have taken a different approach. At Ixia, we believe that investing in the long term future can also lead to immediate results. Our focus is on introducing new products and features that our customers need and that differentiate our solutions from our competitors' solutions. Through this effort, we believe we can maintain steadier sales and gain market share. At the same time, we are working hard at growing the Company's addressable market by moving firmly into the Enterprise market to put us in a stronger position when we see an uptick in the economy. This approach was evident in our continued investments in R&D spending, which increased by 32% in 2002 (on a pro forma basis to exclude amortization of stock-based compensation). In total, we have added approximately 45 engineers in the last two years and have significantly expanded our sales and marketing organization to address new markets for the Company and enable future growth. In this challenging market, the positive impact of our approach was apparent in our financial results and is a key to our continued success.

➜ While top line growth was difficult for companies throughout the technology world, Ixia grew year-over-year revenues in the last three quarters of 2002 by an average of 8%. Additionally, fourth quarter revenues represented an increase of approximately 19% over our sales bottom in the second quarter of 2001. Even though we were able to pass significant cost savings on to our customers, we maintained very strong gross margins of 80.3% - a reflection of both decreasing component costs and a healthy competitive position. These trends enabled us to be profitable throughout 2002, and we have now achieved profitability for nineteen consecutive quarters. Additionally, we continued to generate significant cash from operations and ended the year with over $122 million in cash and investments, even after the cash acquisition of the ANVL product line in the first quarter of 2002.

➜ While all of these numbers are important, they only begin to tell our story. New products in 2002 drove our growth, accounting for over 25% of sales and over 40% of our sales in the second half of the year. Revenues throughout the year were buoyed by the strong performance of our newly introduced 10 Gigabit line and innovative TXS cards, which helped drive a record year for our Gigabit Ethernet products. Overall, we believe our continued commitments to both improving our state-of-the-art technology and broadening our product line were the greatest factors in our success in such a difficult market, and we would like to elaborate on some of the highlights of this program.

➜ To date, we have devised five major strategies to better serve our customers by continuing to provide the highest quality products.

throughput

the maximum rate at which a network device or network can transmit distinct units of data, called packets, without loss

latency

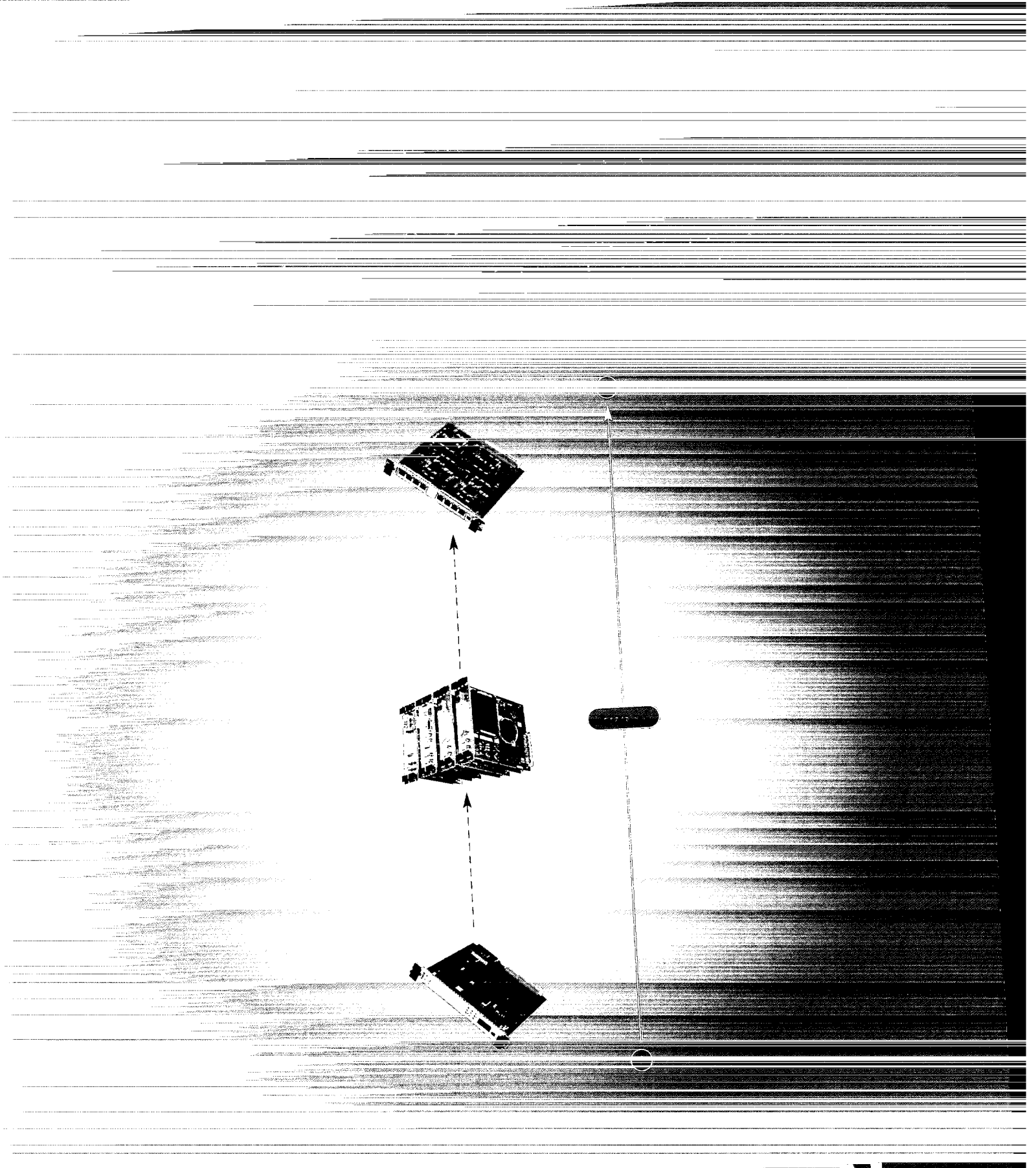
the time it takes a packet to travel through a network device or network

- First, we are closely focused on next generation R&D trends, and developing products that enable engineers to stay ahead of the technology curve.
- Second, we listen to our customers and are always striving to build a better platform to meet their needs in the marketplace.
- Third, we leverage R&D efforts to enter new markets that capitalize on our technological expertise.
- Fourth, we actively partner with technology leaders to utilize the strengths of our products and enter markets quickly and efficiently.
- Finally, we use our healthy cash position and financial strength to acquire products and companies that allow us to enhance our product line and enter new markets.

➜ Prior to 2002, Ixia's rapid growth was aided by our ability to stay at the cutting edge of technology, introducing advanced Packet Over SONET products as the market demanded faster networking speeds and more sophisticated protocols to run over state-of-the-art fiber optic networks. With the downturn in the economy and IT expenditures, telecom service providers cut back spending on fiber optic networks, and their focus became delivering next generation services to customers without upgrading their existing network infrastructure. Network equipment manufacturers responded by concentrating on Ethernet-based technologies that don't require significant infrastructure upgrades. Ixia was able to adapt to this rapid change in the market, capitalizing on demand for Ethernet and Gigabit Ethernet products while introducing an innovative line of 10 Gigabit Ethernet products ahead of the marketplace, once again proving the Company's ability to introduce successful technologies in advance of widespread network deployment. We believe 10 Gig is the next wave of technology upgrades for Layer 3 switching and, in 2002, it was an important part of our success, recording over $7 million in sales. To continue to take advantage of this 10 Gig trend, we have developed the most comprehensive product family available, offering LAN, WAN, XAUI and XENPAK load modules for a market that continues to show promising growth opportunities.

➜ While 10 Gigabit Ethernet is an excellent example of how Ixia stays ahead of the technology curve, we are also constantly striving to bolster our existing product lines. To do this, we listen closely to the engineers who are our customers. In 2002, based on their feedback, we felt that we needed to be more competitive in our protocol offerings and worked hard to quickly add to our core offering and expand our product line. Our success in this area has been cited by a number of large customers as a major reason for a number of key competitive wins.

➜ Customer feedback was also a key factor in the development of our TXS series of cards. When we introduced our Optixia chassis, with up to 480 traffic generation and analysis ports, engineers were impressed with the power of its unparalleled modularity and ability to run highly complex tests at wire speed. At Ixia, we quickly realized that we had an opportunity to take the Optixia line card architecture



EVOLUTION

Hardware

loss

the percentage of packets lost during transmission through a network device or network

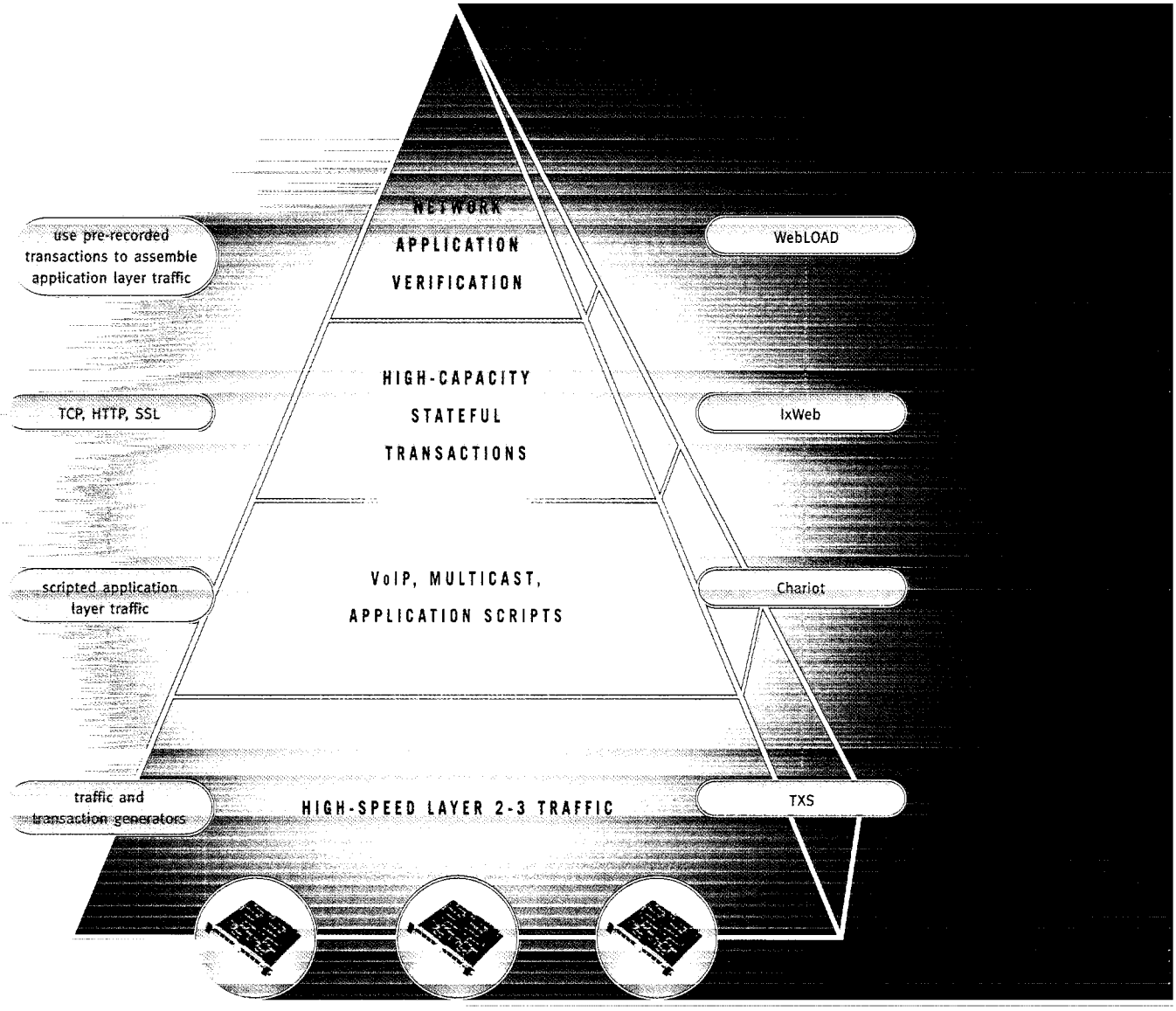
integrity checking

confirms that the user information transmitted through a network device or network has not been corrupted

and expand the overall market for our products. Our development effort led to the introduction of our TXS series of load modules for our smaller chassis. These load modules have a RISC CPU on every port, each running the Linux operating system, and have the highest port density in the industry. This unique architecture gives our customers, such as network equipment manufacturers, enterprise users and internet service providers, the flexibility to run a wide range of tests, including both highly complex traffic generation and analysis and true session emulation. These products have been very well received by customers, and we are often able to sell these cards with additional load modules and software products. This is a great platform for an ever expanding set of testing applications and was a key factor in the strong performance of our Gigabit Ethernet products. Moving forward, a key component to our strategy will be to continue to explore and find innovative software applications that we can package with the TXS series to move more aggressively into the Enterprise market.

➔ On this note, we will focus on developing the software that takes advantage of the power of this hardware architecture both internally and by partnering with key technology leaders. Importantly, we believe the TXS cards are a critical catalyst toward Ixia moving up the protocol stack to content-aware Layers 4 through 7 testing. For example, in 2002, our IxWeb Layer 4 through 7 test suite had a strong debut, receiving orders from leading companies like Microsoft, Verizon, Nokia, Cisco Systems, and Comcast Cable. IxWeb provides full wire-speed FPGA generated Layer 2 and 3 traffic combined with real-world Layer 4-7 session emulation. It allows a carrier, content provider, or equipment manufacturer to emulate virtual clients browsing the Internet and Web servers processing HTML pages and enables performance verification for the key elements of the Internet. We strongly believe in the opportunities for growth in Layers 4 through 7, and this is an excellent example of our ability to take advantage of our superior expertise in hardware platforms in order to generate highly complex testing software that our customers need.

➔ We also plan on actively partnering with technology leaders to capitalize on the strengths of our combined products to drive sales. For example, during 2002 we entered into two partnerships with leading software companies that take advantage of the unique architecture and power of our hardware platform. In the fourth quarter, we announced a partnership with NetIQ to integrate their Chariot software into our TXS load modules, enabling our joint products to simulate full scale enterprise networks with a mixture of traffic types, including Voice over IP, Multicast, Oracle, and SAP business transactions. Earlier in the year, we signed a partnership with Network Associates to integrate their market leading Sniffer® Technologies protocol analysis and fault isolation capabilities with Ixia's network verification solutions. In February 2003, Ixia also entered into a partnership with Radview to integrate their web application testing tools with Ixia's network verification solutions. These partnerships provide true best-of-breed solutions that offer unique capabilities to our customers and help drive sales of our products.



ENVIRONMENT

jitter

the variation in the time interval between packets transmitted through a network device or network

sequence checking

verifying that packets are received in the same order in which they were sent through a network device or network

➔ In addition to partnerships, we also plan to use our strong cash position and financial strength to acquire companies or products that allow us to expand our product line and enter new markets. In February of 2002, we acquired our new ANVL product line of conformance testing software. The ANVL software testing solution focuses on protocol conformance of datacom products, such as switches and routers, during the developmental stage. In the second and third quarters, we increased our sales effort in this area, and this began to pay real dividends in the second half of the year. Key sales in 2002 were made to Alcatel, General Dynamics, Intel, Nokia, and Research in Motion; and in 2002 we have rolled out new test suites and improved versions of ANVL that can be used more seamlessly with our other products. This is another example of the sum equaling more than the parts, making us more competitive across the breadth of our load modules.

➔ Our success in introducing innovative new products has enabled us to broaden our market opportunity, and we continued to grow our customer base in 2002, adding approximately 120 new customers during the year. These customers ranged from network equipment manufacturers to multi-national corporations, and included such industry leaders as Boeing, Comcast, EMC, McDonalds, and Sun Microsystems. While adding many new customers, our core strength remains in the networking equipment and communications sector with Cisco Systems, Intel, and Extreme Networks as our leading customers in 2002. Although sales to carriers and internet service providers were affected by the steep drop in carrier spending, we continued to build our relationships with industry leaders such as AT&T, SBC Communications, Sprint, and, Verizon who all placed significant orders in 2002. Moving forward, our new products and our focus on Enterprise customers should allow us to further build our relationships with existing accounts, while targeting a new set of customers and expanding our addressable market opportunity.

➔ This year we will continue to concentrate on introducing new products, investing in R&D, and focusing on our cash flow and the bottom line. These are the key areas that enabled us to have a solid year in a tough market. If we continue to focus on these objectives, we believe we will emerge from this market downturn as a stronger company, with a broader base of customers and products for 2003 and beyond.

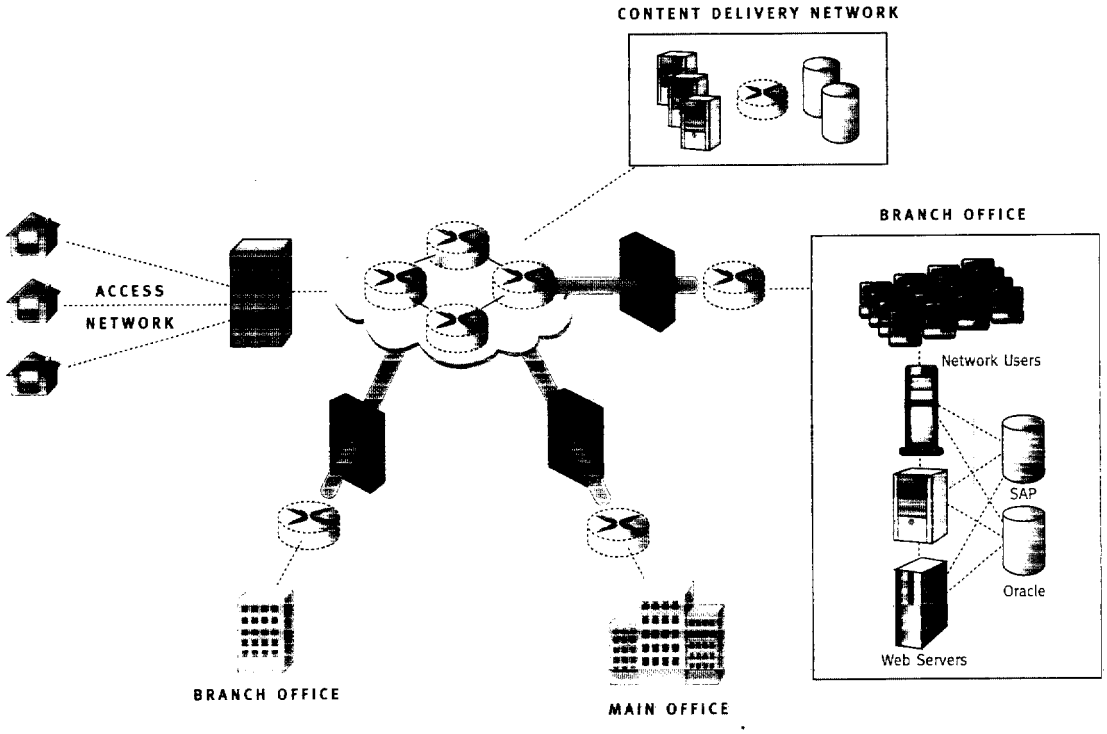
➔ I'd like to offer my sincere thanks to our employees, directors, advisors, partners, customers and shareholders for their tremendous ongoing support during the past year. We look forward to updating you on our progress in the coming year.

Management team left to right:
(front row)
Cliff Hannel
Errol Ginsberg
Tom Miller
(back row)
Walid Chamoun
Eran Karoly
David Anderson
Mark MacWhirter

Sincerely,

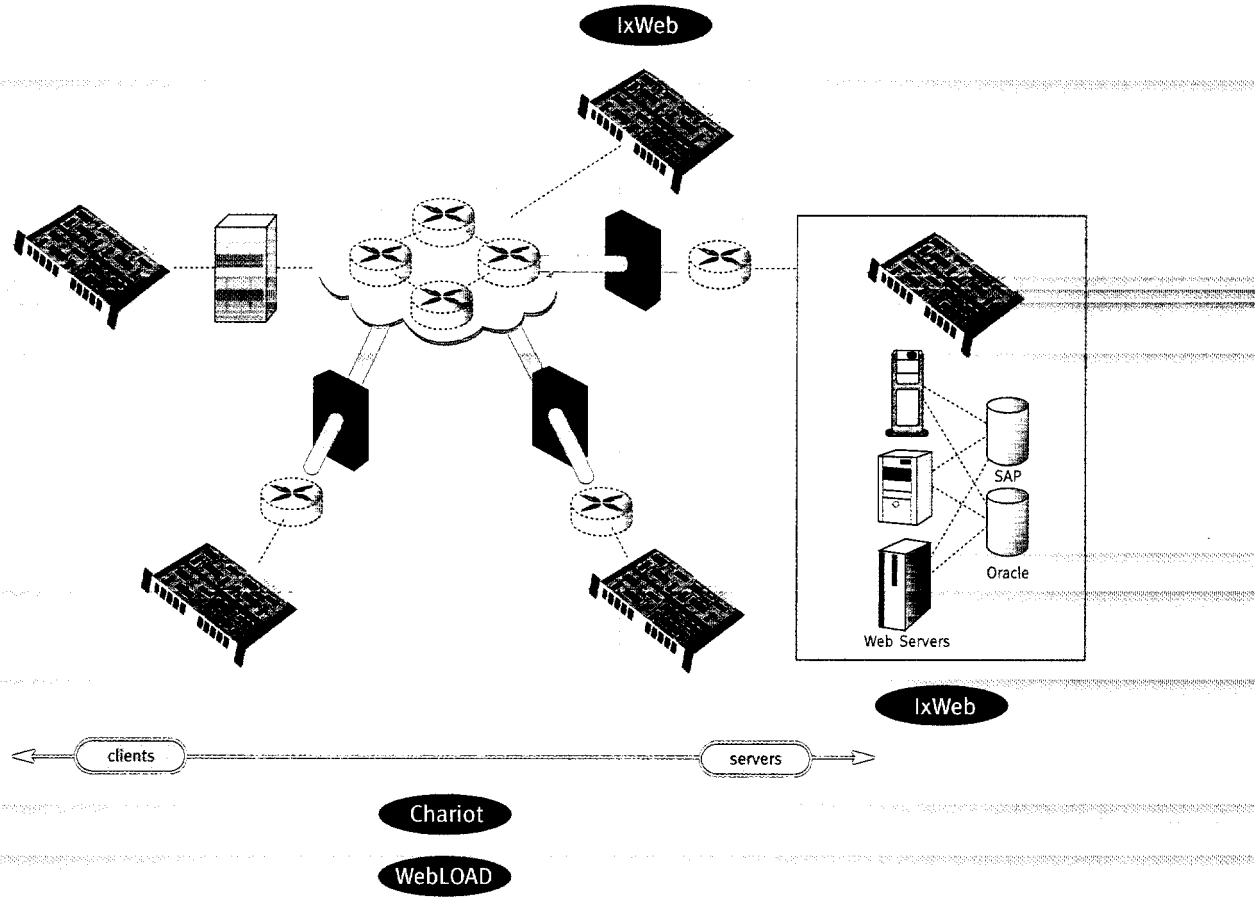
Errol Ginsberg

President and Chief Executive Officer


CONTENT DELIVERY NETWORK
BRANCH OFFICE
ACCESS
NETWORK
Network Users
SAP
Oracle
Web Servers
BRANCH OFFICE
MAIN OFFICE

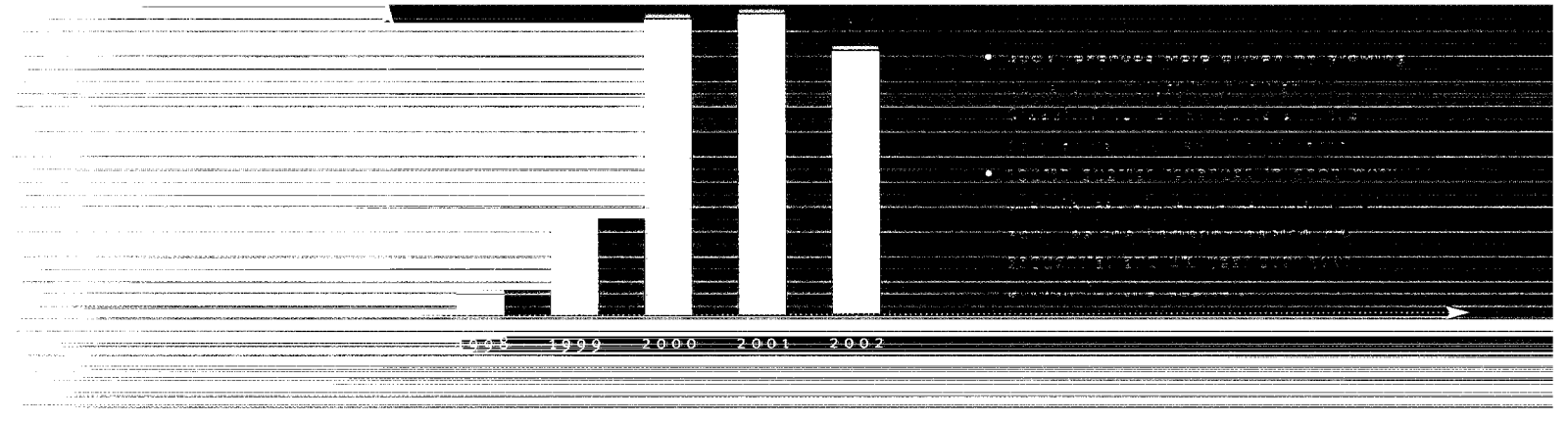
Ixia's revolutionary hardware and software solutions have the ability to recreate exact customer enterprise traffic.

Ixia's Real World Traffic tests networks prior to deployment and before application upgrades under realistic network load conditions with actual application data passing through the tested network. Real World Traffic applications report session setup rates, session capacity, and latencies.



SOLUTION

Real World Traffic™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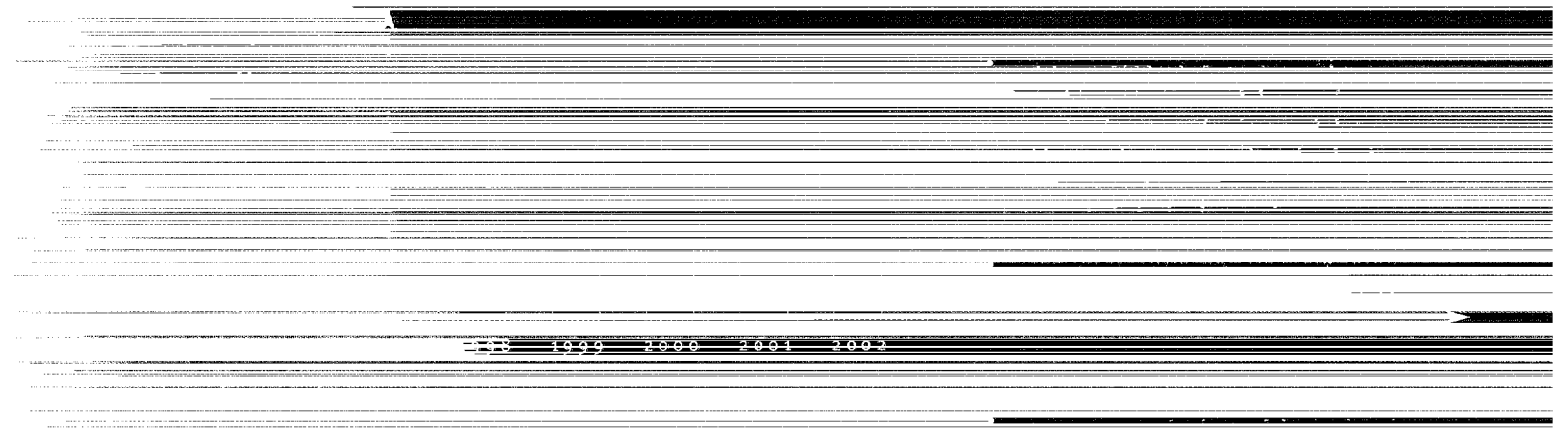
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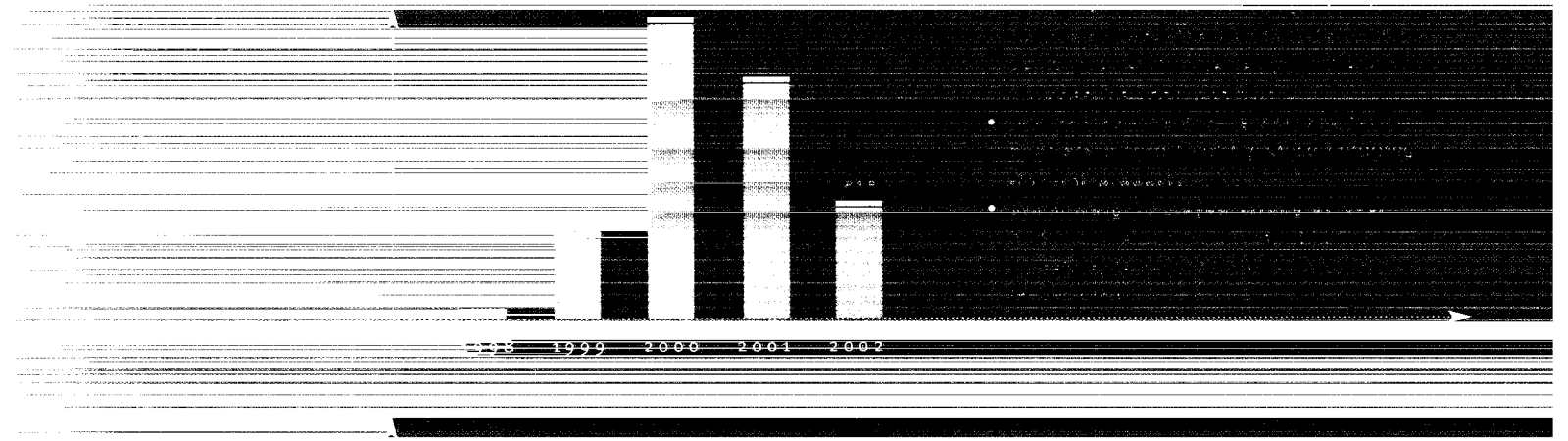
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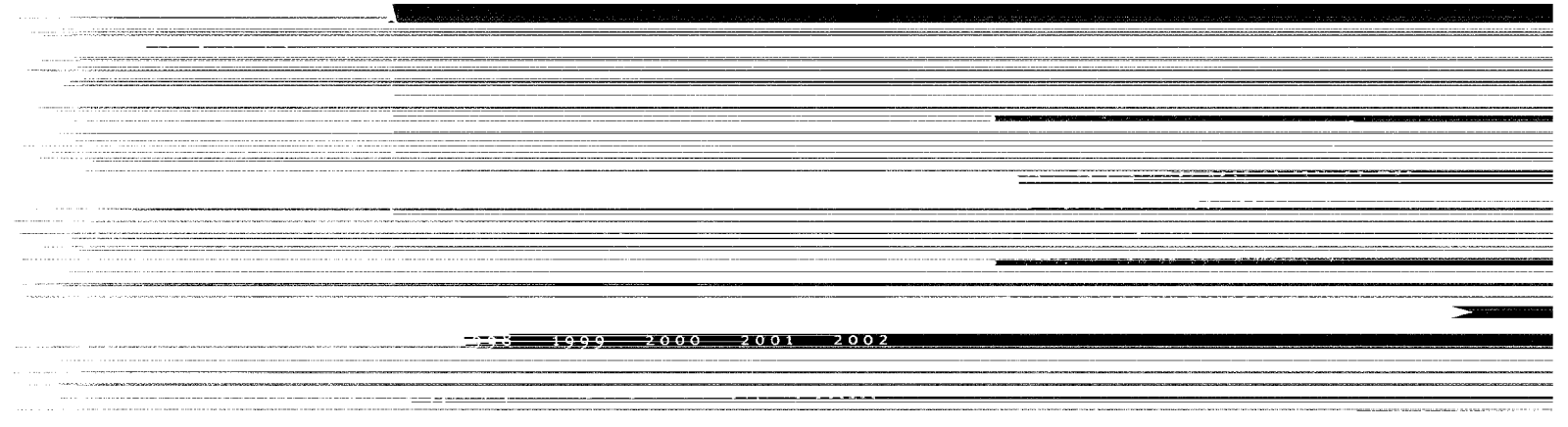
1999
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2001
2002

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

(Mark One)

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2002

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 000-31523

IXIA

(Exact name of Registrant as specified in its charter)

California	**95-4635982**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

26601 West Agoura Road, Calabasas, CA 91302
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (818) 871-1800

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, without par value

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 [X] No [ ]

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

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes [X] No [ ]

The aggregate market value of the shares of the Registrant's Common Stock held by nonaffiliates of the Registrant, computed by reference to the closing price on the Nasdaq National Market on the last business day of the Registrant's most recently completed second fiscal quarter (June 30, 2002), was approximately $132,168,574.

As of March 14, 2003, the number of shares of the Registrant's Common Stock outstanding was 57,742,875.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement to be delivered to shareholders in connection with their Annual Meeting of Shareholders to be held on May 9, 2003 are incorporated by reference into Part III of this Annual Report.

IXIA

FORM 10-K

TABLE OF CONTENTS

PART I

Item 1. Business

Overview

We are a provider of systems that allow our customers to measure the performance of their data communications equipment and networks. Our systems generate and analyze data traffic, including business transaction and Voice over IP traffic, which sends voice communication over data networks using a protocol known as the Internet Protocol, or IP. The networks our systems analyze include advanced Ethernet networks, which carry data traffic over optical fiber as well as over electrical cable and are typically used within a single building or a group of buildings. Other networks include Packet Over SONET networks which transmit packets of information over high-speed optical links. In the year ended December 31, 2002, Ethernet interface cards accounted for 64.4% of our net revenues. Our systems are highly modular, scalable and easy to use.

Since our inception in May 1997, we have sold our systems to a total of almost 500 customers, including over 240 existing and new customers in 2002. Based on revenues for the year ended December 31, 2002, our largest customers by category include:

- Leading network equipment manufacturers such as Cisco Systems, Intel, Extreme Networks and Nokia;
- Internet and network service providers such as AT&T, Sprint, SBC Communications and Verizon;
- Communications chip manufacturers such as Broadcom and Texas Instruments; and
- Network users such as Microsoft and General Dynamics.

Given the slowdown in carrier and service provider spending, we intend to expand our business by focusing on markets which exhibit healthy spending patterns such as the high-speed network and virtual private network markets. High-speed networks route data traffic within a corporate building or between corporate sites, while virtual private networks provide secure communications for network users. We intend to maintain our focus on technology leadership, expanding and further penetrating our customer base and expanding our international presence.

The Increasing Need for Network Analysis and Measurement

The performance of the Internet and other networks such as local, metropolitan and wide area networks and the analysis and measurement of their performance are important to the following groups:

- *Equipment Manufacturers.* To meet the higher standards specified by network operators and network users, equipment manufacturers who provide infrastructure equipment and systems must ensure the quality of their products during development and manufacturing and prior to shipping. Failure to ensure the consistent performance of their products may result in the loss of customers, increased research and development costs, customer service charges and losses resulting from the return of products.
- *Internet and Network Service Providers.* Internet and network service providers seek to provide network users with the high quality network services they demand. Failure to provide satisfactory service can be costly and may result in the loss of customers. To ensure these desired service levels are met, Internet and network service providers must verify the performance of network equipment and systems prior to deployment and during operation. In addition, as more complex network and transmission protocols are developed and implemented, the need to measure live system performance will increase.
- *Communications Chip Manufacturers.* Communications chip manufacturers require equipment to evaluate and analyze the performance of their chips during the design and development phase.

- *Network Users.* Network users such as large corporations increasingly use specialized systems in order to verify that they are receiving the level of service that they have contracted to receive from Internet and network service providers. They also increasingly use these systems to measure the performance of their own networks before new equipment is deployed in the network.

The following characteristics are used to evaluate the performance of network infrastructure equipment and systems:

- *Throughput* is the maximum rate at which a network device or network can transmit distinct units of data, called packets, without loss;
- *Latency* is the time that it takes a packet to travel through a network device or network;
- *Loss* is the percentage of packets lost during transmission through a network device or network;
- *Jitter* is the variation in the time intervals between packets transmitted through a network device or network;
- *Integrity checking* confirms that the user information transmitted through a network device or network has not been corrupted;
- *Sequence checking* verifies that packets are received in the same order in which they were sent through a network device or network;
- *Session setup rate* is the number of individual sessions, or meaningful data conversations between computers, a network device or network can establish in one second;
- *Session tear down rate* is the number of individual sessions, or meaningful data conversations between computers, a network device or network can terminate in one second; and
- *Session capacity* is the maximum number of individual sessions, or meaningful data conversations between computers, a network device or network can sustain at any given time.

Characteristics Demanded of Network Performance Analysis and Measurement Equipment

Performance requirements of network equipment and systems are becoming increasingly demanding. As a result, precise performance verification is becoming more important throughout the design, development, production, deployment and operation of network equipment and systems. Because this performance verification must take place across multiple layers of the network infrastructure and across all optical and technologies, network performance verification systems are required to be highly flexible and modular. In order to address multi-port switches and routers, performance verification systems must also be highly scalable and capable of generating and analyzing large amounts of data at high speeds over increasingly complex configurations. The rapid evolution of complex network technologies and protocols, including the emergence of Packet Over SONET and Gigabit Ethernet, has also resulted in the need for performance verification systems that are easy to use with minimal training and setup.

The Ixia Solution

We are a provider of multi-port traffic generation and performance analysis systems for the high-speed data communications market, including the Internet infrastructure and local, metropolitan and wide area networks. Our systems address the need for accurate and reliable performance verification of optical and electrical networks. The optical and electrical interfaces these networks use include Packet Over SONET OC-192c, OC-48c, OC-12c and OC-3c; 10 Gigabit Ethernet, Gigabit Ethernet, and 10/100 megabits per second Ethernet; ATM OC3c and OC12c; and USB. Our systems meet the requirements of a wide variety of customers, including network equipment manufacturers, Internet and network service providers, communications chip manufacturers and network users.

Our systems provide the following key benefits to our customers:

High Performance. Our systems generate and receive data traffic at wire speed, which is the maximum rate that data traffic can be transmitted over the network. Our systems provide accurate analysis across multiple layers of the overall network and of individual network components in real-time, that is, as the transmission is actually occurring. Our systems can be configured to either generate packets of data, to group those packets into sessions, or to generate pseudo random bit streams. When configured to generate packets of data, our systems analyze each discrete packet of information on a packet-by-packet basis, thereby allowing our customers to precisely measure the performance of their networks and individual network components. This precision allows customers to accurately measure critical quality of service parameters such as throughput, latency, loss and jitter and check data integrity and packet sequence throughout the network, as well as to locate various network problems. When configured to group packets of data into meaningful sessions, or conversations between computers, our systems emulate highly complex and specialized applications such as those used to transfer electronic mail, browse the Internet and manage databases. This emulation allows our customers to accurately measure critical characteristics of their networks such as session setup rate, session tear down rate and session capacity. When configured to generate pseudo random bit streams, our systems analyze each individual bit to measure the bit error rate of test sequences, thereby allowing our customers to precisely measure critical physical transport characteristics of their networks. Our systems also allow users to precisely repeat complex test scenarios in order to evaluate the impact of changes made to network equipment and systems.

Highly Scalable. Each of our interface cards provides one or more ports through which our systems generate and receive data traffic. Our customers can easily increase port density, which is the number of ports in an individual chassis, by inserting additional interface cards. By connecting multiple chassis and synchronizing up to thousands of ports to operate simultaneously, our customers can simulate large-scale networks. We believe that our systems offer our customers the highest port density and therefore the most scalable systems available. In addition, our client server architecture allows multiple users in the same or different geographic locations to simultaneously access and operate different interface cards contained in the same chassis without affecting one another.

Highly Customizable. Most of our interface cards, including those operating at 10/100/1000 megabits per second Ethernet, include a microprocessor for each interface port. This microprocessor integrates the LINUX operating system, which allows our users to run their existing software applications on these microprocessors, or to write new software applications for them. We believe that the use of this open and well-known operating system makes it easy for our customers to customize their performance analysis system to their specific needs.

Highly Modular. Our hardware products consist of stackable and portable chassis, which can be configured with any mix of up to 16 of our interface cards. This modular design allows our customers to quickly and easily create complex and custom test configurations. Our systems also allow for the convenient integration of additional network technologies into existing systems through the addition of specific interface cards.

Flexibility. Our customers can easily reconfigure our systems to address changing technologies, protocols and applications without changing system hardware or replacing interface cards. For example, a customer can reconfigure our systems through software changes downloaded from our website. A customer might download these changes to test new network protocols or types of equipment.

Ease of Use. We have designed our systems so that users can install and operate them with minimal training and setup. Our systems are easy to use and offer our customers a wide range of readily accessible pre-designed test configurations. These tests include industry standard and application-specific tests. Users can easily configure and operate our systems to generate and analyze data traffic over any combination of interface cards or ports through our graphical user interface that features a familiar Microsoft Windows point-and-click environment. Our systems also support the commonly used tool command programming language, or Tcl, software which allows users to create custom and automated testing applications tailored to meet their specific requirements.

Strategy

Our objective is to be the industry leader in multi-port traffic generation and performance analysis systems for the high-speed data communications market, including the Internet infrastructure and local, metropolitan and wide area networks. Key elements of our strategy to achieve this objective include the following:

Continue to Expand Our Addressable Markets. We plan to further expand our addressable markets into areas of network growth, such as content-aware routing and switching, secure virtual private networks, networks that carry voice over IP, fixed and mobile wireless networks and networks used by end users to support their business applications. We believe that we can leverage our core competencies in high-speed transmission protocols into leadership positions as these markets expand and mature.

Maintain Focus on Technology Leadership. We intend to continue to focus on research and development in order to maintain our technology leadership position and to offer performance analysis systems that address new and evolving network technologies. We intend to maintain an active role in industry standards committees such as the Internet Engineering Task Force and to continue our active involvement in industry forums such as the Resilient Packet Ring, or RPR, Alliance. We also plan to continue to work closely with customers who are developing emerging network technologies, including Cisco Systems, Extreme Networks and Intel, as well as leading edge start-up companies, to enhance the performance and functionality of our existing systems and to design future products that specifically address our customers' needs as they evolve.

Expand and Further Penetrate Customer Base. We plan to strengthen and further penetrate our existing customer relationships, particularly those with network equipment manufacturers and network users, and to pursue sales to new customers. For example, Microsoft and General Dynamics currently use our systems to verify the performance and reliability of network equipment before deployment in their networks. We believe we have the potential to increase sales to network users as they focus on optimizing their networks for use with their unique applications, as well as maximizing their return on investment from existing networks by utilizing our Real World Traffic suite of network application verification products. We plan to strengthen our customer relationships and to expand our customer base by:

- developing and offering new and innovative systems that meet our existing and potential customers' needs;
- expanding our sales and marketing efforts; and
- building our reputation and brand name recognition.

We also plan to continue our focus on customer support by maintaining and expanding the capabilities of our highly qualified and specialized internal customer engineering group. This group of technically trained professionals provides our customers with extensive support and assistance, including assistance with customized requirements and on-site training and support.

Perform Key Technology Acquisitions. We plan to continue our strategy of acquiring key technologies that expand our product offering, address customer needs, and fill gaps in our existing product portfolio. Any such acquisitions may be made in the form of partnering with industry leaders, acquiring assets associated with product lines, or merging with or acquiring other companies. In 2002 we acquired the assets of the ANVL (Automated Network Validation Library) conformance testing product line from Empirix, Inc. and entered into strategic relationships with Network Associates Inc. relating to its Sniffer product line and with NetIQ relating to its Chariot product line.

Expand International Market Presence. We plan to pursue sales in key international markets, including Europe and the Asia Pacific region. In order to pursue sales in these markets, we intend to continue to develop and expand our relationships with key customers and distributors. In October 2002, we established a Japanese subsidiary in Tokyo, Japan to promote and sell our products in Japan.

Products

Our product line is made up of network traffic generation and performance analysis systems that simulate large-scale networks and of stand-alone software products to allow our customers to verify conformance of their products to industry standards. Our systems consist of interchangeable interface cards, multi-slot chassis, which are metal cases that incorporate a computer, a power supply and a backplane, which is a hardware component used to connect the interface cards to the computer. The interface cards generate, receive and analyze data traffic. The software for these systems includes management software and application-specific test suites.

The operator can utilize our analysis systems in either test labs or within networks. Our systems are operated through standard computer peripheral devices. These devices include a monitor, keyboard and mouse. The operator of our systems sets up test parameters for the performance analysis by inputting data using the keyboard and mouse. The operator observes the results of the performance analysis using the monitor.

The operator configures our systems based on the specific interfaces of the network equipment being tested. For example, if the operator wanted to analyze the performance of a router with Ethernet interfaces, the operator would insert Ethernet interface cards into our system.

Chassis

Our primary chassis, the IXIA 1600T and the IXIA 400T, are highly scalable and can be configured with any combination of interface cards. Any mix of up to 256 IXIA 1600Ts and IXIA 400Ts can be linked together and time-synchronized to support a diverse range of complex test configurations. The IXIA 1600T is a 19-inch rack-mountable 16-slot chassis, and the IXIA 400T is a compact portable four-slot chassis.

Our highest port density chassis, the Optixia, also can be configured with any combination of interface cards and can be similarly linked together and time-synchronized with other chassis. The Optixia is a 19-inch rack-mountable 10-slot chassis which can support up to 480 ports of 10/100 megabits per second Ethernet.

We also offer the IXIA 250 chassis which is an integrated system offering complete laptop computer functionality, including an integrated keyboard, mouse and monitor with slots to accommodate up to two of our interface cards and an additional built-in 10/100/1000 megabits per second Ethernet test port. We also offer the IXIA 100 chassis which features an integrated global positioning system, or GPS, receiver that provides a precise time stamp for each packet that it generates. Internet service providers are able to deploy IXIA 100 chassis in multiple geographic locations in their networks and to synchronize all of the chassis by utilizing the GPS-provided time stamp. By doing so, they are able to accurately validate network performance and measure the quality of service parameters specified in service level agreements with their customers.

Interface Cards

Each one of our interface cards contains from one to eight independent traffic generation and analysis ports. These ports operate at wire speed, the maximum rate that data traffic can be transmitted over the network. Each port on each interface card has a unique transmit stream engine that is used to generate either packets of information or pseudo random bit streams, and a real-time receive analysis engine capable of analyzing the packets or bit streams as they are being received. The transmit stream engine generates millions of Internet protocol data packets or continuous test sequences at wire speed that are transmitted through the network and received by the analysis engine. When data packets have been generated, the analysis engine then measures throughput, latency, loss and jitter, and checks data integrity and packet sequence on a packet-by-packet basis. When bit streams have been generated, the analysis engine measures the bit error rate of test sequences. In addition, our systems measure the effectiveness of networks in prioritizing different types of traffic. Our 10/100/1000 megabits per second Ethernet interfaces also include a microprocessor per port to generate and analyze sophisticated routing protocols, such as MPLS and OSPF, as well as application traffic such as TCP/IP, HTTP and SSL.

The following tables describe our optical and electrical interface cards. The "Physical Interface Type" column distinguishes between optical interface cards capable of transmitting data traffic over fiber optic cables and electrical interface cards capable of transmitting data over copper cables. The "Transmission Speed" column identifies the speed at which data is sent out of and received by each port on the interface cards, and the "Number of Ports per Interface Card" column identifies how many ports are contained on a single card.

Interface Cards

Our Product Names	Physical Interface Type	Transmission Speed	Number of Ports per Interface Card
10 Gigabit Ethernet			
10GBASE-R	Optical	10.3 Gbps	1
10GBASE-W	Optical	9.953 Gbps	1
XENPAK(with modular fiber-type transceivers)	Optical	10.3 Gbps	1
XAUI	Electrical	10.3 Gbps	1
Gigabit Ethernet			
1000SFPS4 (with modular fiber-type transceivers)	Optical	1.25 Gbps	4
1000GBIC (with modular fiber-type transceivers)	Optical	1.25 Gbps	2
1000TXS4	Electrical	10/100/1000 Mbps	4
1000T5	Electrical	10/100/1000 Mbps	2
Ethernet and Fast Ethernet			
100TXS8	Electrical	10/100 Mbps	8
100TX	Electrical	10/100 Mbps	4
100FX	Optical	100 Mbps	4
Ethernet and Universal Serial Bus			
USB2	Electrical	10/12 Mbps	4
Packet Over SONET/SDH			
OC-12c/3c	Optical	622/155 Mbps	2
OC-48c	Optical	2.488 Gbps	1
OC-192c	Optical	9.953 Gbps	1 or 2
Asynchronous Transfer Mode			
OC-12c/3c	Optical	622/155 Mbps	2
Bit Error Rate Testing			
OC-48c	Optical	2.488 Gbps	1
OC-192c	Optical	9.953 Gbps	1 or 2
Multi-Rate BERT	Optical	2.488 Gbps / 2 Gbps / 1.25 Gbps / 1 Gbps / 622 Mbps / 155 Mbps	8
40GBERT	Electrical	40 Gbps	1

System Management Software

Our systems are managed through graphical user interfaces which consist of two proprietary applications and the commonly used tool command language, or Tcl, programming environment. Our graphical user interfaces allow users to configure our hardware chassis and interface cards in order to generate and analyze traffic. In addition, our graphical user interfaces allow our users to execute a variety of industry standard and application-specific tests written by us. Tcl allows users to create custom and automated test applications tailored to meet their specific requirements.

Application Specific Test Suites

We have a large suite of software applications that measure equipment and network performance, including throughput, latency, loss, jitter, integrity checking and sequence checking. These measurements allow network equipment manufacturers, network users and Internet and network service providers to evaluate the performance of the equipment before and after the equipment is deployed in a network. These performance measurements also allow network users and Internet and network service providers to validate network performance and to verify that the requirements of service level agreements, or SLAs, are being met. Our application-specific test suites include the following:

Internet Backbone Router Tester. Our Internet Backbone Router Testers offers a complete system for validation of advanced routers that route data traffic throughout the Internet and are being deployed by Internet service providers. It provides the ability to generate and receive data traffic at wire speed. The Internet Backbone Router Tester provides an integrated mix of Packet Over SONET, 10 Gigabit Ethernet, Gigabit Ethernet and 10/100 megabits per second Ethernet interfaces. Utilizing routing protocol emulation software based on BGP-4, MPLS, IS-IS, RIP and OSPF, all standard industry routing protocols, our tester can simulate the data traffic of millions of users to automatically configure the routing table within a single router or within a network of routers. Our system thereby provides performance and reliability testing of the router or network of routers in realistic conditions.

Cable Modem Automated Test Suite. Our Cable Modem Automated Test Suite addresses many of the verification requirements of cable modem and cable modem termination system vendors to obtain Data Over Cable Service Interface Specifications, or DOCSIS, certification for their equipment from CableLabs, a cable industry organization, and from EuroDOCSIS, the European cable standards organization.

Benchmarking Methodology for Network Interconnect Devices (RFC-2544) Test Suite. Our RFC-2544 Test Suite offers the complete benchmarking validation tests defined by the Internet Engineering Task Force's Request for Comments 2544. These tests include throughput, latency and loss tests. These tests can be readily applied to any device or network utilizing any mix of Packet Over SONET, 10 Gigabit Ethernet, Gigabit Ethernet or 10/100 megabits per second Ethernet interfaces. These tests provide the basic industry accepted benchmarking metrics to qualify a router or switch before network deployment.

LAN Switching Devices (RFC-2285) Test Suite. Our RFC-2285 Test Suite complements our RFC-2544 Test Suite by offering a number of additional tests to qualify the behavior of switching devices for local area networks. These tests can be readily applied to any device or network utilizing any mix of 10 Gigabit Ethernet, Gigabit Ethernet and 10/100 megabits per second Ethernet interfaces.

Quality of Service (QoS) Test Suite. Our Quality of Service, or QoS, Test Suite offers a comprehensive set of tools designed to verify how effectively a router distinguishes between different types of data traffic and then routes the traffic through the network based on those distinctions. The QoS routing technique assigns a higher priority to some traffic types and a lower priority to other traffic types, which enables a user to determine the quality of service of a given traffic type. This test suite supports many combinations of Packet Over SONET, 10 Gigabit Ethernet, Gigabit Ethernet and 10/100 megabits per second Ethernet interfaces.

IP Multicast Test Suite. IP Multicast is a protocol that allows a single computer to distribute data traffic to multiple recipients. For example, a single web server could transmit an audio or video broadcast to millions of users simultaneously. Our IP Multicast Test Suite provides a comprehensive set of tests designed to evaluate the behavior of Internet protocol multicast routers, switches and networks. This test suite supports Packet Over SONET, 10 Gigabit Ethernet, Gigabit Ethernet and 10/100 megabits per second Ethernet interfaces.

IxWeb Web Stress Test Suite. The IxWeb Web Stress Test Suite offers large scale traffic generation and analysis designed to verify the behavior and performance of application aware routers, web switches and server load balancers by establishing millions of concurrent transmission control protocol, or TCP, sessions, from thousands of simulated users and servers. This test suite provides metrics such as session setup rate, session tear down rate and session capacity. This test suite is supported on our Gigabit Ethernet and 10/100 megabits per second Ethernet interface cards with local processor per port.

ANVL – Automated Network Validation Library. The ANVL test suite validates the protocol implementations and operational robustness of networking devices by determining how well a network device's protocol implementation adheres to the specifications of a specific protocol. This stand-alone test suite provides functional tests that follow individual statements within protocol specifications to assess conformance, as well as negative tests that check how a product handles badly formatted packets or packets sent in an order other than the specified one.

Products in Development

We are currently developing a number of new products which we plan to introduce to the market during the first half of 2003. These new products include an ATM, or Asynchronous Transfer Mode, interface card and a 10/100/1000 megabits per second interface card for our Optixia chassis.

We may delay or cancel the introduction of these, or any other, new products to the market as a result of a number of factors, some of which are beyond our control. For more information regarding these factors, see "Business -- Research and Development" on page 13 and "Risk Factors -- If we are unable to successfully introduce new products to keep pace with the rapid technological changes that characterize our market, our results of operations will be significantly harmed" on page 24.

Technology

The design of all of our systems requires a combination of sophisticated technical competencies, including design of field programmable gate arrays, or FPGA's, which are integrated circuits that can be repeatedly reprogrammed to perform different sets of functions as required. The design of all of our systems also requires high-speed digital hardware design, software engineering and optical and mechanical engineering. We have built an organization of professional staff with skills in all of these areas. The integration of these technical competencies enables us to design and manufacture performance analysis systems which are highly scalable to meet the needs of our customers.

Complex Logic Design. Our systems use field programmable gate arrays that are programmed by the host personal computer and therefore can be reconfigured for different applications. Our newest products have clock frequencies, which are the timing signals that synchronize all components within our system, of up to 344 megahertz, and logic densities, which are the number of individual switching components, or gates, of more than one million gates per chip. Our customers can download new features and enhancements from our website using a web browser that runs on our system, thereby allowing rapid updates of the system. Almost all of our logic is designed in VHDL hardware description language, which is a unique programming language tailored to the development of logic chips. This language enables the easy migration of the hardware design to application specific integrated circuits as volumes warrant. We develop VHDL code in a modular fashion for reuse in logic design, which comprises a critical portion of our intellectual property. This reusable technology allows us to reduce the time-to-market for our new and enhanced products.

Software Technology. We devote substantial engineering resources to the development of software technology for use in our product lines. We have developed software to control our systems, analyze data collected by our systems, and monitor, maintain and self-test our hardware and field programmable gate array subsystems. A majority of our software technology and expertise is focused on the use of object-oriented development techniques to design software subsystems that can be reused across multiple product lines. These objects are client and server independent allowing for distributed network applications. This software architecture allows all of the software tools developed for our existing products to be utilized in all of our new products with very little modification. Another important component of our software technology is our graphical user interface design. Customer experience with our test products has enabled us to design a simple yet effective method to display complex configurations in clear and concise graphical user interfaces for intuitive use by engineers.

Customers

During the period from our inception in May 1997 through December 31, 2002, we shipped our systems to a total of almost 500 customers, including over 240 existing and new customers in each of 2002 and 2001. No customer other than Cisco Systems accounted for more than 10% of our net revenues in 2002 or 2001. Our five largest customers collectively accounted for 48.5% of our net revenues in 2002 and 37.2% of our net revenues in 2001.

Our customers may reduce or discontinue their purchases at any time.

Customers who purchased more than $200,000 of our products during the year ended December 31, 2002 included:

Advanced Fibre Communications	F5 Networks	Netscreen Technologies
Alcatel	Force10 Networks	Nokia
Allied Telesyn International	General Dynamics	Nortel Networks
AT&T	Hewlett Packard	Riverstone Networks
Avaya	Hitachi	SBC Communications
Avici Systems	IBM	Sprint
Broadcom	Intel	Starent Networks
Caspian Networks	Juniper Networks	Telus
Cisco Systems	Los Alamos National Laboratory	Texas Instruments
Delta Networks	Lucent Technologies	TiMetra Networks
Dominion Telecom	Microsoft	U.S. Government
Enterasys Networks	Motorola	Verizon Communications
Extreme Networks	NEC	Vivace Networks

Competition

The market for network performance measurement and analysis systems for use in the high-speed data communications industry is highly competitive, and we expect this competition to increase in the future. We currently compete with test equipment manufacturers such as Agilent Technologies, Spirent Communications, Anritsu and EXFO. We also compete with start-up companies, such as Antara which are focused on network performance measurement.

We believe that the principal competitive factors in our market include:

- timeliness of new product introductions;
- product quality, reliability and performance;
- ease of installation, integration and use;
- breadth of product offerings and features;
- price and overall cost of product ownership;
- customer service and technical support; and
- company reputation and size.

We believe that we compete favorably in the key competitive factors that impact our markets. We intend to remain competitive through ongoing research and development efforts to enhance existing systems and to develop new systems. We will also seek to expand our market presence through marketing and sales efforts. However, our market is still evolving and we may not be able to compete successfully against current or future competitors.

We expect competition to increase significantly from existing providers of network performance measurement and analysis products and from companies that may enter our existing or future markets. These companies may develop similar or substitute solutions that may be more cost-effective or provide better performance or functionality than our systems. Also, as we broaden our product offerings, we may move into new markets in which we will have to compete against companies already established in those markets. Some of our existing and potential competitors have longer operating histories, significantly greater financial, marketing, service, support, technical and other resources, significantly greater name recognition and a larger installed base of customers than we do. In addition, many of our competitors have well established relationships with our current and potential customers and have extensive knowledge of our industry. It is possible that new competitors or alliances among competitors will emerge and rapidly acquire market share. Moreover, our competitors may consolidate with each other, or with other companies, giving them even greater capabilities with which to compete against us.

To be successful, we must continue to respond promptly and effectively to the challenges of changing customer requirements, technological advances and competitors' innovations. Accordingly, we cannot predict what our relative competitive position will be as the market evolves for network performance measurement and analysis systems.

Sales, Marketing and Technical Support

Sales. Our direct sales force and manufacturers' representatives market and sell our systems primarily in the United States and Japan. Our distributors market and sell our systems primarily outside of the United States and Japan. Our net revenues from international product shipments were $14.3 million in 2002, $13.3 million in 2001 and $12.1 million in 2000. Our direct sales force maintains close contact with our customers and provides technical support to our manufacturers' representatives and distributors.

Marketing. We have a number of marketing programs to support the sale and distribution of our systems and to inform existing and potential customers and our manufacturers' representatives and distributors about the capabilities and benefits of our systems. Our marketing efforts also include promoting our business in the following ways:

- participating in industry trade shows and technical conferences;
- sponsoring technical seminars that highlight our solutions;
- advertising in trade journals; and
- communicating through our corporate website.

Technical Support. We maintain a technically knowledgeable and responsive customer service and support staff that is critical to our development of long-term customer relationships. This highly qualified and specialized internal customer engineering group:

- offers our customers customized solutions for their performance validation needs;
- develops custom applications at our company headquarters;
- can be deployed to customer sites on short notice; and
- provides our customers with the training necessary to optimally utilize our systems.

Manufacturing

Our manufacturing operations consist primarily of materials planning and procurement, quality control, logistics, final assembly and testing and distribution. We outsource the manufacture and assembly of printed circuit boards to third party contract manufacturers and assembly companies. This manufacturing process enables us to operate without substantial space and personnel dedicated to manufacturing operations. As a result, we can conserve a significant portion of the working capital and capital expenditures that would be required for funding inventory and manufacturing processes.

We are dependent upon sole or limited source suppliers for key components and parts used in our systems, including field programmable gate arrays, chips, oscillators and optical modules. We and our contract manufacturers purchase components through purchase orders and have no guaranteed or long-term supply arrangements with our respective suppliers. In addition, the availability of many components is dependent in part on our ability and the ability of our contract manufacturers and assembly companies to provide suppliers with accurate forecasts of future requirements. Any extended interruption in the supply of any of the key components currently obtained from a sole or limited source or delay in transitioning to a replacement supplier's product or replacement component into our systems could disrupt our operations and significantly harm our business in any given period.

Lead times for materials and components ordered by us and by our contract manufacturers vary and depend on factors such as the specific supplier, contract terms and demand for a component at a given time. We and our contract manufacturers acquire materials, complete standard subassemblies and assemble fully-configured systems based on sales forecasts and historical purchasing patterns. If orders do not match forecasts or substantially deviate from historical patterns, we and our contract manufacturers may have excess or inadequate inventory of materials and components.

Research and Development

We believe that research and development is critical to our business. We focus our research and development efforts on developing new products and on further enhancing existing products. Our development efforts include anticipating and addressing the performance analysis needs of network equipment manufacturers, Internet and network service providers, communications chip manufacturers and network users and focusing on emerging high growth network technologies.

Our future success depends on our ability to continue to enhance our existing products and to develop products that address the needs of our customers. We closely monitor changing customer needs by communicating and working directly with our customers and distributors. We also receive input from active participation in industry groups responsible for establishing technical standards.

Development schedules for technology products are inherently difficult to predict, and we cannot assure you that we will introduce any proposed new products in a timely fashion. Also, we cannot assure you that our product development efforts will result in commercially successful products or that our products will not contain software errors or other performance problems or be rendered obsolete by changing technology or new product announcements by other companies.

We plan to continue to make significant investments in research and development. Our research and development expenditures, excluding stock-based compensation, were $17.5 million in 2002, $13.3 million in 2001 and $7.2 million in 2000.

Intellectual Property and Proprietary Rights

Our success and ability to compete is dependent in part upon our ability to protect and maintain our proprietary rights to our intellectual property. We currently rely on a combination of trademark, trade secret and copyright laws and restrictions on disclosure to establish and protect our intellectual property. We also expect to rely on patents to protect some of our proprietary technology. We have filed applications for four U.S. patents but cannot assure you that the patents will be issued or that the patents will be upheld if they are issued. We also cannot

assure you that such patents, if issued, will be effective in protecting our proprietary technology. We have registered our Ixia name, the Ixia logo and other trademarks in the United States and have filed for registration of several trademarks in other jurisdictions. We are also in the process of filing applications for registration of additional trademarks.

We generally enter into confidentiality agreements with our officers, employees and consultants. We also generally limit access to and distribution of our source code and further limit the disclosure and use of other proprietary information. However, these measures provide only limited protection of our intellectual property rights. In addition, we may not have signed agreements containing adequate protective provisions in every case, and the contractual provisions that are in place may not provide us with adequate protection in all circumstances. Further, we have not included copyright notices on all of our copyrightable intellectual property.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain or use technology that we regard as proprietary. We cannot assure you that the steps taken by us to protect our proprietary rights will be adequate to prevent misappropriation of our technology or that our competitors will not independently develop technologies that are similar or superior to our technology. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States. Any infringement of our proprietary rights could result in significant litigation costs, and any failure to adequately protect our proprietary rights could result in our competitors offering similar products, potentially resulting in loss of competitive advantage and decreased revenues. Litigation may be necessary to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Litigation of this type could result in substantial costs and diversion of resources and could significantly harm our business.

The data communications industry is characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. From time to time, third parties may assert patent, copyright, trademark and other intellectual property rights to technologies that are important to our business. We have not conducted a search to determine whether the technology we have in our products infringes or misappropriates intellectual property held by third parties. In addition, because patent applications in the United States are not publicly disclosed until the patent is issued, applications may have been filed which could relate to our products. Any claims asserting that our systems infringe or may infringe proprietary rights of third parties, if determined adversely to us, could significantly harm our business.

Employees

As of December 31, 2002 we had 233 full-time employees. We also from time to time hire temporary and part-time employees and independent contractors. Our future performance depends, to a significant degree, on our continued ability to attract and retain highly skilled and qualified technical, sales and marketing and senior management personnel. Our employees are not represented by any labor unions. We consider our relations with our employees to be good.

Available Information

Our website address is www.ixiacom.com. We make available free of charge through a link provided at such website our Forms 10-K, 10-Q and 8-K as well as any amendments thereto. Such reports are available as soon as reasonably practicable after they are filed with the Securities and Exchange Commission.

Business Risk Factors

The statements that are not historical facts contained in the above "Business" discussion in this Item 1 are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and reflect the current belief, expectations or intent of the Company's management. These statements are subject to and involve certain risks and uncertainties. See "Management's Discussion and Analysis of Financial Condition and Results of Operations – Risk Factors" in Item 7 of this Annual Report on Form 10-K.

Item 2. Properties

Our corporate headquarters are located in Calabasas, California, where currently we lease an approximately 50,000 square-foot facility which houses our research and development, sales and marketing, finance and administration and manufacturing operations. The lease expires in May 2007. We also lease office space for our sales offices in Santa Clara, California, North Carolina, the United Kingdom, Japan and China. We believe that our current facilities will be adequate to meet our needs for at least the next 12 months, and that we will be able to obtain additional space when and as needed on acceptable terms.

Item 3. Legal Proceedings

In July 2002, we filed an action in Superior Court in Ontario, Canada, against Telnet Inc. ("Telnet"), the former distributor of our products in Canada, for payment of unpaid invoices in the amount of approximately $180,000 plus costs and interest. Telnet filed a counterclaim against Ixia claiming we had induced the breach of a non-competition covenant by a former Telnet employee and that we had also misappropriated a customer database of Telnet. The counterclaim seeks damages in the amount of approximately $1.3 million. We filed a denial of all such liability and believe that we have substantial defenses against Telnet's allegations. We have been advised that Telnet is insolvent and in receivership.

Item 4. Submission of Matters to a Vote of Security Holders

None

PART II

Item 5. Market for Registrant's Common Equity and Related Shareholder Matters

Ixia's common stock is traded on the Nasdaq National Market under the symbol "XXIA." The following table sets forth the high and low closing sales prices of our common stock as reported on the Nasdaq National Market for the following time periods.

		High	Low
2001			
	First quarter	$ 35.56	$ 11.25
	Second quarter	20.00	10.25
	Third quarter	15.60	5.45
	Fourth quarter	14.00	5.90
2002			
	First quarter	$ 14.45	$ 6.41
	Second quarter	9.49	5.82
	Third quarter	7.05	4.10
	Fourth quarter	4.84	2.56

On March 14, 2003 the closing sales price reported for our common stock was $5.20 per share, and as of that date there were approximately 56 shareholders of record.

We have never declared or paid cash dividends on our common stock and do not anticipate paying any dividends in the foreseeable future.

Item 6. Selected Financial Data

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the notes to those consolidated financial statements. The statement of income data set forth below for the years ended December 31, 2002, 2001 and 2000 and the balance sheet data as of December 31, 2002 and 2001 are derived from, and are qualified by reference to, the Company's audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The statement of income data for the years ended December 31, 1999 and 1998 and the balance sheet data as of December 31, 2000, 1999 and 1998 are derived from audited financial statements not included herein, but which were previously filed with the SEC.

	Year Ended December 31,				
	2002	2001	2000	1999	1998
Consolidated Statements of Income Data (in thousands, except per share data):					
Net revenues	$ 67,594	$ 77,157	$ 76,044	$ 24,499	$ 4,916
Cost of revenues[(1)]	13,310	16,610	14,825	4,944	1,309
Gross profit	54,284	60,547	61,219	19,555	3,607
Operating expenses: [(1)]					
Research and development	20,386	19,355	14,421	3,449	1,672
Sales and marketing	20,817	19,557	17,411	4,892	1,002
General and administrative	7,852	8,643	8,709	2,389	509
Amortization of intangible assets	941	57	--	--	--
Impairment of goodwill and other intangible assets	1,677	--	--	--	--
Total operating expenses	51,673	47,612	40,541	10,730	3,183
Income from operations	2,611	12,935	20,678	8,825	424
Interest income, net	2,743	4,035	1,552	88	14
Income before income taxes	5,354	16,970	22,230	8,913	438
Income tax expense	1,944	7,221	14,245	4,103	118
Net income	$ 3,410	$ 9,749	$ 7,985	$ 4,810	$ 320
Earnings per share:					
Basic	$ 0.06	$ 0.18	$ 0.17	$ 0.11	$ 0.01
Diluted	$ 0.06	$ 0.16	$ 0.15	$ 0.10	$ 0.01
Weighted average number of common and common equivalent shares outstanding:					
Basic	56,902	54,550	47,244	43,574	43,200
Diluted	60,609	61,977	53,777	45,970	44,576
[(1)] Stock-based compensation included in:					
Cost of revenues	$ 398	$ 729	$ 948	$ 38	$ 8
Research and development	2,864	6,055	7,182	669	92
Sales and marketing	1,385	3,245	4,695	449	62
General and administrative	658	2,159	3,807	729	--
	$ 5,305	$ 12,188	$ 16,632	$ 1,885	$ 162

	December 31,				
	2002	2001	2000	1999	1998
Consolidated Balance Sheets Data (in thousands):					
Cash and cash equivalents	$ 58,865	$ 116,643	$ 96,066	$ 8,733	$ 1,124
Investments in marketable securities	63,356	--	--	--	--
Working capital	83,125	128,206	104,025	7,500	1,232
Total assets	157,661	144,166	121,682	15,822	3,266
Total shareholders' equity	149,167	137,821	108,051	8,610	1,760

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

The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of many factors. The results of operations for the years ended December 31, 2002, 2001 and 2000 are not necessarily indicative of the results that may be expected for any future period. The following discussion should be read in conjunction with the consolidated financial statements and the notes thereto included in Item 8 of this Annual Report on Form 10-K and in conjunction with the "Risk Factors" described below.

Overview

We develop, market and sell systems that allow our customers to measure the performance of their data communications equipment and networks. Our systems generate and analyze data traffic, including business transaction and Voice over IP traffic, which sends voice communication over data networks using a protocol known as the Internet Protocol, or IP. In addition, our products allow customers to analyze the performance, accuracy and reliability of equipment and systems that they either manufacture for sale to others or purchase for use in their own networks. The networks our systems analyze include advanced Ethernet networks, which carry data traffic over optical fiber as well as over electrical cable and are typically used within a single building or a group of buildings. Other networks include Packet Over SONET networks which transmit packets of information over high-speed optical links. Our customers include manufacturers of network equipment, Internet and network service providers, communications chip manufacturers and network users.

Our product offerings include a variety of interface cards, chassis that can hold up to 16 interface cards each and related software products. Our interface cards can generate traffic over a variety of optical and electrical interfaces such as Gigabit Ethernet and Packet Over SONET. The following table sets forth, for the periods indicated, our net revenues by principal product category in dollars and as a percentage of total net revenues:

	Year Ended December 31,					
Products	2002		2001		2000	
	(in thousands, except percentages)					
Ethernet interface cards	$ 43,541	64.4%	$ 42,352	54.9%	$ 40,974	53.9%
SONET interface cards	11,233	16.6	23,973	31.1	25,653	33.7
Software	4,819	7.1	3,735	4.8	3,534	4.7
Chassis and other products	8,001	11.9	7,097	9.2	5,883	7.7
Total	$ 67,594	100.0%	$ 77,157	100.0%	$ 76,044	100.0%

Sales to our five largest customers collectively accounted for approximately $32.8 million, or 48.5%, of our net revenues in 2002, $28.7 million, or 37.2%, in 2001 and $36.7 million, or 48.3%, in 2000. To date, we have sold our systems primarily to network equipment manufacturers. While we expect that we will continue to have some customer concentration for the foreseeable future, we have sold our systems to a wide variety of customers. Through December 31, 2002, we had shipped our systems to a total of almost 500 customers, including over 240 existing and new customers in 2002. To the extent we develop a broader and more diverse customer base, we anticipate that our reliance on any one customer will diminish.

Net revenues. Our revenues consist primarily of product sales. The hardware and software components of our products are typically sold as an integrated system. The software component of our products does not require significant modification or customization, and our sales do not involve any significant future obligations or customer acceptance terms. Accordingly, revenue from product sales is recognized upon shipment. We warrant our products for up to one year after sale. At the time of sale we defer that portion of our revenues that relates to our post-contract support and recognize it ratably over the 12-month service period. Revenues from maintenance and extended warranty contracts are deferred and recognized ratably over the term of the contracts.

Cost of Revenues. Our cost of revenues consists of materials, payments to third party manufacturers, salaries and related expenses for manufacturing personnel and the warranty cost of hardware to be replaced during the one-year warranty period. We outsource the majority of our manufacturing operations, and we conduct final assembly, supply chain management, quality assurance, documentation control and shipping at our facility. Accordingly, a significant portion of our cost of revenues consists of payments to our contract manufacturers. In addition, cost of revenues includes a non-cash component related to the amortization of deferred stock-based compensation allocated to manufacturing personnel.

Gross Margins. Excluding the effects of stock-based compensation, the gross margins of our various interface cards have generally been consistent and have exceeded the gross margins of our chassis. In general, our gross margins are primarily affected by the following factors:

- the pricing we are able to obtain from our component suppliers and contract manufacturers;
- the mix of our products sold;
- new product introductions by us and by our competitors;
- changes in our pricing policies and those of our competitors;
- demand for our products;
- production volume; and
- the mix of sales channels through which our products are sold.

Operating Expenses. We generally recognize our operating expenses as we incur them in three general operational categories: research and development, sales and marketing, and general and administrative.

Research and development expenses consist primarily of salaries and related personnel and consulting costs related to the design, development, testing and enhancements of our systems. We expense our research and development costs as they are incurred. We also capitalize and depreciate over a two-year period some costs of our systems used for internal purposes. We expect research and development expenses to increase as we seek to attain our strategic product development objectives and to meet changing customer requirements and technological advances.

Sales and marketing expenses consist primarily of salaries, commissions and related expenses for personnel engaged in sales and marketing and customer support functions, as well as costs associated with promotional and other marketing activities. We expect sales and marketing expenses to increase in line with revenue increases.

General and administrative expenses consist primarily of salaries and related expenses for executive, finance, human resources, information technology and administrative personnel, as well as recruiting and professional fees, insurance costs and other general corporate expenses, including rent. We expect modest sequential increases in general and administrative expenses as the Company continues to grow.

In connection with the grant of stock options and warrants and the sale of restricted stock, we recorded deferred stock-based compensation of $36.2 million in 2000. This amount represents the difference between the deemed fair value of our common stock for accounting purposes and (1) the exercise price of the options or warrants

at the date of grant or (2) the purchase price of the restricted stock. Deferred stock-based compensation is presented as a reduction of shareholders' equity, with amortization recorded over the vesting period which is typically four years. We reduced the deferred stock-based compensation balance by $542,000 in 2002 and $1.7 million in 2001 as a result of the forfeitures of stock options and changes in the market value of the Company's common stock that affected certain equity instruments which received variable accounting treatment. We amortized to the respective operating expense categories $5.3 million of deferred stock-based compensation in 2002, $12.2 million in 2001 and $16.6 million in 2000. Based on the unvested options, warrants and stock subject to repurchase as of December 31, 2002, we expect to record additional stock-based compensation expense relating to deferred stock-based compensation of approximately $2.6 million during 2003 and $478,000 during 2004. The amount of deferred stock-based compensation expense to be recorded in future periods could decrease if options and stock subject to repurchase for which unearned compensation has been recorded are forfeited or repurchased. Changes in the market value of the Company's common stock could also affect future stock-based compensation expense related to equity instruments that receive variable accounting treatment.

Critical Accounting Policies and Estimates

Management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, allowance for doubtful accounts, allowance for obsolete inventory, deferred taxes, impairment of long-lived assets and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

We apply the following critical accounting policies in the preparation of our consolidated financial statements:

- *Revenue Recognition Policy.* We recognize revenue as discussed in the "Overview" section.

- *Allowance for Doubtful Accounts.* We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

- *Allowance for Obsolete Inventory.* We write down inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual future demand is less favorable than as projected by management, additional inventory write-downs may be required.

- *Deferred Taxes.* Deferred taxes are determined based on the differences between the financial statement and tax bases of assets and liabilities, using enacted tax rates in effect for the year in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. In assessing the need for a valuation allowance we consider estimates of future taxable income and ongoing prudent and feasible tax planning strategies.

- *Impairment of Long-Lived Assets.* We evaluate the recoverability of our identifiable indefinite life intangible assets and other long-lived assets in accordance with Statement of Financial Accounting Standards ("SFAS") 144 which generally requires that we assess these assets for recoverability when events or circumstances indicate a potential impairment by estimating the undiscounted cash flows to be generated from the use and ultimate disposition of these assets. We evaluate the recoverability of our goodwill in accordance with SFAS 142 which requires us to assess our goodwill annually for

impairment. Impairment losses are recorded to the extent that the carrying value of the goodwill exceeds the fair value.

- *Contingencies and Litigation.* We evaluate contingent liabilities, including threatened or pending litigation, in accordance with SFAS 5, "Accounting for Contingencies," and we record accruals when the outcome of these matters is deemed probable and the liability can reasonably be estimated. We make these assessments based on the facts and circumstances and in some instances based in part on the advice of outside legal counsel.

Results of Operations

The following table sets forth certain statement of income data as a percentage of net revenues for the periods indicated:

	Year Ended December 31,		
	2002	2001	2000
Statement of Income Data:			
Net revenues	100.0%	100.0%	100.0%
Cost of revenues[(1)]	19.7	21.5	19.5
Gross profit	80.3	78.5	80.5
Operating expenses: [(1)]			
Research and development	30.2	25.1	19.0
Sales and marketing	30.8	25.3	22.9
General and administrative	11.6	11.2	11.4
Amortization of intangible assets	1.4	0.1	0.0
Impairment of goodwill and other intangible assets	2.5	0.0	0.0
Total operating expenses	76.5	61.7	53.3
Income from operations	3.8	16.8	27.2
Interest income, net	4.1	5.2	2.0
Income before income taxes	7.9	22.0	29.2
Income tax expense	2.9	9.4	18.7
Net income	5.0%	12.6%	10.5%
[(1)] Stock-based compensation included in:			
Cost of revenues	0.6%	0.9%	1.2%
Research and development	4.2	7.9	9.4
Sales and marketing	2.0	4.2	6.2
General and administrative	1.0	2.8	5.0
	7.8%	15.8%	21.8%

Comparison of the Years Ended December 31, 2002 and 2001

Net Revenues. In 2002, net revenues decreased 12.4% to $67.6 million from the $77.2 million recorded in 2001. This decrease in net revenues in 2002 was largely a result of significant reductions in SONET customer orders due to the slowdown in the economy and in telecommunications spending. These reductions were partially offset primarily by sales to new customers and the introduction of new Ethernet and software products during the year. Sales to our five largest customers collectively accounted for approximately $32.8 million or 48.5% of our net revenues in 2002 compared to $28.7 million or 37.2% of net revenues in 2001.

Gross Profit. Gross profit decreased 10.3% to $54.3 million in 2002 from $60.5 million in 2001. Our gross profit margin increased to 80.3% in 2002 from 78.5% in 2001. This increase in the gross profit margin was primarily a result of decreasing component costs and, to a lesser extent, to an increase in sales of high margin software products during 2002 as compared to 2001.

Research and Development Expenses. Research and development expenses increased to $20.4 million in 2002 from $19.4 million in 2001. Stock-based compensation included in research and development expenses decreased to $2.9 million in 2002 from $6.1 million in 2001. Excluding stock-based compensation, research and development expenses increased to $17.5 million in 2002 from $13.3 million in 2001. This increase was primarily due to higher compensation and related benefit costs due to the addition of engineering personnel through internal hiring and acquisitions and to the costs associated with the increased use of third party consultants.

Sales and Marketing Expenses. Sales and marketing expenses increased to $20.8 million in 2002 from $19.6 million in 2001. Stock-based compensation included in sales and marketing expenses decreased to $1.4 million in 2002 from $3.2 million in 2001. Excluding stock-based compensation, sales and marketing expenses increased to $19.4 million in 2002 from $16.3 million in 2001. This increase was primarily due to increases in the number of direct sales and marketing personnel and depreciation on demonstration and evaluation equipment used by the sales force.

General and Administrative Expenses. General and administrative expenses decreased to $7.9 million in 2002 from $8.6 million in 2001. Stock-based compensation included in general and administrative expenses decreased to $658,000 in 2002 from $2.2 million in 2001. Excluding stock-based compensation, general and administrative expenses increased to $7.2 million in 2002 from $6.5 million in 2001. This increase was primarily due to increases in insurance, utilities and rent expenses.

Impairment of Goodwill and Other Intangible Assets. Due to the decline in current business conditions, we restructured our business and realigned resources to focus on profit contribution, high-growth markets and core opportunities. As a result, we recorded an impairment charge of $1.7 million related to the impairment of goodwill and purchased intangible assets related to the acquisitions of Caimis, Inc., measured as the amount by which the carrying amount exceeded the present value of the estimated future cash flows for goodwill and purchased intangible assets.

Interest Income, Net. Net interest income decreased to $2.7 million in 2002 from $4.0 million in 2001. This decrease was primarily the result of a decline in short-term interest rates. We incurred minimal interest expense in 2002 and 2001.

Income Tax Expense. Income tax expense decreased to $1.9 million in 2002 from $7.2 million in 2001. Income tax expense was based on an annual effective tax rate of 36.3% in 2002 and 42.6% in 2001. The annual effective tax rate in 2002 and 2001 differs from the statutory rate primarily due to nondeductible stock-based compensation charges and state taxes offset by research and development tax credits.

Comparison of the Years Ended December 31, 2001 and 2000

Net Revenues. In 2001, net revenues increased 1.5% to $77.2 million from the $76.0 million recorded in 2000. Net revenues in 2001 were positively affected by sales to new customers and the introduction of new product lines during the year. This increase was partially offset by a significant reduction in customer orders across all product lines due to the slowdown in the economy and in telecommunications spending. Sales to our five largest customers collectively accounted for approximately $28.7 million or 37.2% of our net revenues in 2001 compared to $36.7 million or 48.3% of net revenues in 2000.

Gross Profit. Gross profit decreased 1.1% to $60.5 million in 2001 from $61.2 million in 2000. Our gross margin decreased to 78.5% in 2001 from 80.5% in 2000. This decrease in gross margin primarily reflected changes in the mix of products sold in 2001 as compared to 2000.

Research and Development Expenses. Research and development expenses increased to $19.4 million in 2001 from $14.4 million in 2000. Stock-based compensation included in research and development expenses decreased to $6.1 million in 2001 from $7.2 million in 2000. Excluding stock-based compensation, research and development expenses increased to $13.3 million in 2001 from $7.2 million in 2000. This increase was primarily due to higher compensation and related benefit costs as a result of the addition of engineering personnel and increased prototype costs associated with new product development.

Sales and Marketing Expenses. Sales and marketing expenses increased to $19.6 million in 2001 from $17.4 million in 2000. Stock-based compensation included in sales and marketing expenses decreased to $3.2 million in 2001 from $4.7 million in 2000. Excluding stock-based compensation, sales and marketing expenses increased to $16.3 million in 2001 from $12.7 million in 2000. This increase was primarily due to increases in the number of direct sales and marketing personnel and fixed asset depreciation on demonstration and evaluation equipment. These increases were partially offset by a reduction in the amount of commissions paid in 2001 as compared to 2000.

General and Administrative Expenses. General and administrative expenses decreased to $8.6 million in 2001 from $8.7 million in 2000. Stock-based compensation included in general and administrative expenses decreased to $2.2 million in 2001 from $3.8 million in 2000. Excluding stock-based compensation, general and administrative expenses increased to $6.5 million in 2001 from $4.9 million in 2000. This increase is due to higher facility rental and utility costs, increased expenses for professional services, primarily legal and accounting, and increased business insurance expenses. These increases were partially offset by a decrease in recruiting expenses in 2001 as compared to 2000.

Interest Income, Net. Interest income, net increased to $4.0 million in 2001 from $1.6 million in 2000. This increase was the result of an increase in cash and cash equivalents. We incurred minimal interest expense in 2001 and 2000.

Income Tax Expense. Income tax expense decreased to $7.2 million in 2001 from $14.2 million in 2000. Income tax expense was based on an annual effective tax rate of 42.6% in 2001 and 64.1% in 2000. The annual effective tax rate in 2001 and 2000 differs from the statutory rate primarily due to nondeductible stock-based compensation charges and state taxes offset by research and development tax credits.

Liquidity and Capital Resources

As of December 31, 2002 we had cash and cash equivalents of $58.9 million, compared to $116.6 million as of December 31, 2001. This decease in our current cash and cash equivalents resulted from our decision during the year to move $63.4 million into longer-term investments in government and corporate debt instruments. When viewed as a whole, our cash, cash equivalents and short and long term investments at December 31, 2002, totaled $122.2 million compared to $116.6 million as of December 31, 2001.

Net cash provided by operating activities was $14.2 million in 2002, $26.1 million in 2001 and $16.3 million in 2000. Net cash generated from operations in 2002, 2001 and 2000 was primarily provided by net income adjusted for significant non-cash expenses and changes in working capital requirements. During March 2000, we made an estimated income tax payment of $4.6 million relating to our 1999 income tax liability. Had this payment been made in 1999, net cash provided by operations would have been $20.9 million in 2000.

Cash used in investing activities was $73.4 million in 2002, $8.1 million in 2001 and $3.7 million in 2000. Cash used in investing activities in 2002 consisted of approximately $63.4 million for the net purchase of investment securities, $5.2 million in connection with the acquisition in February 2002 of the assets of the ANVL (Automated Network Validation Library) product line from Empirix, Inc. and $4.9 million related to the purchase of property and equipment. Cash used in investing activities in 2001 consisted of approximately $2.0 million in connection with the acquisition in November 2001 of the outstanding capital stock of Caimis, Inc. and capital expenditures for property and equipment. Cash used in investing activities in 2000 consisted exclusively of capital expenditures for property and equipment.

Financing activities provided net cash of $1.4 million in 2002, $2.6 million in 2001 and $74.8 million in 2000. Financing activities in 2002 consisted exclusively of proceeds from the exercise of stock options. Financing activities in 2001 consisted of proceeds from the exercise of stock options and of proceeds from the payment of related party notes receivables. In 2000, financing activities included $74.4 million from the completion of our initial public offering in October 2000, proceeds from the exercise of stock options and proceeds from a related party receivable.

As of December 31, 2002 we had no material commitments for capital expenditures. As of December 31, 2002 we had total minimum lease obligations of $6.0 million through May 31, 2007 under non-cancelable operating leases. We do not have any capital leases.

We believe that our existing balances of cash and cash equivalents and cash flow expected to be generated from our operations will be sufficient to meet our cash needs for at least the next 12 months, although we could be required, or could elect, to seek additional funding prior to that time. Our capital requirements will depend on many factors, including the growth rate of our net revenues, our profitability, our capital expenditures, acquisition of key technology, working capital requirements, the timing and extent of spending to support product development efforts and the expansion of our sales, marketing and technical support efforts.

Recent Accounting Pronouncements

In July 2002, the Financial Accounting Standards Board ("FASB") issued SFAS 146, "Accounting for Cost Associated with Exit or Disposal Activities." SFAS 146 requires that a liability for costs associated with an exit or disposal activity be recognized and measured initially at fair value only when the liability is incurred. SFAS 146 is effective for exit or disposal activities that are initiated after December 31, 2002. The Company believes the adoption of SFAS 146 will not have a material impact on its financial statements.

In December 2002, the FASB issued SFAS 148, "Accounting for Stock-Based Compensation – Transition Disclosure – an amendment of FAS 123." This Statement amends SFAS 123, "Accounting for Stock-Based Compensation," to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of Statement 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The provisions of SFAS 148 are effective for financial statements for fiscal years ending after December 15, 2002, and disclosure requirements shall be effective for interim periods beginning after December 15, 2002. We intend to continue to account for stock-based compensation to our employees and directors using the intrinsic value method prescribed by APB Opinion No. 25, and related interpretations. We have made certain disclosures required by SFAS 148 in the consolidated financial statements for the year ended December 31, 2002 and will begin making the additional disclosures required by SFAS 148 in the first quarter of 2003. Accordingly, adoption of SFAS 148 will not impact our financial position or results of operations.

Risk Factors

The statements that are not historical facts contained in this Annual Report on Form 10-K are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements reflect the current belief, expectations or intent of the Company's management and are subject to and involve certain risks and uncertainties. Many of these risks and uncertainties are outside of our control and are difficult for us to forecast or mitigate. In addition to the risks described elsewhere in this Annual Report on Form 10-K and in certain of our other Securities and Exchange Act Commission filings, the following important factors, among others, could cause our actual results to differ materially from those expressed or implied by us in any forward-looking statements contained herein or made elsewhere by or on behalf of the Company.

Our quarterly and annual operating results may fluctuate significantly as a result of new product introductions and other factors which could cause our stock price to decline significantly

Our quarterly and annual operating results, have fluctuated and may fluctuate significantly due to a variety of factors, most of which are outside of our control. Some of the factors that could cause our quarterly and annual operating results to fluctuate include the other risks discussed in this "Risk Factors" section.

We may experience a shortfall or delay in generating or recognizing revenues for a number of reasons. Orders on hand at the beginning of a quarter and orders generated in a quarter do not always result in the shipment of

products and the recognition of revenues for that quarter. Failure to ship products by the end of the quarter in which they are ordered may adversely affect our operating results for that quarter. Our customer agreements typically provide that the customer may delay scheduled delivery dates and cancel orders within specified time frames without penalty. Because we incur operating expenses based on anticipated revenues trends and a high percentage of our expenses are fixed in the short term, any delay in generating or recognizing forecasted revenues could significantly harm our quarterly results of operations.

Additionally, our operating results may vary as a result of the timing of our release of new products. The introduction of a new product in any quarter may cause an increase in revenues in that quarter that may not be sustainable in subsequent quarters.

If we are unable to successfully introduce new products to keep pace with the rapid technological changes that characterize our market, our results of operations will be significantly harmed

The market for our products is characterized by:

- rapid technological change such as the recent development of optical fiber and wireless technologies;
- frequent new product introductions such as higher speed and more complex routers;
- evolving industry standards such as new Internet protocols;
- changing customer needs such as the increase in the levels of service agreed to between network service providers and their customers; and
- short product life cycles as a result of rapid changes in our customers' products.

We expect that new technologies will continue to emerge as the need for higher and more cost-effective bandwidth increases. Our performance will depend on our successful development, introduction and market acceptance of new and enhanced performance analysis products that address these new technologies and changes in customer requirements. If we experience any delay in the development or introduction of new products or enhancements to our existing products, our operating results may suffer. For instance, undetected software or hardware errors, which frequently occur when new products are first introduced, could result in the delay or loss of market acceptance of our products and the loss of credibility with our customers. In addition, if we are not able to develop, or license from third parties, the underlying core technologies necessary to create new products and enhancements, our existing products are likely to become technologically obsolete over time and our operating results will suffer. If the rate of development of new technologies and transmission protocols by our customers is delayed, the growth of the market for our products and therefore our sales and operating results may be harmed.

Our ability to successfully introduce new products in a timely fashion will depend on several factors, including our ability to:

- anticipate technological changes and industry trends;
- properly identify customer needs;
- innovate and develop new technologies and applications;
- hire and retain necessary technical personnel;
- successfully commercialize new technologies in a timely manner;
- timely obtain key components for the manufacture of new products;
- manufacture and deliver our products in sufficient volumes and on time;

- price our products competitively; and
- differentiate our offerings from our competitors' offerings.

The development of new, technologically advanced products is a complex and uncertain process requiring high levels of innovation and highly skilled engineering and development personnel, as well as the accurate anticipation of technology and market trends. We cannot assure you that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully, if at all, or on a timely or cost-effective basis. Further, we cannot assure you that our new products will gain market acceptance or that we will be able to respond effectively to technological changes, emerging industry standards or product announcements by our competitors. If we fail to respond to technological change and the needs of our markets, we will lose revenues and our competitive position will suffer.

We depend on sales of a narrow range of products and if customers do not purchase our products, our revenues and results of operations would be significantly harmed

Our business and products are concentrated in the market for systems that analyze and measure the performance of network equipment and systems. This market is in an early stage of development and there is uncertainty regarding its size and scope. Our performance will depend on increased sales of our existing systems and the successful development, introduction and market acceptance of new and enhanced products. We cannot assure you that we will be successful in increasing these sales or in developing and introducing new products. Our failure to do so would significantly harm our revenues and results of operations.

Our business may be adversely affected by unfavorable general economic and market conditions

Our business is subject to the effects of general economic conditions in the United States and globally and, in particular, market conditions in the communications and networking industries. In recent quarters, our operating results have been adversely affected as a result of unfavorable economic conditions and reduced capital spending in the United States, Europe and Asia. In particular, sales to network equipment manufacturers in North America were significantly and adversely affected during fiscal years 2002 and 2001. If the economic and market conditions do not improve, or if there is a worsening in the global economic slowdown and market condition, we may continue to experience material adverse impacts on our business, operating results and financial condition.

In addition, the effects of war or acts of terrorism could have a material adverse effect on our business, operating results and financial condition. The terrorist attacks in the U.S. in 2001 disrupted commerce throughout the world and increased the uncertainty of the U.S. and other economies. The continued threat of terrorism and heightened security and military action in response to this threat, or any further acts of terrorism, may cause further disruptions to these economies and create further uncertainties. To the extent that any such disruptions or uncertainties result in delays or cancellations of customer orders, or in the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

Some of our customers may not have the resources to pay for our products or to order our products as a result of the current economic environment

With the economic slowdown, some of our customers are forecasting that their revenues for the foreseeable future will generally be lower than anticipated. Some of these customers are experiencing, or are likely to experience, serious cash flow problems, and they are finding it increasingly difficult to obtain financing on attractive terms, if at all. As a result, if some of these customers are not successful in generating sufficient revenues or securing alternate financing arrangements, they may not be able to pay, or may delay payment for, the amounts that they owe us. Furthermore, they may not order as many products from us as originally forecasted or any products at all. The inability of our customers to pay us or to timely pay us for our products will adversely affect our cash flow and the timing of our revenue recognition and harm our results of operation. The failure of our customers to order product will also result in decreased revenues. In addition, customer bankruptcies could cause us to incur financial

losses. In 2003, two customers have filed complaints against us in United States bankruptcy courts seeking a total of approximately $200,000 in connection with alleged preferential payments to Ixia prior to their bankruptcy filings.

Some key components in our products come from sole or limited sources of supply, which exposes us to potential supply shortages that could disrupt the manufacture and sale of our products

We and our contract manufacturers currently purchase a number of key components used to manufacture our products from sole or limited sources of supply for which alternative sources may not be available. From time to time, we have experienced shortages of key components, including chips, oscillators and optical modules. We and our contract manufacturers have no guaranteed or long-term supply arrangements for these or other components, including field programmable gate arrays, or FPGA's, which are integrated circuits that can be repeatedly reprogrammed to perform different sets of functions as required. Financial or other difficulties faced by our suppliers or significant changes in market demand for necessary components could limit the availability to us and our contract manufacturers of these components. Any interruption or delay in the supply of any of these components could significantly harm our ability to meet scheduled product deliveries to our customers and cause us to lose sales.

In addition, the purchase of these components on a sole source basis subjects us to risks of price increases and potential quality assurance problems. Consolidation involving suppliers could further reduce the number of alternatives available to us and affect the cost of components. An increase in the cost of components could make our products less competitive and result in lower margins.

There are limited substitute supplies available for many of these components, including field programmable gate arrays. All of these components are critical to the production of our products, and competition exists with other manufacturers for these key components. In the event that we can no longer obtain materials from a sole source supplier, we might not be able to qualify or identify alternative suppliers in a timely fashion, or at all.

Competition in our market could significantly harm our results of operations

The market for our products is highly competitive. We face competition primarily from test equipment manufacturers such as Agilent Technologies, Spirent Communications, Anritsu and EXFO. We also compete with start-up companies such as Antara, which are focused on network performance analysis and measurement. Additionally, some of our network equipment manufacturer customers have developed, or may develop, in-house performance analysis products for their own use or for sale to others. For example, Cisco Systems, our largest customer, has used internally developed test products for a number of years. Although Cisco Systems has always accounted for a significant portion of our net revenues, we cannot assure you that it will continue to do so.

As we broaden our product offerings, we may move into new markets and face additional competition. Moreover, our competitors may have more experience operating in these new markets and be better established with the customers in these new markets.

Some of our competitors and potential competitors have greater brand name recognition and greater financial, technical, marketing, sales and distribution capabilities than we do. Moreover, our competitors may consolidate with each other, or with other companies, giving them even greater capabilities with which to compete against us.

Increased competition in the network performance analysis and measurement market could result in increased pressure on us to reduce prices and could result in a reduction in our revenues and/or a decrease in our margins, each of which could significantly harm our results of operations. In addition, increased competition could prevent us from increasing our market share, or cause us to lose our existing market share, either of which would harm our revenues and profitability.

We cannot predict whether our current or future competitors will develop or market technologies and products that offer higher performance or more features or are more cost-effective than our current or future products. To remain competitive, we must continue to develop cost-effective products and product enhancements

which offer higher performance and more functionality. Our failure to do so will harm our revenues and results of operations.

If we do not diversify our customer base, we may not be able to grow our business or increase our profitability

Our growth depends in part on our ability to diversify our customer base by increasing sales to Internet and network service providers, communications chip manufacturers and network users. To effectively compete for the business of these customers, we must develop new products and enhancements to existing products and expand our sales, marketing and customer support capabilities, which will result in increases in operating costs. If we cannot offset these increases in costs with an increase in our revenues, our net income and our stock price may fall. Some of our existing and potential competitors have existing relationships with many Internet and network service providers, communications chip manufacturers and network users. We cannot assure you that we will be successful in increasing our sales presence in these markets. Any failure by us to increase sales in these markets would adversely affect our growth.

Because we depend on a limited number of network equipment manufacturers for a majority of our revenues, any cancellation, reduction or delay in purchases by these customers could significantly harm our revenues and results of operations

Historically, a small number of network equipment manufacturing customers has accounted for a significant portion of our net revenues. Sales to our five largest customers represented 48.5% of our net revenues in 2002, 37.2% of our net revenues in 2001 and 48.3% our net revenues in 2000. Sales to Cisco Systems, our largest customer, accounted for 34.2% of our net revenues in 2002, 24.4% of our net revenues in 2001 and 29.5% of our net revenues in 2000. We expect that significant customer concentration will continue for the foreseeable future and that our operating results will continue to depend to a significant extent upon revenues from a small number of customers.

Our dependence on large orders from a limited number of network equipment manufacturers makes our relationships with these manufacturers critical to the success of our business. We cannot assure you that we will be able to retain our largest customers, that we will be able to increase our sales to our other existing customers or that we will be able to attract additional customers. From time to time, we have experienced delays and reductions in orders from some of our major customers. In addition, our customers have sought price concessions from us and may continue to do so. We do not have long-term contracts with our customers, and our major customers can stop purchasing our products at any time without penalty and are free to purchase products from our competitors. The loss of one or more of our largest customers, any reduction or delay in sales to these customers, our inability to successfully develop and maintain relationships with existing and new customers or requirements that we make price concessions could significantly harm our revenues and results of operations.

As our customers consolidate, they may reduce purchases of our products and demand more favorable terms and conditions from us, which would harm our revenues and profitability

Consolidation of our customers could reduce the number of customers to whom our products could be sold. These merged customers could obtain products from a source other than us or demand more favorable terms and conditions from us, which would harm our revenues and profitability. In addition, our network equipment manufacturer customers may merge with or acquire our competitors and discontinue their relationships with us.

If we are unable to expand our sales and distribution channels or are unable to successfully manage our expanded sales organization, our revenues and results of operations will be harmed

Historically, we have relied primarily on a limited direct sales organization, supported by third-party manufacturers' representatives and distributors, to sell our products. Our distribution strategy focuses primarily on developing and expanding our direct sales organization and our network of manufacturers' representatives and

distributors. We may not be able to successfully expand our sales and distribution channels, and the cost of any expansion may exceed the revenues that we generate. To the extent that we are successful in expanding our sales and distribution channels, we cannot assure you that we will be able to compete successfully against the significantly larger and better-funded sales and marketing operations of many of our current or potential competitors. We have granted exclusive rights to substantially all of our distributors and manufacturers' representatives to market our products in their specified territories. Our distributors and manufacturers' representatives may not market our products effectively or devote the resources necessary to provide us with effective sales, marketing and technical support. Our inability to effectively manage the expansion of our sales and support staff, or to maintain existing or establish new relationships with successful manufacturers' representatives and distributors, would harm our revenues and results of operations.

If we are unable to expand our international sales and distribution channels or manage them effectively, our results of operations would be harmed

Historically, a significant portion of our sales have been made to customers in the United States. Sales in the United States accounted for 78.8% of our net revenues in 2002, 82.8% of our net revenues in 2001 and 84.1% of our net revenues in 2000. In the past, we have depended on distributors for the substantial majority of our international sales. In 2002, two of our distributors entered bankruptcy and were therefore terminated as distributors of our products. These terminations and additional future losses of one or more of our international distributors or their failure to sell our products would limit our ability to sustain and grow our revenues in international markets. In October 2002, we established a Japanese subsidiary in Tokyo, Japan. We intend to expand into additional international markets, including in Europe and in the Asia Pacific region, by adding distributors and international sales and support personnel. Our failure in these efforts could significantly harm our results of operations and decrease the value of our stock. We only have limited international sales experience and believe that the growth of our sales outside of the United States will be subject to a number of additional risks and uncertainties, including:

- adoption of different local technical and regulatory standards;
- the need to maintain and establish new relationships with distributors and the sales performance of these distributors, who may not be as effective or loyal as our employees;
- the costs and complexity of staffing and managing more widely dispersed foreign sales activities, including the ability to identify, attract and retain qualified managers and sales personnel, overcoming cultural, linguistic and nationalistic barriers and adapting to foreign business practices;
- longer payment cycles of foreign customers compared with customers in the United States;
- seasonal reductions in business activities in some parts of the world, such as during the summer months in Europe;
- legal uncertainties regarding liability, export and import restrictions, tariffs and other trade barriers;
- potential political and economic instability; and
- inadequate protection of intellectual property in some countries.

Any of these factors could significantly harm our international sales or significantly impair our ability to expand into international markets.

Our international sales currently are largely denominated in U.S. dollars. As a result, an increase in the value of the U.S. dollar relative to foreign currencies could increase the real cost of our products to our customers in international markets.

If we fail to accurately forecast our manufacturing requirements, we could incur additional costs and experience manufacturing delays

We provide our contract manufacturers with rolling forecasts based on anticipated product orders to determine our manufacturing requirements. Some of the components used in our products have significant lead times or lead times which may unexpectedly increase depending on factors such as the specific supplier, contract terms and the demand for components at a given time. Because of these long lead times, we are often required to forecast and order products before we know what our specific manufacturing requirements will be. If we overestimate our product orders, our contract manufacturers may have excess inventory of completed products which we would be obligated to purchase. This will lead to increased costs and the risk of obsolescence. If we underestimate our product orders, our contract manufacturers may have inadequate inventory, which could result in delays in shipments, the loss or deferral of revenues and higher costs of sales. It may also add costs to our products to expedite delivery of our products to customers or those components with long lead times to our contract manufacturers. We cannot assure you that we will be able to accurately forecast our product orders and may in the future carry excess or obsolete inventory, be unable to fulfill customer demand, or both, thereby harming our revenues, results of operations and customer relationships.

Failure by our contract manufacturers to provide us with adequate supplies of high-quality products could harm our revenues, results of operations, competitive position and reputation

We currently rely on a limited number of contract manufacturers to manufacture and assemble our products. We may experience delays in receiving product shipments from contract manufacturers or other problems, such as inferior quality and insufficient quantity of product. We cannot assure you that we will be able to effectively manage our contract manufacturers or that these manufacturers will meet our future requirements for timely delivery of products of sufficient quality and quantity. We intend to introduce new products and product enhancements, which will require that we rapidly achieve volume production by effectively coordinating with our suppliers and contract manufacturers. We do not have any long-term contracts with our contract manufacturers. The inability of our contract manufacturers to provide us with adequate supplies of high-quality products or the loss of any of our contract manufacturers would cause a delay in our ability to fulfill customer orders while we obtain a replacement manufacturer and would harm our revenues, results of operations, competitive position and reputation.

We may not be able to expand our contract manufacturing capacity or our internal testing or quality assurance functions as required to keep up with demand for our products. Any such failure would in turn hinder our growth. If we do not expand these capacities and functions effectively or in a timely manner, we may experience disruptions in product flow which could limit our revenues, adversely affect our competitive position and reputation and result in additional cost, cancellation of orders or both.

Because of intense competition for technical personnel, we may not be able to recruit or retain necessary personnel on a cost-effective basis

Our success will depend in large part upon our ability to identify, hire, retain and motivate highly skilled employees. We plan to increase the number of our research and development, marketing, sales, customer support and operations employees. In spite of the economic slowdown, competition for highly skilled employees in our industry is intense. In addition, employees may leave our company and subsequently compete against us. Our failure to attract and retain these qualified employees could significantly harm our ability to develop new products and maintain customer relationships. Volatility or lack of positive performance in our stock price may also adversely affect our ability to attract and retain highly skilled employees who may look to stock options as a key component of their compensation. The loss of the services of any of our qualified employees, the inability to attract or retain qualified personnel in the future or delays in hiring required personnel could hinder the development and introduction of new and enhanced products and harm our ability to sell our products. Moreover, companies in our industry whose employees accept positions with competitors frequently claim that those competitors have engaged in unfair hiring practices. We may be subject to such claims as we seek to retain or hire qualified personnel, some of whom may currently be working for our competitors. Some of these claims may result in material litigation. We could incur substantial costs in defending ourselves against these claims, regardless of their merits. Such claims could also discourage potential employees who currently work for our competitors from joining us.

The loss of any of our key personnel could significantly harm our results of operations and competitive position

Our success depends to a significant degree upon the continuing contributions of our key management, technical, marketing and sales employees, particularly Errol Ginsberg, our President and Chief Executive Officer. There can be no assurance that we will be successful in retaining our key employees or that we can attract or retain additional skilled personnel as required. Failure to retain key personnel could significantly harm our results of operations and competitive position.

Continued rapid growth will strain our operations and require us to incur costs to maintain and upgrade our management and operational resources

We have experienced and are continuing to experience a period of growth. Unless we manage our growth effectively, we may have difficulty in operating our business. As a result, we may inaccurately forecast sales and materials requirements, fail to integrate new personnel or fail to maintain adequate internal controls, which may result in fluctuations in our operating results and cause the price of our stock to decline. We plan to continue to expand our operations which may place a significant strain on our management and operational resources. In order to manage our growth effectively, we must implement and improve our operational systems, procedures and controls on a timely basis. If we cannot manage growth effectively, our profitability could be significantly harmed.

Acquisitions undertaken and any that we may undertake could be difficult to integrate, disrupt our business, dilute shareholder value and significantly harm our operating results

Acquisitions are inherently risky and no assurance can be given that our previous or future acquisitions will be successful or will not materially and adversely affect our business, operating results or financial condition. On November 5, 2001, we completed the acquisition of all of the outstanding capital stock of Caimis, Inc., and on February 14, 2002, we completed the acquisition from Empirix, Inc. of the assets associated with our ANVL (Automated Network Validation Library) product line. Due to the decline in current business conditions, in 2002 we realigned our business to focus on profit contribution, high-growth markets and core opportunities. In connection with that realignment, we recorded an impairment charge of $1.7 million related primarily to the impairment of goodwill and purchased intangible assets related to the acquisition of Caimis, Inc.

We expect to continue to review opportunities to acquire other businesses or technologies that would complement our current products, expand the breadth of our markets, enhance our technical capabilities or otherwise offer growth opportunities. While we have no current agreements or negotiations underway, we may acquire additional businesses, products or technologies in the future. If we make any further acquisitions, we could issue stock that would dilute existing shareholders' percentage ownership, incur substantial debt or assume contingent liabilities. We have limited experience in acquiring other businesses and technologies. Acquisitions involve numerous risks, including the following:

- problems assimilating the acquired operations, technologies or products;
- unanticipated costs associated with the acquisition;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with suppliers, contract manufacturers, customers and industry experts;
- risks associated with entering markets in which we have no or limited prior experience; and
- potential loss of the acquired organization's or our own key employees.

We cannot assure you that we would be successful in overcoming problems in connection with our past or future acquisitions, and our inability to do so could significantly harm our assets acquired in such acquisitions, revenues and results of operations.

Our products may contain defects which may cause us to incur significant costs, divert our attention from product development efforts and result in a loss of customers

Our existing products and any new or enhanced products we introduce may contain undetected software or hardware defects when they are first introduced or as new versions are released. These problems may cause us to incur significant damages or warranty and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relation problems or loss of customers and reputation, all of which would harm our results of operations. A successful claim against us for an amount exceeding the limit on our product liability insurance policy would force us to use our own resources, to the extent available, to pay the claim, which could result in an increase in our expenses and a reduction of our working capital available for other uses, thereby harming our profitability and capital resources.

Our failure to protect our intellectual property may significantly harm our results of operations and reputation

Our success and ability to compete is dependent in part on our ability to protect and maintain our proprietary rights to our intellectual property. We currently rely on a combination of trade secret, trademark and copyright laws to establish and protect our intellectual property. We also expect to rely on patents to protect some of our proprietary technology. To date, we have relied primarily on trade secret laws to protect our proprietary processes and know-how. Although we have filed applications for four U.S. patents, we cannot assure you that any of these applications will issue into patents or that, if issued, the patents will be upheld. We also cannot assure you that such patents, if issued, will be effective in protecting our proprietary technology.

We generally enter into confidentiality agreements with our officers, employees and consultants. We also generally limit access to and distribution of our source code and further limit the disclosure and use of our other proprietary information. However, these measures provide only limited protection of our intellectual property rights. In addition, we may not have signed agreements containing adequate protective provisions in every case, and the contractual provisions that are in place may not provide us with adequate protection in all circumstances. Further, we have not included copyright notices on all of our copyrightable intellectual property. Any infringement of our proprietary rights could result in significant litigation costs, and any failure to adequately protect our proprietary rights could result in our competitors offering similar products, potentially resulting in loss of one or more competitive advantages and decreased revenues.

Despite our efforts to protect our proprietary rights, existing trade secret, copyright, patent and trademark laws afford us only limited protection. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States. Others may attempt to copy or reverse engineer aspects of our products or to obtain and use information that we regard as proprietary. Accordingly, we may not be able to prevent misappropriation of our technologies or to deter others from developing similar technologies. Further, monitoring the unauthorized use of our products and our proprietary rights is difficult. Litigation may be necessary to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Litigation of this type could result in substantial costs and diversion of resources and could significantly harm our results of operations and reputation.

Claims that we infringe third-party intellectual property rights could result in significant expenses or restrictions on our ability to sell our products

From time to time, other parties may assert patent, copyright, trademark and other intellectual property rights to technologies and in various jurisdictions that are important to our business. We cannot provide assurance that others will not claim that we are infringing their intellectual property rights or that we do not in fact infringe those intellectual property rights. We have not conducted a search to determine whether the technology we have in

our products infringes or misappropriates intellectual property held by third parties. In addition, because patent applications in the United States are not publicly disclosed until the patent is issued, applications may have been filed which could relate to our products.

Any claims asserting that our products infringe or may infringe proprietary rights of third parties, if determined adversely to us, could significantly harm our results of operations. Any claims, with or without merit, could:

- be time-consuming;
- result in costly litigation;
- divert the efforts of our technical and management personnel;
- require us to develop alternative technology, thereby causing product shipment delays and the loss or deferral of revenues;
- require us to cease selling the products containing the infringing intellectual property;
- require us to pay substantial damage awards;
- damage our reputation; or
- require us to enter into royalty or licensing agreements which, if required, may not be available on terms acceptable to us, if at all.

In the event a claim against us were successful and we could not obtain a license to the relevant technology on acceptable terms or license a substitute technology or redesign our products to avoid infringement, our revenues, results of operations and competitive position would be harmed.

If we fail to maintain our relationships with industry experts, our products may lose industry and market recognition and sales could decline

Our relationships with industry experts in the field of performance analysis and measurement of networks and network equipment are critical for maintaining our industry credibility and for developing new products and testing methodologies in a timely fashion. These experts have established standard testing methodologies that evaluate new network equipment products and technologies. We provide these experts and their testing labs with our products and engineering assistance to perform tests on these new network equipment products and technologies. These industry experts refer to our products in their publications which has given our products industry recognition. In addition, these labs offer us the opportunity to test our products on the newest network equipment and technologies, thereby assisting us in developing new products that are designed to meet evolving technological needs. We cannot assure you that we will be able to maintain our relationships with industry experts or that our competitors will not obtain similar or superior relationships with industry experts. If we are unable to maintain our relationships with industry experts, our products may lose industry and market recognition which could harm our reputation and competitive position and cause our sales to decline.

Our headquarters, many of our customers and some of our contract manufacturers and suppliers are located in California where natural disasters may occur

Currently, our corporate headquarters, many of our customers and some of our contract manufacturers and suppliers are located in California. California historically has been vulnerable to natural disasters and other risks, such as earthquakes, fires and floods, which at times have disrupted the local economy and posed physical risks to our property. We and some of our customers, contract manufacturers and suppliers do not have redundant, multiple

site capacity. In the event of a natural disaster, our ability to conduct business could be significantly disrupted, thereby harming our results of operations.

Provisions of our articles of incorporation, bylaws and an agreement with our principal shareholder may make it difficult for a third party to acquire us, despite the possible benefits to our shareholders

Our board of directors has the authority to issue up to 1 million shares of preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without any further vote or action by the shareholders. The rights of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any preferred stock that we may issue. The issuance of preferred stock could have the effect of making it more difficult for a third party to acquire a majority of our outstanding voting stock. Furthermore, some provisions of our articles of incorporation and bylaws could delay or make more difficult a merger, tender offer or proxy contest involving us.

Technology Capital Group S.A., our principal shareholder, has agreed that for a period of three years beyond October 2001 or until any earlier time that it owns less than 25% of the outstanding shares of our common stock, it will provide us with at least 30 days advance notice before agreeing to a sale or other disposition of one percent or more of our outstanding shares in a private transaction. This notice requirement may delay a third party's acquisition of the shares of our common stock held by Technology Capital Group and also provide us with an opportunity to propose other buyers for the shares who may be more acceptable to us, to propose to repurchase the shares proposed to be sold or to propose to register the shares for sale in an underwritten public offering. This notice requirement may also discourage third parties from attempting to acquire the shares of our common stock held by Technology Capital Group during that period.

These provisions of our articles of incorporation and bylaws and this agreement may have the effect of delaying, deferring or preventing a change in our control despite possible benefits to our shareholders, may discourage bids at a premium over the market price of our common stock and may harm the market price of our common stock and the voting and other rights of our shareholders.

Changes in laws, regulations and financial accounting standards may affect our reported results of operations

The recently enacted Sarbanes-Oxley Act of 2002 and related regulations may result in changes in accounting standards or accepted practices within our industry. New pronouncements and varying interpretations of pronouncements have occurred in the past and are likely to occur in the future as a result of recent Congressional and regulatory actions. New laws, regulations and accounting standards, as well as the questioning of, or changes to, currently accepted accounting practices in the technology industry may adversely affect our reported financial results, which could have an adverse effect on our stock price.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

Interest Rate Sensitivity

The primary objective of our investment activities is to maintain the safety of principal and preserve liquidity while maximizing yields without significantly increasing risk. Some of the securities that we have invested in may be subject to market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. To minimize this risk, we maintain our portfolio of cash equivalents and investments in a variety of securities, including commercial paper, government debt securities, corporate debt securities and money market funds. We do not use any derivatives or similar instruments to manage our interest rate risk. We have the positive intent and ability to hold these securities to maturity. Currently, the carrying amount of these securities approximates fair market value. However, the fair market value of these securities is subject to interest rate risk and would decline in value if market interest rates increased. If market interest rates were to increase immediately and uniformly by 10 percent from the levels as of December 31, 2002, the decline in the fair market value of the portfolio would not be material to our financial position, results of operations or cash flows.

Exchange Rate Sensitivity

Currently the majority of our sales and expenses are denominated in U.S. dollars and, as a result, we have not experienced significant foreign exchange gains and losses to date. While we conducted some transactions in foreign currencies during the year ended December 31, 2002 and expect to continue to do so, we do not anticipate that foreign exchange gains or losses will be significant. We have not engaged in foreign currency hedging to date, but we may do so in the future.

Item 8. Financial Statements and Supplementary Data

Our financial statements and supplementary data required by this Item are provided in the consolidated financial statements of the Company included in this Annual Report on Form 10-K as listed in Item 15(a) of this Annual Report on Form 10-K.

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

None

PART III

Item 10. Directors and Executive Officers of the Registrant

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 9, 2003, which information appears under the captions entitled "Election of Directors," "Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance." The Proxy Statement will be filed with the Commission within 120 days after the date of our last fiscal year-end which was December 31, 2002.

Item 11. Executive Compensation

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 9, 2003, which information appears under the captions "Election of Directors - Compensation of Directors," "Executive Compensation and Other Information," "Board of Directors and Compensation Committee Reports on Executive Compensation" and "Performance Graph." The Proxy Statement will be filed with the Commission within 120 days after the date of our last fiscal year-end which was December 31, 2002.

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

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 9, 2003, which information appears under the captions "Common Stock Ownership of Principal Shareholders and Management" and "Equity Compensation Plan Information." The Proxy Statement will be filed with the Commission within 120 days after the date of our last fiscal year-end which was December 31, 2002.

Item 13. Certain Relationships and Related Transactions

The information required by this Item is incorporated herein by reference to information appearing in our definitive Proxy Statement for our Annual Meeting of Shareholders to be held on May 9, 2003, which information

appears under the caption "Certain Relationships and Related Transactions." The Proxy Statement will be filed with the Commission within 120 days after our last fiscal year-end which was December 31, 2002.

Item 14. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

As of a date within 90 days prior to the filing date of this Annual Report, we carried out an evaluation, under the supervision and with the participation of the Company's management, including our President and Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our "disclosure controls and procedures" as defined in Exchange Act Rule 13a-14 and 15d-14. Based upon that evaluation, our President and Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures are adequate and effective in timely alerting them to material information relating to us and our consolidated subsidiaries and required to be included in our periodic SEC filings.

(b) Changes in Internal Controls

There have been no significant changes in our internal controls or in other factors that could significantly affect our internal controls subsequent to the date of the evaluation referred to in Item 14(a) above.

PART IV

Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

(a) The following documents are filed as part of this Report:

(1) Consolidated Financial Statements

The consolidated financial statements listed in the accompanying Index to Consolidated Financial Statements are filed as part of this report.

(2) Financial Statement Schedule

The financial statement schedule listed in Schedule II is filed as part of this report.

Schedules which are not listed above have been omitted because they are not applicable or the information required to be set forth therein is included in the consolidated financial statements or notes thereto.

(3) Exhibits

3.1	Amended and Restated Articles of Incorporation, as amended[1]
3.2	Bylaws, as amended[2]
10.1*	1997 Stock Option Plan, as amended[3]
10.1.1*	Amendment No. 4 to 1997 Stock Option Plan[4]
10.1.2*	Amendment No. 5 to 1997 Stock Option Plan[5]
10.2*	Director Stock Option Plan[6]
10.3*	Employee Stock Purchase Plan[7]
10.4*	Officer Severance Plan[8]
10.5*	Form of Indemnity Agreement between Ixia and its directors and executive officers[9]
10.6*	Subscription Agreement dated September 8, 1999 between Ixia and Mark MacWhirter[10]
10.7	Office Lease Agreement dated November 5, 1999 between Malibu Canyon Office Partners, LLC and Ixia and First Amendment to Office Lease dated as of March 22, 2000[11]
10.8*	Warrants dated August 2, 2000 to Purchase 80,000 Shares of Common Stock issued to Robert W. Bass[12]

10.9	Registration Rights and Stock Transfer Restriction Agreement dated as of September 1, 2000 among Ixia, Technology Capital Group S.A. and Stéphane Ratel[13]
10.10*	2000 Bonus Plan[14]
10.11	Promissory Note dated July 7, 2000, in the principal amount of $78,433.33 issued by Mark MacWhirter in favor of Ixia[15]
10.12*	Agreement dated as of September 26, 2000 between Ixia and Eran Karoly[16]
10.13*	Employment offer letter agreement dated October 27, 2001 between Ixia and David Anderson[17]
10.14*	Employment offer letter agreement dated as of February 27, 2003 between Ixia and Robert W. Bass
21.1	Subsidiaries of the Registrant
23.1	Consent of PricewaterhouseCoopers LLP
99.1	Certificate of Chief Executive Officer of Ixia pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.2	Certificate of Chief Financial Officer of Ixia pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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* Constitutes a management contract or compensatory plan or arrangement required to be filed as an exhibit to this Annual Report on Form 10-K.

(1) Incorporated by reference to Exhibit No. 3.1 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.

(2) Incorporated by reference to Exhibit No. 3.2 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 19, 2000.

(3) Incorporated by reference to Exhibit No. 10.1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on July 31, 2000.

(4) Incorporated by reference to Exhibit No. 10.1.1 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 27, 2000.

(5) Incorporated by reference to Exhibit No. 4.1 to the Registrant's Registration Statement on Form S-8 (Reg. No. 333-66382) filed with the Commission on July 31, 2001.

(6) Incorporated by reference to Exhibit No. 10.2 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.

(7) Incorporated by reference to Exhibit No. 10.3 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.

(8) Incorporated by reference to Exhibit No. 10.4 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.

(9) Incorporated by reference to Exhibit No. 10.5 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.

(10) Incorporated by reference to Exhibit No. 10.13 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on July 31, 2000.

(11) Incorporated by reference to Exhibit No. 10.14 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on July 31, 2000.

(12) Incorporated by reference to Exhibit No. 10.15 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 5, 2000.

(13) Incorporated by reference to Exhibit No. 10.17 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 27, 2000.

(14) Incorporated by reference to Exhibit No. 10.16 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 19, 2000.

(15) Incorporated by reference to Exhibit No. 10.18 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 19, 2000.

(16) Incorporated by reference to Exhibit No. 10.19 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-42678) filed with the Commission on September 27, 2000.

(17) Incorporated by reference to Exhibit No. 10.13 to the Registrant's Annual Report on Form 10-K (File No. 000-31523) for the fiscal year ended December 31, 2001.

(b) **Reports on Form 8-K**

The Company did not file any Reports on Form 8-K during the quarter ended December 31, 2002.

(c) **Exhibits**

See the list of Exhibits under Item 15(a)(3) of this Annual Report on Form 10-K.

(d) **Financial Statement Schedules**

See the Schedule under Item 15(a)(2) of this Annual Report on Form 10-K.

Report of Independent Accountants on
Financial Statement Schedule

To the Board of Directors and Shareholders of Ixia:

Our audits of the consolidated financial statements of Ixia and its subsidiaries referred to in our report dated January 28, 2003, included in this Annual Report on Form 10-K, also included an audit of the financial statement schedule listed in Item 15 of this Form 10-K. In our opinion, the financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
January 28, 2003

IXIA
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
Years Ended December 31, 2002, 2001 and 2000
(in thousands)

Description	Balance at beginning of period	Charged to cost and expenses	Reversals to cost and expenses	Deductions	Balance at end of Period
Allowance for doubtful accounts					
2002	$ 467	$ 200	$ (100)	$ (406)	$ 161
2001	260	409	(100)	(102)	467
2000	89	171	--	--	260

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 20, 2003

IXIA

/s/ ERROL GINSBERG
Errol Ginsberg
President and Chief Executive Officer

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

Name	Title	Date
/s/ ERROL GINSBERG Errol Ginsberg	President, Chief Executive Officer and Director (Principal Executive Officer)	March 20, 2003
/s/ THOMAS B. MILLER Thomas B. Miller	Chief Financial Officer (Principal Financial and Accounting Officer)	March 20, 2003
/s/ JEAN-CLAUDE ASSCHER Jean-Claude Asscher	Chairman of the Board	March 20, 2003
/s/ HOWARD ORINGER Howard Oringer	Director	March 20, 2003
/s/ JON F. RAGER Jon F. Rager	Director	March 20, 2003

CERTIFICATIONS

I, Errol Ginsberg, certify that:

1. I have reviewed this annual report on Form 10-K of Ixia;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:

   a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

   c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 20, 2003

/s/ ERROL GINSBERG

Errol Ginsberg
President and Chief Executive Officer

I, Thomas B. Miller, certify that:

1. I have reviewed this annual report on Form 10-K of Ixia;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:

   a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

   c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 20, 2003

/s/ THOMAS B. MILLER

Thomas B. Miller
Chief Financial Officer

IXIA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Accountants

To the Board of Directors and Shareholders of Ixia:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, shareholders' equity and cash flows present fairly, in all material respects, the financial position of Ixia and its subsidiaries at December 31, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002, 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.

As described in Note 5 to the consolidated financial statements, effective January 1, 2002, the Company adopted Statements of Financial Accounting Standards 142, "Goodwill and Other Intangible Assets" and 144, "Accounting for the Impairment or Disposal of Long-Lived Assets."

/s/ PricewaterhouseCoopers LLP

Los Angeles, California
January 28, 2003

IXIA
Consolidated Balance Sheets
(in thousands)

	December 31, 2002	December 31, 2001
Assets		
Current assets:		
Cash and cash equivalents	$ 58,865	$ 116,643
Short-term investments in marketable securities	12,050	--
Accounts receivable, net	9,351	7,534
Inventories	5,121	3,316
Deferred income taxes	4,150	3,520
Income taxes receivable	--	2,598
Prepaid expenses and other current assets	2,082	940
Total current assets	91,619	134,551
Investments in marketable securities	51,306	--
Property and equipment, net	7,003	6,821
Deferred income taxes	1,553	51
Goodwill	1,592	848
Intangible assets, net	4,030	1,688
Other assets, net	558	207
Total assets	$ 157,661	$ 144,166
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 960	$ 1,482
Accrued expenses	4,049	3,317
Deferred revenue	1,958	1,546
Income taxes payable	1,527	--
Total liabilities	8,494	6,345
Commitments and contingencies (Note 7)		
Shareholders' equity:		
Preferred stock, no par value; 1,000 shares authorized and none outstanding	--	--
Common stock, without par value; 200,000 shares authorized at December 31, 2002 and December 31, 2001, respectively, 57,595 and 55,810 shares issued and outstanding as of December 31, 2002 and December 31, 2001, respectively	79,206	77,764
Additional paid-in capital	47,045	46,933
Deferred stock-based compensation	(3,036)	(9,418)
Retained earnings	25,952	22,542
Total shareholders' equity	149,167	137,821
Total liabilities and shareholders' equity	$ 157,661	$ 144,166

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

IXIA
Consolidated Statements of Income
(in thousands, except per share data)

	Year Ended December 31,		
	2002	2001	2000
Net revenues	$ 67,594	$ 77,157	$ 76,044
Cost of revenues [1]	13,310	16,610	14,825
Gross profit	54,284	60,547	61,219
Operating expenses: [1]			
Research and development	20,386	19,355	14,421
Sales and marketing	20,817	19,557	17,411
General and administrative	7,852	8,643	8,709
Amortization of purchased intangible assets	941	57	--
Impairment of goodwill and other intangible assets	1,677	--	--
Total operating expenses	51,673	47,612	40,541
Income from operations	2,611	12,935	20,678
Interest income, net	2,743	4,035	1,552
Income before income taxes	5,354	16,970	22,230
Income tax expense	1,944	7,221	14,245
Net income	$ 3,410	$ 9,749	$ 7,985
Earnings per share:			
Basic	$ 0.06	$ 0.18	$ 0.17
Diluted	$ 0.06	$ 0.16	$ 0.15
Weighted average number of common and common equivalent shares outstanding:			
Basic	56,902	54,550	47,244
Diluted	60,609	61,977	53,777
[1] Stock-based compensation included in:			
Cost of revenues	$ 398	$ 729	$ 948
Research and development	2,864	6,055	7,182
Sales and marketing	1,385	3,245	4,695
General and administrative	658	2,159	3,807
	$ 5,305	$ 12,188	$ 16,632

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

IXIA
Consolidated Statements of Shareholders' Equity
(in thousands)

	Common Stock		Additional Paid-In	Deferred Stock-based	Notes Receivable From	Retained	
	Shares	Amount	Capital	Compensation	Shareholders	Earnings	Total
Balance as of December 31, 1999	45,626	$ 783	$ 8,294	$ (4,947)	$ (328)	$ 4,808	$ 8,610
Exercise of stock options	1,932	239					239
Deferred stock-based compensation			36,169	(36,169)			--
Amortization of deferred stock-based compensation				16,783			16,783
Forfeiture of stock options			(543)	392			(151)
Stock option tax benefit			87				87
Issuance of common stock in conjunction with initial public offering (net of issuance costs of $7,793)	6,325	74,432					74,432
Repayment of note receivable					90		90
Interest receivable from shareholders					(24)		(24)
Net income						7,985	7,985
Balance as of December 31, 2000	53,883	75,454	44,007	(23,941)	(262)	12,793	108,051
Exercise of stock options and employee stock purchase plan options	1,927	2,310					2,310
Deferred stock-based compensation			(858)	858			--
Amortization of deferred stock-based compensation				12,787			12,787
Forfeiture of stock options			(1,477)	878			(599)
Stock option tax benefit			5,261				5,261
Repayment of note receivables					270		270
Interest receivable from shareholders					(8)		(8)
Net income						9,749	9,749
Balance as of December 31, 2001	55,810	77,764	46,933	(9,418)	--	22,542	137,821
Exercise of stock options and employee stock purchase plan options	1,785	1,442					1,442
Deferred stock-based compensation			(127)	127			--
Amortization of deferred stock-based compensation				5,840			5,840
Forfeiture of stock options			(950)	415			(535)
Stock option tax benefit			1,189				1,189
Net income						3,410	3,410
Balance as of December 31, 2002	57,595	$ 79,206	$ 47,045	$ (3,036)	$ --	$ 25,952	$149,167

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

IXIA
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2002	2001	2000
Cash flows from operating activities:			
Net income	$ 3,410	$ 9,749	$ 7,985
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	4,525	2,858	1,097
Amortization of purchased intangible assets	945	57	--
Allowance for doubtful accounts	(306)	207	171
Stock-based compensation	5,305	12,188	16,632
Interest receivable from shareholders	--	(8)	(24)
Deferred income tax	(2,132)	(246)	(2,972)
Impairment of goodwill and other intangible assets	1,677	--	--
Changes in operating assets and liabilities:			
Accounts receivable	(1,511)	4,167	(7,688)
Inventories	(1,805)	2,273	(4,843)
Income taxes receivable	3,262	2,663	--
Prepaid expenses and other current assets	(1,142)	(125)	(515)
Other assets	(351)	5	(71)
Accounts payable	(522)	(3,339)	3,554
Accrued expenses	732	(2,340)	4,110
Deferred revenue	83	(25)	1,199
Income taxes payable	2,052	(2,029)	(2,357)
Net cash provided by operating activities	14,222	26,055	16,278
Cash flows from investing activities:			
Purchases of property and equipment	(4,929)	(6,068)	(3,706)
Purchases of investments	(89,996)	--	--
Proceeds from redemption and maturity of investments	26,640	--	--
Payments in connection with acquisitions	(5,157)	(1,990)	--
Cash used in investing activities	(73,442)	(8,058)	(3,706)
Cash flows from financing activities:			
Issuance of common stock, net of issuance costs	--	--	74,432
Exercise of stock options	1,442	2,310	239
Proceeds from related-party notes receivable	--	270	90
Net cash provided by financing activities	1,442	2,580	74,761
Net increase (decrease) in cash and cash equivalents	(57,778)	20,577	87,333
Cash and cash equivalents at beginning of period	116,643	96,066	8,733
Cash and cash equivalents at end of period	$ 58,865	$ 116,643	$ 96,066
Supplemental disclosure of cash flow information:			
Cash paid during the period for:			
Income taxes	$ 450	$ 7,895	$ 19,557

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Business and Summary of Significant Accounting Policies

Business

Ixia (the "Company") was incorporated on May 27, 1997, as a California corporation. The Company designs and markets high-speed, multi-port network performance analysis systems that generate and analyze data traffic over optical and electrical networks.

On October 17, 2000, the Company sold 6.3 million shares of common stock in an initial public offering, including 825,000 shares sold upon exercise of the underwriters' over-allotment option. Net proceeds to the Company totaled approximately $74.4 million, net of offering costs of approximately $7.8 million.

Use of Estimates

In the normal course of preparing financial statements in conformity with accounting principles generally accepted in the United States, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Consolidation

All subsidiaries are consolidated. All significant intercompany transactions and accounts are eliminated in consolidation.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. Cash and cash equivalents are carried at cost, which approximates fair value. The Company generally places funds that are in excess of current needs in high credit quality instruments such as money market accounts and commercial paper.

Fair Value of Financial Instruments

The Company's financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and other liabilities are carried at cost, which approximates their fair values because of the short-term maturity of these instruments and the relative stability of interest rates.

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market. Appropriate consideration is given to obsolescence and other factors in evaluating net realizable value.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method based upon the estimated useful lives of the assets, ranging from two to seven years. Useful lives are evaluated regularly by management in order to determine recoverability in light of current technological conditions. Repairs and maintenance are charged to expense as incurred while renewals and improvements are capitalized. Upon the sale or retirement of property and equipment, the accounts are relieved of the cost and the related accumulated depreciation, with any resulting gain or loss included in the Statement of Income.

Amortization of Intangible Assets and Goodwill Impairment

The Company applies Statement of Financial Accounting Standards ("SFAS") 142, "Goodwill and Other Intangible Assets," which was effective for acquisitions after June 30, 2001. 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. Goodwill is carried at cost and is tested for impairment annually or whenever events or circumstances occur indicating that goodwill might be impaired. Impairment losses are recorded to the extent that the carrying value of the goodwill exceeds the fair value.

Long-Lived Assets

The Company identifies and records impairment losses on long-lived assets when events and circumstances indicate that such assets might be impaired. In the event the expected undiscounted future cash flow attributable to the asset is less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded.

Hardware Product Warranty Costs

The Company generally warrants its products for up to one year after sale and provides for estimated future warranty costs at the time revenue is recognized. Accrued hardware product warranty costs are included as a component of accrued expenses on the accompanying balance sheets.

Revenue Recognition

The software component of the Company's products is an integral part of its functionality. As such, the Company applies the provisions of the American Institute of Certified Public Accountants ("AICPA") Statement of Position ("SOP") 97-2, "Software Revenue Recognition."

The Company's products are fully functional at the time of shipment. The software components of the Company's products do not require significant production, modification or customization. As such, revenue from product sales is recognized upon shipment provided that (1) a purchase order has been received or a contract has been executed; (2) title has transferred; (3) the fee is fixed and determinable; and (4) collectibility is deemed probable. Revenue associated with multiple-element arrangements (products and post-contract customer support ("PCS")), is allocated to each element based on vendor-specific objective evidence of fair value. Revenue related to future PCS is initially deferred and subsequently recognized ratably over the term of the service period. Extended warranty and other service revenues are recognized ratably over the respective service periods.

Research and Development

Costs related to research and development of products are expensed as incurred. Costs incurred to establish the technological feasibility of a software product are considered research and development costs and are expensed as incurred. Once technological feasibility is established, all development costs incurred until general product release are subject to capitalization. To date, the establishment of technological feasibility of the Company's products and general release have substantially coincided. As a result, the Company has not capitalized any development costs.

Software Developed for Internal Use

The Company capitalizes costs of software, consulting services, hardware and payroll-related costs incurred to purchase or develop internal-use software. The Company expenses costs incurred during preliminary project assessment, research and development, re-engineering, training and application maintenance phases. To date, capitalized internal use software costs have not been significant.

Advertising

Advertising costs are expensed as incurred. Advertising costs were $601,000, $876,000 and $484,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

Stock-Based Compensation

At December 31, 2002, the Company has three stock-based employee and director compensation plans which are described more fully in Note 8. The Company accounts for its stock option plans in accordance with the provisions of Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees" and the related interpretations of FASB Interpretation ("FIN") No. 44, "Accounting for Certain Transactions involving Stock Compensation." Accordingly, compensation expense related to employee stock options is recorded only if, on the date of the grant, the fair value of the underlying stock exceeds the exercise price. The Company accounts for stock based awards issued to non-employees in accordance with the provisions of SFAS 123, "Accounting for Stock-Based Compensation" and Emerging Issues Task Force ("EITF") 96-18, "Accounting for Equity Instruments that are Issued to Other Than Employees."

The Company calculated the fair value of each option grant on the respective dates of grant using the Black-Scholes option pricing model as prescribed by SFAS 123 using the following assumptions:

	Year Ended December 31,		
	2002	2001	2000
Expected lives (in years)	5	4	10
Risk-free interest rates	3%	4%	6%
Dividend yield	0%	0%	0%
Expected volatility	110%	95%	80%

Certain stock options have been granted with exercise prices below the fair market value of the options on the date of grant. The following table illustrates the effect on stock-based compensation, net income and earnings per share on a pro forma basis as if the Company had applied the fair value recognition provisions of SFAS 123 to stock-based employee compensation (in thousands, except per share data):

	Year Ended December 31,		
	2002	2001	2000
Stock-based compensation:			
As reported	$ 5,305	$ 12,188	$ 16,632
Additional stock-based compensation expense determined under the fair value method	12,593	8,341	1,974
Pro forma	$ 17,898	$ 20,529	$ 18,606
Net income (loss):			
As reported	$ 3,410	$ 9,749	$ 7,985
Additional stock-based compensation expense determined under the fair value method	12,593	8,341	1,974
Pro forma	$ (9,183)	$ 1,408	$ 6,011
Basic net income (loss) per share:			
As reported	$ 0.06	$ 0.18	$ 0.17
Pro forma	$ (0.16)	$ 0.03	$ 0.13
Diluted net income (loss) per share:			
As reported	$ 0.06	$ 0.16	$ 0.15
Pro forma	$ (0.16)	$ 0.02	$ 0.11

Income Taxes

The Company accounts for income taxes using the liability method. Deferred taxes are determined based on the differences between the financial statement and tax bases of assets and liabilities, using enacted tax rates in effect for the year in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Earnings Per Share

Earnings per share are computed using the weighted average number of shares outstanding and dilutive common stock equivalents (options and restricted stock) in accordance with SFAS 128, "Earnings per Share."

Comprehensive Income

The Company has adopted the provisions of SFAS 130, "Reporting Comprehensive Income." SFAS 130 establishes standards for reporting comprehensive income and its components in financial statements. Comprehensive income, as defined, includes all changes in equity (net assets) during a period from non-owner sources. To date, the Company has not had any transactions that are required to be reported in comprehensive income, other than net income.

Segments

The Company has adopted the provisions of SFAS 131, "Disclosures about Segments of an Enterprise and Related Information." SFAS 131 establishes standards for the way companies report information about operating segments in annual financial statements. It also establishes standards for related disclosures about products and services, geographic areas and major customers. The Company has determined that it did not have any separately reportable business segments as of, and for the years ended, December 31, 2002, 2001 and 2000.

Reclassifications

Certain reclassifications have been made to the 2001 and 2000 financial statements to conform to the 2002 presentation.

Recent Accounting Pronouncements

In July 2002, the FASB issued SFAS 146, "Accounting for Cost Associated with Exit or Disposal Activities." SFAS 146 requires that a liability for costs associated with an exit or disposal activity be recognized and measured initially at fair value only when the liability is incurred. SFAS 146 is effective for exit or disposal activities that are initiated after December 31, 2002. The Company believes the adoption of SFAS 146 will not have a material impact on its financial statements.

In December 2002, the FASB issued SFAS 148, "Accounting for Stock-Based Compensation – Transition Disclosure – an amendment of FAS 123." This Statement amends SFAS 123 to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of SFAS 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The provisions of SFAS 148 are effective for financial statements for fiscal years ending after December 15, 2002, and disclosure requirements shall be effective for interim periods beginning after December 15, 2002. The Company intends to continue to account for stock-based compensation to its employees and directors using the intrinsic value method prescribed by APB Opinion No. 25, and related interpretations. The Company has made certain disclosures required by SFAS 148 in the consolidated financial statements for the year ended December 31, 2002 and will begin making the additional disclosures required by SFAS 148 in the first quarter of 2003. Accordingly, adoption of SFAS 148 will not impact the Company's financial position or results of operations.

2. Concentrations

Credit Risk

Financial instruments that subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents and trade accounts receivable. The Company maintains its cash and cash equivalents with reputable financial institutions, and at times, cash balances may be in excess of FDIC insurance limits. The Company extends differing levels of credit to customers, does not generally require collateral, and maintains reserves for potential credit losses based upon the expected collectibility of accounts receivable.

For the years ended December 31, 2002, 2001 and 2000, only one customer comprised more than 10% of net revenues as follows (in thousands, except percentages):

	Year Ended December 31,		
	2002	2001	2000
Amount of net revenues	$ 23,115	$ 18,799	$ 22,426
As a percentage of total net revenues	34%	24%	30%

As of December 31, 2002 and 2001 the Company had receivable balances from the customer approximating 19% and 18%, of total accounts receivable, respectively.

International Revenues

Net revenues from international product shipments were $14.3 million in 2002, $13.3 million in 2001 and $12.1 million in 2000.

Sources of Supply

The Company currently buys a number of key components of its products from a limited number of suppliers. Although there are a limited number of manufacturers of these components, management believes that other suppliers could provide similar components on comparable terms. A change in suppliers, however, could cause a delay in manufacturing and a possible loss of sales, which could affect operating results adversely.

3. Selected Balance Sheet Data (in thousands)

Accounts Receivable, Net

Accounts receivable, net consisted of the following:

	December 31, 2002	December 31, 2001
Trade accounts receivable	$ 9,512	$ 8,001
Allowance for doubtful accounts	(161)	(467)
	$ 9,351	$ 7,534

Investments

The Company's investments as of December 31, 2002 consisted of held-to-maturity U.S. government debt and corporate debt securities. Held-to-maturity securities are carried at amortized cost. Amortization of the purchase discounts and premiums is included in interest income. Realized gains and losses and declines in value judged to be other than temporary are included in results of operations. Realized gains and losses are calculated using the specific identification method and were not material to the Company's results of operations in any period presented.

Investments as of December 31, 2002 consisted of the following:

	Carrying Value	Fair Value
Held-to-maturity investments:		
Maturities within one year:		
U.S. government debt securities	$ 9,047	$ 9,074
Corporate debt securities	3,003	3,001
	12,050	12,075
Maturities after one year through three years:		
U.S. government debt securities	15,044	15,221
Corporate debt securities	36,262	36,712
	51,306	51,933
Total investments	$ 63,356	$ 64,008

Inventories

Inventories consisted of the following:

	December 31, 2002	December 31, 2001
Raw materials	$ 1,537	$ 1,502
Work in process	1,332	1,510
Finished goods	2,252	304
	$ 5,121	$ 3,316

Property and Equipment, Net

Property and equipment, net consisted of the following:

	December 31, 2002	December 31, 2001
Computer equipment	$ 1,660	$ 1,155
Computer software	1,029	735
Demonstration equipment	8,699	6,173
Furniture and other equipment	4,107	2,845
Leasehold improvements	554	434
	16,049	11,342
Accumulated depreciation	(9,046)	(4,521)
	$ 7,003	$ 6,821

Accrued Expenses

Accrued expenses consisted of the following:

	December 31, 2002	December 31, 2001
Accrued payroll	$ 519	$ 388
Accrued commissions	736	403
Accrued bonuses	42	397
Accrued warranty	185	160
Accrued sales tax	457	180
Accrued vacation	830	603
Employee stock purchase plan payroll deductions	249	201
Other	1,031	985
	$ 4,049	$ 3,317

4. Acquisitions

Caimis, Inc.

On November 5, 2001, the Company completed the acquisition of all of the outstanding capital stock of Caimis, Inc., a company that develops software products for routing optimization and network performance that are targeted at major carriers, Internet service providers and large enterprises. The results of Caimis' operations have been included in the consolidated financial statements since the acquisition date. Pro forma results of operations have not been presented because the effect of this acquisition was not material.

The aggregate cash purchase price, net of acquisition costs, was $2.0 million. Sales targets of certain Caimis products were not achieved in 2002 and therefore no contingent payment associated with this acquisition is required. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition (in thousands):

Current assets	$ 51
Property and equipment	50
Intangible assets	1,746
Goodwill	859
Total assets acquired	2,706
Current liabilities assumed	(705)
Net assets acquired	$ 2,001

Of the $1.7 million of acquired intangible assets, $1.5 million was assigned to unpatented technology and $264,000 was assigned to the non-compete covenant. The unpatented technology and the non-compete covenant will be amortized using a straight-line method over their expected useful lives. The useful lives were initially determined to be seven and two years, respectively. No goodwill is deductible for income tax purposes. See Note 5 below, regarding the recording of an impairment charge in 2002 related to these intangible assets.

ANVL Product Line

On February 14, 2002, the Company completed the acquisition of the assets of the ANVL (Automated Network Validation Library) product line from Empirix, Inc. ANVL protocol conformance testing products are used by network equipment manufacturers in the development of networking devices to validate protocol implementation. The results of the ANVL product line have been included in the Company's consolidated financial statements since

the acquisition date. The results of operations of the ANVL product line for all periods presented were not material to the Company, and accordingly, pro forma results of operations have not been presented.

The aggregate cash purchase price was $5.2 million. In addition, a contingent cash payment of up to $1.0 million may be paid based upon sales through March 31, 2003 of ANVL products and services. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition (in thousands):

Property and equipment	$ 64
Intangible assets	3,830
Goodwill	1,592
Total assets acquired	5,486
Current liabilities assumed	(329)
Net assets acquired	$ 5,157

The acquired intangible assets consisted of $3.2 million for unpatented technology and $592,000 for a non-compete covenant. The unpatented technology and the non-compete covenant are being amortized using a straight-line method over their expected useful lives of seven and three years, respectively. Goodwill of $1.6 million is deductible for income tax purposes.

5. Goodwill and Other Intangible Assets

Effective January 1, 2002, the Company adopted SFAS 142, "Goodwill and Other Intangible Assets" and SFAS 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS 142 established new standards related to how acquired goodwill and other intangible assets are to be recorded upon their acquisition as well as how they are to be accounted for after they have been initially recognized in the financial statements. SFAS 144 established new standards requiring that long-lived assets that are to be disposed of by sale be measured at the lower of book value or fair value less cost to sell and also set forth requirements for recognizing and measuring impairment losses on certain long-lived assets to be held or used.

As of December 31, 2002, intangible assets consisted of goodwill, unpatented technology and a non-compete agreement with a carrying value of $1.6 million, $3.6 million and $468,000, respectively. As of December 31, 2002 and 2001, accumulated amortization of intangible assets was $1.0 million and $57,000, respectively. The aggregate amortization expense for the years ended December 31, 2002 and 2001 was $945,000 and $57,000, respectively. Annual amortization of the intangible assets is expected to be $873,000, $826,000, $653,000, $628,000 and $1.1 million for the years ending December 31, 2003, 2004, 2005, 2006 and thereafter, respectively.

Due to the decline in current business conditions, the Company restructured its business and realigned resources to focus on profit contribution, high-growth markets and core opportunities. As a result, the Company recorded an impairment charge of $1.7 million related primarily to the impairment of goodwill and purchased intangible assets related to the October 2001 acquisition of Caimis, Inc. The impairment charge was measured as the amount by which the carrying amount exceeded the present value of the estimated future cash flows for goodwill and purchased intangible assets. The impairment charge included $688,000, $61,000, $859,000 and $69,000 related to the write down of unpatented technology, a non-compete covenant, goodwill and fixed assets, respectively. The remaining balance of the non-compete covenant and the unpatented technology are being amortized over one and four years, respectively.

6. Income Taxes

Income tax expense consisted of the following (in thousands):

	Year Ended December 31,		
	2002	2001	2000
Current:			
Federal	$ 3,087	$ 7,509	$ 13,973
State	1,003	(41)	3,219
Deferred:			
Federal	(928)	(148)	(2,544)
State	(1,173)	(99)	(403)
Foreign	(45)	--	--
	$ 1,944	$ 7,221	$ 14,245

The net effective income tax rate differed from the federal statutory income tax rate as follows (in thousands):

	Year Ended December 31,		
	2002	2001	2000
Federal statutory expense	$ 1,874	$ 5,940	$ 7,781
State taxes, net of federal benefit	309	441	1,277
Research and development credits	(1,627)	(1,339)	(970)
Nondeductible stock-based compensation	1,163	2,120	6,049
Impairment of intangible assets	334	--	--
Other	(109)	59	108
Income tax expense	$ 1,944	$ 7,221	$ 14,245
Net effective income tax rate	36.3%	42.6%	64.1%

The primary components of temporary differences that gave rise to deferred taxes were as follows (in thousands):

	December 31, 2002	December 31, 2001
Deferred tax assets:		
State income taxes	$ 11	$ 76
Allowance for doubtful accounts	63	192
Depreciation and amortization	538	(384)
Research and development credit carryforward	908	--
Warranty accruals	76	66
Deferred revenue	762	609
Stock-based compensation	2,392	2,008
Inventory adjustments	481	508
Net operating loss	362	388
Other	110	108
Total deferred tax assets	5,703	3,571
Current	4,150	3,520
Non-current	$ 1,553	$ 51

Realization of the December 31, 2002 deferred tax assets is dependent on the Company generating sufficient taxable income in the future. Although realization is not assured, the Company believes it is more likely than not

that the deferred tax assets will be realized. The amount of the deferred tax assets considered realizable, however, could be reduced in the future if estimates of future taxable income are reduced.

As of December 31, 2002, the Company had net operating losses for both federal and state income tax purposes of approximately $832,000 and $1.2 million, respectively, which expire at various dates between 2009 and 2019, respectively. These net operating losses can be carried forward to offset future taxable income, if any. Section 382 of the Internal Revenue Code imposes an annual limitation on the utilization of net operating loss carryforwards based on a statutory rate of return (usually the "applicable federal funds rate" as defined in the Internal Revenue Code) and the value of the corporation at the time of a "change in ownership" as defined by Section 382. The annual limitation under Section 382 of the Internal Revenue Code is approximately $98,000.

7. Commitments and Contingencies

Leases

The Company leases its facilities and certain computer equipment under noncancelable operating leases for varying periods through May 2007, excluding options to renew. The following are the future minimum commitments under these leases (in thousands):

Year Ending December 31,	
2003	$ 1,457
2004	1,371
2005	1,332
2006	1,313
Thereafter	556
	$ 6,029

Rent expense for the years ended December 31, 2002, 2001 and 2000 was approximately $1.6 million, $1.4 million and $871,000, respectively.

Litigation

In July 2002, the Company filed an action in Superior Court in Ontario, Canada, against Telnet Inc. ("Telnet"), the former distributor of the Company's products in Canada, for payment of unpaid invoices. Telnet filed a counterclaim against Ixia claiming the Company had induced the breach of a non-competition covenant by a former Telnet employee and the alleged misappropriation of a customer database of Telnet. The Company filed a denial of all such liability and believes that it has numerous meritorious defenses against Telnet's allegations.

From time to time, certain legal actions may arise in the ordinary course of the Company's business. To date, such legal actions have not had a material adverse effect on the Company's financial position, results of operations or cash flows.

8. Shareholders' Equity

Stock Splits

In January 1998, the Board of Directors authorized a five-for-one split of the Company's common stock, effected in the form of a stock dividend paid to shareholders of record on March 16, 1998. In February 2000, the Board of Directors authorized a three-for-one split of the Company's common stock, effected in the form of a stock dividend paid to shareholders of record on March 21, 2000. The share information in the accompanying financial statements and related notes for all periods prior to these stock splits has been adjusted to reflect the stock splits.

Common Stock

In August 1999, the Company issued 900,000 shares of common stock to its two employee founders in exchange for services and notes receivable totaling $255,000. The shares were subject to a lapsing repurchase right with vesting in eight equal quarterly installments commencing on September 30, 1999, subject to acceleration provisions for certain employment termination situations. The deemed fair value of these shares for accounting purposes was determined to be $1.3 million, resulting in deferred stock-based compensation totaling $1.0 million, of which approximately $150,000, $559,000 and $323,000 was recognized as stock-based compensation expense for the years ended December 31, 2001, 2000 and 1999, respectively. As of December 31, 2001, all of these shares were vested.

In September 1999, the Company issued 225,000 shares of common stock to a non-employee shareholder in exchange for services and a note receivable in the amount of $64,000. The shares were subject to a lapsing repurchase right with vesting in eight equal quarterly installments commencing on September 30, 1999, subject to acceleration provisions for certain service termination situations. This stock issuance is a variable award and resulted in a reduction to deferred stock-based compensation of approximately $391,000 during the year ended December 31, 2001. During the years ended December 31, 2000 and 1999, deferred stock-based compensation increased by approximately $2.0 million and $1.0 million, respectively. As a result of this issuance stock-based compensation expense for the years ended December 31, 2001, 2000 and 1999 was approximately $726,000, $1.7 million and $275,000. As of December 31, 2001, all of these shares were vested.

In September 1999, the Company issued 300,000 shares of common stock to an employee in exchange for $85,000. The shares are subject to a lapsing repurchase right which allows the Company at its option to repurchase any unvested shares at the original purchase price of $0.28 per share. 75,000 of the shares vested on September 30, 2000 with the remaining shares vesting in twelve equal quarterly installments commencing on December 31, 2000. The deemed fair value of these shares for accounting purposes was determined to be $462,000, resulting in deferred stock-based compensation totaling $377,000, of which stock-based compensation expense for the years ended December 31, 2002, 2001, 2000 and 1999 was $40,000, $79,000, $149,000 and $98,000, respectively. As of December 31, 2002, approximately 56,000 of these shares were unvested.

Warrants

In August 2000, the Company issued warrants to purchase 80,000 shares of common stock to a director. The warrants have an exercise price of $7.00 and vest in sixteen equal quarterly installments commencing September 30, 2000. The deemed fair value of these warrants for accounting purposes was determined to be $777,000, resulting in deferred stock-based compensation totaling $217,000, of which approximately $9,000, $92,000 and $108,000 was recognized as stock-based compensation expense for the years ended December 31, 2002, 2001 and 2000, respectively. As of December 31, 2002, approximately 30,000 of these shares were unvested.

Stock Options

The Company's 1997 Stock Option Plan, as amended (the "1997 Plan"), provides for the issuance of stock-based awards to qualified employees, employee directors and consultants of the Company. The stock-based awards may include incentive stock options or nonqualified stock options. Options become exercisable over a vesting period as determined by the Board of Directors and expire over terms not exceeding 10 years from the date of grant. The exercise price for options granted under the 1997 Plan may not be granted at less than 100% of the fair market value of the Company's common stock on the date of grant (110% if granted to an employee who owns more than 10% of the voting shares of the outstanding stock). Options generally vest over a four-year period. In the event the holder ceases to be employed by the Company, all unvested options are forfeited and all vested options may be exercised within a period of up to 30 days after optionee's termination for cause, up to three months after termination other than for cause or as a result of death or disability, or up to six months after termination as a result of disability or death. As of December 31, 2002, the Company has reserved 19 million shares of its common stock for issuance under the 1997 Plan, 1.2 million shares of which were available for future grant as of such date.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company's Director Plan (the "Director Plan") was approved by our shareholders in September 2000 and provides for the issuance of stock-based awards to Company non-employee directors. The Company has reserved a total of 200,000 shares of common stock for issuance under the plan. The option grants under the plan are automatic and non-discretionary, and the exercise price of the options is 100% of the fair market value of our common stock on the grant date. The plan provides for an initial grant to a non-employee director of an option to purchase 10,000 shares of common stock upon the director's initial election or appointment to the board. The plan also provides for each non-employee director to be granted an option to purchase 5,000 shares of common stock upon the director's re-election to the board at an annual meeting of shareholders, provided the director has served as a non-employee director for at least six months preceding the date of the annual meeting. The grants become exercisable in four equal quarterly installments commencing on the last day of the calendar quarter in which the option is granted. The plan will terminate in September 2010, unless terminated sooner by the Board of Directors. As of December 31, 2002, the Director Plan had 160,000 shares available for future grant.

The following table summarizes information relating to stock option activity under the above plans for the years ended December 31, 2002, 2001 and 2000 (in thousands, except per share data):

	Outstanding Options Number of Shares	Weighted Average Exercise Price Per Share
Options Outstanding as of December 31, 1999	6,248	$ 0.18
Granted	6,636	4.30
Exercised	(1,932)	0.12
Canceled	(179)	3.79
Options Outstanding as of December 31, 2000	10,773	2.67
Granted	2,644	11.91
Exercised	(1,861)	0.86
Canceled	(698)	4.36
Options Outstanding as of December 31, 2001	10,858	5.13
Granted	3,213	6.85
Exercised	(1,589)	0.36
Canceled	(793)	8.60
Options Outstanding as of December 31, 2002	11,689	$ 6.02

Options granted for the year ended December 31, 2000 resulted in total deferred stock-based compensation of $33.9 million, which was recorded as deferred compensation in shareholders' equity. The deferred stock-based compensation represented the difference between the exercise price of the options and the deemed fair value of the Company's common stock for accounting purposes at the date of grant. The deferred stock-based compensation is recognized as stock-based compensation expense in the statements of income over the related vesting periods of the options. For the years ended December 31, 2002 and 2001, deferred stock-based compensation decreased by $542,000 and $1.7 million, respectively, as a result of the forfeiture of stock options and changes in the market value of the Company's common stock that affected certain equity instruments which received variable accounting treatment.

For the years ended December 31, 2002, 2001 and 2000, amortization of deferred stock-based compensation related to stock option grants included in the accompanying statements of income was approximately $5.3 million, $11.1 million and $14.2 million, respectively. Annual amortization of deferred stock-based compensation as of December 31, 2002 is expected to be $2.5 million and $478,000 for the years ending December 31, 2003 and 2004, respectively. The amount of deferred stock-based compensation expense to be recorded in future periods could decrease if options and stock subject to repurchase for which unearned compensation has been recorded are forfeited or repurchased. Changes in the market value of the Company's common stock could also affect future stock-based compensation expense related to equity instruments that receive variable accounting treatment.

Additional information with respect to stock options outstanding as of December 31, 2002 is as follows (in thousands, except per share data):

Range of Exercise Price	Options Outstanding: Number Outstanding	Options Outstanding: Weighted Average Remaining Contractual Life	Options Outstanding: Weighted Average Exercise Price	Options Exercisable: Number Outstanding	Options Exercisable: Weighted Average Exercise Price
$ 0.01 to $ 0.36	2,920	6.72	$ 0.31	1,937	$ 0.30
0.37 to 4.10	2,349	6.64	2.98	790	2.37
4.22 to 8.50	2,921	8.35	7.35	581	7.48
8.58 to 10.71	1,994	7.89	9.78	747	9.83
11.00 to 20.00	1,355	8.42	13.45	527	13.64
21.50 to 21.50	150	8.01	21.50	66	21.50
$ 0.01 to $ 21.50	11,689	7.53	$ 6.02	4,648	$ 4.89

There were no options exercised subject to repurchase as of December 31, 2002.

Employee Stock Purchase Plan

The employee stock purchase plan was adopted and approved in September 2000. The plan became effective upon the closing of the Company's initial public offering in October 2000. The Company has reserved a total of 500,000 shares of common stock for issuance under the plan, together with the potential for an annual increase in the number of shares reserved under the plan on May 1 of each year. As of December 31, 2002, 238,000 shares were available for future issuance. For the years ended December 31, 2002 and 2001, 196,000 and 66,000 shares, respectively, were issued under the plan. For the year ended December 31, 2000, there were no shares issued under the plan.

The plan permits eligible employees to purchase common stock, subject to limitations as set forth in the plan, through payroll deductions which may not exceed the lesser of 15% of an employee's compensation or $25,000 per annum.

Unless the Board of Directors determines otherwise, the plan is implemented in a series of overlapping 24-month offering periods with new offering periods commencing on May 1 and November 1 of each year. Each offering period is divided into four consecutive six-month purchase periods. All participants in an offering period are granted an option on the first day of the offering period, and the option is automatically exercised on the last day of each purchase period throughout the offering period. The purchase price of the Company's common stock for each purchase period within an offering period is 85% of the lesser of the fair market value per share on the first trading day of the offering period or on the last trading day of the applicable purchase period, whichever is lower. If the fair market value per share on the last trading day of a purchase period is less than on the first day of the offering period, participants are automatically re-enrolled in a new offering period.

9. Retirement Plan

The Company provides a 401(k) Retirement Plan (the "Plan") to eligible employees who may authorize up to 15% of their compensation to be invested in employee elected investment funds. As determined annually by the Board of Directors, the Company may contribute matching funds of up to 6% of the employee's compensation. These matching contributions vest based on the employee's years of service with the Company. For the years ended December 31, 2002, 2001 and 2000, the Company expensed and made contributions to the Plan in the amount of approximately $379,000, $349,000 and $143,000, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. Earnings Per Share

The following table sets forth the computation of basic and diluted net income per share for the periods indicated (in thousands, except per share data):

	Year Ended December 31,		
	2002	2001	2000
Basic Presentation			
Numerator:			
Net income	$ 3,410	$ 9,749	$ 7,985
Denominator:			
Weighted average common shares	56,996	54,789	48,060
Adjustment for common shares subject to repurchase	(94)	(239)	(816)
Adjusted weighted average common shares	56,902	54,550	47,244
Basic net income per share	$ 0.06	$ 0.18	$ 0.17
Diluted presentation			
Denominator:			
Shares used above	56,902	54,550	48,060
Weighted average effect of dilutive securities:			
Stock options	3,613	7,188	4,901
Common shares subject to repurchase	94	239	816
Denominator for diluted calculation	60,609	61,977	53,777
Diluted net income per share	$ 0.06	$ 0.16	$ 0.15

The diluted per share computations for the years ended December 31, 2002, 2001 and 2000, excludes employee stock options to purchase 5.9 million, 309,000 and 161,000 shares, respectively, which were antidilutive.

11. Related Party Transactions

Revenues from companies in which a director/shareholder of the Company is a significant shareholder or in which certain directors of the Company are directors of a parent company, totaled $1.6 million, $2.2 million and $1.8 million for the years ended December 31, 2002, 2001 and 2000, respectively. Related party accounts receivable as of December 31, 2001 were $168,000. There were no related party accounts receivable as of December 31, 2002.

12. Quarterly Financial Summary (Unaudited)

	Three Months Ended							
	Dec. 31 2002	Sep. 30 2002	Jun. 30 2002	Mar. 31 2002	Dec. 31 2001	Sep. 30 2001	Jun. 30 2001	Mar. 31 2001
	(in thousands, except per share data)							
Statement of Income Data:								
Net revenues	$18,034	$ 16,864	$ 17,254	$ 15,442	$ 17,005	$16,183	$15,146	$28,823
Gross profit	14,501	13,447	13,872	12,464	13,280	12,579	11,775	22,913
Income before income taxes	314	1,613	1,772	1,655	2,983	2,740	659	10,588
Net income	225	1,154	1,063	968	3,288	1,663	66	4,732
Earning per share:								
Basic	$ 0.00	$ 0.02	$ 0.02	$ 0.02	$ 0.06	$ 0.03	$ 0.00	$ 0.09
Diluted	$ 0.00	$ 0.02	$ 0.02	$ 0.02	$ 0.05	$ 0.03	$ 0.00	$ 0.08

CORPORTATE INFORMATION

Board of Directors

Jean-Claude Asscher
Chairman of the Board
Ixia
President, Tekelec-Airtronic, S.A.

Errol Ginsberg
President and Chief Executive Officer
Ixia

Howard Oringer
Managing Director
Communications Capital Group

Jon F. Rager
President
Rager Bell Doskocil & Meyer CPAs

Executive Officers

Errol Ginsberg
President and Chief Executive Officer

Robert W. Bass
Executive Vice President
Operations

David Anderson
Senior Vice President
Worldwide Sales and Business Development

Cliff Hannel
Vice President
Engineering

Eran Karoly
Vice President
Marketing

Mark MacWhirter
Vice President
Software Development

Tom Miller
Chief Financial Officer

Joseph A. Noble
Vice President
North American Sales

Independent Accountants

PricewaterhouseCoopers LLP
Los Angeles, CA

Legal Counsel

Bryan Cave LLP
Santa Monica, CA

Transfer Agent

U.S. Stock Transfer Corporation
1745 Gardena Avenue
Glendale, CA 91204
818-502-1404

Corporate Headquarters

Ixia
26601 West Agoura Road
Calabasas, CA 91302
818-871-1800

Common Stock

The Company's common stock is quoted on the Nasdaq National Market under the symbol XXIA.

Web Site

Additional information about the Company is available on its web site at www.ixiacom.com.

Annual Meeting of Shareholders

9:00 AM, Friday
May 9, 2003
Renaissance Hotel
30100 Agoura Road
Agoura Hills, CA 91301